



## Topic 1 - Question Set 1

### Question #1

Topic 1

You have an Azure subscription that contains a custom application named Application1. Application1 was developed by an external company named Fabrikam,

Ltd. Developers at Fabrikam were assigned role-based access control (RBAC) permissions to the Application1 components. All users are licensed for the

Microsoft 365 E5 plan.

You need to recommend a solution to verify whether the Fabrikam developers still require permissions to Application1. The solution must meet the following requirements:

- ☞ To the manager of the developers, send a monthly email message that lists the access permissions to Application1.
- ☞ If the manager does not verify an access permission, automatically revoke that permission.
- ☞ Minimize development effort.

What should you recommend?

- A. In Azure Active Directory (Azure AD), create an access review of Application1.
- B. Create an Azure Automation runbook that runs the Get-AzRoleAssignment cmdlet.
- C. In Azure Active Directory (Azure AD) Privileged Identity Management, create a custom role assignment for the Application1 resources.
- D. Create an Azure Automation runbook that runs the Get-AzureADUserAppRoleAssignment cmdlet.

#### Correct Answer: A

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/governance/manage-user-access-with-access-reviews>

Community vote distribution

A (100%)

✉  **wecakav**  4 months, 3 weeks ago  
itexamslab.com

Correct

upvoted 89 times

✉  **wajixe9909** 4 months, 2 weeks ago  
I finished az-104 exam today and got 854. Thanks! to this lab  
upvoted 11 times

✉  **michealthearmy** 3 months, 3 weeks ago

I studied only this dump and scored 920 today dec 15 2023. I could have scored more but I got confused in exam. You can easily score more than 940 if you prepare only this dump. There were 2-3 question questions out of this dump. Az-304 is worth reading but for knowledge only... as 95% questions comes from this dump.

upvoted 4 times

✉  **Eltooth**  2 years, 4 months ago  
Correct answer - A. Access review  
upvoted 73 times

✉  **HetalMehta24** 1 year, 9 months ago  
Correct  
upvoted 2 times

✉  **Usman007** 2 years, 3 months ago  
How long it takes to get the AZ 305 (Beta) exam Score? Any Idea?  
upvoted 3 times

✉  **sri2816** 2 years, 3 months ago  
Hi  
Same question I have  
But I came across that it takes around 3 months as it is beta, but I'm not sure  
Im waiting for the exact answer  
upvoted 1 times

✉  **Schalom** 2 years, 3 months ago

Richtige Antwort --> 3 Monate :-)

upvoted 2 times

✉  **rishisoft1** Most Recent 2 weeks ago

I passed the exam on 27th With 820 marks, did some mistake means unable to recollect the answer. But all questions came from here. hardly 1 or 2 questions came outside of this dump. To get good marks, make sure answers click to you in the exam, don't forget :)

upvoted 1 times

✉  **holymolly** 2 months, 3 weeks ago

**Selected Answer: A**

A is correct.

If you want full questions hit me at molly.garten@outlook.com

upvoted 2 times

✉  **[Removed]** 3 months, 1 week ago

Did anyone take this exam recently? are these questions valid? I see some of them repeated over and over. I have mine in 1 month and I will be back to report if I was able to pass with this resource only.

upvoted 4 times

✉  **dddddd111** 2 weeks, 5 days ago

What's your update?

upvoted 1 times

✉  **BShelat** 4 months ago

Today (14-DEC-2023) I took the AZ-305 exam and passed. Thanks to Examtopics and all members who participated in discussing AZ-305 Questionnaire and answers. This site has helped me greatly. Majority questions I had in the exam are in this set. Thanks.

upvoted 2 times

✉  **cranky\_monkey** 4 months ago

itexamstest.com

This Answer is correct

upvoted 13 times

✉  **dumpsfactory\_com** 4 months, 4 weeks ago

A is correct

upvoted 2 times

✉  **Naresg** 5 months, 1 week ago

I would appreciate if someone could share the dumps with me on naresh.gownolla@gmail.com

upvoted 1 times

✉  **nchebbi** 5 months, 1 week ago

I would appreciate if someone could share pdf version with me: nizar.sn@outlook.com

upvoted 1 times

✉  **jcxxxxx2020** 5 months, 3 weeks ago

This question didn't not appear on my exam today 10/22/2023

upvoted 3 times

✉  **saylb** 6 months, 3 weeks ago

Access review is the correct answer

upvoted 2 times

✉  **stonwall12** 7 months, 1 week ago

Correct Answer - A: Access Review

An access review in an Azure AD feature that allows an admin to evaluate and verify user access to certain roles and resources.

Based on the question's requirements, with an Access Review, we can configure periodic notifications about permissions and enable auto-revocation of access, all through a configuration-based approach.

<https://learn.microsoft.com/en-us/azure/active-directory/governance/access-reviews-overview>

upvoted 2 times

✉  **flash007** 7 months, 2 weeks ago

Access reviews can be sent out to ask the user if they still need access to the file/area drive etc

upvoted 1 times

✉  **skipandsnow** 7 months, 3 weeks ago

**Selected Answer: A**

A no doubt

upvoted 1 times

✉  **tabkar** 9 months, 1 week ago

**Selected Answer: A**

A is correct. I appeared and passed in AZ-305 exam today and almost every question was unique and NOT from this dump. So please study and learn very well conceptually otherwise, you will be shocked!

upvoted 3 times

✉  **IT\_Finstek** 9 months, 1 week ago

**Selected Answer: A**

Here is my explanation <https://blog.samanikin.com/2023/07/06/question-from-az-305-1/>

upvoted 3 times

You have an Azure subscription. The subscription has a blob container that contains multiple blobs. Ten users in the finance department of your company plan to access the blobs during the month of April. You need to recommend a solution to enable access to the blobs during the month of April only. Which security solution should you include in the recommendation?

- A. shared access signatures (SAS)
- B. Conditional Access policies
- C. certificates
- D. access keys

**Correct Answer: A**

Shared Access Signatures (SAS) allows for limited-time fine grained access control to resources. So you can generate URL, specify duration (for month of April) and disseminate URL to 10 team members. On May 1, the SAS token is automatically invalidated, denying team members continued access.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-sas-overview>

*Community vote distribution*

A (100%)

✉  **Eltooth** Highly Voted 2 years, 4 months ago

A- Correct answer.  
upvoted 34 times

✉  **NotMeAnyWay** Highly Voted 1 year, 1 month ago

**Selected Answer: A**  
Here's why:

To enable access to blobs in a container during the month of April only, use shared access signatures (SAS). SAS tokens can be generated with an expiration time and can be scoped to provide granular access control. SAS tokens can easily be generated and distributed to the ten finance department users who need access to the blobs during the month of April. SAS tokens will no longer be valid once they expire, fulfilling the requirement to restrict access to the blobs during the month of April only. Conditional Access policies and certificates/access keys are not suitable for this task.

upvoted 8 times

✉  **Chrpj** Most Recent 3 months, 2 weeks ago

A - correct  
upvoted 1 times

✉  **jannieeethelegend** 3 months, 2 weeks ago

itexamslab.com

This Answer is correct  
upvoted 4 times

✉  **jcxxxxx2020** 5 months, 3 weeks ago

This question appeared on my Exam today 10/22/2023  
upvoted 2 times

✉  **stonwall12** 7 months, 1 week ago

Correct Answer - A: Shared Access Signatures (SAS)  
SAS is a unique, secure token that can be generated to provide time-based access permissions to Azure Storage resources.

<https://learn.microsoft.com/en-us/azure/storage/common/storage-sas-overview>  
upvoted 1 times

✉  **iamhyumi** 7 months, 1 week ago

Got this on Sept. 5, 2023  
upvoted 3 times

✉  **flash007** 7 months, 2 weeks ago

shared access signatures are used for limited access to files docs etc  
upvoted 2 times

el117 1 year ago

**Selected Answer: A**

A. Shared Access Signatures (SAS).

Shared Access Signatures (SAS) allow you to provide time-limited access to specific resources in your storage account.

upvoted 4 times

TJ001 1 year ago

Shared Access Signature is right ...

upvoted 1 times

kyawtlearning 1 year ago

Got this on Mar 25, 2023. Answered A.

upvoted 1 times

ZUMY 1 year ago

A is correct

upvoted 1 times

ShingMing 1 year, 1 month ago

Got this on Feb. 12, 2023

upvoted 2 times

EngAbood 1 year, 1 month ago

Just Passed the exam today , all questions are from here , exept 3 new qu.

Thanks examtopics , you are the best ❤

upvoted 1 times

jj22222 1 year, 1 month ago

**Selected Answer: A**

A- because its right

upvoted 1 times

zelick 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/storage/common/authorize-data-access#understand-authorization-for-data-operations>

Shared access signatures for blobs, files, queues, and tables. Shared access signatures (SAS) provide limited delegated access to resources in a storage account via a signed URL. The signed URL specifies the permissions granted to the resource and the interval over which the signature is valid. A service SAS or account SAS is signed with the account key, while the user delegation SAS is signed with Azure AD credentials and applies to blobs only.

upvoted 3 times

OPT\_001122 1 year, 2 months ago

**Selected Answer: A**

A. shared access signatures (SAS)

upvoted 2 times

You have an Azure Active Directory (Azure AD) tenant that syncs with an on-premises Active Directory domain.

You have an internal web app named WebApp1 that is hosted on-premises. WebApp1 uses Integrated Windows authentication.

Some users work remotely and do NOT have VPN access to the on-premises network.

You need to provide the remote users with single sign-on (SSO) access to WebApp1.

Which two features should you include in the solution? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Azure AD Application Proxy
- B. Azure AD Privileged Identity Management (PIM)
- C. Conditional Access policies
- D. Azure Arc
- E. Azure AD enterprise applications
- F. Azure Application Gateway

**Correct Answer: AE**

A: Application Proxy is a feature of Azure AD that enables users to access on-premises web applications from a remote client. Application Proxy includes both the

Application Proxy service which runs in the cloud, and the Application Proxy connector which runs on an on-premises server.

You can configure single sign-on to an Application Proxy application.

E: Add an on-premises app to Azure AD

Now that you've prepared your environment and installed a connector, you're ready to add on-premises applications to Azure AD.

1. Sign in as an administrator in the Azure portal.

2. In the left navigation panel, select Azure Active Directory.

3. Select Enterprise applications, and then select New application.

4. Select Add an on-premises application button which appears about halfway down the page in the On-premises applications section.

Alternatively, you can select Create your own application at the top of the page and then select Configure Application Proxy for secure remote access to an on-premise application.

5. In the Add your own on-premises application section, provide the following information about your application.

6. Etc.

Incorrect:

Not C: Conditional Access policies are not required.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy-add-on-premises-application>

*Community vote distribution*

AE (95%) 3%

✉️  **trap84** Highly Voted 2 years, 4 months ago

A&E is the correct answer. Azure App proxy for connecting without vpn and Enterprise App for SSO  
upvoted 63 times

✉️  **itmaster** Highly Voted 2 years, 2 months ago

It's required to download connector under (Application Proxy) and create a new application under (Enterprise Application), however for (Pre Authentication) option, you can choose "Passthrough" or "Azure Active Directory", and both will work, but it's recommended to use "Azure Active Directory" so you can take advantage of using conditional access and MFA. Answer is (A) & (E) as they're both required as part of the solution to work, where as (C) is just an optional feature. Reference: <https://docs.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy-add-on-premises-application>

upvoted 28 times

✉️  **sapien45** 1 year, 10 months ago

Your are the IT master  
upvoted 1 times

✉️  **FrancisFerreira** 2 years ago

You reasoning looks flawless to me. We need to pay attention to the question's wording:

"Which two features SHOULD you include in the solution? EACH CORRECT ANSWER PRESENTS PART OF THE SOLUTION."

To do (A) you need (E). So they are both PART of the solution. (C) is an extra step that's recommended by MS. (C) is not PART of the solution, given you don't actually need it to fulfill the requirements, therefore it is also not something you SHOULD do.

upvoted 5 times

✉  **holymolly** Most Recent ⓘ 2 months, 3 weeks ago

**Selected Answer: AE**

A&E correct.

Anyone who wants full questions with correct answers contact me at molly.garten@outlook.com

upvoted 1 times

✉  **JimmyYop** 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 2 times

✉  **jcxxxxx2020** 5 months, 3 weeks ago

This question appeared on my Exam today 10/22/2023

upvoted 1 times

✉  **babakeyfgir** 4 months, 4 weeks ago

Answqer?

upvoted 1 times

✉  **stonwall12** 7 months, 1 week ago

Correct Answer - A: Azure AD Application Proxy

Azure AD Application Proxy provides remote access and single sign-on (SSO) capabilities to on-premises web applications. The internal web app can be published to Azure AD, and users can access the app outside the company network.

<https://learn.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy>

Correct Answer - E: Azure AD enterprise applications

Azure AD enterprise applications are essentially app registrations in Azure AD for cloud-based and on-premises applications. This is where we can manage authentication requirements and assign user access.

<https://learn.microsoft.com/en-us/azure/active-directory/manage-apps/add-application-portal>

Just to clarify, the 'Application Proxy' handles the connection to the on-premises network, and the' Enterprise Applications' manages the authentication and authorization for the app.

upvoted 2 times

✉  **flash007** 7 months, 2 weeks ago

oops its an application proxy and not a gateway sorry for the confusion people

upvoted 2 times

✉  **flash007** 7 months, 2 weeks ago

as there is an on premisis involved you will need an application gateway to allow access to this app that is hosted on prem

upvoted 2 times

✉  **sw1000** 10 months, 3 weeks ago

**Selected Answer: AE**

A and E are the correct answers

upvoted 1 times

✉  **sankuro** 11 months, 1 week ago

On exam 5/7/2023

upvoted 3 times

✉  **zzreflexzz** 11 months, 2 weeks ago

on exam 5/2/23

upvoted 3 times

✉  **eli117** 1 year ago

**Selected Answer: AE**

A. Azure AD Application Proxy

E. Azure AD enterprise applications.

upvoted 1 times

✉  **akr1503** 1 year ago

This was on 3/27/23 exam

upvoted 2 times

✉  **ZUMY** 1 year ago

A & E are correct

upvoted 1 times

✉  **mrjeet** 1 year ago

This was on 3/17/23 exam - answer is correct

upvoted 2 times

✉️ **NotMeAnyWay** 1 year, 1 month ago

**Selected Answer: AE**

To provide remote SSO access to an on-premises web app named WebApp1 with Integrated Windows authentication:

- Use Azure AD Application Proxy to securely publish on-premises web apps to the internet without the need for a VPN.
- Add WebApp1 as an Azure AD enterprise application to enable Azure AD to provide authentication and authorization for the app.
- Conditional Access policies, Azure AD PIM, Azure Arc, and Azure Application Gateway are not suitable for this task.
- Conditional Access policies allow defining conditions for access to Azure AD-connected apps, but do not provide a solution for remote SSO access to an on-premises web app.
- Azure AD PIM is used for managing access to Azure resources, but not for remote SSO access to an on-premises web app.
- Azure Arc is a hybrid cloud management solution, and Azure Application Gateway is a web traffic load balancer, neither are relevant to providing remote SSO access to an on-premises web app.

upvoted 6 times

✉️ **Skilled\_Hawkeye** 1 year, 1 month ago

**Selected Answer: AE**

A & E are right

upvoted 1 times

You have an Azure Active Directory (Azure AD) tenant named contoso.com that has a security group named Group1. Group1 is configured for assigned membership. Group1 has 50 members, including 20 guest users.

You need to recommend a solution for evaluating the membership of Group1. The solution must meet the following requirements:

- ☞ The evaluation must be repeated automatically every three months.
- ☞ Every member must be able to report whether they need to be in Group1.
- ☞ Users who report that they do not need to be in Group1 must be removed from Group1 automatically.
- ☞ Users who do not report whether they need to be in Group1 must be removed from Group1 automatically.

What should you include in the recommendation?

- A. Implement Azure AD Identity Protection.
- B. Change the Membership type of Group1 to Dynamic User.
- C. Create an access review.
- D. Implement Azure AD Privileged Identity Management (PIM).

**Correct Answer: C**

Azure Active Directory (Azure AD) access reviews enable organizations to efficiently manage group memberships, access to enterprise applications, and role assignments. User's access can be reviewed on a regular basis to make sure only the right people have continued access.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/governance/access-reviews-overview>

*Community vote distribution*

C (98%)

✉  **Eltooth** Highly Voted 2 years, 4 months ago

Correct answer - C

upvoted 38 times

✉  **singhaj** Highly Voted 1 year, 3 months ago

Dumps are valid... Pass exam with 970/1000

All questions from these dumps. I am posting comments to motivate others.

upvoted 19 times

✉  **holymolly** Most Recent 2 months, 3 weeks ago

**Selected Answer: C**

Get correct answers with full questions molly.garten@outlook.com

upvoted 1 times

✉  **BShelat** 4 months, 1 week ago

Answer: C., Access Review

upvoted 1 times

✉  **jcxxxxx2020** 5 months, 3 weeks ago

This question didn't not appear on my exam today 10/22/2023

upvoted 3 times

✉  **Sthakathi8** 5 months, 3 weeks ago

Thank you for the heads up , but overall did this dump help ?

upvoted 1 times

✉  **jcxxxxx2020** 3 months, 3 weeks ago

yes, most of the Q's are here

upvoted 3 times

✉  **arifi** 5 months ago

Are many questions changed?

upvoted 1 times

✉  **stonwall12** 7 months, 1 week ago

Correct Answer - C: Access Review

An access review in an Azure AD feature that allows an admin to evaluate and verify user access to certain roles and resources.

Based on the question's requirements, with an Access Review, we can configure periodic evaluations, implement access notifications for end-users, and auto-revoke access.

<https://learn.microsoft.com/en-us/azure/active-directory/governance/access-reviews-overview>

upvoted 1 times

✉️ **flash007** 7 months, 2 weeks ago

access reviews are used for this question to check if the access is still required

upvoted 2 times

✉️ **Yanivsudai** 9 months, 2 weeks ago

On the exam 27.6.23

840/1000 clear

Access review

Most of the question here like 75% was on the exam

upvoted 3 times

✉️ **ment0s** 9 months, 2 weeks ago

**Selected Answer: C**

On exam June 18, 2023

Passed with 917

Good luck and don't stop believing in yourself.

upvoted 5 times

✉️ **sankuro** 11 months, 1 week ago

Got this on 5/7/2023 exam.

upvoted 2 times

✉️ **yonie** 11 months, 3 weeks ago

**Selected Answer: C**

Correct answer - C

upvoted 1 times

✉️ **eli117** 1 year ago

**Selected Answer: C**

C. Create an access review.

upvoted 1 times

✉️ **akr1503** 1 year ago

This was on 3/27/23 exam

upvoted 1 times

✉️ **kyawtlearning** 1 year ago

Got this on Mar 25, 2023. Answered C.

upvoted 1 times

✉️ **ZUMY** 1 year ago

C is correct

upvoted 1 times

✉️ **NotMeAnyWay** 1 year, 1 month ago

**Selected Answer: C**

Here's why:

- An access review is an Azure AD feature that enables administrators to review group memberships and application assignments, and allows group members to confirm whether they still require access. This enables every member to report whether they need to be in Group1, and if they do not, the access review can be configured to remove them automatically.

- An access review can be set up to repeat automatically every three months, as required by the scenario.

- Changing the Membership type of Group1 to Dynamic User is not a suitable solution for evaluating the membership of a security group with assigned membership. Dynamic user groups are based on rules and criteria, and do not include manually assigned members.

- Implementing Azure AD Identity Protection is not relevant to evaluating the membership of a security group.

- Implementing Azure AD Privileged Identity Management (PIM) is used for managing access to privileged roles in Azure AD, and is not relevant to the scenario.

upvoted 6 times

✉️ **swetha\_2022** 1 year, 1 month ago

What is the correct answer B or C? what is the difference between these two options pls?

upvoted 1 times

**HOTSPOT -**

You plan to deploy Azure Databricks to support a machine learning application. Data engineers will mount an Azure Data Lake Storage account to the Databricks file system. Permissions to folders are granted directly to the data engineers.

You need to recommend a design for the planned Databrick deployment. The solution must meet the following requirements:

- Ensure that the data engineers can only access folders to which they have permissions.
- Minimize development effort.
- Minimize costs.

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Databricks SKU:

Premium
Standard

Cluster configuration:

Credential passthrough
Managed identities
MLflow
A runtime that contains Photon
Secret scope

**Answer Area**

Databricks SKU:

Premium
Standard

Correct Answer:

Cluster configuration:

Credential passthrough
Managed identities
MLflow
A runtime that contains Photon
Secret scope

Box 1: Premium -

Premium Databricks SKU is required for credential passthrough.

Box 2: Credential passthrough -

Authenticate automatically to Azure Data Lake Storage Gen1 (ADLS Gen1) and Azure Data Lake Storage Gen2 (ADLS Gen2) from Azure Databricks clusters using the same Azure Active Directory (Azure AD) identity that you use to log into Azure Databricks. When you enable Azure Data Lake Storage credential passthrough for your cluster, commands that you run on that cluster can read and write data in Azure

Data Lake Storage without requiring you to configure service principal credentials for access to storage.

Reference:

<https://docs.microsoft.com/en-us/azure/databricks/security/credential-passthrough/adls-passthrough>

✉️  **Tyler2021** Highly Voted 2 years, 4 months ago

Databricks SKU should be a Premium plan. As the doc states both cloud storage access and credential passthrough features will need a Premium plan.

<https://docs.microsoft.com/en-us/azure/databricks/sql/user/security/cloud-storage-access>

<https://docs.microsoft.com/en-us/azure/databricks/security/credential-passthrough/adls-passthrough#adls-aad-credentials>

upvoted 77 times

✉️  **sadako** 2 years, 1 month ago

Premium  
Credential Passthrough  
upvoted 22 times

✉️  **410ns0** 1 year, 10 months ago

no es necesario el sku premium, acabo de hacer la prueba con un databricks standard y si puedo habilitar passthrough  
upvoted 4 times

✉️  **Shadow983** 2 years, 4 months ago

Agree.  
The SKU should be Premium.  
upvoted 14 times

✉️  **Shadoken** 1 year, 8 months ago

«Standard clusters with credential passthrough are limited to a single user. Standard clusters support Python, SQL, Scala, and R. On Databricks Runtime 6.0 and above, SparkR is supported; on Databricks Runtime 10.1 and above, sparklyr is supported.»  
- <https://docs.microsoft.com/en-us/azure/databricks/security/credential-passthrough/adls-passthrough#--enable-azure-data-lake-storage-credential-passthrough-for-a-standard-cluster>

Yes, we need premium SKU  
upvoted 10 times

✉️  **daws08322** 9 months, 1 week ago

<https://learn.microsoft.com/en-us/azure/databricks/data-governance/credential-passthrough/adls-passthrough>

Requirements

Premium plan. See Upgrade or Downgrade an Azure Databricks Workspace for details on upgrading a standard plan to a premium plan. An Azure Data Lake Storage Gen1 or Gen2 storage account. Azure Data Lake Storage Gen2 storage accounts must use the hierarchical namespace to work with Azure Data Lake Storage credential passthrough. See Create a storage account for instructions on creating a new ADLS Gen2 account, including how to enable the hierarchical namespace.

Properly configured user permissions to Azure Data Lake Storage. An Azure Databricks administrator needs to ensure that users have the correct roles, for example, Storage Blob Data Contributor, to read and write data stored in Azure Data Lake Storage. See Use the Azure portal to assign an Azure role for access to blob and queue data.

You cannot use a cluster configured with ADLS credentials, for example, service principal credentials, with credential passthrough.  
upvoted 2 times

✉️  **NotMeAnyWay** Highly Voted 1 year, 1 month ago

Recommended design for the planned Databricks deployment that meets the given requirements:

- Databricks SKU: Premium

- Premium SKU provides access control for DBFS root and FUSE mount points. This will ensure that the data engineers can only access folders to which they have permissions.

- Cluster Configuration: Credentials passthrough

- Credentials passthrough allows users to authenticate with Azure Data Lake Storage using their own Azure AD credentials. This minimizes development effort and costs, as it does not require additional Azure AD application registration and service principal management.

Therefore, the recommended design for the planned Databricks deployment is to use Premium SKU for access control of DBFS root and FUSE mount points, and to configure credentials passthrough for authentication with Azure Data Lake Storage. This design meets the requirements of ensuring data engineers can only access folders to which they have permissions, minimizing development effort and costs.

upvoted 13 times

✉️  **holymolly** Most Recent 2 months, 3 weeks ago

This question appears in the real exam frequently.

If you want full questions with correct answers contact me at molly.garten@outlook.com

upvoted 2 times

✉️  **mtc9** 3 months ago

Credentials can give you access based on RBAC to whole container and this requires folder level access, which would need SAS. Isn't the answer then Secret Scope?

upvoted 1 times

✉️  **BShelat** 4 months, 1 week ago

<https://learn.microsoft.com/en-us/azure/databricks/archive/credential-passthrough/adls-passthrough>

This documentation has been retired and might not be updated.

Credential passthrough is a legacy data governance model. Databricks recommends that you upgrade to Unity Catalog. Unity Catalog simplifies security and governance of your data by providing a central place to administer and audit data access across multiple workspaces in your account. See What is Unity Catalog?.

Note: I think in future Data lake storage account access will be through Unity Catalog to govern the data for Databricks. So new question in future tests may be related to Unity Catalog and managed identities.

upvoted 4 times

✉️  **stjokerli** 3 months, 3 weeks ago

Verified

upvoted 2 times

✉️  **jcxxxxx2020** 5 months, 3 weeks ago

This question appeared on my Exam today 10/22/2023

upvoted 6 times

✉️  **stonwall12** 7 months, 1 week ago

Correct Answer - Databrick SKU: Premium

Premium SKU for Azure Databricks provides enhanced security features, including integration with Azure Active Directory (Azure AD). By using Azure AD, you can enforce role-based access control (RBAC) and allow for directory-based authentication.

<https://learn.microsoft.com/en-us/azure/databricks/introduction/>

<https://azure.microsoft.com/en-au/pricing/details/databricks/>

Correct Answer - Cluster Configuration: Credential Passthrough

Credential passthrough allows users to authenticate to Azure Data Lake Storage using their personal Azure Active Directory (Azure AD) credentials. As a result, they will only be able to access the folders and data to which they have been granted permission.

NOTE: Credential passthrough is a legacy data governance model. Databricks recommends that you upgrade to Unity Catalog.

<https://learn.microsoft.com/en-us/azure/databricks/data-governance/unity-catalog/>

upvoted 2 times

✉️  **iamhyumi** 7 months, 1 week ago

Got this on Sept. 5, 2023

upvoted 2 times

✉️  **flash007** 7 months, 2 weeks ago

premium plan is required for databricks

upvoted 2 times

✉️  **PatA** 10 months ago

on exam 6/15/2023

upvoted 4 times

✉️  **KrisDeb** 11 months ago

Just a heads up, will be probably removed after the exam update:

'Credential passthrough is a legacy data governance model. Databricks recommends that you upgrade to Unity Catalog.'

<https://learn.microsoft.com/en-us/azure/databricks/data-governance/credential-passthrough/adls-passthrough>

upvoted 6 times

✉️  **sankuro** 11 months, 1 week ago

This was on exam 5/7/2023

upvoted 2 times

✉️  **akr1503** 1 year ago

This was on 3/27/23 exam

upvoted 4 times

✉️  **zellck** 1 year, 1 month ago

Got this in Feb 2023 exam.

upvoted 4 times

✉️  **jj22222** 1 year, 1 month ago

Premium

Credential Passthrough

upvoted 2 times

✉️  **Sarvy** 1 year, 1 month ago

In exam 2/12/2023

upvoted 3 times

✉️  **jameslee** 1 year, 2 months ago

<https://learn.microsoft.com/en-us/azure/databricks/data-governance/credential-passthrough/adls-passthrough#adls-aad-credentials>

"Azure Data Lake Storage credential passthrough is supported with Azure Data Lake Storage Gen1 and Gen2 only. Azure Blob storage does not support credential passthrough."

upvoted 1 times

**HOTSPOT -**

You plan to deploy an Azure web app named App1 that will use Azure Active Directory (Azure AD) authentication.

App1 will be accessed from the internet by the users at your company. All the users have computers that run Windows 10 and are joined to Azure AD.

You need to recommend a solution to ensure that the users can connect to App1 without being prompted for authentication and can access App1 only from company-owned computers.

What should you recommend for each requirement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

The users can connect to App1 without being prompted for authentication:

An Azure AD app registration
An Azure AD managed identity
Azure AD Application Proxy

The users can access App1 only from company-owned computers:

A Conditional Access policy
An Azure AD administrative unit
Azure Application Gateway
Azure Blueprints
Azure Policy

Correct Answer:

**Answer Area**

The users can connect to App1 without being prompted for authentication:

An Azure AD app registration
An Azure AD managed identity
Azure AD Application Proxy

The users can access App1 only from company-owned computers:

A Conditional Access policy
An Azure AD administrative unit
Azure Application Gateway
Azure Blueprints
Azure Policy

Box 1: An Azure AD app registration

Azure active directory (AD) provides cloud based directory and identity management services. You can use azure AD to manage users of your application and authenticate access to your applications using azure active directory.

You register your application with Azure active directory tenant.

Box 2: A conditional access policy

Conditional Access policies at their simplest are if-then statements, if a user wants to access a resource, then they must complete an action.

By using Conditional Access policies, you can apply the right access controls when needed to keep your organization secure and stay out of your user's way when not needed.

Reference:

<https://codingcanvas.com/using-azure-active-directory-authentication-in-your-web-application/> <https://docs.microsoft.com/en-us/azure/active-directory/conditional-access/overview>

✉  **Tyler2021** Highly Voted  2 years, 4 months ago

The given answer is correct.

<https://docs.microsoft.com/en-us/azure/active-directory/manage-apps/what-is-application-management>  
upvoted 46 times

✉  **Justin0020** Highly Voted  2 years, 1 month ago

Was in my exam on March. 10 Given answer is correct  
upvoted 12 times

✉  **holymolly** Most Recent  2 months, 3 weeks ago

<https://learn.microsoft.com/en-us/entra/identity/devices/concept-primary-refresh-token#how-are-app-tokens-and-browser-cookies-protected>  
Contact me to get full questions molly.garten@outlook.com  
upvoted 1 times

✉  **bryant12138** 1 month ago

stop posting unrelevant link, it's useless and harm your reputation for people to approach you  
upvoted 5 times

✉  **AlexandrVavilov** 4 months, 2 weeks ago

<https://learn.microsoft.com/en-us/entra/identity/devices/concept-primary-refresh-token#how-are-app-tokens-and-browser-cookies-protected>  
upvoted 1 times

✉  **jcxxxxx2020** 5 months, 3 weeks ago

This question appeared on my Exam today 10/22/2023  
upvoted 6 times

✉  **Exams\_Prep\_2021** 6 months, 2 weeks ago

Got this on Sept. 29, 2023  
upvoted 4 times

✉  **memo454** 6 months, 4 weeks ago

This question is on today's exam.  
I passed the exam today 17-09-2023 with a score of 906/1000. Four new questions and got the Litware, Inc. case study! The team is easier than AZ 104.  
A new question of hot spot related to FrontDoor and PIM, to drag the OWASP or Just-in Time.  
Another question related to subnets and DNS.  
upvoted 9 times

✉  **stonwall12** 7 months, 1 week ago

Correct Answer - 1: Azure AD app registration  
- Azure AD app registration is essential to integrate the web application (App1) with Azure AD.  
By doing this, you can leverage Azure AD's authentication mechanisms, including SSO. Once App1 is registered in Azure AD and configured for SSO, users who are already signed in to their Azure AD account can access the application without being prompted for authentication again.

<https://learn.microsoft.com/en-us/azure/active-directory/develop/app-objects-and-service-principals?tabs=browser>

Correct Answer - 2: Conditional Access policy

- Azure AD Conditional Access policies allow you to define and enforce specific conditions under which users can access applications.  
In this scenario, you can create a Conditional Access policy that specifies that App1 can only be accessed from devices that are Azure.

<https://learn.microsoft.com/en-us/azure/active-directory/conditional-access/overview>

upvoted 8 times

✉  **iamhyumi** 7 months, 1 week ago

Got this on Sept. 5, 2023  
upvoted 1 times

✉  **flash007** 7 months, 2 weeks ago

conditional access is used for access only when the conditions are satisfied  
upvoted 2 times

✉  **prabhakar33888** 8 months, 2 weeks ago

The given answer is correct.  
upvoted 1 times

✉  **souvikdeb** 7 months, 4 weeks ago

how many questions were common from this dump?  
upvoted 1 times

✉  **Spoon3r** 7 months ago

everything here has a chance of showing up in the exams, Microsoft cannot be bothered to update a lot of questions :p  
upvoted 1 times

✉️  **ment0s** 9 months, 2 weeks ago

On exam June 28, 2023

Passed with 917

Good luck and don't stop believing in yourself.

upvoted 8 times

✉️  **zzflexzz** 11 months, 2 weeks ago

on exam 5/2/23

upvoted 4 times

✉️  **sansan2022** 9 months, 3 weeks ago

Is the dump from the FREE session enough to pass the AZ-305 exam? Thanks.

upvoted 1 times

✉️  **ZUMY** 1 year ago

Given answer is correct

upvoted 1 times

✉️  **ShingMing** 1 year, 1 month ago

Got this on Feb. 12, 2023

upvoted 4 times

✉️  **zellck** 1 year, 1 month ago

1. Azure AD app registration
2. Conditional Access policy

<https://learn.microsoft.com/en-us/azure/active-directory/develop/app-objects-and-service-principals#application-registration>

To delegate identity and access management functions to Azure AD, an application must be registered with an Azure AD tenant. When you register your application with Azure AD, you're creating an identity configuration for your application that allows it to integrate with Azure AD. When you register an app in the Azure portal, you choose whether it's a single tenant, or multi-tenant, and can optionally set a redirect URI.

upvoted 4 times

✉️  **jj22222** 1 year, 1 month ago

AD App Registration  
Conditional access policy

upvoted 1 times

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company deploys several virtual machines on-premises and to Azure. ExpressRoute is deployed and configured for on-premises to Azure connectivity.

Several virtual machines exhibit network connectivity issues.

You need to analyze the network traffic to identify whether packets are being allowed or denied to the virtual machines.

Solution: Use Azure Traffic Analytics in Azure Network Watcher to analyze the network traffic.

Does this meet the goal?

A. Yes

B. No

**Correct Answer: B**

Instead use Azure Network Watcher IP Flow Verify, which allows you to detect traffic filtering issues at a VM level.

Note: IP flow verify checks if a packet is allowed or denied to or from a virtual machine. The information consists of direction, protocol, local IP, remote IP, local port, and remote port. If the packet is denied by a security group, the name of the rule that denied the packet is returned.

While any source or destination IP can be chosen, IP flow verify helps administrators quickly diagnose connectivity issues from or to the internet and from or to the on-premises environment.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview>

*Community vote distribution*

B (95%) 5%

✉  **itmaster**  2 years, 2 months ago

**Selected Answer: B**

(Traffic Analytics) under (Network Watcher) gives you statistical data and traffic visualization like total inbound and outbound flows and the number of deployed NSGs. However, it doesn't give you information if packets are allowed or denied. Check screenshot in the following reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/traffic-analytics>

(IP Flow Verify) under (Network Watcher) gives you option to verify if traffic is allowed or denied. Check screenshot in the following reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview>

Correct answer is B.

upvoted 54 times

✉  **Eltooth**  2 years, 4 months ago

**Selected Answer: B**

Correct answer - B

upvoted 12 times

✉  **holymolly**  2 months, 3 weeks ago

**Selected Answer: B**

B is correct answer.

To get full questions, hit me at molly.garten@outlook.com

upvoted 1 times

✉  **phinxferb** 6 months ago

Ssggfs

upvoted 1 times

✉  **memo454** 6 months, 4 weeks ago

This question is on today's exam.

I passed the exam today 17-09-2023 with a score of 906/1000. Four new questions and got the Litware, Inc. case study! The team is easier than AZ 104.

A new question of hot spot related to FrontDoor and PIM, to drag the OWASP or Just-in Time.

Another question related to subnets and DNS.

upvoted 3 times

✉  **stonwall12** 7 months, 1 week ago

Correct Answer - B: No, Azure Traffic Analytics (CORRECT ANSWER IS IP FLOW VERIFY)

Azure Traffic Analytics provides insights into the network traffic through Azure resources. It can help you understand traffic flow patterns, identify security and networking issues, and optimize your network deployments.

To analyze the network traffic in the described scenario, tools like Azure Network Watcher, specifically its IP flow verify feature, would be more appropriate.

<https://learn.microsoft.com/en-us/rest/api/network-watcher/network-watchers/verify-ip-flow?tabs=HTTP>

upvoted 2 times

✉️ **memo454** 7 months, 2 weeks ago

B. IP flow verify capability enables you to specify a source and destination IPv4 address, port, protocol (TCP or UDP), and traffic direction (inbound or outbound). IP flow - latency and network issues at the VM LEVEL.

upvoted 2 times

✉️ **flash007** 7 months, 2 weeks ago

no ip flow verify is used to check if anything is blocked regarding traffic

upvoted 2 times

✉️ **akr1503** 1 year ago

This was on 3/27/23 exam

upvoted 2 times

✉️ **kyawlearning** 1 year ago

Got this on Mar 25, 2023. Answered No.

upvoted 1 times

✉️ **NotMeAnyWay** 1 year, 1 month ago

**Selected Answer: B**

Azure Traffic Analytics is designed to help diagnose performance and connectivity issues in Azure virtual networks. It uses network flow data collected by Azure Network Watcher's flow logs, and provides insights into network activity and patterns. However, it does not provide the ability to identify whether packets are being allowed or denied to specific virtual machines.

upvoted 4 times

✉️ **ShingMing** 1 year, 1 month ago

Got this on Feb. 12, 2023

upvoted 3 times

✉️ **jj22222** 1 year, 1 month ago

**Selected Answer: B**

b because it is ip flow verify

upvoted 1 times

✉️ **zellck** 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

Will require IP flow verify.

<https://learn.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview>

IP flow verify checks if a packet is allowed or denied to or from a virtual machine. The information consists of direction, protocol, local IP, remote IP, local port, and a remote port. If the packet is denied by a security group, the name of the rule that denied the packet is returned. While any source or destination IP can be chosen, IP flow verify helps administrators quickly diagnose connectivity issues from or to the internet and from or to the on-premises environment.

upvoted 3 times

✉️ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

No

Correct ans - Azure Network Watcher IP Flow

upvoted 1 times

✉️ **jj22222** 1 year, 2 months ago

No ; its ipflow verify

upvoted 1 times

✉️ **PM\_PM** 1 year, 2 months ago

**Selected Answer: A**

Azure Traffic Analytics is a feature of Azure Network Watcher that allows you to monitor and analyze network traffic to identify connectivity issues. By using Azure Traffic Analytics, you can gain insight into the network traffic and identify whether packets are being allowed or denied to the virtual machines.

upvoted 1 times

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company deploys several virtual machines on-premises and to Azure. ExpressRoute is deployed and configured for on-premises to Azure connectivity.

Several virtual machines exhibit network connectivity issues.

You need to analyze the network traffic to identify whether packets are being allowed or denied to the virtual machines.

Solution: Use Azure Advisor to analyze the network traffic.

Does this meet the goal?

A. Yes

B. No

**Correct Answer: B**

Instead use Azure Network Watcher IP Flow Verify, which allows you to detect traffic filtering issues at a VM level.

Note: IP flow verify checks if a packet is allowed or denied to or from a virtual machine. The information consists of direction, protocol, local IP, remote IP, local port, and remote port. If the packet is denied by a security group, the name of the rule that denied the packet is returned.

While any source or destination IP can be chosen, IP flow verify helps administrators quickly diagnose connectivity issues from or to the internet and from or to the on-premises environment.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview>

*Community vote distribution*

B (100%)

✉  **Eltooth** Highly Voted  2 years, 4 months ago

Correct answer - B

upvoted 16 times

✉  **memo454** Most Recent  6 months, 4 weeks ago

This question is on today's exam.

I passed the exam today 17-09-2023 with a score of 906/1000.

upvoted 1 times

✉  **stonwall12** 7 months, 1 week ago

Correct Answer - B: No, Azure Advisor (CORRECT ANSWER IS IP FLOW VERIFY)

Azure Advisor cloud consultant that helps you follow best practices to optimize your Azure deployments. To analyze the network traffic in the described scenario, tools like Azure Network Watcher, specifically its IP flow verify feature, would be more appropriate.

<https://learn.microsoft.com/en-us/rest/api/network-watcher/network-watchers/verify-ip-flow?tabs=HTTP>

upvoted 2 times

✉  **flash007** 7 months, 2 weeks ago

azure advisor is not used to monitor traffic it is ip flow verify

upvoted 1 times

✉  **akr1503** 1 year ago

This was on 3/27/23 exam

upvoted 2 times

✉  **ShingMing** 1 year, 1 month ago

Got this on Feb. 12, 2023

upvoted 3 times

✉  **jj22222** 1 year, 1 month ago

**Selected Answer: B**

because the solution presented is wrong

upvoted 1 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

Will require IP flow verify.

<https://learn.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview>

IP flow verify checks if a packet is allowed or denied to or from a virtual machine. The information consists of direction, protocol, local IP, remote IP, local port, and a remote port. If the packet is denied by a security group, the name of the rule that denied the packet is returned. While any source or destination IP can be chosen, IP flow verify helps administrators quickly diagnose connectivity issues from or to the internet and from or to the on-premises environment.

upvoted 3 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

Correct answer - B

Azure Network Watcher IP Flow is required

upvoted 1 times

✉  **Alessandro365** 1 year, 2 months ago

**Selected Answer: B**

B is the correct answer (NO)

upvoted 1 times

✉  **jj22222** 1 year, 2 months ago

**Selected Answer: B**

B is right; it should be ipflow verify

upvoted 1 times

✉  **iwikneerg** 1 year, 9 months ago

Definitely B because azure advisor is not going to show you or help you troubleshoot connectivity problems

upvoted 1 times

✉  **articleback** 1 year, 9 months ago

**Selected Answer: B**

B should be the Answer.

upvoted 1 times

✉  **Gor** 1 year, 10 months ago

**Selected Answer: B**

IP Flow Verify in Network Watcher gives you option to verify if traffic is allowed or denied.

upvoted 2 times

✉  **datafypk** 1 year, 11 months ago

was in exam 8 May 22

upvoted 2 times

✉  **hertino** 2 years ago

In my exam, 9 april 22, 817/1000, I chose this answer

upvoted 2 times

✉  **Contactfornitish** 2 years ago

Came in exam today 04/04/2022 but the correct option IP flow was absent

upvoted 1 times

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company deploys several virtual machines on-premises and to Azure. ExpressRoute is deployed and configured for on-premises to Azure connectivity.

Several virtual machines exhibit network connectivity issues.

You need to analyze the network traffic to identify whether packets are being allowed or denied to the virtual machines.

Solution: Use Azure Network Watcher to run IP flow verify to analyze the network traffic.

Does this meet the goal?

A. Yes

B. No

**Correct Answer: A**

Azure Network Watcher IP Flow Verify allows you to detect traffic filtering issues at a VM level.

IP flow verify checks if a packet is allowed or denied to or from a virtual machine. The information consists of direction, protocol, local IP, remote IP, local port, and remote port. If the packet is denied by a security group, the name of the rule that denied the packet is returned.

While any source or destination IP can be chosen,

IP flow verify helps administrators quickly diagnose connectivity issues from or to the internet and from or to the on-premises environment.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview>

*Community vote distribution*

A (100%)

✉  **Eltooth** Highly Voted 2 years, 4 months ago

Correct answer - A.

IP flow verify checks if a packet is allowed or denied to or from a virtual machine.

upvoted 22 times

✉  **holymolly** Most Recent 2 months, 3 weeks ago

A is correct.

Hit me at molly.garten@outlook.com to get full questions.

upvoted 1 times

✉  **cccchhhhyyyyy** 2 months, 3 weeks ago

**Selected Answer: A**

正解 - A

upvoted 1 times

✉  **memo454** 6 months, 4 weeks ago

This question is on today's exam.

upvoted 1 times

✉  **stonwall12** 7 months, 1 week ago

Correct Answer - A: Yes, Azure Network Watcher

Azure Network Watcher provides IP flow capabilities to allow administrators to specify the source and destination of traffic. It is a suitable tool to analyze the network traffic to determine if packets are being allowed or denied to the virtual machines.

upvoted 1 times

✉  **flash007** 7 months, 2 weeks ago

yes network watcher is used with ip flow verify to monitor traffic

upvoted 1 times

✉  **InvalidNickname** 8 months, 1 week ago

Got this on Aug 5th, 2023.

upvoted 1 times

✉  **akr1503** 1 year ago

This was on 3/27/23 exam

upvoted 1 times

✉  **kyawlearning** 1 year ago

Got this on Mar 25, 2023. Answered A

upvoted 1 times

✉  **johnD16** 1 year ago

**Selected Answer: A**

Correct. Showed in exam today 18.03.2023

passed 940/1000

upvoted 1 times

✉  **ShingMing** 1 year, 1 month ago

Got this on Feb. 12, 2023

upvoted 1 times

✉  **jj22222** 1 year, 1 month ago

**Selected Answer: A**

A because it is right

upvoted 1 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview>

IP flow verify checks if a packet is allowed or denied to or from a virtual machine. The information consists of direction, protocol, local IP, remote IP, local port, and a remote port. If the packet is denied by a security group, the name of the rule that denied the packet is returned. While any source or destination IP can be chosen, IP flow verify helps administrators quickly diagnose connectivity issues from or to the internet and from or to the on-premises environment.

upvoted 1 times

✉  **zellck** 1 year, 1 month ago

Got this in Feb 2023 exam.

upvoted 1 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: A**

Correct answer - A

upvoted 1 times

✉  **Alessandro365** 1 year, 2 months ago

**Selected Answer: A**

A is the correct answer

upvoted 1 times

✉  **jj22222** 1 year, 2 months ago

**Selected Answer: A**

answer is A

upvoted 1 times

✉  **Bummer\_boy** 1 year, 3 months ago

**Selected Answer: A**

A is correct

upvoted 1 times

**DRAG DROP -**

You have an Azure subscription. The subscription contains Azure virtual machines that run Windows Server 2016 and Linux.

You need to use Azure Monitor to design an alerting strategy for security-related events.

Which Azure Monitor Logs tables should you query? To answer, drag the appropriate tables to the correct log types. Each table may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

**Tables****Answer Area**

AzureActivity

Events from Windows event logs:

Table

AzureDiagnostics

Events from Linux system logging:

Table

Event

Syslog

**Correct Answer:****Tables****Answer Area**

AzureActivity

Events from Windows event logs:

Event

AzureDiagnostics

Events from Linux system logging:

Syslog

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/data-sources-windows-events> <https://docs.microsoft.com/en-us/azure/azure-monitor/agents/data-sources-syslog>

  **Eltooth** 2 years, 4 months ago

Correct answer -  
Windows : Event.  
Linux : Syslog  
upvoted 62 times

  **NotMeAnyWay** 1 year, 1 month ago

To design an alerting strategy for security-related events in Azure Monitor, you should query the following Azure Monitor Logs tables:

1. SecurityEvent - This table contains security events and other system events that are generated by Windows operating systems. The table includes information about the event, such as the event ID, event source, and severity level.

2. Syslog - This table contains security-related events and other system events that are generated by Linux and other Unix-based operating systems. The table includes information about the event, such as the facility and severity level.

upvoted 20 times

✉️  **holymolly** Most Recent 2 months, 3 weeks ago

It appears in the exam very often.  
To get full questions with correct answers, contact me at molly.garten@outlook.com  
upvoted 1 times

✉️  **ManosCaptain** 4 months, 3 weeks ago

Appeared on 11/21/2023  
upvoted 1 times

✉️  **jcxxxxx2020** 5 months, 3 weeks ago

This question appeared on my Exam today 10/22/2023  
upvoted 2 times

✉️  **stonwall12** 7 months, 1 week ago

Correct Answer - Windows: Events  
For Windows logs, we'll need to query the Event table in Azure Monitor Logs. Windows event logs data are collected into the Event table when you use the Log Analytics agent.

<https://learn.microsoft.com/en-us/azure/azure-monitor/agents/data-sources-windows-events>

Correct Answer - Linux: Syslogs

For Linux logs, we'll need to query the Syslog table. The Linux system logs (syslog data) are collected into the Syslog table when you use the Log Analytics agent on Linux VMs.

<https://learn.microsoft.com/en-us/azure/azure-monitor/agents/data-sources-syslog>

upvoted 4 times

✉️  **wdjonz** 11 months, 1 week ago

Correct answer -  
Windows : Event.  
Linux : Syslog  
upvoted 2 times

✉️  **sankuro** 11 months, 1 week ago

Got this on 5/7/2023 exam.  
upvoted 2 times

✉️  **akr1503** 1 year ago

This was on 3/27/23 exam  
upvoted 3 times

✉️  **ShingMing** 1 year, 1 month ago

Got this on Feb. 12, 2023  
upvoted 2 times

✉️  **zellck** 1 year, 1 month ago

1. Event  
2. Syslog

<https://learn.microsoft.com/en-us/azure/azure-monitor/agents/data-sources-windows-events#log-queries-with-windows-events>

<https://learn.microsoft.com/en-us/azure/azure-monitor/agents/data-sources-syslog>

Syslog is an event logging protocol that's common to Linux. Applications send messages that might be stored on the local machine or delivered to a Syslog collector. When the Log Analytics agent for Linux is installed, it configures the local Syslog daemon to forward messages to the agent. The agent then sends the messages to Azure Monitor where a corresponding record is created.

upvoted 2 times

✉️  **zellck** 1 year, 1 month ago

Got this in Feb 2023 exam.  
upvoted 2 times

✉️  **jj22222** 1 year, 1 month ago

Event and syslog  
upvoted 1 times

✉️  **Sarvy** 1 year, 1 month ago

In exam 2/12/2023  
upvoted 2 times

✉️  **OPT\_001122** 1 year, 2 months ago

correct  
Windows : Event.  
Linux : Syslog

Thanks all you have mentioned the exam dates

upvoted 4 times

✉  **jj22222** 1 year, 2 months ago

answer is correct

upvoted 2 times

✉  **Bummer\_boy** 1 year, 3 months ago

Event for MS events and Syslog for linux ones

upvoted 1 times

✉  **janvandermerwer** 1 year, 3 months ago

Event and Syslog are a go.

- In operating system level logging, rather than interactions with other services logging.

upvoted 1 times

You are designing a large Azure environment that will contain many subscriptions.

You plan to use Azure Policy as part of a governance solution.

To which three scopes can you assign Azure Policy definitions? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Azure Active Directory (Azure AD) administrative units
- B. Azure Active Directory (Azure AD) tenants
- C. subscriptions
- D. compute resources
- E. resource groups
- F. management groups

**Correct Answer: CEF**

Azure Policy evaluates resources in Azure by comparing the properties of those resources to business rules. Once your business rules have been formed, the policy definition or initiative is assigned to any scope of resources that Azure supports, such as management groups, subscriptions, resource groups, or individual resources.

Reference:

<https://docs.microsoft.com/en-us/azure/governance/policy/overview>

*Community vote distribution*

CEF (100%)

✉  **kenobiD**  2 years, 4 months ago

the correct answer is C, E, F.

If you go into the portal and look at the scope section when assigning a policy it gives you the options of management group, subscription and resource group

upvoted 78 times

✉  **bkrich** 2 years, 4 months ago

I think it's C,E,F as well

upvoted 18 times

✉  **iryngael**  1 year, 8 months ago

**Selected Answer: CEF**

Correct answers : CEF

This page about policies :

<https://docs.microsoft.com/en-us/azure/governance/policy/overview>

states that "An assignment is a policy definition or initiative that has been assigned to a specific scope. This scope could range from a management group to an individual resource. The term scope refers to all the resources, resource groups, subscriptions, or management groups that the definition is assigned to."

It also send you to this page dedicated to understanding policy scopes :

<https://docs.microsoft.com/en-us/azure/governance/policy/concepts/scope>

which states :

"Scope in Azure Policy is based on how scope works in Azure Resource Manager. For a high-level overview, see Scope in Azure Resource Manager."

leading to this page :

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/overview#understand-scope>

clearly stating the same as the first link :

"Azure provides four levels of scope: management groups, subscriptions, resource groups, and resources."

upvoted 9 times

✉  **ManosCaptain**  4 months, 3 weeks ago

Appeared on 11/21/2023

upvoted 2 times

✉  **jcxxxxx2020** 5 months, 3 weeks ago

This question appeared on my Exam today 10/22/2023

upvoted 3 times

✉️ **Exams\_Prep\_2021** 6 months, 2 weeks ago

Got this on Sept. 29, 2023

upvoted 2 times

✉️ **xurxosan** 6 months, 3 weeks ago

**Selected Answer: CEF**

are correct

upvoted 1 times

✉️ **stonwall12** 7 months, 1 week ago

Correct Answer - C, E, F: Subscription, Resource and Management groups.

<https://learn.microsoft.com/en-us/azure/governance/policy/concepts/definition-structure>

upvoted 1 times

✉️ **ptjuanramos** 8 months ago

To be honest, determining the appropriate amount of resources is tricky. If the word "compute" were removed from that answer, it would be correct! 😊

upvoted 1 times

✉️ **Jackhemo** 9 months, 1 week ago

Olabiba.ai said CEF. I love this thing.

upvoted 1 times

✉️ **ment0s** 9 months, 2 weeks ago

**Selected Answer: CEF**

On exam June 28, 2023

Passed with 917

Good luck and don't stop believing in yourself.

upvoted 4 times

✉️ **yonie** 11 months, 3 weeks ago

**Selected Answer: CEF**

Can be assigned only to a hierarchical resource

upvoted 1 times

✉️ **ZUMY** 1 year ago

C D F are correct

upvoted 1 times

✉️ **NotMeAnyWay** 1 year, 1 month ago

**Selected Answer: CEF**

The three scopes to which Azure Policy definitions can be assigned are:

- C. Subscriptions
- E. Resource groups
- F. Management groups

Azure Policy definitions cannot be assigned to Azure AD administrative units or tenants or to individual compute resources.

upvoted 1 times

✉️ **jj22222** 1 year, 1 month ago

subscriptions  
resource groups  
management groups

upvoted 1 times

✉️ **zellck** 1 year, 1 month ago

**Selected Answer: CEF**

CEF is the answer.

<https://learn.microsoft.com/en-us/azure/governance/policy/overview#assignments>

An assignment is a policy definition or initiative that has been assigned to a specific scope. This scope could range from a management group to an individual resource. The term scope refers to all the resources, resource groups, subscriptions, or management groups that the definition is assigned to. Assignments are inherited by all child resources. This design means that a definition applied to a resource group is also applied to resources in that resource group. However, you can exclude a subscope from the assignment.

upvoted 1 times

✉️ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: CEF**

- C. subscriptions
- E. resource groups
- F. management groups

Correct ans  
upvoted 2 times

✉️👤 Alessandro365 1 year, 2 months ago

**Selected Answer: CEF**

- CEF
- C. subscriptions
- E. resource groups
- F. management groups

upvoted 1 times

**DRAG DROP -**

Your on-premises network contains a server named Server1 that runs an ASP.NET application named App1.

You have a hybrid deployment of Azure Active Directory (Azure AD).

You need to recommend a solution to ensure that users sign in by using their Azure AD account and Azure Multi-Factor Authentication (MFA) when they connect to App1 from the internet.

Which three features should you recommend be deployed and configured in sequence? To answer, move the appropriate features from the list of features to the answer area and arrange them in the correct order.

Select and Place:

Features	Answer Area
----------	-------------

a public Azure Load Balancer

a managed identity

an internal Azure Load Balancer

a Conditional Access policy

an Azure App Service plan

Azure AD Application Proxy

an Azure AD enterprise application

**Correct Answer:**

Features	Answer Area
----------	-------------

a public Azure Load Balancer

Azure AD Application Proxy

a managed identity

an Azure AD enterprise application

an internal Azure Load Balancer

a Conditional Access policy

an Azure App Service plan

**Step 1: Azure AD Application Proxy**

Start by enabling communication to Azure data centers to prepare your environment for Azure AD Application Proxy.

**Step 2: an Azure AD enterprise application**

Add an on-premises app to Azure AD.

Now that you've prepared your environment and installed a connector, you're ready to add on-premises applications to Azure AD.

1. Sign in as an administrator in the Azure portal.
2. In the left navigation panel, select Azure Active Directory.

3. Select Enterprise applications, and then select New application.

4. Etc.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy-add-on-premises-application>

✉  **Eltooth** Highly Voted  2 years, 4 months ago

Answer is correct.

upvoted 60 times

✉  **FrancisFerreira** Highly Voted  2 years ago

Wait, Application Proxy is a feature of Enterprise Applications, so yeah, you would need to register an Enterprise Application before enabling an Application Proxy for it.

While the items themselves are correct, I believe the order should be:

1. Enterprise Application
2. Application Proxy
3. Conditional Access

upvoted 55 times

✉  **photon99** 1 month, 2 weeks ago

Correct as per : <https://learn.microsoft.com/en-us/entra/identity/app-proxy/application-proxy-add-on-premises-application#add-an-on-premises-app-to-microsoft-entra-id>

upvoted 2 times

✉  **ninjaTT** 2 years ago

If you carefully follow the link provided by @RJM you will notice that first, you need to install and register a connector, later add an on-premise app to Azure AD by selecting Enterprise application --> New application.

So the given answer is correct:

1. Application Proxy
2. Enterprise Application
3. Conditional Access

upvoted 45 times

✉  **zenithcsa1** 1 year, 7 months ago

That's for the connector, not Application Proxy itself. Enterprise Application must be the first.

upvoted 1 times

✉  **JDKJDKJDK** 1 year, 7 months ago

I think ninjaTT is right. according to this page first you install a connector from the Application Proxy blade, and then you add the onprem app via Enterprise Application

<https://docs.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy-add-on-premises-application>

upvoted 4 times

✉  **TJ001** 1 year ago

Absolutely.. create proxy first then only Enterprise can be created for that proxy...correct answers given.

upvoted 1 times

✉  **EnricVives** 5 months, 2 weeks ago

Totally correct

upvoted 2 times

✉  **TonySuccess** Most Recent  2 months, 2 weeks ago

- 1.. Azure App Proxy: To publish your on-premises applications, such as App1, to be accessible from the cloud1. You need to install and register Application Proxy connectors on your on-premises network, and then publish App1 as an application in Azure AD
- 2.. Azure AD Ent Application: This is a representation of App1 in Azure AD that allows you to configure its identity, authentication, and authorization settings2. You need to create an enterprise application for App1 and assign users or groups that can access it3. You can also customize the branding and user experience of the sign-in page for App1
- 3.. CA Policy: This is a policy that defines the conditions under which users can access App1, and the actions that are required or blocked. You need to create a conditional access policy for App1 and enable Azure MFA as a grant control. You can also specify other conditions, such as user location, device state, or sign-in risk.

upvoted 4 times

✉  **ply** 3 months, 1 week ago

This question was on today's exam.

upvoted 4 times

✉  **jcxxxxx2020** 5 months, 3 weeks ago

This question didn't not appear on my exam today 10/22/2023

upvoted 3 times

✉  **memo454** 6 months, 4 weeks ago

This question is on today's exam.  
I passed the exam today 17-09-2023 with a score of 906/1000.  
upvoted 5 times

✉  **eli117** 1 year ago  
Azure AD Enterprise Application  
Azure AD Application Proxy  
Conditional Access Policy  
upvoted 2 times

✉  **akr1503** 1 year ago  
This was on 3/27/23 exam  
upvoted 2 times

✉  **ZUMY** 1 year ago  
Given answers are correct  
upvoted 2 times

✉  **zellck** 1 year, 1 month ago  
1. Azure AD App Proxy  
2. Azure AD enterprise app  
3. Conditional Access policy

<https://learn.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy-add-on-premises-application>

<https://learn.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy>  
Azure Active Directory's Application Proxy provides secure remote access to on-premises web applications. After a single sign-on to Azure AD, users can access both cloud and on-premises applications through an external URL or an internal application portal.

Azure AD Application Proxy is:  
- Secure. On-premises applications can use Azure's authorization controls and security analytics. For example, on-premises applications can use Conditional Access and two-step verification. Application Proxy doesn't require you to open inbound connections through your firewall.  
upvoted 5 times

✉  **jj22222** 1 year, 1 month ago  
Ent App  
App Proxy  
Conditional Access  
upvoted 2 times

✉  **Sarvy** 1 year, 1 month ago  
In exam 2/12/2023  
upvoted 2 times

✉  **DeBoer** 1 year, 2 months ago  
that's one of those "it depends" question, I guess. Depends on what they mean by "deploying" a "feature"

Of course you'd first need to set up AADProxy in general (install a connector and create a connector group) before being able to choose using it in an Enterprise App. However, if that's been done already, then you'd create the Enterprise App first and configure the AAD Proxy settings in it (second) ...

Since they're not saying anything I'd assume we're talking about a new environment and needed to set up AADProxy first - and then create the Enterprise app.

Obviously, the Enterprise app would need to exist before being able to secure it using CA Policies, so the third step is not a matter of discussion.  
upvoted 5 times

✉  **orionduo** 1 year, 2 months ago  
The answer is correct.  
upvoted 1 times

✉  **JoshuaAlkar** 1 year, 2 months ago  
it should be  
1. Enterprise Application  
2. Application Proxy  
3. Conditional Access

see the steps clearly on this Blog <https://thesleepyadmins.com/2019/02/>  
upvoted 3 times

✉  **OPT\_001122** 1 year, 2 months ago  
1. Application Proxy  
2. Enterprise Application  
3. Conditional Access Policy

Given ans is correct (Pro App Pol)  
upvoted 2 times

 **OPT\_001122** 1 year, 2 months ago  
Thanks all who have mentioned the exam dates  
upvoted 1 times

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

- A. Azure Activity Log
- B. Azure Advisor
- C. Azure Analysis Services
- D. Azure Monitor action groups

**Correct Answer: A**

Activity logs are kept for 90 days. You can query for any range of dates, as long as the starting date isn't more than 90 days in the past.

Through activity logs, you can determine:

- ☞ what operations were taken on the resources in your subscription
- ☞ who started the operation
- ☞ when the operation occurred
- ☞ the status of the operation
- ☞ the values of other properties that might help you research the operation

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/view-activity-logs>

*Community vote distribution*

A (100%)

✉  **Eltooth** Highly Voted 2 years, 4 months ago

Correct answer - A

upvoted 28 times

✉  **NotMeAnyWay** Highly Voted 1 year, 1 month ago

**Selected Answer: A**

A. Azure Activity Log

The Azure Activity Log provides insights into subscription-level events that have occurred in Azure. It can be used to monitor the operations performed on resources in the subscription, including when resources are created or modified. You can create a Log Analytics workspace and configure a log query to retrieve the details of new resource deployments for a given time range. This query can then be scheduled to run monthly and generate a report of new ARM resource deployments.

upvoted 6 times

✉  **jcxxxxx2020** Most Recent 5 months, 3 weeks ago

This question didn't not appear on my exam today 10/22/2023, I wonder

upvoted 2 times

✉  **Exams\_Prep\_2021** 6 months, 2 weeks ago

Got this on Sept. 29, 2023

upvoted 2 times

✉  **sankuro** 11 months, 1 week ago

Got this on 5/7/2023 exam.

upvoted 3 times

✉  **jj2222** 1 year, 1 month ago

**Selected Answer: A**

a because it is right

upvoted 4 times

✉  **zellck** 1 year, 1 month ago

Same as Question 39.

<https://www.examtopics.com/discussions/microsoft/view/95913-exam-az-305-topic-1-question-39-discussion>

upvoted 1 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/azure-monitor/essentials/activity-log?tabs=powershell>

The Azure Monitor activity log is a platform log in Azure that provides insight into subscription-level events. The activity log includes information like when a resource is modified or a virtual machine is started.

upvoted 2 times

✉ **MeJkt** 1 year, 2 months ago

A server the requirement

upvoted 1 times

✉ **jj22222** 1 year, 2 months ago

**Selected Answer: A**

A is right

upvoted 2 times

✉ **Bummer\_boy** 1 year, 3 months ago

**Selected Answer: A**

A seems to be correct

upvoted 2 times

✉ **janvandermerwer** 1 year, 3 months ago

**Selected Answer: A**

A seems to be the most useful answer in this case.

Report on "activity"

upvoted 2 times

✉ **Sa08** 1 year, 3 months ago

**Selected Answer: A**

A server the requirement

upvoted 2 times

✉ **NarasimhanMV** 1 year, 5 months ago

Yes - A is the right answer

upvoted 2 times

✉ **angelokexamtopics** 1 year, 6 months ago

Correct answer - A

upvoted 2 times

✉ **fatwast** 1 year, 8 months ago

**Selected Answer: A**

A is correct

upvoted 2 times

✉ **princessgalz** 1 year, 9 months ago

**Selected Answer: A**

Correct answer - A

upvoted 2 times

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company deploys several virtual machines on-premises and to Azure. ExpressRoute is deployed and configured for on-premises to Azure connectivity.

Several virtual machines exhibit network connectivity issues.

You need to analyze the network traffic to identify whether packets are being allowed or denied to the virtual machines.

Solution: Install and configure the Azure Monitoring agent and the Dependency Agent on all the virtual machines. Use VM insights in Azure Monitor to analyze the network traffic.

Does this meet the goal?

A. Yes

B. No

#### Correct Answer: B

Use the Azure Monitor agent if you need to:

Collect guest logs and metrics from any machine in Azure, in other clouds, or on-premises.

Use the Dependency agent if you need to:

Use the Map feature VM insights or the Service Map solution.

Note: Instead use Azure Network Watcher IP Flow Verify allows you to detect traffic filtering issues at a VM level.

IP flow verify checks if a packet is allowed or denied to or from a virtual machine. The information consists of direction, protocol, local IP, remote IP, local port, and remote port. If the packet is denied by a security group, the name of the rule that denied the packet is returned.

While any source or destination IP can be chosen,

IP flow verify helps administrators quickly diagnose connectivity issues from or to the internet and from or to the on-premises environment.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview> <https://docs.microsoft.com/en-us/azure/monitor/agents/agents-overview#dependency-agent>

*Community vote distribution*

B (100%)

 **adaniel189** Highly Voted 1 year, 7 months ago

Azure Network Watcher IP Flow Verify, which allows you to detect traffic filtering issues at a VM level.

<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview>

upvoted 15 times

 **NotMeAnyWay** Highly Voted 1 year, 1 month ago

**Selected Answer: B**

B. No

Installing and configuring the Azure Monitoring agent and the Dependency Agent on virtual machines and using VM insights in Azure Monitor can help in analyzing the performance of the virtual machines, but it does not provide information about packet-level network traffic.

To analyze the network traffic, you should use a network capture tool, such as Network Monitor or Wireshark, to capture the network traffic to and from the virtual machines. You can then use the captured data to analyze the network traffic and identify any issues with packet filtering or connectivity.

upvoted 6 times

 **jj22222** Most Recent 1 year, 1 month ago

**Selected Answer: B**

no it is ip flow verify

upvoted 2 times

 **zellck** 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

Will require IP flow verify.

<https://learn.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview>

IP flow verify checks if a packet is allowed or denied to or from a virtual machine. The information consists of direction, protocol, local IP, remote IP, local port, and a remote port. If the packet is denied by a security group, the name of the rule that denied the packet is returned. While any source or destination IP can be chosen, IP flow verify helps administrators quickly diagnose connectivity issues from or to the internet and from or to the on-premises environment.

upvoted 3 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

Azure Network Watcher IP Flow is the correct ans

upvoted 2 times

✉ **Alessandro365** 1 year, 2 months ago

**Selected Answer: B**

B is the correct answer

upvoted 2 times

✉ **jj22222** 1 year, 2 months ago

**Selected Answer: B**

should be ipflow verify

upvoted 3 times

✉ **Sa08** 1 year, 3 months ago

**Selected Answer: B**

IP flow verify is required

upvoted 2 times

✉ **gulabjamun** 1 year, 3 months ago

Answer B - IP flow verify.

upvoted 2 times

✉ **Vince\_M** 1 year, 5 months ago

Answer B - IP flow verify. Use to determine whether packets are allowed or denied to a specific IaaS virtual machine. This tool will provide information about which network security group (NSG) is causing the packet to be dropped.

upvoted 1 times

✉ **NarasimhanMV** 1 year, 5 months ago

B - is the right answer.

upvoted 1 times

✉ **most\_lenyora** 1 year, 7 months ago

**Selected Answer: B**

Azure Network Watcher IP Flow Verify

upvoted 4 times

**DRAG DROP -**

You need to design an architecture to capture the creation of users and the assignment of roles. The captured data must be stored in Azure Cosmos DB.

Which services should you include in the design? To answer, drag the appropriate services to the correct targets. Each service may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

**Azure Services**

- Azure Event Grid
- Azure Event Hubs
- Azure Functions
- Azure Monitor Logs
- Azure Notification Hubs

**Answer Area**

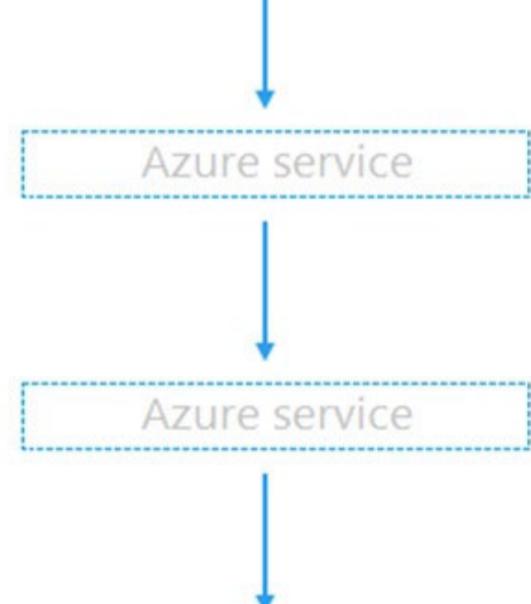
Azure  
Active Directory  
audit log

Azure service

Azure service



Cosmos DB

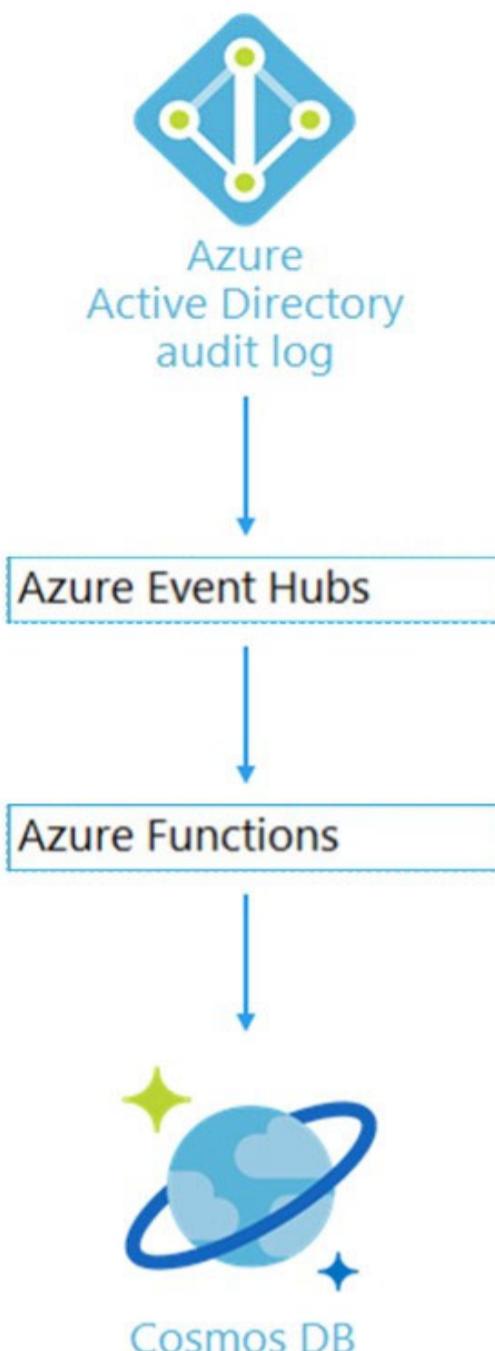


Correct Answer:

### Azure Services

- Azure Event Grid
- Azure Event Hubs
- Azure Functions
- Azure Monitor Logs
- Azure Notification Hubs

### Answer Area



Box 1: Azure Event Hubs -

You can route Azure Active Directory (Azure AD) activity logs to several endpoints for long term retention and data insights.  
The Event Hub is used for streaming.

Box 2: Azure Function -

Use an Azure Function along with a cosmos DB change feed, and store the data in Cosmos DB.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/reports-monitoring/concept-activity-logs-azure-monitor>

✉️ **santi1975** Highly Voted 1 year, 7 months ago

Although may seem a bit surprising, seems correct:

1. Event Hub: You can export AD logs to an Azure Event Hub (even you can cherry picking which ones)  
<https://docs.microsoft.com/en-us/azure/active-directory/reports-monitoring/tutorial-azure-monitor-stream-logs-to-event-hub>
2. Azure Function: You easily create a serverless function to read events from the Event Hub and store them in a CosmosDB.  
<https://docs.microsoft.com/en-us/azure/azure-functions/functions-event-hub-cosmos-db?tabs=bash>

upvoted 49 times

✉️ **nkccorp** Highly Voted 1 year, 3 months ago

While Azure Event Hubs can be used to capture and process events, it is generally not the best choice for capturing events related to user creation and role assignment. This is because Azure Event Hubs is primarily designed for large-scale, real-time data streaming, and is not well-suited for capturing individual events or triggering downstream actions.

upvoted 15 times

✉️ **Somnath711** Most Recent 1 week, 5 days ago

Event Grid + Azure Function  
<https://learn.microsoft.com/en-us/azure/event-grid/microsoft-entra-events>

Event Hub can also serve the purpose but it would be costly and heavy weight solution  
upvoted 1 times

✉️ **Spikeone** 2 weeks, 5 days ago

I'd sadly agree with event hubs - the link often posted here:  
<https://learn.microsoft.com/en-us/entra/identity/monitoring-health/howto-stream-logs-to-event-hub?tabs=splunk>

If you follow the steps under Stream logs to an event hub:  
Browse to Identity > Monitoring & health > Diagnostic settings. You can also select Export Settings from either the Audit Logs or Sign-ins page.

There are only 4 options as follows:

- \* Send to Log Analytics workspace
- \* Archive to a storage account
- \* Stream to an event hub
- \* Send to partner solution

So, no grid I guess.

upvoted 2 times

✉️ **RanOlfati** 3 weeks, 3 days ago

Event Grid makes more sense to me. Event Hub is a waste of money for this scenario. Remember, it's an architect-level exam.

upvoted 1 times

✉️ **dave22339** 1 month, 2 weeks ago

H C

FUNCTION

B S

M

O

upvoted 1 times

✉️ **dave22339** 1 month, 2 weeks ago

That infographic to remember the answer hasn't worked because all the spaces have been stripped out :-( You may as well delete this comment

upvoted 1 times

✉️ **Harkonen** 2 months, 2 weeks ago

If your primary goal is to capture user creation and role assignment events for the purpose of auditing, monitoring, or responding to these events in near real-time, Azure Event Grid is a more suitable choice. It's lightweight, easier to set up for event-driven scenarios, and integrates well with serverless Azure Functions for event handling.

On the other hand, if you have massive data streams, complex event processing, or scenarios involving large-scale data analytics, Azure Event Hub might be a better fit.

upvoted 1 times

✉️ **xRiot007** 2 months ago

"If your primary goal is to capture user creation and role assignment events for the purpose of auditing, monitoring, or responding to these events in near real-time" - that is not the primary goal. The primary goal is to collect and store audit logs.

upvoted 1 times

✉️ **TomdeBom** 2 months ago

Capturing audit logs to a destination is done via Diagnostic settings in MS Entra ID. Multiple destinations can be selected, but event grid is not one of them. The destinations you can select are: log analytic workspace, storage account, event hub and a partner solution.

upvoted 3 times

✉️ **JazzF** 3 months ago

This appeared in the exam - 10-Jan-2024

upvoted 7 times

✉️ **[Removed]** 3 months ago

Event Hub is correct.

<https://learn.microsoft.com/en-us/entra/identity/monitoring-health/howto-stream-logs-to-event-hub?tabs=splunk>

upvoted 2 times

✉️ **ply** 3 months, 1 week ago

This question appeared on my Exam today

upvoted 4 times

✉️ **jcxxxxx2020** 5 months, 3 weeks ago

This question appeared on my Exam today 10/22/2023

upvoted 1 times

✉️ **Exams\_Prep\_2021** 6 months, 2 weeks ago

Got this on Sept. 29, 2023

upvoted 2 times

✉️ **Forex19** 6 months, 3 weeks ago

I had this question at 24th Sep 2023

upvoted 2 times

✉️ **rojekc** 6 months, 3 weeks ago

Event hub + Azure Function is correct

<https://learn.microsoft.com/en-us/azure/architecture/reference-architectures/serverless/event-processing>

upvoted 1 times

✉️  **TiredofTesting** 6 months, 3 weeks ago

<https://azurelessons.com/azure-event-hub-vs-event-grid/>

Azure Event Hub is responsible for the ingestion of data without sending data back to the publishers.

Azure event grid is -> Responsible for notifying the events that occurred on the publisher's end with the help of HTTP requests.

So

- 1) Azure event hub
- 2) Azure Function

upvoted 3 times

✉️  **iamhyumi** 7 months, 1 week ago

Got this on Sept. 5, 2023

upvoted 4 times

✉️  **skipandsnow** 7 months, 3 weeks ago

Will go for Event grid + Azure function while grid is more suitable for audit logs

upvoted 4 times

✉️  **ConanBarb** 7 months ago

Absolutely Grid. Read here for Grid vs Hub (Hub is for big data/real-time ingestion)

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/compare-messaging-services>

upvoted 1 times

Your company, named Contoso, Ltd., implements several Azure logic apps that have HTTP triggers. The logic apps provide access to an on-premises web service.

Contoso establishes a partnership with another company named Fabrikam, Inc.

Fabrikam does not have an existing Azure Active Directory (Azure AD) tenant and uses third-party OAuth 2.0 identity management to authenticate its users.

Developers at Fabrikam plan to use a subset of the logic apps to build applications that will integrate with the on-premises web service of Contoso.

You need to design a solution to provide the Fabrikam developers with access to the logic apps. The solution must meet the following requirements:

- ☞ Requests to the logic apps from the developers must be limited to lower rates than the requests from the users at Contoso.
- ☞ The developers must be able to rely on their existing OAuth 2.0 provider to gain access to the logic apps.
- ☞ The solution must NOT require changes to the logic apps.
- ☞ The solution must NOT use Azure AD guest accounts.

What should you include in the solution?

- A. Azure Front Door
- B. Azure AD Application Proxy
- C. Azure AD business-to-business (B2B)
- D. Azure API Management

**Correct Answer: D**

Many APIs support OAuth 2.0 to secure the API and ensure that only valid users have access, and they can only access resources to which they're entitled. To use Azure API Management's interactive developer console with such APIs, the service allows you to configure your service instance to work with your OAuth 2.0 enabled API.

Incorrect:

Azure AD business-to-business (B2B) uses guest accounts.

Azure AD Application Proxy is for on-premises scenarios.

Reference:

<https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-oauth2>

*Community vote distribution*

D (100%)

✉️  **Snownoodles**  1 year, 7 months ago

The given answer is correct. API management can use Oauth2 for authorization:

<https://docs.microsoft.com/en-us/azure/api-management/authorizations-overview>

upvoted 23 times

✉️  **Tightbot**  1 year, 3 months ago

"Requests to the logic apps from the developers must be limited to lower rates than the requests from the users at Contoso." - This requirement can be achieved using the 'Limit call rate by key' feature of the API management.

<https://learn.microsoft.com/en-us/azure/api-management/api-management-access-restriction-policies#LimitCallRateByKey>

<https://learn.microsoft.com/en-us/azure/api-management/api-management-sample-flexible-throttling#user-identity-throttling>

upvoted 14 times

✉️  **jcxxxxx2020**  5 months, 3 weeks ago

This question didn't not appear on my exam today 10/22/2023

upvoted 2 times

✉️  **Exams\_Prep\_2021** 6 months, 2 weeks ago

Got this on Sept. 29, 2023

upvoted 3 times

✉️  **Leocan** 7 months, 1 week ago

**Selected Answer: D**

The solution must NOT use Azure AD guest accounts.

upvoted 2 times

✉️  **Favbolu** 8 months, 1 week ago

API IS CORRECT

upvoted 1 times

✉ **imjoel** 9 months, 3 weeks ago

answer is api mgt

upvoted 1 times

✉ **yonie** 11 months, 3 weeks ago

**Selected Answer: D**

Correct is D

Not C: Azure AD business-to-business (B2B) uses guest accounts.

upvoted 2 times

✉ **cluqueg** 1 year ago

Agree, API management is the the only option.

upvoted 1 times

✉ **jj22222** 1 year, 1 month ago

this one was on the test in 2023

upvoted 3 times

✉ **NotMeAnyWay** 1 year, 1 month ago

**Selected Answer: D**

D. Azure API Management

To provide access to the logic apps for Fabrikam developers while limiting their requests to lower rates than the users at Contoso and allowing them to rely on their existing OAuth 2.0 provider, you should use Azure API Management.

You can create an API Management instance and import the logic apps as APIs. Then, you can configure API Management to act as an OAuth 2.0 client to the third-party identity provider used by Fabrikam. This will enable Fabrikam developers to use their existing credentials to authenticate and access the logic apps. Additionally, you can use API Management to apply rate limiting policies to control the number of requests that Fabrikam developers can make.

upvoted 11 times

✉ **zellck** 1 year, 1 month ago

**Selected Answer: D**

D is the answer.

<https://learn.microsoft.com/en-us/azure/api-management/authorizations-overview>

API Management authorizations (preview) simplify the process of managing authorization tokens to OAuth 2.0 backend services. By configuring any of the supported identity providers and creating an authorization using the standardized OAuth 2.0 flow, API Management can retrieve and refresh access tokens to be used inside of API management or sent back to a client. This feature enables APIs to be exposed with or without a subscription key, and the authorization to the backend service uses OAuth 2.0.

upvoted 1 times

✉ **Iannitt** 1 year, 1 month ago

API Management is correct

upvoted 2 times

✉ **rikininetysix** 1 year, 2 months ago

**Selected Answer: D**

Azure Front Door is a CDN service.

Azure AD business-to-business (B2B) uses guest accounts.

Azure AD Application Proxy is for secure remote access to on-premises web applications.

So, the correct answer seems to be 'D'.

upvoted 4 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: D**

API management can use Oauth2 for authorization

D - correct ans

upvoted 1 times

✉ **Alessandro365** 1 year, 2 months ago

**Selected Answer: D**

D is the correct answer

upvoted 1 times

✉ **jj22222** 1 year, 2 months ago

**Selected Answer: D**

API Management is correct

upvoted 1 times

**HOTSPOT -**

You have an Azure subscription that contains 300 virtual machines that run Windows Server 2019.

You need to centrally monitor all warning events in the System logs of the virtual machines.

What should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Resource to create in Azure:

- An event hub
- A Log Analytics workspace
- A search service
- A storage account

Configuration to perform on the virtual machines:

- Create event subscriptions
- Configure Continuous delivery
- Install the Azure Monitor agent
- Modify the membership of the Event Log Readers group

**Correct Answer:****Answer Area**

Resource to create in Azure:

- An event hub
- A Log Analytics workspace**
- A search service
- A storage account

Configuration to perform on the virtual machines:

- Create event subscriptions
- Configure Continuous delivery
- Install the Azure Monitor agent**
- Modify the membership of the Event Log Readers group

Box 1: A Log Analytics workspace

Send resource logs to a Log Analytics workspace to enable the features of Azure Monitor Logs.

You must create a diagnostic setting for each Azure resource to send its resource logs to a Log Analytics workspace to use with Azure Monitor Logs.

Box 2: Install the Azure Monitor agent

Use the Azure Monitor agent if you need to:

Collect guest logs and metrics from any machine in Azure, in other clouds, or on-premises.

Manage data collection configuration centrally

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/essentials/resource-logs> <https://docs.microsoft.com/en-us/azure/azure-monitor/agents/agents-overview#azure-monitor-agent>

  **most\_lenyora** Highly Voted 1 year, 7 months ago

Correct!

upvoted 30 times

  **zellck** Highly Voted 1 year, 1 month ago

1. Log Analytics workspace
2. Install Azure Monitor agent

<https://learn.microsoft.com/en-us/azure/azure-monitor/logs/log-analytics-workspace-overview>

A Log Analytics workspace is a unique environment for log data from Azure Monitor and other Azure services, such as Microsoft Sentinel and Microsoft Defender for Cloud. Each workspace has its own data repository and configuration but might combine data from multiple services.

<https://learn.microsoft.com/en-us/azure/azure-monitor/agents/agents-overview>

Azure Monitor Agent (AMA) collects monitoring data from the guest operating system of Azure and hybrid virtual machines and delivers it to Azure Monitor for use by features, insights, and other services, such as Microsoft Sentinel and Microsoft Defender for Cloud. Azure Monitor Agent replaces all of Azure Monitor's legacy monitoring agents.

upvoted 12 times

✉  **JimmyYop** Most Recent ⓘ 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 3 times

✉  **nav109** 4 months, 3 weeks ago

This question appeared on my Exam today 11/17/2023

upvoted 4 times

✉  **jcxxxxx2020** 5 months, 3 weeks ago

This question appeared on my Exam today 10/22/2023

upvoted 2 times

✉  **Exams\_Prep\_2021** 6 months, 2 weeks ago

Got this on Sept. 29, 2023

upvoted 3 times

✉  **memo454** 6 months, 4 weeks ago

This question is on today's exam.

I passed the exam today 17-09-2023 with a score of 906/1000.

upvoted 3 times

✉  **cluqueg** 1 year ago

Also vote for Log Analytics + installing the Azure Monitor Agent.

upvoted 6 times

✉  **winy** 1 year ago

In exam 4/1/2023

upvoted 2 times

✉  **jj22222** 1 year, 1 month ago

Log analytics workspace

Install Azure monitor agent

upvoted 1 times

✉  **lanntt** 1 year, 1 month ago

in my exam 14/2/2023

upvoted 2 times

✉  **Sarvy** 1 year, 1 month ago

In exam 2/12/2023

upvoted 2 times

✉  **certd** 1 year, 2 months ago

Resource to create in Azure:

A Log Analytics workspace: To collect and analyze log data from the virtual machines.

A storage account: To store the collected logs.

Configuration to perform on the virtual machines:

Install the Azure Monitor agent: To collect the logs from the virtual machines and send them to the Log Analytics workspace.

Modify the membership of the Event log readers group: To allow the Azure Monitor agent to read the System logs of the virtual machines.

Create event subscriptions: To forward the warning events from the System logs of the virtual machines to Log Analytics workspace.

Configure Continuous delivery: To ensure that the logs are delivered to Log Analytics workspace in real-time.

upvoted 5 times

✉  **OPT\_001122** 1 year, 2 months ago

Thanks to all who have mentioned the exam dates.

The given ans is correct

Box 1: A Log Analytics workspace

Box 2: Install the Azure Monitor agent

upvoted 1 times

✉  **bikewun** 7 months, 3 weeks ago

You are very funny ahahahaha "Thank to all who have mentioned the exam dates"

upvoted 2 times

✉  **jj22222** 1 year, 2 months ago

Analytics Workspace and monitor agent, is right

upvoted 1 times

✉  **armpro** 1 year, 2 months ago

Correct

Capture events into log analytics workspace with Azure Monitor Agent on VM

<https://learn.microsoft.com/en-us/azure/azure-monitor/vm/monitor-virtual-machine-agent>

upvoted 1 times

 **Bummer\_boy** 1 year, 3 months ago

No doubts here - agent needs to be installed and logs are to be captured by workspace for centralized analysis

upvoted 1 times

**HOTSPOT -**

You have several Azure App Service web apps that use Azure Key Vault to store data encryption keys.

Several departments have the following requests to support the web app:

<b>Department</b>	<b>Request</b>
Security	<ul style="list-style-type: none"> <li>• Review the membership of administrative roles and require users to provide a justification for continued membership.</li> <li>• Get alerts about changes in administrator assignments.</li> <li>• See a history of administrator activation, including which changes administrators made to Azure resources.</li> </ul>
Development	<ul style="list-style-type: none"> <li>• Enable the applications to access Key Vault and retrieve keys for use in code.</li> </ul>
Quality Assurance	<ul style="list-style-type: none"> <li>• Receive temporary administrator access to create and configure additional web apps in the test environment.</li> </ul>

Which service should you recommend for each department's request? To answer, configure the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Security:

- Azure AD Privileged Identity Management
- Azure Managed Identity
- Azure AD Connect
- Azure AD Identity Protection

Development:

- Azure AD Privileged Identity Management
- Azure Managed Identity
- Azure AD Connect
- Azure AD Identity Protection

Quality Assurance:

- Azure AD Privileged Identity Management
- Azure Managed Identity
- Azure AD Connect
- Azure AD Identity Protection

**Answer Area**

Security:

- Azure AD Privileged Identity Management
- Azure Managed Identity
- Azure AD Connect
- Azure AD Identity Protection

Development:

- Azure AD Privileged Identity Management
- Azure Managed Identity
- Azure AD Connect
- Azure AD Identity Protection

Quality Assurance:

- Azure AD Privileged Identity Management
- Azure Managed Identity
- Azure AD Connect
- Azure AD Identity Protection

**Correct Answer:**

Box 1: Azure AD Privileged Identity Management

Privileged Identity Management provides time-based and approval-based role activation to mitigate the risks of excessive, unnecessary, or misused access permissions on resources that you care about. Here are some of the key features of Privileged Identity Management:

Provide just-in-time privileged access to Azure AD and Azure resources

Assign time-bound access to resources using start and end dates  
Require approval to activate privileged roles  
Enforce multi-factor authentication to activate any role  
Use justification to understand why users activate  
Get notifications when privileged roles are activated  
Conduct access reviews to ensure users still need roles  
Download audit history for internal or external audit  
Prevents removal of the last active Global Administrator role assignment

Box 2: Azure Managed Identity -

Managed identities provide an identity for applications to use when connecting to resources that support Azure Active Directory (Azure AD) authentication.

Applications may use the managed identity to obtain Azure AD tokens. With Azure Key Vault, developers can use managed identities to access resources. Key

Vault stores credentials in a secure manner and gives access to storage accounts.

Box 3: Azure AD Privileged Identity Management

Privileged Identity Management provides time-based and approval-based role activation to mitigate the risks of excessive, unnecessary, or misused access permissions on resources that you care about. Here are some of the key features of Privileged Identity Management:

Provide just-in-time privileged access to Azure AD and Azure resources

Assign time-bound access to resources using start and end dates

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-configure> <https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview>

✉️  mse89 Highly Voted 1 year, 7 months ago

PIM

MI

PIM

answer is correct

upvoted 50 times

✉️  One111 1 year, 6 months ago

Non of security requirements can be accomplished by PIM. That's definitely not the right answer.

upvoted 2 times

✉️  Ayboum 1 year, 5 months ago

Access review is included on PIM

upvoted 15 times

✉️  SilverFox22 1 year, 3 months ago

To confirm: "You can use Azure Active Directory (Azure AD) Privileged Identity Management (PIM) to create access reviews for privileged access to Azure resource and Azure AD roles." <https://learn.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-create-azure-ad-roles-and-resource-roles-review>

upvoted 7 times

✉️  KingHalik 4 months, 2 weeks ago

yes it does: <https://learn.microsoft.com/en-us/entra/id-governance/privileged-identity-management/pim-configure>

upvoted 2 times

✉️  One111 Highly Voted 1 year, 6 months ago

It should be

1 Identity Governance / Access Review - access based on groups and review periods.

2 Managed Identity - access with passwordless and no additional administration footprints.

3 Privileged Identity Management - temporary role activation.

Answers are probably messed and lack option in first list.

upvoted 20 times

✉️  sexyt 1 year, 3 months ago

look at examtopics reply to you and realize this is an architect test not an engineering test

upvoted 1 times

✉️  ExamTopicsTST 1 year, 5 months ago

@One111, since the option is not there, it is NOT an option as an answer. Under 'Identity Governance' is where PIM exists, and all the requirements can be met by what PIM provides. Answers provided ARE 100% correct: PIM, MI, PIM.

upvoted 15 times

✉️  FabrityDev 1 year, 3 months ago

From documentation:

Privileged Identity Management provides time-based and approval-based role activation to mitigate the risks of excessive, unnecessary, or misused access permissions on resources that you care about. Here are some of the key features of Privileged Identity Management:

- Provide just-in-time privileged access to Azure AD and Azure resources
- Assign time-bound access to resources using start and end dates
- Require approval to activate privileged roles
- Enforce multi-factor authentication to activate any role
- Use justification to understand why users activate
- Get notifications when privileged roles are activated
- Conduct access reviews to ensure users still need roles
- Download audit history for internal or external audit
- Prevents removal of the last active Global Administrator and Privileged Role Administrator role assignments

So PIM, MI, PIM

<https://learn.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-configure>  
upvoted 12 times

✉️  **Ahmedsaad1981** Most Recent ⓘ 1 month, 2 weeks ago

it was in the exam 24/2/2024

upvoted 3 times

✉️  **ply** 3 months, 1 week ago

This question appeared on my Exam today

upvoted 3 times

✉️  **jcxxxxxx2020** 5 months, 3 weeks ago

This question didn't not appear on my exam today 10/22/2023

upvoted 3 times

✉️  **iamhyumi** 7 months, 1 week ago

Got this on Sept. 5, 2023

upvoted 4 times

✉️  **seedati** 10 months, 2 weeks ago

if each division has two subscriptions each, the minimum number of objects required to deploy the application using Azure Blueprints would be:

1 management group per division: You would need two management groups, one for each division. Each management group would act as a container for the respective division's subscriptions.

2 blueprint definitions: You would need one blueprint definition for each division's subscriptions. Each blueprint definition would specify the resource group, Azure web app, custom role assignments, and Azure Cosmos DB account required for the application.

4 blueprint assignments: You would need four blueprint assignments, two for each division's subscriptions. Each division's blueprint definition would be assigned to both of their respective subscriptions.

In summary, the minimum number of objects required now would be:

2 management groups

2 blueprint definitions

4 blueprint assignments (2 assignments per division)

upvoted 1 times

✉️  **vali6969** 9 months, 3 weeks ago

This answer is for an other question ...

upvoted 5 times

✉️  **sankuro** 11 months, 1 week ago

Got this on 5/7/2023 exam.

upvoted 2 times

✉️  **winy** 1 year ago

this was on 4/1/23 exam

upvoted 3 times

✉️  **ZUMY** 1 year ago

Given answers are correct

upvoted 1 times

✉️  **akr1503** 1 year ago

This was on 3/27/23 exam

upvoted 2 times

✉️  **gdamascenom** 1 year, 1 month ago

It should be:

Azure AD Identity Protection to get the access reviews

Azure Managed Identity

Azure AD PIM

upvoted 5 times

✉  **jj22222** 1 year, 1 month ago

AD PIM

Azure Managed Identity

AD PIM

upvoted 1 times

✉  **zellck** 1 year, 1 month ago

1. Azure AD PIM

2. Azure Managed ID

3. Azure AD PIM

<https://learn.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-create-azure-ad-roles-and-resource-roles-review>  
The need for access to privileged Azure resource and Azure AD roles by employees changes over time. To reduce the risk associated with stale role assignments, you should regularly review access. You can use Azure Active Directory (Azure AD) Privileged Identity Management (PIM) to create access reviews for privileged access to Azure resource and Azure AD roles. You can also configure recurring access reviews that occur automatically.

<https://learn.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview>

While developers can securely store the secrets in Azure Key Vault, services need a way to access Azure Key Vault. Managed identities provide an automatically managed identity in Azure Active Directory (Azure AD) for applications to use when connecting to resources that support Azure AD authentication. Applications can use managed identities to obtain Azure AD tokens without having to manage any credentials.

upvoted 5 times

✉  **zellck** 1 year, 1 month ago

Got this in Feb 2023 exam.

upvoted 1 times

✉  **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/training/modules/design-authentication-authorization-solutions/9-one-design-managed-identities>

Managed identities provide an identity for apps to use when connecting to resources that support Azure AD authentication. Apps can use the managed identity to obtain Azure AD tokens. An app might use a managed identity to access resources like Azure Key Vault where developers can store credentials in a secure manner or to access storage accounts.

upvoted 1 times

✉  **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-configure#terminology>

just-in-time (JIT) access

- A model in which users receive temporary permissions to perform privileged tasks, which prevents malicious or unauthorized users from gaining access after the permissions have expired. Access is granted only when users need it.

upvoted 1 times

✉  **Sarvy** 1 year, 1 month ago

In exam 2/12/2023

upvoted 2 times

✉  **OPT\_001122** 1 year, 2 months ago

1 PIM

2 MI

3 PIM

correct ans

upvoted 1 times

✉  **jj22222** 1 year, 2 months ago

answer is right

upvoted 2 times

**HOTSPOT -**

Your company has the divisions shown in the following table.

Division	Azure subscription	Azure Active Directory (Azure AD) tenant
East	Sub1, Sub2	East.contoso.com
West	Sub3, Sub4	West.contoso.com

You plan to deploy a custom application to each subscription. The application will contain the following:

- A resource group
- An Azure web app
- Custom role assignments
- An Azure Cosmos DB account

You need to use Azure Blueprints to deploy the application to each subscription.

What is the minimum number of objects required to deploy the application? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Management groups:

▼

1
2
3
4

Blueprint definitions:

▼

1
2
3
4

Blueprint assignments:

▼

1
2
3
4

## Answer Area

Management groups:

1
2
3
4

Blueprint definitions:

1
2
3
4

Blueprint assignments:

1
2
3
4

Correct Answer:

Box 1: 2 -

One management group for each Azure AD tenant

Azure management groups provide a level of scope above subscriptions.

All subscriptions within a management group automatically inherit the conditions applied to the management group.

All subscriptions within a single management group must trust the same Azure Active Directory tenant.

Box 2: 1 -

One single blueprint definition can be assigned to different existing management groups or subscriptions.

When creating a blueprint definition, you'll define where the blueprint is saved. Blueprints can be saved to a management group or subscription that you have

Contributor access to. If the location is a management group, the blueprint is available to assign to any child subscription of that management group.

Box 3: 2 -

Blueprint assignment -

Each Published Version of a blueprint can be assigned (with a max name length of 90 characters) to an existing management group or subscription.

Assigning a blueprint definition to a management group means the assignment object exists at the management group. The deployment of artifacts still targets a subscription.

Reference:

<https://docs.microsoft.com/en-us/azure/governance/management-groups/overview> <https://docs.microsoft.com/en-us/azure/governance/blueprints/overview>

✉️  **manubust** Highly Voted 1 year, 7 months ago

I dont know why the discussion thread disappeared in this exam. This question is in AZ-304 and the right answer is 2,2,4.

Management groups can't span AAD tenant, so you need 2 management groups. Blueprints definition can be saved within management group which, in turn, means you need 2 blueprint definitions.

Blueprint assignments are at subscription level, therefore you need 4.

upvoted 120 times

✉️  **MichaelMeb** 2 weeks, 3 days ago

the answer would be 2-2-2

"Each Published Version of a blueprint can be assigned (with a max name length of 90 characters) to an existing management group or subscription."

<https://learn.microsoft.com/en-us/azure/governance/blueprints/overview#blueprint-assignment>

upvoted 2 times

✉️  **JYKL88** 1 year, 3 months ago

Agree with 2-2-4

upvoted 6 times

✉ **cluqueg** 1 year ago

The proposed answer is correct: 212.

Blueprints could be assigned to MG or Subscription, so just save 2 assignments but setting at MG level.

upvoted 4 times

✉ **C\_M\_M** 11 months, 3 weeks ago

If you are setting at MG level, but there are 2 MG, why do you say 1 blueprint then?

upvoted 2 times

✉ **C\_M\_M** 11 months, 3 weeks ago

Remember the 2 MGs are in different tenants.

upvoted 3 times

✉ **pierrelev74** 6 months ago

Right answer is 2-2-2.

- 1 management group in each tenants: 2 in total

- 1 definition in each tenants (you can't share the definition): 2 in total

- you'll need to assign the definition in each tenant to the MG in the same tenant: 2 in total

upvoted 4 times

✉ **Snownoodles** Highly Voted 1 year, 7 months ago

Blueprint can be assigned to MG level although the following statement from Azure docs is confusing:

"Assigning a blueprint definition to a management group means the assignment object exists at the management group. The deployment of artifacts still targets a subscription"

<https://docs.microsoft.com/en-us/azure/governance/blueprints/overview>

so the answer should be 2-2-2

upvoted 28 times

✉ **Balaji\_c\_s** 1 year, 7 months ago

Its just saved at MG level and assigned at Subscription Level. So it should be 2-2-4

upvoted 5 times

✉ **ronsav80** 1 year, 6 months ago

From the article ref'd in the answer " If the location is a management group, the blueprint is available to assign to any child subscription of that management group.". So if saved to the MG, it is available to any subscription under that MG. So to me it is 2-2-2

upvoted 3 times

✉ **ronsav80** 1 year, 6 months ago

Check that... the key is "available to any subscription under the MG" so while the MG is available, it has to be applied at the subscription level to take affect. So 2-2-4

upvoted 3 times

✉ **mufflon** 1 year, 7 months ago

I agree, i believe that the answer is 2-2-2. as described in the provided link.

upvoted 6 times

✉ **CJWit** 1 year, 4 months ago

but there are 4 subscriptions in this example. if the blueprint definition is assigned on a per sub basis, there would need to be 4. 1 for each sub.

upvoted 1 times

✉ **abxc** 1 year, 1 month ago

I just tried creating blueprint assignment at empty mg and it requires at least one subscription selected under the mg. So it has to be 2-2-4

upvoted 6 times

✉ **cluqueg** 1 year ago

Create the MG first and later add subscriptions to this MG.

upvoted 1 times

✉ **varinder82** Most Recent 2 weeks ago

Final Answer: 2-2-2.

upvoted 1 times

✉ **bryant12138** 4 weeks ago

I believe after Jan 2024, Blueprint related questions are deprecated

upvoted 2 times

✉ **JimmyYop** 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 2 times

✉ **ayadmaawla** 3 months, 1 week ago

This question has had a lot of exchanges. Blueprints can be assigned at an MG level and I quote: " The only option to prevent subscription owners from removing a blueprint assignment is to assign the blueprint to a management group. In this scenario, only Owners of the management group have the permissions needed to remove the blueprint assignment."

See: <https://learn.microsoft.com/en-us/azure/governance/blueprints/concepts/resource-locking> under Assign at management group.

So answer should be that at a minimum is 2,2,2 imho

upvoted 1 times

✉ **brajen** 3 months, 3 weeks ago

2-2-4

2 Mgmt Group

2 Blueprint Def

4 -Assignment for subscription

upvoted 3 times

✉ **rajeshrj1981** 4 months, 3 weeks ago

It is 2,2,2

Two definitions (since there are two tenants) as the plan is to deploy a custom application to each subscription.

With Azure Blueprints, the relationship between the blueprint definition (what should be deployed) and the blueprint assignment (what was deployed) is preserved.

<https://docs.microsoft.com/en-us/azure/governance/blueprints/overview>

upvoted 1 times

✉ **nav109** 4 months, 3 weeks ago

This question appeared on my Exam today 11/17/2023

upvoted 2 times

✉ **Showkat** 5 months ago

The answer is 2-2-2 as multiple subscriptions can be added under single assignment.

upvoted 1 times

✉ **lukiduc9625** 1 month, 2 weeks ago

Yes, You can select multiple subscriptions during making assignment but in the background there are created one assignment per subscription.

Look at Note box in link <https://learn.microsoft.com/en-us/azure/governance/blueprints/create-blueprint-portal#assign-a-blueprint>

upvoted 1 times

✉ **jcxxxxx2020** 5 months, 3 weeks ago

This question didn't not appear on my exam today 10/22/2023

upvoted 2 times

✉ **Azurebond108** 4 months, 1 week ago

How is it helpful if the question did not appear in the exam - even if it does, the community here is looking for the most accurate answer and not an "event log" - LOL

upvoted 2 times

✉ **josebernabeo** 2 months ago

For me it's helpful.

Thanks Jcx for commenting.

upvoted 1 times

✉ **jcxxxxx2020** 3 months, 3 weeks ago

so you can just skip this question.

upvoted 4 times

✉ **sunis1** 5 months, 3 weeks ago

Management Groups: You have two divisions (East and West), so you would need at least 2 Management Groups - one for each division.

Blueprint Definitions: A blueprint definition packages together the Azure resources, role assignments, and policy assignments that you want to deploy consistently. Given that you're deploying the same application (with a resource group, an Azure web app, custom role assignments, and an Azure Cosmos DB account) to each subscription, you would need at least 1 Blueprint Definition.

Blueprint Assignments: A blueprint assignment is the act of taking the blueprint definition and assigning it to a subscription. Since you have four subscriptions (sub1, sub2, sub3, sub4), you would need at least 4 Blueprint Assignments - one for each subscription

So 2-1-4

upvoted 2 times

✉ **starseed** 6 months, 2 weeks ago

2,2,4 is the correct answer no need to research further more

upvoted 5 times

✉ **husam421** 6 months, 2 weeks ago

2.2.4

As blueprint assignments are created on a subscription, the blueprint assign and unassign permissions must be granted on a subscription scope or be inherited onto a subscription scope.

upvoted 3 times

✉️  **salman\_23\_c4** 7 months ago

Blueprints can be assigned at Management Group or subscription level. to assign at management level, Use Create or update Rest API.

<https://learn.microsoft.com/en-us/azure/governance/blueprints/overview#blueprint-assignment>

<https://learn.microsoft.com/en-us/answers/questions/420039/blueprint-assignment-at-management-group-level>

in my opinion answer is 2-2-2

upvoted 3 times

✉️  **skipandsnow** 7 months, 3 weeks ago

2,2,4 as well blueprint assignments is at subscription level

upvoted 2 times

✉️  **KrisDeb** 8 months ago

On July 11, 2026, Blueprints (Preview) will be deprecated. Migrate your existing blueprint definitions and assignments to Template Specs and Deployment Stacks. Blueprint artifacts are to be converted to ARM JSON templates or Bicep files used to define deployment stacks.

I expect Blueprints are to be removed from the exam, otherwise what's the point of learning about the solution in PREVIEW which is set to DEPRECATE?

upvoted 1 times

✉️  **AdventureChick** 7 months, 2 weeks ago

You say: "What's the point of learning about the deprecated features?"

1. Because they are part of current production systems and you are expected to be able to support/enhance current prod systems.

2. Blueprints are included in the Skills Measured. Expect questions in that list regardless of deprecation status.

Microsoft also tests on features that are ALREADY removed from new usage (not just deprecated). The AI-900 definitely includes features that are no longer available. Again -- because they are currently in use.

upvoted 2 times

**HOTSPOT -**

You need to design an Azure policy that will implement the following functionality:

- ☞ For new resources, assign tags and values that match the tags and values of the resource group to which the resources are deployed.
- ☞ For existing resources, identify whether the tags and values match the tags and values of the resource group that contains the resources.
- ☞ For any non-compliant resources, trigger auto-generated remediation tasks to create missing tags and values.

The solution must use the principle of least privilege.

What should you include in the design? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Azure Policy effect to use:

Append
EnforceOPAConstraint
EnforceRegoPolicy
Modify

Azure Active Directory (Azure AD) object and role-based access control (RBAC) role to use for the remediation tasks:

A managed identity with the Contributor role
A managed identity with the User Access Administrator role
A service principal with the Contributor role
A service principal with the User Access Administrator role

**Correct Answer:****Answer Area**

Azure Policy effect to use:

Append
EnforceOPAConstraint
EnforceRegoPolicy
Modify

Azure Active Directory (Azure AD) object and role-based access control (RBAC) role to use for the remediation tasks:

A managed identity with the Contributor role
A managed identity with the User Access Administrator role
A service principal with the Contributor role
A service principal with the User Access Administrator role

Box 1: Modify -

Modify is used to add, update, or remove properties or tags on a subscription or resource during creation or update. A common example is updating tags on resources such as costCenter. Existing non-compliant resources can be remediated with a remediation task. A single Modify rule can have any number of operations. Policy assignments with effect set as Modify require a managed identity to do remediation.

Incorrect:

\* The following effects are deprecated: EnforceOPAConstraint EnforceRegoPolicy

\* Append is used to add additional fields to the requested resource during creation or update. A common example is specifying allowed IPs for a storage resource.

Append is intended for use with non-tag properties. While Append can add tags to a resource during a create or update request, it's recommended to use the

Modify effect for tags instead.

Box 2: A managed identity with the Contributor role

The managed identity needs to be granted the appropriate roles required for remediating resources to grant the managed identity.

Contributor - Can create and manage all types of Azure resources but can't grant access to others.

Incorrect:

User Access Administrator: lets you manage user access to Azure resources.

Reference:

<https://docs.microsoft.com/en-us/azure/governance/policy/concepts/effects> <https://docs.microsoft.com/en-us/azure/governance/policy/how-to/remediate-resources> <https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles>

  **manubust** Highly Voted 1 year, 7 months ago

Question #33 in AZ-304. Right answer

upvoted 27 times

  **zellck** Highly Voted 1 year, 1 month ago

1. Modify
2. Managed identity with Contributor role

<https://learn.microsoft.com/en-us/azure/governance/policy/concepts/effects#modify>  
Modify is used to add, update, or remove properties or tags on a subscription or resource during creation or update. A common example is updating tags on resources such as costCenter. Existing non-compliant resources can be remediated with a remediation task. A single Modify rule can have any number of operations. Policy assignments with effect set as Modify require a managed identity to do remediation.

upvoted 15 times

✉  **zellck** 1 year, 1 month ago

Got this in Feb 2023 exam.

upvoted 9 times

✉  **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/governance/policy/how-to/remediate-resources?tabs=azure-portal#how-remediation-access-control-works>

When Azure Policy starts a template deployment when evaluating deployIfNotExists policies or modifies a resource when evaluating modify policies, it does so using a managed identity that is associated with the policy assignment. Policy assignments use managed identities for Azure resource authorization. You can use either a system-assigned managed identity that is created by the policy service or a user-assigned identity provided by the user. The managed identity needs to be assigned the minimum role-based access control (RBAC) role(s) required to remediate resources. If the managed identity is missing roles, an error is displayed in the portal during the assignment of the policy or an initiative.

upvoted 3 times

✉  **jcxxxxx2020** Most Recent 5 months, 3 weeks ago

This question appeared on my Exam today 10/22/2023

upvoted 2 times

✉  **Darkeh** 7 months, 3 weeks ago

an updated version of this question is now on the test. Essentially asks you to deploy a template via policy and the suggested answers are Modify, Deployifnotists and enforceregopolicy. Other dropdown is what do you place in within the policy definition? scopes of the role assignments, identity of the remediation task or the RBAC of the remediation task. I chose modify and identity of the remediation task, but I'm not sure if that's the correct answer.

upvoted 4 times

✉  **souvikdeb** 7 months, 3 weeks ago

is this questions till now valid?? the entire series?? plz comment @darkeh

upvoted 1 times

✉  **Horus123** 6 months ago

I think you are referring to Question #61, Topic 1.

upvoted 1 times

✉  **Elecktrus** 7 months ago

Based only on the new wording of the question you indicate, I think the correct answers are:

- 1- Modify
- 2- RBAC of the remediation task

Microsoft says: "As a prerequisite, the policy definition must define the roles that deployIfNotExists and modify need to successfully deploy the content of the included template."

<https://learn.microsoft.com/en-us/azure/governance/policy/how-to/remediate-resources?tabs=azure-portal#configure-the-policy-definition>

The managed identiy used is not included in the template

upvoted 2 times

✉  **sankuro** 11 months, 1 week ago

Got this on 5/7/2023 exam.

upvoted 4 times

✉  **ZUMY** 1 year ago

1. Modify
2. Managed identity with Contributor role

upvoted 1 times

✉  **johnD16** 1 year ago

Showed in exam 18.03.2023. correct

passed 940/1000

upvoted 7 times

✉  **jj22222** 1 year, 1 month ago

modify  
managed identity with contributor role

upvoted 1 times

✉  **ianntt** 1 year, 1 month ago

In exam 14/2/2023

upvoted 3 times

✉  **jj22222** 1 year, 1 month ago

thanks for confirming

upvoted 1 times

✉️ **Sarvy** 1 year, 1 month ago

In exam 2/12/2023

upvoted 1 times

✉️ **ITboy8** 1 year, 1 month ago

Modify MIC correct ans

upvoted 1 times

✉️ **OPT\_001122** 1 year, 2 months ago

Box 1:Modify

Box 2: A managed identity with the Contributor role

Correct ans

upvoted 1 times

✉️ **Maxime666** 1 year, 2 months ago

Not easy. I tough "Append" was to good answer because no modification where done directly on the tags but only ADD - READ - TriggerAction  
But if the last "Trigger" action need the right to modify then it will be the right answer i suppose.

upvoted 1 times

✉️ **Parmjeet** 1 year, 3 months ago

deprecated options ---> EnforceOPAConstraint , EnforceRegoPolicy

upvoted 3 times

✉️ **mufflon** 1 year, 7 months ago

Modify and managed identity with contributor role.

The following effects are deprecated:

EnforceOPAConstraint

EnforceRegoPolicy

<https://docs.microsoft.com/en-us/azure/governance/policy/concepts/effects>

<https://docs.microsoft.com/en-us/azure/governance/policy/how-to/remediate-resources?tabs=azure-portal>

<https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles>

upvoted 2 times

✉️ **most\_lenyora** 1 year, 7 months ago

Correct

upvoted 1 times

**HOTSPOT -**

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Account Kind	Location
storage1	Azure Storage account	Storage (general purpose v1)	East US
storage2	Azure Storage account	StorageV2 (general purpose v2)	East US
Workspace1	Azure Log Analytics workspace	<b>Not applicable</b>	East US
Workspace2	Azure Log Analytics workspace	<b>Not applicable</b>	East US
Hub1	Azure event hub	<b>Not applicable</b>	East US

You create an Azure SQL database named DB1 that is hosted in the East US Azure region.

To DB1, you add a diagnostic setting named Settings1. Settings1 archive SQLInsights to storage1 and sends SQLInsights to Workspace1.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

Hot Area:

**Answer Area**

Statements	Yes	No
You can add a new diagnostic setting that archives SQLInsights logs to storage2.	<input type="radio"/>	<input type="radio"/>
You can add a new diagnostic setting that sends SQLInsights logs to Workspace2.	<input type="radio"/>	<input type="radio"/>
You can add a new diagnostic setting that sends SQLInsights logs to Hub1.	<input type="radio"/>	<input type="radio"/>

**Correct Answer:****Answer Area**

Statements	Yes	No
You can add a new diagnostic setting that archives SQLInsights logs to storage2.	<input checked="" type="radio"/>	<input type="radio"/>
You can add a new diagnostic setting that sends SQLInsights logs to Workspace2.	<input checked="" type="radio"/>	<input type="radio"/>
You can add a new diagnostic setting that sends SQLInsights logs to Hub1.	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: Yes -

A single diagnostic setting can define no more than one of each of the destinations. If you want to send data to more than one of a particular destination type (for example, two different Log Analytics workspaces), then create multiple settings.

Each resource can have up to 5 diagnostic settings.

Note: This diagnostic telemetry can be streamed to one of the following Azure resources for analysis.

- \* Log Analytics workspace
- \* Azure Event Hubs
- \* Azure Storage

Box 2: Yes -

Box 3: Yes -

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/essentials/diagnostic-settings> <https://docs.microsoft.com/en-us/azure/azure-sql/database/metrics-diagnostic-telemetry-logging-streaming-export-configure?tabs=azure-portal>

Yes, Yes, Yes  
upvoted 38 times

✉ **TonySuccess** 2 months, 2 weeks ago  
That's what sh...  
upvoted 5 times

✉ **ment0s** Highly Voted 9 months, 2 weeks ago  
On exam June 28, 2023  
Answered: Yes, Yes, Yes  
Passed with 917

Good luck and don't stop believing in yourself.  
upvoted 19 times

✉ **ply** Most Recent 3 months, 1 week ago  
This question appeared on my Exam today  
upvoted 4 times

✉ **ply** 3 months, 1 week ago  
This question appeared on my Exam today  
upvoted 2 times

✉ **jcxxxxx2020** 5 months, 3 weeks ago  
This question didn't not appear on my exam today 10/22/2023  
upvoted 3 times

✉ **iamhyumi** 7 months, 1 week ago  
Got this on Sept. 5, 2023  
upvoted 4 times

✉ **vicolmenares** 10 months, 2 weeks ago  
The answer is Y,Y,Y.  
I have tested, I created:  
2 diag settings  
2 SA  
Then send SQLInsights to different SA.  
upvoted 7 times

✉ **TonySuccess** 3 months ago  
We appreciate what you did  
upvoted 1 times

✉ **zzreflexzz** 11 months, 2 weeks ago  
on exam 5/2/23  
upvoted 4 times

✉ **winy** 1 year ago  
This was on 4/1/23 exam  
upvoted 4 times

✉ **ZUMY** 1 year ago  
YYY is correct  
  
Ref  
<https://learn.microsoft.com/en-us/azure/azure-monitor/essentials/diagnostic-settings?tabs=portal>  
upvoted 2 times

✉ **zellck** 1 year, 1 month ago  
YYY is the answer.  
  
<https://learn.microsoft.com/en-us/azure/azure-monitor/essentials/diagnostic-settings?tabs=portal#destinations>  
Platform logs and metrics can be sent to the destinations listed in the following table.  
- Log Analytics workspace  
- Azure Storage account  
- Azure Event Hubs  
- Azure Monitor partner integrations  
upvoted 14 times

✉ **Jayeshp877** 1 year, 1 month ago  
This Is Jayesh Pandey.  
I have tested- N, Y, Y 100%  
1. only one storage, even u create multiple diag settings, u can target to only one storage.  
2. add new diag setting upto 5 times and u can target upto 5 Workspaces  
3. Event hub can be added in this scenario.  
upvoted 1 times

✉  **llky** 1 year, 1 month ago

YES-YES-YES

upvoted 1 times

✉  **jj22222** 1 year, 2 months ago

answer looks right

upvoted 2 times

✉  **ckyap** 1 year, 5 months ago

Tested with my Azure subscription - Box1 ok, Box2 ok, Box3 not tested yet

upvoted 5 times

✉  **smartamu** 1 year, 5 months ago

No, Yes, Yes

Box 1: No

You archive logs only to Azure Storage accounts.

Box 2: Yes

Box 3: Yes

Sending logs to Event Hubs allows you to stream data to external systems such as third-party SIEMs and other log analytics solutions.

Note: A single diagnostic setting can define no more than one of each of the destinations. If you want to send data to more than one of a particular destination type (for example, two different Log Analytics workspaces), then create multiple settings. Each resource can have up to 5 diagnostic settings.

upvoted 2 times

✉  **datchattduke** 1 year, 5 months ago

storage2 is an Azure Storage Account, so shouldn't box 1 be Yes?

upvoted 2 times

✉  **VincentMarchal** 1 year, 4 months ago

Yes it is. Box 1 = YES.

upvoted 1 times

✉  **Snownoodles** 1 year, 7 months ago

N-N-Y

You can only configure one storage account and one log analytics workspace as destination in diagnostic settings.

upvoted 3 times

✉  **Snownoodles** 1 year, 7 months ago

Sorry, I just tested it, it should Y-Y-Y.

The given answer is correct

upvoted 29 times

✉  **Fal9911** 1 year, 6 months ago

It's still yes even though wsp2 and hub both are NOT applicable. Strange!!!

upvoted 1 times

✉  **betterthanlife** 11 months, 3 weeks ago

Correct, & that's why for each of the 3 new configs a new diagnostic setting is being created, & given this (& the fact that a diagnostic setting can target a storage account, log analytics workspace, or event hub) the correct answer is YES, YES, YES

upvoted 2 times

You plan to deploy an Azure SQL database that will store Personally Identifiable Information (PII).

You need to ensure that only privileged users can view the PII.

What should you include in the solution?

- A. dynamic data masking
- B. role-based access control (RBAC)
- C. Data Discovery & Classification
- D. Transparent Data Encryption (TDE)

**Correct Answer: A**

Dynamic data masking limits sensitive data exposure by masking it to non-privileged users.

Dynamic data masking helps prevent unauthorized access to sensitive data by enabling customers to designate how much of the sensitive data to reveal with minimal impact on the application layer. It's a policy-based security feature that hides the sensitive data in the result set of a query over designated database fields, while the data in the database is not changed.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/dynamic-data-masking-overview>

*Community vote distribution*

A (100%)

✉️  **ExamTopicsTST** Highly Voted 1 year, 7 months ago

**Selected Answer: A**

<https://docs.microsoft.com/en-us/sql/relational-databases/security/dynamic-data-masking?view=sql-server-ver16>  
upvoted 15 times

✉️  **DA95** 1 year, 4 months ago

The question is about privileged user access, masking data is strategy to hide data behind unprivileged user. See CCSP exam material  
upvoted 1 times

✉️  **NotMeAnyWay** Highly Voted 1 year ago

**Selected Answer: A**

A. dynamic data masking

Dynamic Data Masking (DDM) is a feature in Azure SQL Database that helps you protect sensitive data by obfuscating it from non-privileged users. DDM allows you to define masking rules on specific columns, so that the data in those columns is automatically replaced with a masked value when queried by users without the appropriate permissions. This ensures that only privileged users can view the actual Personally Identifiable Information (PII), while other users will see the masked data.

upvoted 7 times

✉️  **ply** Most Recent 3 months, 1 week ago

This question appeared on my Exam today  
upvoted 4 times

✉️  **jcxxxxxx2020** 5 months, 3 weeks ago

This question didn't appear on my exam today 10/22/2023  
upvoted 2 times

✉️  **KGi** 5 months ago

Didn't not? So, it did appear? :D  
upvoted 1 times

✉️  **iamhyumi** 7 months, 1 week ago

Got this on Sept. 5, 2023  
upvoted 2 times

✉️  **jj22222** 1 year, 1 month ago

this one is on the test in 2023  
upvoted 3 times

✉️  **jj22222** 1 year, 1 month ago

**Selected Answer: A**  
A because its right  
upvoted 2 times

zellck 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/dynamic-data-masking-overview?view=azuresql>

Dynamic data masking helps prevent unauthorized access to sensitive data by enabling customers to designate how much of the sensitive data to reveal with minimal impact on the application layer. It's a policy-based security feature that hides the sensitive data in the result set of a query over designated database fields, while the data in the database is not changed.

upvoted 4 times

Airil 1 year, 2 months ago

**Selected Answer: A**

The answer is correct

upvoted 1 times

OPT\_001122 1 year, 2 months ago

**Selected Answer: A**

correct ans

upvoted 1 times

Piyal 1 year, 2 months ago

Azure SQL Database, Azure SQL Managed Instance, and Azure Synapse Analytics support dynamic data masking. Dynamic data masking limits sensitive data exposure by masking it to non-privileged users.

Answer is : A

upvoted 1 times

jj22222 1 year, 2 months ago

**Selected Answer: A**

looks right

upvoted 1 times

janvandermerwer 1 year, 2 months ago

**Selected Answer: A**

Agree on A

<https://learn.microsoft.com/en-us/azure/azure-sql/database/dynamic-data-masking-overview?view=azuresql>

SQL users excluded from masking - A set of SQL users or Azure AD identities that get unmasked data in the SQL query results. Users with administrator privileges are always excluded from masking, and see the original data without any mask.

upvoted 1 times

mscbgslt 1 year, 3 months ago

keyword here is "view". You are masking the datas, they cannot be view

upvoted 1 times

Villa76 1 year, 4 months ago

Based on following link right answer is RBAC :

<https://academy.pega.com/topic/role-based-access-control-rbac/v2#:~:text>To%20satisfy%20the%20requirement%20to%20restrict%20access%20to,and%20assigning%20permissions%20to%20each%20role%20as%20appropriate.>

To satisfy the requirement to restrict access to PII, you can implement role-based access control (RBAC). RBAC is an access-control model based on organizing users into roles and assigning permissions to each role as appropriate

upvoted 3 times

Villa76 1 year, 4 months ago

Sorry changed my mind as the question here targets data specifically that is why DDM is more related than RBAC, so data dynamic masking is the the right answer.

A is the right answer.

upvoted 2 times

itvinoth83 1 year, 4 months ago

On the AZ 305 exam, 28/11/22

Given answer is correct

upvoted 3 times

manikatech 1 year, 4 months ago

No RBAC only the right way

upvoted 1 times

You plan to deploy an app that will use an Azure Storage account.

You need to deploy the storage account. The storage account must meet the following requirements:

- ☞ Store the data for multiple users.
- ☞ Encrypt each user's data by using a separate key.
- ☞ Encrypt all the data in the storage account by using customer-managed keys.

What should you deploy?

- A. files in a premium file share storage account
- B. blobs in a general purpose v2 storage account
- C. blobs in an Azure Data Lake Storage Gen2 account
- D. files in a general purpose v2 storage account

**Correct Answer: B**

You can specify a customer-provided key on Blob storage operations. A client making a read or write request against Blob storage can include an encryption key on the request for granular control over how blob data is encrypted and decrypted.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-service-encryption>

*Community vote distribution*

B (93%) 7%

✉  **kay000001** Highly Voted  1 year, 7 months ago

**Selected Answer: B**

B. blobs in a general purpose v2 storage account  
upvoted 20 times

✉  **TaoLu** 5 months, 1 week ago

az storage container create --name <container\_name> --public-access off --metadata encryptionScope=""  
upvoted 2 times

✉  **NotMeAnyWay** Highly Voted  1 year ago

**Selected Answer: B**

B. blobs in a general purpose v2 storage account

A General Purpose v2 (GPv2) storage account can store blobs, files, queues, and tables, making it a versatile option for a wide range of applications. It supports customer-managed keys for encryption, allowing you to maintain control over the encryption keys.

To encrypt each user's data with a separate key, you can use Azure Blob Storage Service Encryption with customer-managed keys, storing each user's data in separate containers, and then configuring separate encryption keys for each container.

upvoted 17 times

✉  **malcubierre** 6 months, 2 weeks ago

I don't think you can choose different keys on every container.... configuration is at storage level, not container.  
upvoted 1 times

✉  **sieira** 7 months, 1 week ago

Thanks for sharing this point of view.  
upvoted 1 times

✉  **MeIKr** Most Recent  2 weeks, 2 days ago

**Selected Answer: B**

At the time the question was designed only B would have been correct. Currently, C is also correct. The question requires support for two features:  
1. Encryption scopes (different users encrypt with different keys)  
2. Customer managed keys with key vault

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-feature-support-in-storage-accounts>:  
Check for current support of these features for the different types of blob storage configurations.

upvoted 1 times

✉  **ManosCaptain** 4 months, 3 weeks ago

Appeared on 11/21/2023

upvoted 6 times

✉️ **Sandeep1981** 11 months ago

**Selected Answer: B**

B is the answer  
upvoted 3 times

✉️ **zellck** 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/storage/common/storage-service-encryption#about-encryption-key-management>  
You can specify a customer-provided key on Blob Storage operations. A client making a read or write request against Blob Storage can include an encryption key on the request for granular control over how blob data is encrypted and decrypted.

upvoted 7 times

✉️ **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/storage/blobs/encryption-customer-provided-keys>

Clients making requests against Azure Blob storage can provide an AES-256 encryption key to encrypt that blob on a write operation. Subsequent requests to read or write to the blob must include the same key. Including the encryption key on the request provides granular control over encryption settings for Blob storage operations. Customer-provided keys can be stored in Azure Key Vault or in another key store.

upvoted 4 times

✉️ **jj22222** 1 year, 1 month ago

**Selected Answer: B**

blobs in a general purpose v2 storage account  
upvoted 1 times

✉️ **llky** 1 year, 1 month ago

ADLS GEN 2 DOES NOT SUPPORT CMK ON THE FLY, HENCE B

upvoted 1 times

✉️ **Lazylinux** 1 week, 3 days ago

Do Not shout we are deaf!!!

upvoted 1 times

✉️ **Joule** 1 year, 2 months ago

**Selected Answer: C**

B. Blobs in an Azure Data Lake Storage Gen2 account would be the best option to meet the given requirements. Azure Data Lake Storage Gen2 offers support for object storage and is designed to store and analyze large amounts of unstructured data. It also offers the ability to use customer-managed keys for encryption and supports the use of Azure Key Vault. Additionally, ADLS Gen2 offers a hierarchical namespace, which makes it easy to manage large data sets and access them efficiently.

upvoted 2 times

✉️ **sainandam** 1 year, 2 months ago

B - HNS does not support encryption keys on request.

<https://learn.microsoft.com/en-us/azure/storage/blobs/encryption-customer-provided-keys>

upvoted 2 times

✉️ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

B. blobs in a general purpose v2 storage account  
upvoted 2 times

✉️ **VBK8579** 1 year, 2 months ago

Answer C

upvoted 1 times

✉️ **armpro** 1 year, 2 months ago

**Selected Answer: B**

Ans: B

Only blobs can use customer provided keys for container level or blob level custom encryption

<https://learn.microsoft.com/en-us/azure/storage/common/storage-service-encryption#about-encryption-key-management>

upvoted 1 times

✉️ **[Removed]** 1 year, 3 months ago

**Selected Answer: B**

Obviously B

upvoted 1 times

✉️ **sporting1** 1 year, 3 months ago

I'm a bit confused. What is the difference between B and C?

upvoted 2 times

✉️ **MadSysadmin** 1 year, 3 months ago

B and C are different, eg. Data Lake Storage supports paths and subdirectories

upvoted 1 times

✉ **Mitytskr** 1 year, 3 months ago

Data Lake on GPv2 means hierarchical namespace (HNS) is enabled, and according to: <https://learn.microsoft.com/en-us/azure/storage/blobs/storage-feature-support-in-storage-accounts>, HNS does not support customer-managed keys so it would have to be B  
upvoted 9 times

✉ **Mitytskr** 1 year, 3 months ago

Sorry, meant customer-provided, not managed, which I think is required because of "Encrypt each user's data by using a separate key." Oper to correction.

upvoted 4 times

✉ **Born\_Again** 1 year, 4 months ago

**Selected Answer: B**

B. blobs in a general purpose v2 storage account

upvoted 1 times

✉ **leoletopic** 1 year, 4 months ago

is "Encrypt each user's data by using a separate key." means "Provide an encryption key on a request to Blob storage" reference : <https://learn.microsoft.com/en-us/azure/storage/blobs/encryption-customer-provided-keys>  
if so ,this feature not support Data Lake Storage Gen2, Network File System (NFS) 3.0 protocol, or the SSH File Transfer Protocol (SFTP)  
So, I think it is B

upvoted 2 times

✉ **Backy** 1 year, 4 months ago

This reference does not say such things, it merely states that Data Lake support for encryption scopes is in Preview. However, the actual Azure storage account for Data Lake does not mention any preview and provides full support for encryption scopes. Apparently, the Microsoft docs have not been updated yet. Probably, this is very old question. Today, both B and C are correct answers to this question

upvoted 3 times

**HOTSPOT -**

You have an Azure App Service web app that uses a system-assigned managed identity.

You need to recommend a solution to store the settings of the web app as secrets in an Azure key vault. The solution must meet the following requirements:

- Minimize changes to the app code.
- Use the principle of least privilege.

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Key Vault integration method:

Key Vault references in Application settings
Key Vault references in Appsettings.json
Key Vault references in Web.config
Key Vault SDK

Key Vault permissions for the managed identity:

Keys: Get
Keys: List and Get
Secrets: Get
Secrets: List and Get

Correct Answer:

**Answer Area**

Key Vault integration method:

Key Vault references in Application settings
Key Vault references in Appsettings.json
Key Vault references in Web.config
Key Vault SDK

Key Vault permissions for the managed identity:

Keys: Get
Keys: List and Get
Secrets: Get
Secrets: List and Get

Box 1: Key Vault references in Application settings

Source Application Settings from Key Vault.

Key Vault references can be used as values for Application Settings, allowing you to keep secrets in Key Vault instead of the site config.

Application Settings are securely encrypted at rest, but if you need secret management capabilities, they should go into Key Vault.

To use a Key Vault reference for an app setting, set the reference as the value of the setting. Your app can reference the secret through its key as normal. No code changes are required.

Box 2: Secrets: Get -

In order to read secrets from Key Vault, you need to have a vault created and give your app permission to access it.

1. Create a key vault by following the Key Vault quickstart.
2. Create a managed identity for your application.
3. Key Vault references will use the app's system assigned identity by default, but you can specify a user-assigned identity.
4. Create an access policy in Key Vault for the application identity you created earlier. Enable the "Get" secret permission on this policy.

Reference:

<https://docs.microsoft.com/en-us/azure/app-service/app-service-key-vault-references> <https://docs.microsoft.com/en-us/azure/app-service/app-service-key-vault-references>

 **zellck** Highly Voted 1 year, 1 month ago

1. Key Vault references in Application settings.
2. Secrets: Get

<https://learn.microsoft.com/en-us/azure/app-service/app-service-key-vault-references?tabs=azure-cli#source-application-settings-from-key-vault>

Key Vault references can be used as values for Application Settings, allowing you to keep secrets in Key Vault instead of the site config. Application Settings are securely encrypted at rest, but if you need secret management capabilities, they should go into Key Vault.

To use a Key Vault reference for an app setting, set the reference as the value of the setting. Your app can reference the secret through its key as normal. No code changes are required.

<https://learn.microsoft.com/en-us/azure/app-service/app-service-key-vault-references?tabs=azure-cli#granting-your-app-access-to-key-vault>

Create an access policy in Key Vault for the application identity you created earlier. Enable the "Get" secret permission on this policy. Do not configure the "authorized application" or applicationId settings, as this is not compatible with a managed identity.

upvoted 22 times

✉️  **GarryK** Highly Voted 1 year, 2 months ago

Correct

<https://learn.microsoft.com/en-us/azure/app-service/app-service-key-vault-references?tabs=azure-cli>

Create an access policy in Key Vault for the application identity you created earlier. Enable the "Get" secret permission on this policy.

Key Vault references can be used as values for Application Settings, allowing you to keep secrets in Key Vault instead of the site config. Application Settings are securely encrypted at rest, but if you need secret management capabilities, they should go into Key Vault.

upvoted 9 times

✉️  **phinxferb** Most Recent 5 months, 2 weeks ago

Correct

upvoted 2 times

✉️  **KlalsIsIs** 5 months, 2 weeks ago

We are looking for a solution to STORE the settings of the web app as secrets in an Azure key vault. So the answer should be SET and not GET.

upvoted 1 times

✉️  **TJ001** 2 months, 3 weeks ago

it does not make sense to just SET and cant GET

upvoted 1 times

✉️  **InvalidNickname** 8 months, 1 week ago

Got this on Aug 5th, 2023.

upvoted 3 times

✉️  **OPT\_001122** 1 year, 2 months ago

Key Vault references in Application settings

Secrets:GET

upvoted 3 times

✉️  **VBK8579** 1 year, 2 months ago

Key Vault references in Application settings and secrets: List and Get is the best key vault integration method and key vault permissions for managed identity. per ChatGPT

upvoted 1 times

✉️  **AdventureChick** 7 months, 2 weeks ago

ChatGPT apparently doesn't understand the concept of "least privilege". List gives the user access list all the keys in the vault. The user only needs access to the specific key, so you shouldn't include List privileges.

upvoted 1 times

✉️  **adamp54** 1 year, 5 months ago

Explanation how to configure Application settings:

<https://learn.microsoft.com/en-us/azure/app-service/configure-common?tabs=portal#configure-app-settings>

<https://learn.microsoft.com/en-us/azure/app-service/app-service-key-vault-references?tabs=azure-cli>

"Key Vault references can be used as values for Application Settings, allowing you to keep secrets in Key Vault instead of the site config. Application Settings are securely encrypted at rest, but if you need secret management capabilities, they should go into Key Vault.

To use a Key Vault reference for an app setting, set the reference as the value of the setting."

upvoted 3 times

✉️  **niravkanakhara** 1 year, 6 months ago

.Net core has appsetting.json only to store application settinggs or configuration data. Not sure what is application setting ?

upvoted 4 times

✉️  **ElectricPants** 1 year, 6 months ago

Maybe app settings == App Configuration? Then it makes sense because you dont need to redeploy the app to change variables

upvoted 2 times

✉️  **r3verse** 1 year, 5 months ago

Application settings are referred to as app settings here: <https://learn.microsoft.com/en-us/azure/app-service/reference-app-settings?tabs=kudu%2Cdotnet>. They are just the settings you can set for an app, directly in the Azure resource, without going into an actual appsettings.json file.

upvoted 1 times



You plan to deploy an application named App1 that will run on five Azure virtual machines. Additional virtual machines will be deployed later to run App1.

You need to recommend a solution to meet the following requirements for the virtual machines that will run App1:

- ☞ Ensure that the virtual machines can authenticate to Azure Active Directory (Azure AD) to gain access to an Azure key vault, Azure Logic Apps instances, and an Azure SQL database.
- ☞ Avoid assigning new roles and permissions for Azure services when you deploy additional virtual machines.
- ☞ Avoid storing secrets and certificates on the virtual machines.
- ☞ Minimize administrative effort for managing identities.

Which type of identity should you include in the recommendation?

- A. a system-assigned managed identity
- B. a service principal that is configured to use a certificate
- C. a service principal that is configured to use a client secret
- D. a user-assigned managed identity

**Correct Answer: D**

Managed identities provide an identity for applications to use when connecting to resources that support Azure Active Directory (Azure AD) authentication.

A user-assigned managed identity:

Can be shared.

The same user-assigned managed identity can be associated with more than one Azure resource.

Common usage:

Workloads that run on multiple resources and can share a single identity.

For example, a workload where multiple virtual machines need to access the same resource.

Incorrect:

Not A: A system-assigned managed identity can't be shared. It can only be associated with a single Azure resource.

Typical usage:

Workloads that are contained within a single Azure resource.

Workloads for which you need independent identities.

For example, an application that runs on a single virtual machine.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview>

*Community vote distribution*

D (100%)

✉  **NotMeAnyWay**  1 year ago

**Selected Answer: D**

D. a user-assigned managed identity

A user-assigned managed identity is the best choice for this scenario. User-assigned managed identities are standalone Azure Active Directory (Azure AD) identities that can be assigned to one or more Azure resources, such as virtual machines. They can be used to authenticate to other Azure services like Azure Key Vault, Azure Logic Apps instances, and Azure SQL Database without the need for storing secrets and certificates on the virtual machines.

By using a user-assigned managed identity, you can easily assign the same identity to multiple virtual machines, which avoids assigning new roles and permissions when you deploy additional VMs. This also minimizes administrative effort in managing identities, as the managed identity is automatically managed by Azure AD.

upvoted 16 times

✉  **Onobhas01** 6 months, 3 weeks ago

Sweet and simple, love the explanation

upvoted 1 times

✉  **mse89**  1 year, 7 months ago

**Selected Answer: D**

Correct, answer is D User-assigned MI

upvoted 13 times

 **JazzF** Most Recent 3 months ago

Passed the exam on 10-Jan-24. This question appeared on the exam  
upvoted 5 times

 **ManosCaptain** 4 months, 3 weeks ago

Appeared on 11/21/2023  
upvoted 2 times

 **MeisAdriano** 6 months, 2 weeks ago

Correct, you have to give auth to VM, but "system-assigned" is just for one resource and you need to gain access to multiple resources  
upvoted 2 times

 **jj22222** 1 year, 1 month ago

**Selected Answer: D**  
user assigned is right  
upvoted 1 times

 **lanntt** 1 year, 1 month ago

D is Correct,  
upvoted 1 times

 **zellck** 1 year, 1 month ago

**Selected Answer: D**  
D is the answer.

<https://learn.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview#managed-identity-types>

User-assigned. You may also create a managed identity as a standalone Azure resource. - You can create a user-assigned managed identity and assign it to one or more Azure Resources. When you enable a user-assigned managed identity:

- A service principal of a special type is created in Azure AD for the identity. The service principal is managed separately from the resources that use it.
- User-assigned identities can be used by multiple resources.
- You authorize the managed identity to have access to one or more services.

upvoted 3 times

 **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/training/modules/design-authentication-authorization-solutions/9-one-design-managed-identities>  
User-assigned: You can create a managed identity as a standalone Azure resource. Create a user-assigned managed identity and assign it to one or more instances of an Azure service. A user-assigned identity is managed separately from the resources that use it.  
upvoted 2 times

 **zellck** 1 year, 1 month ago

Consider choosing user-assigned managed identities. Choose user-assigned managed identities for workloads that run on multiple resources that can share a single identity. This type of identity is also good for workloads that need pre-authorization to a secure resource as part of a provisioning flow. User-assigned identities are suited for workloads with resources that are recycled frequently, but where permissions should stay consistent.

upvoted 2 times

 **jameslee** 1 year, 2 months ago

<https://learn.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/managed-identity-best-practice-recommendations>

Choosing system or user-assigned managed identities

Using user-assigned identities to reduce administration

upvoted 1 times

 **OPT\_001122** 1 year, 2 months ago

**Selected Answer: D**  
D. a user-assigned managed identity - correct ans  
upvoted 1 times

 **jj22222** 1 year, 2 months ago

**Selected Answer: D**  
user assigned managed identity  
upvoted 2 times

 **janvandermerwer** 1 year, 2 months ago

**Selected Answer: D**  
Seems to be the most logical answer.  
upvoted 2 times

 **yeanlingmedal71** 1 year, 3 months ago

**Selected Answer: D**  
a workload where multiple virtual machines need to access the same resource should use User Assigned MI.  
upvoted 1 times

✉  **mohamed1999** 1 year, 5 months ago

D is correct because you need to avoid assigning new identities to RBAC, with system assigned to need to have a RBAC for each resource  
upvoted 11 times

✉  **niravkanakhara** 1 year, 6 months ago

**Selected Answer: D**

correct answer  
upvoted 2 times

✉  **savavl** 1 year, 7 months ago

**Selected Answer: D**

agree, correct  
upvoted 1 times

✉  **most\_lenyora** 1 year, 7 months ago

Correct  
upvoted 2 times

You have the resources shown in the following table:

Name	Type
AS1	Azure Synapse Analytics instance
CDB1	Azure Cosmos DB SQL API account

CDB1 hosts a container that stores continuously updated operational data.

You are designing a solution that will use AS1 to analyze the operational data daily.

You need to recommend a solution to analyze the data without affecting the performance of the operational data store.

What should you include in the recommendation?

- A. Azure Cosmos DB change feed
- B. Azure Data Factory with Azure Cosmos DB and Azure Synapse Analytics connectors
- C. Azure Synapse Link for Azure Cosmos DB
- D. Azure Synapse Analytics with PolyBase data loading

**Correct Answer: C**

Azure Synapse Link for Azure Cosmos DB creates a tight integration between Azure Cosmos DB and Azure Synapse Analytics. It enables customers to run near real-time analytics over their operational data with full performance isolation from their transactional workloads and without an ETL pipeline.

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/synapse-link-frequently-asked-questions>

*Community vote distribution*

C (100%)

✉  **pocky456** Highly Voted 1 year, 7 months ago

**Selected Answer: C**

Correct Answer C

Azure Synapse Link for Azure Cosmos DB creates a tight integration between Azure Cosmos DB and Azure Synapse Analytics. It enables customers to run near real-time analytics over their operational data with full performance isolation from their transactional workloads and without an ETL pipeline

upvoted 14 times

✉  **GhoshY** Highly Voted 1 year, 3 months ago

Exam Question 12/28/2022

upvoted 10 times

✉  **Fidel\_104** Most Recent 1 month ago

**Selected Answer: C**

Exam question on 09/04/2024

upvoted 2 times

✉  **JimmyYop** 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 2 times

✉  **JazzF** 3 months ago

Passed the exam on 10-Jan-24. This question appeared on the exam

upvoted 4 times

✉  **ply** 3 months, 1 week ago

This question appeared on my Exam today

upvoted 2 times

✉  **nav109** 4 months, 3 weeks ago

This question appeared on my Exam today 11/17/2023

upvoted 2 times

✉  **InvalidNickname** 8 months, 1 week ago

Got this on Aug 5th, 2023.

upvoted 7 times

✉️  **KI383rOC** 11 months ago

There is a typo on the question, it should be NoSQL API - <https://learn.microsoft.com/en-us/azure/cosmos-db/choose-api#apis-in-azure-cosmos-db> and <https://learn.microsoft.com/en-us/azure/cosmos-db/synapse-link-frequently-asked-questions#is-azure-synapse-link-supported-for-all-azure-cosmos-db-apis>

Correct answer is C

upvoted 1 times

✉️  **zzreflexzz** 11 months, 2 weeks ago

on exam 5/23

upvoted 3 times

✉️  **zellck** 1 year, 1 month ago

**Selected Answer: C**

C is the answer.

<https://learn.microsoft.com/en-us/azure/cosmos-db/synapse-link>

Azure Synapse Link for Azure Cosmos DB is a cloud-native hybrid transactional and analytical processing (HTAP) capability that enables near real time analytics over operational data in Azure Cosmos DB. Azure Synapse Link creates a tight seamless integration between Azure Cosmos DB and Azure Synapse Analytics.

upvoted 5 times

✉️  **jj22222** 1 year, 2 months ago

**Selected Answer: C**

Azure Synapse Link for Cosmos DB

upvoted 3 times

✉️  **OPT\_001122** 1 year, 2 months ago

Thanks to all for mentioning the exam dates.

C. Azure Synapse Link for Azure Cosmos DB - ans is correct

upvoted 3 times

✉️  **Darkx** 1 year, 6 months ago

appeared on 11th Oct 2022

upvoted 5 times

✉️  **Pamban** 1 year, 6 months ago

appeared on 5th Oct 2022

upvoted 4 times

✉️  **tiru** 1 year, 6 months ago

**Selected Answer: C**

Azure Synapse Link for Azure Cosmos DB creates a tight integration between Azure Cosmos DB and Azure Synapse Analytics. It enables customers to run near real-time analytics over their operational data with full performance isolation from their transactional workloads and without an ETL pipeline

upvoted 4 times

✉️  **pocky456** 1 year, 7 months ago

Correct Answer C

Azure Synapse Link for Azure Cosmos DB creates a tight integration between Azure Cosmos DB and Azure Synapse Analytics. It enables customers to run near real-time analytics over their operational data with full performance isolation from their transactional workloads and without an ETL pipeline

upvoted 1 times

**HOTSPOT -**

You deploy several Azure SQL Database instances.

You plan to configure the Diagnostics settings on the databases as shown in the following exhibit.

**Diagnostics setting**

Save Discard Delete Provide feedback

A diagnostic setting specifies a list of categories of platform logs and/or metrics that you want to collect from a resource, and one or more destinations that you would stream them to. Normal usage charges for the destination will occur. [Learn more about the different log categories and contents of those logs](#)

Diagnostic setting name	Diagnostic1
Category details	Destination details
<b>log</b>	<input checked="" type="checkbox"/> Send to Log Analytics
<input checked="" type="checkbox"/> SQLInsights	Subscription: Azure Pass - Sponsorship
<input checked="" type="checkbox"/> AutomaticTuning	Log Analytics workspace: sk200814 ( eastus )
<input type="checkbox"/> QueryStoreRuntimeStatistics	<input type="checkbox"/> Archive to a storage account
<input type="checkbox"/> QueryStoreWaitStatistics	Showing all storage accounts including classic storage accounts
<input type="checkbox"/> Errors	Location: East US
<input type="checkbox"/> DatabaseWaitStatistics	Subscription: Azure Pass - Sponsorship
<input type="checkbox"/> Timeouts	Storage account *: contoso20
<input type="checkbox"/> Blocks	<input type="checkbox"/> Stream to an event hub
<input type="checkbox"/> Deadlocks	
<b>metric</b>	
<input type="checkbox"/> Basic	Retention (days): 0

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

The amount of time that SQLInsights data will be stored in blob storage is [answer choice].

▼
30 days
90 days
730 days
indefinite

The maximum amount of time that SQLInsights data can be stored in Azure Log Analytics is [answer choice].

▼
30 days
90 days
730 days
indefinite

## Answer Area

The amount of time that SQLInsights data will be stored in blob storage is [answer choice].

30 days
90 days
730 days
indefinite

Correct Answer:

The maximum amount of time that SQLInsights data can be stored in Azure Log Analytics is [answer choice].

30 days
90 days
730 days
indefinite

Box 1: 90 days -

As per exhibit.

Box 2: 730 days -

How long is the data kept?

Raw data points (that is, items that you can query in Analytics and inspect in Search) are kept for up to 730 days.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/app/data-retention-privacy>

✉  **jellybiscuit** Highly Voted 1 year, 6 months ago

Correct answer is definitely 90 and 730.

To those who say infinite: You may be thinking that the 90 days is how long it's storing the data "somewhere" before archiving to the storage account. This is not correct. The retention time boxes only appear after you select the "archive to storage account" checkbox. This retention period is applying specifically to the data in the storage account.

upvoted 47 times

✉  **FabrytDev** 1 year, 3 months ago

It appears to be true, judging by what is described in <https://learn.microsoft.com/en-us/azure/active-directory/reports-monitoring/quickstart-azure-monitor-route-logs-to-storage-account>

upvoted 1 times

✉  **kay000001** Highly Voted 1 year, 7 months ago

Please read the question carefully. It asks:

1. The amount of time that SQLInsights data will be stored in blob storage - yes, the 'maximum' is infinite, but 90 days has been selected in the diagram.

2. Second question is asking the 'maximum', so that answer is 730.

upvoted 17 times

✉  **sw1000** 10 months, 3 weeks ago

Yes, agree, it's one of those questions that do not test your knowledge, but your skill to read carefully. Technically, you could store it in Blob storage indefinitely

upvoted 3 times

✉  **Cg007** Most Recent 1 week ago

1. The amount of time that SQLInsights data will be stored in blob storage is "indefinite". This is because the option to "Archive to a storage account" is checked and there is no retention period specified for blob storage in the settings, which means it will retain the data until it is explicitly deleted.

2. The maximum amount of time that SQLInsights data can be stored in Azure Log Analytics is "90 days". This is explicitly set in the retention (days) for SQLInsights under the Log Analytics section of the diagnostic settings.

upvoted 1 times

✉  **venkyat555** 4 months, 1 week ago

exam question on 07-12-2023

upvoted 5 times

✉  **Exams\_Prep\_2021** 6 months, 2 weeks ago

Got this on Sept. 29, 2023

upvoted 4 times

✉  **Forex19** 6 months, 3 weeks ago

I had question at 24th Sep 2023

upvoted 2 times

✉  **DonatoDonato** 7 months, 1 week ago

Question does not apply anymore. Diagnostic settings storage retention are deprecated.  
See: <https://learn.microsoft.com/en-us/azure/azure-monitor/essentials/migrate-to-azure-storage-lifecycle-policy>  
upvoted 2 times

✉️ **InvalidNickname** 8 months, 1 week ago

Got this on Aug 5th, 2023.  
upvoted 2 times

✉️ **zzreflexzz** 11 months, 2 weeks ago

on exam 5/2/23  
upvoted 2 times

✉️ **zellck** 1 year, 1 month ago

1. 90 days  
2. 730 days

<https://learn.microsoft.com/en-us/azure/azure-monitor/app/data-retention-privacy#how-long-is-the-data-kept>

Raw data points (that is, items that you can query in Analytics and inspect in Search) are kept for up to 730 days. You can select a retention duration of 30, 60, 90, 120, 180, 270, 365, 550, or 730 days. If you need to keep data longer than 730 days, you can use Continuous Export to copy it to a storage account during data ingestion.

upvoted 6 times

✉️ **lanntt** 1 year, 1 month ago

in 14/2/2023 exam  
upvoted 4 times

✉️ **[Removed]** 1 year, 2 months ago

...if you choose a retention policy that's greater than 0, the expiration date is attached to the logs at the time of storage.  
See tip in Step 5c. Storage  
<https://learn.microsoft.com/en-us/azure/azure-monitor/essentials/diagnostic-settings?tabs=portal#create-diagnostic-settings>  
upvoted 1 times

✉️ **totalz** 1 year, 2 months ago

SQL InsightsMetrics is stored in Azure Table, so technically the question shouldn't use the word blob!?  
<https://learn.microsoft.com/en-us/azure/azure-sql/database/sql-insights-overview?view=azuresql>  
upvoted 1 times

✉️ **OPT\_001122** 1 year, 2 months ago

Thanks to all who mentioned the exam dates  
Ans is correct  
90 and 730.  
upvoted 4 times

✉️ **Q12346** 1 year, 2 months ago

shown on 1/14/2023  
upvoted 5 times

✉️ **Ghoshy** 1 year, 3 months ago

Exam Question 12/28/2022  
upvoted 5 times

✉️ **amiban** 1 year, 3 months ago

correct answer is 90 and 730 , as Raw data points (that is, items that you can query in Analytics and inspect in Search) are kept for up to 730 days. You can select a retention duration of 30, 60, 90, 120, 180, 270, 365, 550, or 730 days. If you need to keep data longer than 730 days, you can use Continuous Export to copy it to a storage account during data ingestion.

Data kept longer than 90 days incurs extra charges. For more information about Application Insights pricing, see the Azure Monitor pricing page.  
upvoted 2 times

You have an application that is used by 6,000 users to validate their vacation requests. The application manages its own credential store. Users must enter a username and password to access the application. The application does NOT support identity providers. You plan to upgrade the application to use single sign-on (SSO) authentication by using an Azure Active Directory (Azure AD) application registration.

Which SSO method should you use?

- A. header-based
- B. SAML
- C. password-based
- D. OpenID Connect

**Correct Answer: C**

Password - On-premises applications can use a password-based method for SSO. This choice works when applications are configured for Application Proxy.

With password-based SSO, users sign in to the application with a username and password the first time they access it. After the first sign-on, Azure AD provides the username and password to the application. Password-based SSO enables secure application password storage and replay using a web browser extension or mobile app. This option uses the existing sign-in process provided by the application, enables an administrator to manage the passwords, and doesn't require the user to know the password.

Incorrect:

Choosing an SSO method depends on how the application is configured for authentication. Cloud applications can use federation-based options, such as OpenID

Connect, OAuth, and SAML.

Federation - When you set up SSO to work between multiple identity providers, it's called federation.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/manage-apps/what-is-single-sign-on>

*Community vote distribution*

C (100%)

✉  **ExamTopicsTST** Highly Voted 1 year, 6 months ago

**Selected Answer: C**

Password based. <https://learn.microsoft.com/en-us/azure/active-directory/manage-apps/plan-sso-deployment#single-sign-on-options>  
upvoted 12 times

✉  **zellck** Highly Voted 1 year, 1 month ago

**Selected Answer: C**

C is the answer.

<https://learn.microsoft.com/en-us/azure/active-directory/manage-apps/plan-sso-deployment#single-sign-on-options>  
Password-based - Choose password-based when the application has an HTML sign-in page. Password-based SSO is also known as password vaulting. Password-based SSO enables you to manage user access and passwords to web applications that don't support identity federation. It's also useful where several users need to share a single account, such as to your organization's social media app accounts.

Password-based SSO supports applications that require multiple sign-in fields for applications that require more than just username and password fields to sign in. You can customize the labels of the username and password fields your users see on My Apps when they enter their credentials.

upvoted 7 times

✉  **JazzF** Most Recent 3 months ago

Passed the exam on 10-Jan-24. This question appeared on the exam

upvoted 4 times

✉  **totalz** 1 year, 2 months ago

Confusing, the article stated with application registration, it will set to use OpenID Connect and OAuth by default. Only Application Proxy is used with password-based!!

upvoted 3 times

✉  **OPT\_001122** 1 year, 2 months ago

Thanks to all who have mentioned the exam dates

upvoted 6 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: C**

C. password-based  
upvoted 2 times

✉  **janvandermerwer** 1 year, 2 months ago

**Selected Answer: C**

Badly worded question and answers.  
I'd lean towards password based authentication as being the "most correct" answer.

However, in the real world, probably use linked mode or similar.  
upvoted 1 times

✉  **GhoshY** 1 year, 3 months ago

Exam Question 12/28/2022  
upvoted 5 times

✉  **ShaheedM** 1 year, 4 months ago

**Selected Answer: C**

Answer is C  
upvoted 3 times

✉  **Bobby1977** 1 year, 6 months ago

How do we say the application is hosted in on-prem? If so, answer is correct.  
upvoted 4 times

✉  **r3verse** 1 year, 5 months ago

See flowchart here: <https://learn.microsoft.com/en-us/azure/active-directory/manage-apps/plan-sso-deployment#single-sign-on-options> . Even if it's cloud based, you will end up at password based  
upvoted 4 times

**HOTSPOT -**

You have an Azure subscription that contains a virtual network named VNET1 and 10 virtual machines. The virtual machines are connected to VNET1.

You need to design a solution to manage the virtual machines from the internet. The solution must meet the following requirements:

- Incoming connections to the virtual machines must be authenticated by using Azure Multi-Factor Authentication (MFA) before network connectivity is allowed.
- Incoming connections must use TLS and connect to TCP port 443.
- The solution must support RDP and SSH.

What should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

To provide access to virtual machines on VNET1, use:

- Azure Bastion
- Just-in-time (JIT) VM access
- Azure Web Application Firewall (WAF) in Azure Front Door

To enforce Azure MFA, use:

- An Azure Identity Governance access package
- A Conditional Access policy that has the Cloud apps assignment set to Azure Windows VM Sign-In
- A Conditional Access policy that has the Cloud apps assignment set to Microsoft Azure Management

**Correct Answer:****Answer Area**

To provide access to virtual machines on VNET1, use:

- Azure Bastion
- Just-in-time (JIT) VM access
- Azure Web Application Firewall (WAF) in Azure Front Door

To enforce Azure MFA, use:

- An Azure Identity Governance access package
- A Conditional Access policy that has the Cloud apps assignment set to Azure Windows VM Sign-In
- A Conditional Access policy that has the Cloud apps assignment set to Microsoft Azure Management

**Box 1: Just-in-time (JIT) VN access**

Lock down inbound traffic to your Azure Virtual Machines with Microsoft Defender for Cloud's just-in-time (JIT) virtual machine (VM) access feature. This reduces exposure to attacks while providing easy access when you need to connect to a VM.

Note: Threat actors actively hunt accessible machines with open management ports, like RDP or SSH. Your legitimate users also use these ports, so it's not practical to keep them closed.

When you enable just-in-time VM access, you can select the ports on the VM to which inbound traffic will be blocked.

To solve this dilemma, Microsoft Defender for Cloud offers JIT. With JIT, you can lock down the inbound traffic to your VMs, reducing exposure to attacks while providing easy access to connect to VMs when needed.

**Box 2: A conditional Access policy that has Cloud Apps assignment set to Azure Windows VM Sign-In**

You can enforce Conditional Access policies such as multi-factor authentication or user sign-in risk check before authorizing access to Windows VMs in Azure that are enabled with Azure AD sign in. To apply Conditional Access policy, you must select the "Azure Windows VM Sign-In" app from the cloud apps or actions assignment option and then use Sign-in risk as a condition and/or require multi-factor authentication as a grant access control.

**Reference:**

<https://docs.microsoft.com/en-us/azure/defender-for-cloud/just-in-time-access-overview> <https://docs.microsoft.com/en-us/azure/active-directory/devices/howto-vm-sign-in-azure-ad-windows>

✉  **Gowind**  1 year, 7 months ago

1. Answer is Azure Bastion.

<https://docs.microsoft.com/en-us/azure/bastion/bastion-overview>

It provides secure and seamless RDP/SSH connectivity to your virtual machines directly from the Azure portal over TLS.

While JIT access allows access via RDP or SSH, incoming connections is not TLS tcp 443 (but RDP or SSH when the inbound port is temporarily authorized)

<https://docs.microsoft.com/en-us/azure/defender-for-cloud/just-in-time-access-usage?tabs=jit-config-avm%2Cjit-request-asc>

2. Second is correct

<https://docs.microsoft.com/en-us/azure/active-directory/devices/howto-vm-sign-in-azure-ad-windows>

Enforce Conditional Access policies

You can enforce Conditional Access policies, such as multifactor authentication or user sign-in risk check, before you authorize access to Windows VMs in Azure that are enabled with Azure AD login. To apply a Conditional Access policy, you must select the Azure Windows VM Sign-In app from the cloud apps or actions assignment option. Then use sign-in risk as a condition and/or require MFA as a control for granting access.

upvoted 125 times

✉  **abxc** 1 year, 1 month ago

Azure Bastion is correct

For conditional access policy it should be "cloud apps assignment set to Microsoft Azure management" as the requirement states MFA before network access is allowed. Using this policy users will be prompted for MFA when they access azure portal

upvoted 21 times

✉  **Ody** 1 week, 3 days ago

I think you are correct. I can't find any documentation that says VM conditional access supports SSH.

upvoted 1 times

✉  **TJ001** 2 months, 2 weeks ago

i agree with this ... also it is not just RDP port - ssh to cover for Linux VMs, non domain joined systems..

upvoted 3 times

✉  **jj22222** 1 year, 1 month ago

i agree

upvoted 4 times

✉  **alxm8**  1 year, 4 months ago

1. Azure Bastion

2. Conditional Access Policy that has the cloud apps assignment set to Microsoft Azure management

Azure bastion client access is authorized and authenticated when trying to log into the Azure portal. You can enable MFA on the Azure portal access by using the Conditional access policy for Microsoft Azure Management. We use this currently at work, it works very well!

Azure bastion proxies the web portal requests via https to the servers running in the VNET.

upvoted 46 times

✉  **darthfodio** 1 year, 2 months ago

I wouldn't be so sure about your answer for 2.

see this link - <https://learn.microsoft.com/en-us/azure/active-directory/devices/howto-vm-sign-in-azure-ad-windows#enforce-conditional-access-policies>

upvoted 2 times

✉  **maxustermann** 6 months, 3 weeks ago

This does not mention Bastion... correct answer is Azure management

upvoted 1 times

✉  **varinder82**  2 weeks ago

Final Answer:

1. Azure Bastion

2. Conditional Access Policy that has the cloud apps assignment set to Microsoft Azure management

upvoted 1 times

✉  **DeinosK** 3 months, 3 weeks ago

#1 is bastion

<https://www.youtube.com/watch?v=DHiZbIk9i0>

upvoted 1 times

✉  **BShelat** 4 months, 1 week ago

I previously gave two reasons to rule out Azure Bastion as an answer. One more additional reason to rule it out: Reason 3: We need to design a solution to manage the virtual machines from the internet. Azure Bastion enable VM access on private IP address range NOT on Public IP range i.e. not on internet.

upvoted 3 times

✉  **BShelat** 4 months, 1 week ago

I would rule out "Azure Bastion" for following reasons.

1) Question text does not indicate the existence of Azure Bastion subnet in VNET1. Without Azure Bastion subnet in virtual network Bastion host cannot be deployed in virtual network.

2) Answer area also does not mention anything about "Create Azure Bastion subnet and host".

So for above reasons I will go with JIT VM

upvoted 1 times

✉ **rajeshrj1981** 4 months, 3 weeks ago

Answer is Azure Bastion and Conditional Access Policy with "Cloud apps assignment set to Windows VM signin":

upvoted 1 times

✉ **ACM13** 5 months ago

For the answer is: Azure Bastion & Conditional access policy microsoft azure management

upvoted 3 times

✉ **fodocel235** 5 months, 1 week ago

1. Answer is Azure Bastion. You can reach Bastion via https.

2. Answer is Conditional Access Policy that has the Cloud apps assignment set to Microsoft Azure Management, that's enforces the MFA for the Bastion services. Even it's not mentioned that the VM's are only Windows VM's. Maybe there are also Linux VM's.

upvoted 2 times

✉ **ncseffai** 6 months ago

For those who are doubting the second answer. If you look at this link, the azure bastion is not mentioned among the services. Hence it will not trigger the MFA authentication. You need to go with Windows VM Sign-in

<https://learn.microsoft.com/en-us/azure/active-directory/conditional-access/concept-conditional-access-cloud-apps#microsoft-azure-management>

upvoted 2 times

✉ **husam421** 6 months, 2 weeks ago

Answer is Azure Bastion

The JIT VM access page opens listing the ports that Defender for Cloud recommends protecting:

22 - SSH

3389 - RDP

5985 - WinRM

5986 - WinRM

upvoted 1 times

✉ **learning93** 6 months, 3 weeks ago

Azure Bastion:

Azure Bastion is a managed PaaS service that allows secure and seamless RDP and SSH access to your virtual machines directly from the Azure portal without the need for a public IP address on the VMs.

It uses TLS encryption (HTTPS) on port 443 for secure access.

upvoted 1 times

✉ **learning93** 6 months, 3 weeks ago

JIT Access can be used to control and restrict RDP and SSH access to your VMs but it doesn't inherently provide MFA or TLS encryption.

upvoted 1 times

✉ **learning93** 6 months, 3 weeks ago

Conditional Access Policy with "Cloud apps assignment set to Windows VM signin":

This option is designed to enforce MFA for user sign-ins to Windows VMs hosted in Azure.

When you create a conditional access policy targeting "Windows VM signin," it allows you to require MFA when users attempt to access the VMs.

This policy will ensure that users are prompted for MFA when accessing the VMs, enhancing security for VM access.

upvoted 1 times

✉ **maxustermann** 6 months, 3 weeks ago

You need to authenticate over Bastion, which is not mentioned in the learn article. So we need to use the Azure management in Conditional Access

upvoted 1 times

✉ **s8y** 6 months, 3 weeks ago

box1: JIT (The solution must support RDP and SSH), requirement for TLS referees to triggering/enabling JIT (from azure portal). It can't be bastion since it will keep rdp/ssh listener constantly running/accessible over internet (while connection must only appear on request that involves mfa)

upvoted 2 times

✉ **serget12** 6 months, 4 weeks ago

Not sure about Bastion, the reason I see for using Bastion if for the TLS/443 but that is all about sending data. For connection, which will be done over rdp/ssh, 3389/22, you would use JIT. Going to go with JIT. for the second, don't think the correct option is listed so have to go with the next best option. Of course, Cloud apps is being removed. Could be an old question.

upvoted 1 times

✉ **Elecktrus** 7 months ago

Box 2 is a bit tricky.

It is not mentioned anywhere that the virtual machines are Windows (Azure Windows VM Sign-In only works in windows). And you need permit ss access (that is typically used in Linux), so we are not sure that machines are only windows.

This option only works for windows.

But MFA for Management Acces is only to protect privileged resources (Azure Portal, CLI, etc) not for login to machines. I can use a RDP or SSH client from my personal PC to connect to this VM, and then the policy is useless.

So, there isn't a fully correct answer.

I will choose Windows VM Sign-in, because it will work sometimes (if the VM are windows)

upvoted 1 times

✉️  **Maurice95000** 7 months, 1 week ago

1. Answer is Azure Bastion.

upvoted 1 times

✉️  **sabin001** 7 months, 2 weeks ago

Answer: Azure Bastion

Just-in-Time (JIT) VM Access does not meet the requirement of "Incoming connections must use TLS and connect to TCP port 443" directly. JIT VM Access focuses on controlling and limiting access to specific ports for a temporary time window, but it does not enforce the exclusive use of TLS or port 443 for incoming connections.

To meet the requirement of using TLS and connecting to TCP port 443, Azure Bastion is a more appropriate solution.

upvoted 2 times

✉️  **ec2user** 6 months ago

but does azure bastion currently support mfa? which is also a requirement.

upvoted 1 times

You are designing an Azure governance solution.

All Azure resources must be easily identifiable based on the following operational information: environment, owner, department and cost center.

You need to ensure that you can use the operational information when you generate reports for the Azure resources.

What should you include in the solution?

- A. an Azure data catalog that uses the Azure REST API as a data source
- B. an Azure management group that uses parent groups to create a hierarchy
- C. an Azure policy that enforces tagging rules
- D. Azure Active Directory (Azure AD) administrative units

**Correct Answer: C**

You apply tags to your Azure resources, resource groups, and subscriptions to logically organize them into a taxonomy. Each tag consists of a name and a value pair.

You use Azure Policy to enforce tagging rules and conventions. By creating a policy, you avoid the scenario of resources being deployed to your subscription that don't have the expected tags for your organization. Instead of manually applying tags or searching for resources that aren't compliant, you create a policy that automatically applies the needed tags during deployment.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/tag-policies>

*Community vote distribution*

C (100%)

✉  **fnavigacom** Highly Voted 1 year, 7 months ago

**Selected Answer: C**

Correct answer

upvoted 17 times

✉  **mse89** Highly Voted 1 year, 7 months ago

**Selected Answer: C**

Correct

upvoted 8 times

✉  **TJ001** Most Recent 2 months, 2 weeks ago

very common use case and answer is correct

upvoted 1 times

✉  **ply** 3 months, 1 week ago

This question appeared on my Exam today

upvoted 3 times

✉  **zzreflexzz** 11 months, 2 weeks ago

on exam 5/2/23

upvoted 3 times

✉  **NotMeAnyWay** 1 year ago

**Selected Answer: C**

C. an Azure policy that enforces tagging rules

Tagging is the most appropriate solution for your requirements. Tags are key-value pairs that can be applied to Azure resources, allowing you to categorize and organize them based on your specified criteria. In this case, you can create tags for environment, owner, department, and cost center.

You can use Azure Policy to enforce tagging rules by creating policies that require specific tags to be applied to resources upon creation or update. This ensures that all resources are consistently tagged with the required operational information. You can then use these tags to generate reports and gain insights into your Azure resources.

upvoted 2 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: C**

C is the answer.

<https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/tag-policies>

You use Azure Policy to enforce tagging rules and conventions. By creating a policy, you avoid the scenario of resources being deployed to your subscription that don't have the expected tags for your organization. Instead of manually applying tags or searching for resources that aren't compliant, you create a policy that automatically applies the needed tags during deployment. Tags can also now be applied to existing resources with the new Modify effect and a remediation task.

upvoted 2 times

✉ **rikininetysix** 1 year, 2 months ago

**Selected Answer: C**

All azure resources needs to be identifiable based on the operational information. So it would be 'C'.

upvoted 1 times

✉ **jj22222** 1 year, 2 months ago

**Selected Answer: C**

c is right

upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: C**

C. an Azure policy that enforces tagging rules

upvoted 1 times

✉ **janvandermerwer** 1 year, 2 months ago

**Selected Answer: C**

Enforced tagging is pretty common.

upvoted 2 times

✉ **mscbslt** 1 year, 3 months ago

"must" => policy

"easily identifiable" => tag

upvoted 7 times

✉ **Born\_Again** 1 year, 4 months ago

C 100%

upvoted 1 times

✉ **ShaheedM** 1 year, 4 months ago

Selected Answer: C

Correct answer

upvoted 1 times

✉ **Shertster** 1 year, 5 months ago

correct

upvoted 1 times

✉ **radamelca** 1 year, 6 months ago

**Selected Answer: C**

Correct

upvoted 1 times

✉ **getiwad723** 1 year, 7 months ago

Correct answer

upvoted 1 times

A company named Contoso, Ltd. has an Azure Active Directory (Azure AD) tenant that is integrated with Microsoft 365 and an Azure subscription.

Contoso has an on-premises identity infrastructure. The infrastructure includes servers that run Active Directory Domain Services (AD DS) and Azure AD Connect.

Contoso has a partnership with a company named Fabrikam, Inc. Fabrikam has an Active Directory forest and a Microsoft 365 tenant.

Fabrikam has the same on-premises identity infrastructure components as Contoso.

A team of 10 developers from Fabrikam will work on an Azure solution that will be hosted in the Azure subscription of Contoso. The developers must be added to the Contributor role for a resource group in the Contoso subscription.

You need to recommend a solution to ensure that Contoso can assign the role to the 10 Fabrikam developers. The solution must ensure that the Fabrikam developers use their existing credentials to access resources.

What should you recommend?

- A. In the Azure AD tenant of Contoso, create cloud-only user accounts for the Fabrikam developers.
- B. Configure a forest trust between the on-premises Active Directory forests of Contoso and Fabrikam.
- C. Configure an organization relationship between the Microsoft 365 tenants of Fabrikam and Contoso.
- D. In the Azure AD tenant of Contoso, create guest accounts for the Fabrikam developers.

**Correct Answer: D**

You can use the capabilities in Azure Active Directory B2B to collaborate with external guest users and you can use Azure RBAC to grant just the permissions that guest users need in your environment.

Incorrect:

Not B: Forest trust is used for internal security, not external access.

Reference:

<https://docs.microsoft.com/en-us/azure/role-based-access-control/role-assignments-external-users>

*Community vote distribution*

D (94%) 4%

✉  **Gowind**  1 year, 7 months ago

**Selected Answer: D**

Answer is correct: <https://docs.microsoft.com/en-us/azure/active-directory/external-identities/what-is-b2b>

Collaborate with any partner using their identities

With Azure AD B2B, the partner uses their own identity management solution, so there is no external administrative overhead for your organization. Guest users sign in to your apps and services with their own work, school, or social identities.

The partner uses their own identities and credentials, whether or not they have an Azure AD account.

You don't need to manage external accounts or passwords.

You don't need to sync accounts or manage account lifecycles.

upvoted 26 times

✉  **Snownoodles**  1 year, 7 months ago

**Selected Answer: D**

B2B, use own password, guest

upvoted 6 times

✉  **Toschu**  6 months, 1 week ago

FYI: Since 2023 Q3 you would use cross tenant sync:

<https://learn.microsoft.com/en-us/azure/active-directory/multi-tenant-organizations/cross-tenant-synchronization-overview>

Users are created as B2B/members instead of member type Guest

upvoted 4 times

✉  **Muffay** 3 months ago

I do not agree, as the question is about 2 separate organizations.

> Who should use?

> Organizations that own multiple Microsoft Entra tenants and want to streamline intra-organization cross-tenant application access.

> Cross-tenant synchronization is not currently suitable for use across organizational boundaries.

Source: <https://learn.microsoft.com/en-us/entra/identity/multi-tenant-organizations/cross-tenant-synchronization-overview#who-should-use>  
upvoted 1 times

✉  **Exams\_Prep\_2021** 6 months, 2 weeks ago

Got this on Sept. 29, 2023

upvoted 2 times

✉ **lombri** 11 months, 2 weeks ago

**Selected Answer: D**

Creating guest accounts, Fabrikam users can use their existing Azure AD credentials to authenticate and access resources in Contoso's subscription. This solution ensures that there is no need for any additional infrastructure, such as a forest trust or organization relationship, between the two companies.

upvoted 2 times

✉ **gvh** 11 months, 3 weeks ago

Answer is D

Moderator please verify answer, name is written wrong of the company

upvoted 2 times

✉ **NotMeAnyWay** 1 year ago

**Selected Answer: D**

D. In the Azure AD tenant of Contoso, create guest accounts for the Fabrikam developers.

This solution allows Contoso to assign the necessary role to the Fabrikam developers while ensuring they can use their existing credentials to access resources. By creating guest accounts in Contoso's Azure AD tenant, you can establish a collaboration between the two organizations using Azure AD B2B (Business-to-Business). The guest accounts will enable Fabrikam developers to access the Contoso subscription with their existing credentials, providing a seamless and secure experience for cross-organization collaboration.

upvoted 2 times

✉ **johnD16** 1 year ago

Showed in exam 18.03.2023. correct  
passed 940/1000

upvoted 3 times

✉ **zellck** 1 year, 1 month ago

**Selected Answer: D**

D is the answer.

<https://learn.microsoft.com/en-us/azure/active-directory/external-identities/what-is-b2b>

Azure Active Directory (Azure AD) B2B collaboration is a feature within External Identities that lets you invite guest users to collaborate with your organization. With B2B collaboration, you can securely share your company's applications and services with external users, while maintaining control over your own corporate data. Work safely and securely with external partners, large or small, even if they don't have Azure AD or an IT department.

upvoted 4 times

✉ **cp2323** 1 year, 1 month ago

**Selected Answer: D**

Answer is correct  
upvoted 1 times

✉ **jameslee** 1 year, 1 month ago

compare external identities feature set at : <https://learn.microsoft.com/en-us/azure/active-directory/external-identities/external-identities-overview#comparing-external-identities-feature-sets>

upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: D**

D. In the Azure AD tenant of Contoso, create guest accounts for the Fabnkam developers.

ans is correct

Thanks to all who have mentioned the exam dates

upvoted 1 times

✉ **janvandermerwer** 1 year, 2 months ago

**Selected Answer: D**

D -

Devs won't have to change their passwords, using their own user credentials etc

upvoted 1 times

✉ **Ghoshy** 1 year, 3 months ago

Exam Question 12/28/2022

upvoted 4 times

✉ **mellowfella** 1 year, 3 months ago

**Selected Answer: D**

B2B collaboration user objects are typically given a user type of "guest" and can be identified by the #EXT# extension in their user principal name - below drawing in <https://docs.microsoft.com/en-us/azure/active-directory/external-identities/what-is-b2b>

upvoted 1 times

✉ **Born\_Again** 1 year, 4 months ago

**Selected Answer: B**

Answer is correct: <https://docs.microsoft.com/en-us/azure/active-directory/external-identities/what-is-b2b>  
upvoted 1 times

 **ronsav80** 1 year, 6 months ago

I think the cleanest answer is Tenant to Tenant Sharing in Azure AD External Identities, but that isn't an option  
upvoted 2 times

Your company has the divisions shown in the following table.

Division	Azure subscription	Azure Active Directory (Azure AD) tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.

You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1.

What should you recommend?

- A. Configure the Azure AD provisioning service.
- B. Enable Azure AD pass-through authentication and update the sign-in endpoint.
- C. Use Azure AD entitlement management to govern external users.
- D. Configure Azure AD join.

**Correct Answer: A**

You can enable automatic user provisioning for your multi-tenant application in Azure Active Directory.

Automatic user provisioning is the process of automating the creation, maintenance, and removal of user identities in target systems like your software-as-a-service applications.

Azure AD provides several integration paths to enable automatic user provisioning for your application.

\* The Azure AD Provisioning Service manages the provisioning and deprovisioning of users from Azure AD to your application (outbound provisioning) and from your application to Azure AD (inbound provisioning). The service connects to the System for Cross-Domain Identity Management (SCIM) user management API endpoints provided by your application.

\* Microsoft Graph

\* The Security Assertion Markup Language Just in Time (SAML JIT) user provisioning.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/app-provisioning/isv-automatic-provisioning-multi-tenant-apps>

*Community vote distribution*

C (100%)

✉  **Gowind**  1 year, 7 months ago

**Selected Answer: C**

Answer is C

The app is single tenant authentication so users must be present in contoso directory.

<https://docs.microsoft.com/en-us/azure/active-directory/develop/single-and-multi-tenant-apps>

With Azure AD B2B, external users authenticate to their home directory, but have a representation in your directory.

<https://docs.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-external-users>

A is wrong because it's to automate provisioning to third party SaaS app.

<https://docs.microsoft.com/en-us/azure/active-directory/app-provisioning/how-provisioning-works?source=recommendations>

B. is wrong because the application would need to switch to multi tenant..

<https://docs.microsoft.com/en-us/azure/active-directory/develop/howto-convert-app-to-be-multi-tenant>

upvoted 64 times

✉  **jj22222** 1 year, 1 month ago

c is right, i agree

upvoted 4 times

✉  **Snownoodles**  1 year, 7 months ago

**Selected Answer: C**

C is correct

<https://docs.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-external-users>

If App1 is multi-tenant application, A might be correct since you can provision users from other tenant to App1 and configure App1 to SSO with other tenants.

upvoted 14 times

✉  arunmariappan Most Recent ⓘ 4 weeks ago

**Selected Answer: C**

C is correct

upvoted 1 times

✉  BShelat 4 months ago

ChatGPT response summary:

Enabling users from the fabrikam.com Azure AD tenant to access App1, currently limited to contoso.com users, requires configuring Azure AD authentication to accommodate both tenants. While Option C, "Azure AD entitlement management," focuses on access governance and user lifecycle management, it doesn't directly address cross-tenant authentication needs. Instead, Option A, utilizing the Azure AD provisioning service, is recommended as it synchronizes users across Azure AD tenants, facilitating access to applications hosted in different tenants, making it a more suitable choice in this scenario.

upvoted 1 times

✉  Tplenty 4 months, 4 weeks ago

The answer is Use Azure AD entitlement management to govern external users, Exam topic need to make a correction

upvoted 1 times

✉  EdServ 7 months ago

Duplicated question. Same of question #35 and this has the correct answer "C"

upvoted 2 times

✉  Arun\_U 7 months, 2 weeks ago

**Selected Answer: C**

The correct answer is C. Use Azure AD entitlement management to govern external users.

Azure AD entitlement management is a feature that allows you to manage the access of external users to your organization's resources. You can use entitlement management to create access packages that define the resources that external users can access, the permissions they have to those resources, and the duration of their access.

upvoted 2 times

✉  Citizen 7 months, 4 weeks ago

<https://docs.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-external-users>

upvoted 1 times

✉  GolfGti 7 months, 4 weeks ago

**Selected Answer: C**

C is the correct answer

upvoted 1 times

✉  eh\_36 8 months, 2 weeks ago

**Selected Answer: C**

Other answers do not allow the users to access the app.

upvoted 1 times

✉  m1dp 8 months, 2 weeks ago

**Selected Answer: C**

Answer is C.

upvoted 1 times

✉  Nyahyong 8 months, 2 weeks ago

This question needs to be reviewed considering that it is the same question in Q. 35 with (C) as right answer. So I vote C as the right answer.

upvoted 1 times

✉  obllew 8 months, 4 weeks ago

This is one company with two divisions; why would they need to use entitlement management and make them request access packages etc as though they were an external org? Why not just make App1 registration multi-tenant and make the app trust the 2 issuers (I know that's not an option)

upvoted 3 times

✉  sw1000 10 months, 3 weeks ago

**Selected Answer: C**

C is the correct answer. I don't understand why A was proposed and upvoted. We are talking about a single-tenant app and therefore we need to establish B2B collaboration and use entitlements for external users as described here:

<https://learn.microsoft.com/en-us/azure/active-directory/external-identities/what-is-b2b#customize-the-onboarding-experience-for-b2b-guest-users>

upvoted 3 times

✉  zzreflexzz 11 months, 2 weeks ago

on exam 5/2/23

upvoted 2 times

 **cluqueg** 1 year ago

**Selected Answer: C**

This question is duplicated with 35 that proposes C.

upvoted 2 times

 **winy** 1 year ago

This was on 4/1/23 exam

upvoted 3 times

**HOTSPOT -**

Your company has 20 web APIs that were developed in-house.

The company is developing 10 web apps that will use the web APIs. The web apps and the APIs are registered in the company's Azure Active Directory (Azure AD) tenant. The web APIs are published by using Azure API Management.

You need to recommend a solution to block unauthorized requests originating from the web apps from reaching the web APIs. The solution must meet the following requirements:

- Use Azure AD-generated claims.

Minimize configuration and management effort.

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Grant permissions to allow the web apps to access the web APIs by using:

Azure AD
Azure API Management
The web APIs

Configure a JSON Web Token (JWT) validation policy by using:

Azure AD
Azure API Management
The web APIs

**Correct Answer:****Answer Area**

Grant permissions to allow the web apps to access the web APIs by using:

Azure AD
Azure API Management
The web APIs

Configure a JSON Web Token (JWT) validation policy by using:

Azure AD
Azure API Management
The web APIs

Box 1: Azure AD -

Grant permissions in Azure AD.

Box 2: Azure API Management -

Configure a JWT validation policy to pre-authorize requests.

Pre-authorize requests in API Management with the Validate JWT policy, by validating the access tokens of each incoming request. If a request does not have a valid token, API Management blocks it.

Reference:

<https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-protect-backend-with-aad>

 **Gowind** Highly Voted 1 year, 7 months ago

Corrects

<https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-protect-backend-with-aad>

Authorization workflow

A user or application acquires a token from Azure AD with permissions that grant access to the backend-app.

The token is added in the Authorization header of API requests to API Management.

API Management validates the token by using the validate-jwt policy.

If a request doesn't have a valid token, API Management blocks it.

If a request is accompanied by a valid token, the gateway can forward the request to the API.

<https://docs.microsoft.com/en-us/azure/api-management/api-management-access-restriction-policies#ValidateJWT>

upvoted 37 times

✉  **Xinx**  1 year, 6 months ago

This appears in my test at July 30th

upvoted 12 times

✉  **varinder82**  2 weeks ago

Final Answer:

1. Azure AD
2. Azure API Management

upvoted 1 times

✉  **nav109** 4 months, 3 weeks ago

This question appeared on my Exam today 11/17/2023

upvoted 5 times

✉  **johnD16** 1 year ago

Showed in exam 18.03.2023. correct

passed 940/1000

upvoted 9 times

✉  **zellck** 1 year, 1 month ago

1. Azure AD
2. Azure API Management

<https://learn.microsoft.com/en-us/azure/api-management/api-management-howto-protect-backend-with-aad>

<https://learn.microsoft.com/en-us/azure/api-management/validate-jwt-policy>

upvoted 7 times

✉  **OPT\_001122** 1 year, 2 months ago

the ans is correct

upvoted 1 times

✉  **OPT\_001122** 1 year, 2 months ago

key factor is Your company has 20 web APIs ,.. so it requires API management for 20 web apis

upvoted 3 times

✉  **janvandermerwer** 1 year, 2 months ago

AzureAD

<https://learn.microsoft.com/en-us/azure/api-management/api-management-howto-protect-backend-with-aad>

Azure API management

<https://learn.microsoft.com/en-us/azure/api-management/api-management-policies>

"Validate JWT - Enforces existence and validity of a JWT extracted from either a specified HTTP Header, query parameter, or token value."

upvoted 2 times

✉  **NarasimhanMV** 1 year, 5 months ago

Ans - correct

upvoted 1 times

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

- A. Azure Log Analytics
- B. Azure Arc
- C. Azure Analysis Services
- D. Application Insights

**Correct Answer: A**

The Activity log is a platform log in Azure that provides insight into subscription-level events. Activity log includes such information as when a resource is modified or when a virtual machine is started.

Activity log events are retained in Azure for 90 days and then deleted.

For more functionality, you should create a diagnostic setting to send the Activity log to one or more of these locations for the following reasons: to Azure Monitor Logs for more complex querying and alerting, and longer retention (up to two years) to Azure Event Hubs to forward outside of Azure to Azure Storage for cheaper, long-term archiving

Note: Azure Monitor builds on top of Log Analytics, the platform service that gathers log and metrics data from all your resources. The easiest way to think about it is that Azure Monitor is the marketing name, whereas Log Analytics is the technology that powers it.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/essentials/activity-log>

*Community vote distribution*

A (100%)

✉  **Rogercampos** Highly Voted  1 year, 2 months ago

Same question as 13 in this topic, different alternatives  
upvoted 10 times

✉  **ALEX\_PARIS** Most Recent  4 months, 1 week ago

I suspect a wording error in the exam because Activity Log has definitely not the same purpose than Log Analytics. Question don't talks about metrics analysis but about reporting on deployments ... perhaps they was thinking about metrics generated by all deployed resources but in that case the question is ambiguous  
upvoted 2 times

✉  **Cdon** 6 months, 2 weeks ago

I'm not sure activity log is same as log analytics. The answer is correct but options is not there  
upvoted 3 times

✉  **NotMeAnyWay** 1 year ago

Selected Answer: A  
A. Azure Log Analytics

Azure Log Analytics is a powerful tool for collecting, analyzing, and querying log data from various Azure resources, including Azure Resource Manager (ARM) deployments. By creating a custom query in Azure Log Analytics, you can generate a monthly report of all the new ARM resource deployments in your Azure subscription. This will allow you to monitor and analyze resource deployment activities and trends over time.  
upvoted 4 times

✉  **zellck** 1 year, 1 month ago

Selected Answer: A  
A is the answer.

<https://learn.microsoft.com/en-us/azure/azure-monitor/logs/log-analytics-tutorial>

Log Analytics is a tool in the Azure portal to edit and run log queries from data collected by Azure Monitor logs and interactively analyze their results. You can use Log Analytics queries to retrieve records that match particular criteria, identify trends, analyze patterns, and provide various insights into your data.  
upvoted 3 times

✉  **OPT\_001122** 1 year, 2 months ago

Selected Answer: A  
A. Azure Log Analytics

Thanks to all who have mentioned the exam dates

upvoted 3 times

✉  **janvandermerwer** 1 year, 2 months ago

**Selected Answer: A**

A is the "most" accurate solution.

upvoted 1 times

✉  **Born\_Again** 1 year, 4 months ago

**Selected Answer: A**

Activity log->log analytic workspace

upvoted 2 times

✉  **Snownoodles** 1 year, 5 months ago

**Selected Answer: A**

Activity log->log analytic workspace

upvoted 2 times

✉  **Darkx** 1 year, 6 months ago

appeared on 11th Oct 2022

upvoted 4 times

✉  **most\_lenyora** 1 year, 7 months ago

**Selected Answer: A**

A is correct

upvoted 4 times

Your company has the divisions shown in the following table.

Division	Azure subscription	Azure Active Directory (Azure AD) tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.

You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1.

What should you recommend?

- A. Configure the Azure AD provisioning service.
- B. Configure assignments for the fabrikam.com users by using Azure AD Privileged Identity Management (PIM).
- C. Use Azure AD entitlement management to govern external users.
- D. Configure Azure AD Identity Protection.

**Correct Answer: C**

Entitlement management is an identity governance capability that enables organizations to manage identity and access lifecycle at scale by automating access request workflows, access assignments, reviews, and expiration. Entitlement management allows delegated non-admins to create access packages that external users from other organizations can request access to. One and multi-stage approval workflows can be configured to evaluate requests, and provision users for time-limited access with recurring reviews. Entitlement management enables policy-based provisioning and deprovisioning of external accounts.

Note: Access Packages -

An access package is the foundation of entitlement management. Access packages are groupings of policy-governed resources a user needs to collaborate on a project or do other tasks. For example, an access package might include: access to specific SharePoint sites, enterprise applications including your custom in-house and SaaS apps like Salesforce.

Microsoft Teams.

Microsoft 365 Groups.

Incorrect:

Not A: Automatic provisioning refers to creating user identities and roles in the cloud applications that users need access to. In addition to creating user identities, automatic provisioning includes the maintenance and removal of user identities as status or roles change.

Not B: Privileged Identity Management provides time-based and approval-based role activation to mitigate the risks of excessive, unnecessary, or misused access permissions on resources that you care about. Here are some of the key features of Privileged Identity Management:

Provide just-in-time privileged access to Azure AD and Azure resources

Assign time-bound access to resources using start and end dates

Etc.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/6-secure-access-entitlement-managment>

<https://docs.microsoft.com/en-us/azure/active-directory/app-provisioning/how-provisioning-works> <https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-configure>

*Community vote distribution*

C (100%)

✉️  **santi1975**  1 year, 7 months ago

Selected Answer: A

This is exactly question 32, and in the 32 question the answer is A (what makes sense BTW). This is ridiculous.

upvoted 21 times

✉️  **Gowind**  1 year, 7 months ago

**Selected Answer: C**

Correct

Application is single tenant so users must be in the same directory as the home tenant  
<https://docs.microsoft.com/en-us/azure/active-directory/develop/single-and-multi-tenant-apps>

<https://docs.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-external-users>  
Azure AD entitlement management uses Azure AD business-to-business (B2B) to share access so you can collaborate with people outside your organization. With Azure AD B2B, external users authenticate to their home directory, but have a representation in your directory.

A is for populated users to SaaS applications (third party like Dropbox or Salesforce), but the users must first be in the directory....  
upvoted 18 times

✉ **KaoticShadow** Most Recent 8 months, 3 weeks ago

**Selected Answer: C**

I used to think the answer was A until I read this

There are three ways that entitlement management lets you specify the users that form a connected organization. It could be

- users in another Azure AD directory (from any Microsoft cloud),
- users in another non-Azure AD directory that has been configured for direct federation, or
- users in another non-Azure AD directory, whose email addresses all have the same domain name in common.

So the answer should be C because of the first option of the three from the article <https://learn.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-organization>

upvoted 3 times

✉ **imjoel** 9 months, 3 weeks ago

**Selected Answer: C**

C is correct

upvoted 1 times

✉ **zellck** 1 year, 1 month ago

Same as Question 38.

<https://www.examtopics.com/discussions/microsoft/view/93994-exam-az-305-topic-1-question-38-discussion>

upvoted 1 times

✉ **zellck** 1 year, 1 month ago

**Selected Answer: C**

C is the answer.

C is the answer.

<https://learn.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-overview#what-can-i-do-with-entitlement-management>

Here are some of capabilities of entitlement management:

- Select connected organizations whose users can request access. When a user who isn't yet in your directory requests access, and is approved, they're automatically invited into your directory and assigned access. When their access expires, if they have no other access package assignments their B2B account in your directory can be automatically removed.

upvoted 3 times

✉ **C\_M\_M** 11 months, 3 weeks ago

You are describing Access package right?

In Access package you grant access to specific individuals to particular resources for a limited time. And you do it manually.

This question seems to be referring to blanket access to users on the other tenant. Seems more like what user provisioning can do.

user provisioning can provision users from external SaaS application, I don't see why it cannot do that for another tenant in Azure AD.  
upvoted 1 times

✉ **cp2323** 1 year, 2 months ago

**Selected Answer: C**

CORRECT ANSWER

upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: C**

C. Use Azure AD entitlement management to govern external users.

upvoted 1 times

✉ **janvandermerwer** 1 year, 2 months ago

**Selected Answer: C**

Correct.

B2B functionality between the Two azure ad tenants.

i.e user logs authenticates to their tenant, which is then provided access to the application tenant.

<https://learn.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-external-users>

upvoted 1 times

askumar17 1 year, 3 months ago

Option C - Entitlement Management is the right answer.

Refer the Recommendation section on below link for more details. " For projects with one or more business partners, Create and use access packages to onboard and provision those partner's users access to resources."

<https://learn.microsoft.com/en-us/azure/active-directory/fundamentals/6-secure-access-entitlement-managment>

Option A - Access provision looks suitable option, but its not right answer to the scenarios. Access provision suitable for apps that maintains its own password store. Refer App provisioning section in below link for the clarity

<https://learn.microsoft.com/en-us/azure/active-directory/governance/what-is-provisioning>

upvoted 1 times

Guest 1 year, 3 months ago

The answer C is no longer valid. Had this one on my exam today and it had different options

Don't recall what the correct answer was

upvoted 1 times

Snownoodles 1 year, 7 months ago

**Selected Answer: C**

"App1 uses Azure AD for single-tenant user authentication" - SINGLE-TENANT

So A is incorrect.

C is the correct answer:

<https://docs.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-external-users>

upvoted 7 times

Snownoodles 1 year, 7 months ago

Please read this link for "single-tenant" and "multi-tenant":

<https://docs.microsoft.com/en-us/azure/active-directory/develop/single-and-multi-tenant-apps>

upvoted 1 times

C\_M\_M 11 months, 3 weeks ago

Single tenant simply means that only users in the present tenant can use it by default. it doesn't mean users in other tenants cannot be provisioned into the app via User provisioning.

It also doesn't mean that the app cannot connect with single sign-on from other applications like google, facebook etc if configured to do so. My point being - A single tenant app doesn't mean any other means of connecting to external identities becomes impossible. it simply speaks to default.

upvoted 1 times

C\_M\_M 11 months, 3 weeks ago

Correct me if I am wrong, but I don't understand how Access Package (entitlement management) is the solution to this question based on the fact that it is designed to give specific users temporal access to specific resources, and not a blanket solution to grant access to external tenants

upvoted 1 times

BShelat 4 months, 1 week ago

fyi - Single tenant AND multi tenant terms in Azure are meant for application type NOT for user type.

upvoted 1 times

Amaliijoonz 1 year, 7 months ago

isn't that supposed to be Azure AD provisioning service?

upvoted 5 times

Saffar 1 year, 7 months ago

I think the correct answer is A.

<https://docs.microsoft.com/en-us/azure/active-directory/app-provisioning/isv-automatic-provisioning-multi-tenant-apps>

C is wrong, Entitlement management is an identity governance capability that enables organizations to manage identity and access lifecycle at scale by automating access request workflows, access assignments, reviews, and expiration.

upvoted 5 times

Babonamaki 1 year, 7 months ago

This one is tricky. The question says the app is single tenant. Thoughts?

upvoted 1 times

Snownoodles 1 year, 7 months ago

C is correct:

"Azure AD entitlement management uses Azure AD business-to-business (B2B) to share access so you can collaborate with people outside your organization. With Azure AD B2B, external users authenticate to their home directory, but have a representation in your directory. The representation in your directory enables the user to be assigned access to your resources"

The link you provided is for "multi-tenant-apps", not for "single-tenant"

upvoted 4 times

You are developing an app that will read activity logs for an Azure subscription by using Azure Functions.

You need to recommend an authentication solution for Azure Functions. The solution must minimize administrative effort.

What should you include in the recommendation?

- A. an enterprise application in Azure AD
- B. system-assigned managed identities
- C. shared access signatures (SAS)
- D. application registration in Azure AD

**Correct Answer: B**

*Community vote distribution*

B (100%)

✉️  NotMeAnyWay Highly Voted 1 year ago

**Selected Answer: B**

B. System-assigned managed identities

System-assigned managed identities provide a way for Azure Functions to authenticate to other Azure services, such as Activity Logs, without the need for storing or managing secrets. This approach minimizes administrative effort because the identity is tied directly to the Azure Functions service and is automatically managed by Azure. When the Azure Functions instance is deleted, the associated managed identity will also be removed. This simplifies the authentication process and helps improve the security posture of your app.

upvoted 18 times

✉️  zellck Highly Voted 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview>

A common challenge for developers is the management of secrets, credentials, certificates, and keys used to secure communication between services. Managed identities eliminate the need for developers to manage these credentials.

System-assigned. Some Azure resources, such as virtual machines allow you to enable a managed identity directly on the resource. When you enable a system-assigned managed identity:

- A service principal of a special type is created in Azure AD for the identity. The service principal is tied to the lifecycle of that Azure resource. When the Azure resource is deleted, Azure automatically deletes the service principal for you.
- By design, only that Azure resource can use this identity to request tokens from Azure AD.
- You authorize the managed identity to have access to one or more services.
- The name of the system-assigned service principal is always the same as the name of the Azure resource it is created for.

upvoted 7 times

✉️  zellck 1 year, 1 month ago

<https://learn.microsoft.com/en-us/training/modules/design-authentication-authorization-solutions/9-one-design-managed-identities>

System-assigned: Some Azure services allow you to enable a managed identity directly on a service instance. When you enable a system-assigned managed identity, an identity is created in Azure AD that's tied to the lifecycle of that service instance. When the resource is deleted, Azure automatically deletes the identity. By design, only that Azure resource can use that identity to request tokens from Azure AD.

upvoted 1 times

✉️  ZUMY Most Recent 1 year ago

B is correct

upvoted 1 times

✉️  Ivanvazovv 1 year, 2 months ago

Azure Functions provide a Managed Identity and since the question is about Azure Functions not about the App being developed, the correct answer is B.

upvoted 3 times

✉️  OPT\_001122 1 year, 2 months ago

**Selected Answer: B**

B. system-assigned managed identities

reduce administrative efforts - B makes more sense

upvoted 3 times

✉  **janvandermerwer** 1 year, 2 months ago

**Selected Answer: B**

B makes the most sense.

<https://learn.microsoft.com/en-us/azure/azure-functions/security-concepts?tabs=v4>

<https://learn.microsoft.com/en-us/azure/app-service/overview-authentication-authorization>

upvoted 3 times

✉  **Bummer\_boy** 1 year, 2 months ago

**Selected Answer: B**

No doubts here

upvoted 2 times

✉  **lmy** 1 year, 3 months ago

Should be A

upvoted 1 times

✉  **[Removed]** 1 year, 3 months ago

Correct

upvoted 1 times

✉  **maku067** 1 year, 3 months ago

**Selected Answer: B**

Seems correct.

upvoted 1 times

✉  **Aziza\_Adam** 1 year, 3 months ago

A first you need to register the App

upvoted 2 times

✉  **IRISone** 1 year, 3 months ago

it doesn't say what needs to be done, but what is to be recommended. It's designing. B is correct

upvoted 1 times

✉  **darthfodio** 1 year, 2 months ago

Right, it also says you need to recommend an "authentication" solution.

upvoted 1 times

✉  **Clarkszw** 1 year, 3 months ago

B, tested in the lab! :p

upvoted 2 times

Your company has the divisions shown in the following table.

Division	Azure subscription	Azure AD tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.

You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1.

What should you recommend?

- A. Configure Azure AD join.
- B. Use Azure AD entitlement management to govern external users.
- C. Enable Azure AD pass-through authentication and update the sign-in endpoint.
- D. Configure assignments for the fabrikam.com users by using Azure AD Privileged Identity Management (PIM).

**Correct Answer: B**

*Community vote distribution*

B (100%)

✉️  **OPT\_001122**  1 year, 2 months ago

**Selected Answer: B**

B. Use Azure AD entitlement management to govern external users.  
many times repeated  
upvoted 8 times

✉️  **reddyreddy** 6 months, 3 weeks ago

that's correct  
upvoted 1 times

✉️  **zellck**  1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-overview#what-can-i-do-with-entitlement-management>

Here are some of capabilities of entitlement management:

- Select connected organizations whose users can request access. When a user who isn't yet in your directory requests access, and is approved, they're automatically invited into your directory and assigned access. When their access expires, if they have no other access package assignments their B2B account in your directory can be automatically removed.

upvoted 5 times

✉️  **Exams\_Prep\_2021**  6 months, 2 weeks ago

Got this on Sept. 29, 2023  
upvoted 1 times

✉️  **evangelist** 8 months, 1 week ago

yes I checked documentation it is B  
upvoted 1 times

✉️  **zzreflexzz** 11 months, 2 weeks ago

on exam 5/2/23  
upvoted 2 times

✉️  **zellck** 1 year, 1 month ago

Same as Question 38.  
<https://www.examtopics.com/discussions/microsoft/view/93994-exam-az-305-topic-1-question-38-discussion>  
upvoted 1 times

 **klwood2000** 9 months ago

And 35.

upvoted 1 times

 **Kyniska** 8 months ago

and 32

upvoted 2 times

 **VBK8579** 1 year, 2 months ago

B. Use Azure AD entitlement management to govern external users.

upvoted 3 times

 **lmy** 1 year, 3 months ago

Same as Q32

upvoted 3 times

 **maku067** 1 year, 3 months ago

**Selected Answer: B**

Seems correct.

upvoted 2 times

 **Aziza\_Adam** 1 year, 3 months ago

Indeed B is correct

upvoted 2 times

 **IRISone** 1 year, 3 months ago

B is correct

upvoted 3 times

Your company has the divisions shown in the following table.

Division	Azure subscription	Azure AD tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.

You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1.

What should you recommend?

- A. Configure Azure AD join.
- B. Configure Azure AD Identity Protection.
- C. Use Azure AD entitlement management to govern external users.
- D. Configure assignments for the fabrikam.com users by using Azure AD Privileged Identity Management (PIM).

**Correct Answer: C**

*Community vote distribution*

C (100%)

✉️  **IRISone** Highly Voted 1 year, 3 months ago

4th time reading this question. What is going on?

upvoted 51 times

✉️  **Clarkszw** Highly Voted 1 year, 3 months ago

**Selected Answer: C**

When you reach here, this question will no longer be challenging.

upvoted 34 times

✉️  **niket67** 4 months, 1 week ago

Hahaha, that's for sure. ;)

upvoted 2 times

✉️  **Tplenty** Most Recent 5 months ago

I guess the repetition is to write the wrong to the wrong answer they provided in question 32, they realized that the correct answer is to Use Azure AD entitlement management to govern external users.

upvoted 1 times

✉️  **Flash** 5 months, 1 week ago

C is the good answer

upvoted 1 times

✉️  **zellck** 1 year, 1 month ago

**Selected Answer: C**

C is the answer.

<https://learn.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-overview#what-can-i-do-with-entitlement-management>

Here are some of capabilities of entitlement management:

- Select connected organizations whose users can request access. When a user who isn't yet in your directory requests access, and is approved, they're automatically invited into your directory and assigned access. When their access expires, if they have no other access package assignments their B2B account in your directory can be automatically removed.

upvoted 3 times

✉️  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: C**

C. Use Azure AD entitlement management to govern external users.

exact question should be repeated 4 times in exam as well

upvoted 3 times

✉  **maku067** 1 year, 3 months ago

Selected Answer: C

Seems correct.

upvoted 2 times

✉  **Aziza\_Adam** 1 year, 3 months ago

C is correct

upvoted 2 times

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

- A. Azure Activity Log
- B. Azure Arc
- C. Azure Analysis Services
- D. Azure Monitor metrics

**Correct Answer: A**

*Community vote distribution*

A (100%)

✉  **mleez**  1 year, 2 months ago  
repeated question, 3rd time reading.. Answer is A.  
upvoted 16 times

✉  **[Removed]**  3 months, 1 week ago  
**Selected Answer: A**  
This question has two variants up to this point.  
If you don't see Log Analytics Workspace in the answer section, choose Azure Activity log. If you don't see Activity Log, choose LA.  
upvoted 3 times

✉  **nav109** 4 months, 3 weeks ago  
This question appeared on my Exam today 11/17/2023  
upvoted 1 times

✉  **musmas82473** 8 months, 3 weeks ago  
echo echo echo....  
upvoted 4 times

✉  **NotMeAnyWay** 1 year ago  
**Selected Answer: A**  
A. Azure Activity Log

Azure Activity Log provides insights into subscription-level events that have occurred in your Azure account. It includes information about resource creation, deletion, and modification events, making it an excellent choice for monitoring new ARM resource deployments in your Azure subscription. You can export the Activity Log data to a storage account, Event Hubs, or Log Analytics workspace for further analysis and reporting. By creating a custom query or using the built-in tools for filtering and visualization, you can generate a monthly report of all the new ARM resource deployments in your Azure subscription.

upvoted 4 times

✉  **zellck** 1 year, 1 month ago  
**Selected Answer: A**  
A is the answer.

<https://learn.microsoft.com/en-us/azure/azure-monitor/essentials/activity-log?tabs=powershell>  
The Azure Monitor activity log is a platform log in Azure that provides insight into subscription-level events. The activity log includes information like when a resource is modified or a virtual machine is started.  
upvoted 3 times

✉  **OPT\_001122** 1 year, 2 months ago  
**Selected Answer: A**  
A. Azure Activity Log

repeated question  
upvoted 3 times

✉  **mitya** 1 year, 2 months ago  
**Selected Answer: A**  
Azure activity log contains required data.  
upvoted 2 times

✉️  **janvandermerwer** 1 year, 2 months ago

**Selected Answer: A**

Azure activity log is definitely the go to for this one.

upvoted 2 times

✉️  **janvandermerwer** 1 year, 2 months ago

<https://learn.microsoft.com/en-us/azure/active-directory/reports-monitoring/concept-audit-logs>

upvoted 1 times

**HOTSPOT**

You have an Azure subscription that contains an Azure key vault named KV1 and a virtual machine named VM1. VM1 runs Windows Server 2022: Azure Edition.

You plan to deploy an ASP.NET Core-based application named App1 to VM1.

You need to configure App1 to use a system-assigned managed identity to retrieve secrets from KV1. The solution must minimize development effort.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Configure App1 to use OAuth 2.0:

Authorization code grant flows  
Client credentials grant flows  
Implicit grant flows

Configure App1 to use a REST API call to retrieve an authentication token from the:

Azure Instance Metadata Service (IMDS) endpoint  
OAuth 2.0 access token endpoint of Azure AD  
OAuth 2.0 access token endpoint of Microsoft Identity Platform

**Answer Area**

Configure App1 to use OAuth 2.0:

Authorization code grant flows  
Client credentials grant flows  
Implicit grant flows

Correct Answer:

Configure App1 to use a REST API call to retrieve an authentication token from the:

Azure Instance Metadata Service (IMDS) endpoint  
OAuth 2.0 access token endpoint of Azure AD  
OAuth 2.0 access token endpoint of Microsoft Identity Platform

✉  **sieira** Highly Voted  8 months, 4 weeks ago

the second answer is no correct. The correct answers are these

1. Client credentials grant flows
2. Azure Instance Metadata (IMDS) endpoint

The key difference in this scenario is that we are using a Managed Identity, which is a feature of Azure AD, and in that case, access tokens are obtained through the Azure Instance Metadata Service (IMDS) API. The managed identity is responsible for managing the lifecycle of these credentials.

Therefore, for the case of an application in an Azure VM that uses a managed identity to authenticate with Key Vault, the IMDS would be used, not an OAuth 2.0 endpoint directly.

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/how-to-use-vm-token#get-a-token-using-http>  
upvoted 26 times

✉  **WeepingMaplte** 2 months, 2 weeks ago

Reference to the answers

<https://learn.microsoft.com/en-us/entra/identity/managed-identities-azure-resources/how-managed-identities-work-vm?source=recommendations#:~:text=Your%20code%20that%27s%20running%20on%20the%20VM%20can%20request%20a%20token%20from%20the%20Azure%20Instance%20Metadata%20Service%20Identity%20endpoint%2C%20accessible%20only%20from%20within%20the%20VM%3A%20http%3A//169.254.169.254/metadata/identity/oauth2/token>

upvoted 2 times

✉  **GarryK** Highly Voted  1 year, 2 months ago

(a.k.a.Gowind)

Answers are corrects.

We need server based authentication so client credentials is to be used.

<https://learn.microsoft.com/en-us/azure/active-directory/develop/v2-oauth2-auth-code-flow>

<https://learn.microsoft.com/en-us/azure/active-directory/develop/v2-oauth2-client-creds-grant-flow>

Also prefer AAD , because Microsoft Identity Platform is user based

<https://learn.microsoft.com/en-us/azure/active-directory/develop/v2-overview>

upvoted 14 times

✉️  **mmarkiew** 4 months, 4 weeks ago

Microsoft Identity Platform supports daemons and the client credentials grant flow. It isn't limited to users only.

<https://learn.microsoft.com/en-us/entra/identity-platform/scenario-daemon-overview>

upvoted 1 times

✉️  **BShelat** 4 months, 1 week ago

I think your explanation suites for the communication between web client app and Azure based web server. Here the ask is about retrieve secrets for Azure resource key vault from app1 on Azure resource VM. Based on following link I think MDS point for 2nd area of answer section seems to be correct answer as under "Access Data" Section of the link PowerShell request "Response = Invoke-RestMethod -Uri '[' -Method GET -Headers @{Metadata="true"}" clearly shows path to metadata.](http://169.254.169.254/metadata/identity/oauth2/token?api-version=2018-02-01&resource=https%3A%2F%2Fvault.azure.net)

<https://learn.microsoft.com/en-us/entra/identity/managed-identities-azure-resources/tutorial-windows-vm-access-nonaad>

upvoted 1 times

✉️  **varinder82** Most Recent 2 weeks ago

Final Answer:

1. Client credentials grant flows
2. Azure Instance Metadata (IMDS) endpoint

upvoted 2 times

✉️  **LuisB88** 2 months, 3 weeks ago

Am I missing something ? I don't see this type of informations on the modules of MS learn AZ305.

upvoted 7 times

✉️  **peterp007** 3 months, 1 week ago

1. Client credentials grant flows
2. Azure Instance Metadata (IMDS) endpoint

<https://learn.microsoft.com/en-us/entra/identity/managed-identities-azure-resources/how-managed-identities-work-vm?source=recommendations>

upvoted 2 times

✉️  **Cristian\_** 3 months, 3 weeks ago

1. Client Credentials Grant Flows
2. Azure Instance Metadata (IMDS) Endpoint

IMDS is an endpoint that allows the VM retrieve its own Token using System Managed Identity

Ref: <https://learn.microsoft.com/en-us/entra/identity/managed-identities-azure-resources/tutorial-windows-vm-access-nonaad>

upvoted 2 times

✉️  **husam421** 6 months, 2 weeks ago

Azure Instance Metadata (IMDS) endpoint

Get a token using HTTP

The fundamental interface for acquiring an access token is based on REST, making it accessible to any client application running on the VM that can make HTTP REST calls. This approach is similar to the Microsoft Entra programming model, except the client uses an endpoint on the virtual machine (vs a Microsoft Entra endpoint).

Sample request using the Azure Instance Metadata Service (IMDS) endpoint (recommended)

upvoted 1 times

✉️  **Elecktrus** 6 months, 2 weeks ago

Question2 must be Azure Instance Metadata (IMDS) endpoint

<https://learn.microsoft.com/en-us/entra/identity/managed-identities-azure-resources/tutorial-windows-vm-access-nonaad>

Basically, you need obtain the info of the system-managed identity (including the token). So you must call IMDS to get info about your local machine. That info includes the token that you will use to access the key vault. Calling IMDS is a local call (that is, a localhost) so there isn't security problem though it is http (not https)

upvoted 1 times

✉️  **Gato\_Pirao** 6 months, 3 weeks ago

2. REST API call to retrieve token from IMDS

I'm not an expert but this is the reference I found:

<https://learn.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/how-to-use-vm-token#get-a-token-using-http>

upvoted 1 times

✉️  **Red0101** 7 months ago

Client credential grant flows  
Azure Instance Metadata Service (IMDS) endpoint  
<https://learn.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/how-managed-identities-work-vm>  
upvoted 2 times

✉ **dave22339** 8 months, 3 weeks ago

I don't understand this yet BUT "IMDS is not a channel for sensitive data. The API is unauthenticated and open to all processes on the VM."  
<https://learn.microsoft.com/en-us/azure/virtual-machines/instance-metadata-service?tabs=windows#security-and-authentication>. Some folk have suggested IMDS as a correct answer and surely that can't be right.  
upvoted 4 times

✉ **NK19** 8 months, 3 weeks ago

According to this tutorial: <https://learn.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-nonaad>  
The second box should be "Azure Instance Metadata Service (IMDS) endpoint" as that will give you the access token to get the secret from the key vault, using the managed identity of the VM.  
upvoted 2 times

✉ **MrAZ105** 11 months, 1 week ago

how many questions(what percentage) from ET come in real exam  
upvoted 1 times

✉ **betterthanlife** 11 months, 1 week ago

I have no idea as for percentage but for me (& I suspect most), enough.  
upvoted 2 times

✉ **betterthanlife** 11 months, 1 week ago

Oh, but you still need to vet for yourself some that have conflicting or incorrect responses, which is < 5% if even 2-3% of them.  
upvoted 3 times

✉ **Bigbluee** 1 year ago

Access resources within the same Azure AD tenant as the managed identity - IDMS can be simpler and more efficient, as it avoids the need to make an additional request to the AAD OAuth2 token endpoint.  
upvoted 2 times

✉ **4PHL** 1 year, 1 month ago

I think "Authorization flows" and "OAuth 2.0 access token endpoint of Microsoft Identity Platform".

The OAuth 2.0 authorization code flow is described in section 4.1 of the OAuth 2.0 specification. Apps using the OAuth 2.0 authorization code flow acquire an access\_token to include in requests to resources protected by the Microsoft identity platform (typically APIs).

<https://learn.microsoft.com/en-us/azure/active-directory/develop/v2-oauth2-auth-code-flow>

And not "implicit grant flow":

With the plans for removing third party cookies from browsers, the implicit grant flow is no longer a suitable authentication method. The silent single sign-on (SSO) features of the implicit flow do not work without third party cookies, causing applications to break when they attempt to get a new token. We strongly recommend that all new applications use the authorization code flow that now supports single-page apps in place of the implicit flow.

See <https://learn.microsoft.com/en-us/azure/active-directory/develop/v2-oauth2-implicit-grant-flow>

upvoted 1 times

✉ **zellck** 1 year, 1 month ago

1. Client credentials grant flows  
2. OAuth 2.0 access token endpoint of Azure AD

<https://learn.microsoft.com/en-us/azure/active-directory/develop/v2-oauth2-client-creds-grant-flow>

In the client credentials flow, permissions are granted directly to the application itself by an administrator. When the app presents a token to a resource, the resource enforces that the app itself has authorization to perform an action since there is no user involved in the authentication.  
upvoted 8 times

✉ **chessace2000** 1 year, 2 months ago

This is a horrible question. The question states 'you need to configure App1 to use a system-assigned managed identity ', which would imply 'use Azure instances metadata service' in box two, but no option in box1 would then match box2

upvoted 4 times

✉ **karlax123** 1 year, 2 months ago

You are right This link confirms it - <https://aztoso.com/security/oauth2-managed-identities/>. Due to no proper corresponding answer in first list box, I guess we need to go with the answers provided as they seem correct too!

upvoted 1 times

Your company has the divisions shown in the following table.

Division	Azure subscription	Azure AD tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.

You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1.

What should you recommend?

- A. Configure Azure AD join.
- B. Configure Azure AD Identity Protection.
- C. Configure a Conditional Access policy.
- D. Configure Supported account types in the application registration and update the sign-in endpoint.

**Correct Answer: D**

*Community vote distribution*

D (100%)

✉️  **OPT\_001122**  1 year, 2 months ago

**Selected Answer: D**

This question is repeated 5th time but this time the answers are different

D. Configure Supported account types in the application registration and update the sign-in endpoint.  
upvoted 26 times

✉️  **jimmyym1**  1 year, 2 months ago

From chatgpt,

D. Configure Supported account types in the application registration and update the sign-in endpoint.

To enable users in the fabrikam.com tenant to authenticate to App1, you need to configure the application registration for App1 in Azure AD to support users from both contoso.com and fabrikam.com. This can be done by updating the "Supported account types" in the application registration to allow users from any organizational directory (Any Azure AD directory - Multitenant). Once this is done, you need to update the sign-in endpoint for the application to include the fabrikam.com tenant.

This will allow users from the fabrikam.com tenant to authenticate to App1 using their Azure AD credentials.

upvoted 10 times

✉️  **ookook** 10 months, 3 weeks ago

chatgpt is not reliable. After you got answer from chatgpt just ask are you sure and it will change the answer to another option.

upvoted 24 times

✉️  **Tplenty**  5 months ago

The answer to this question will be either Configure Supported account types in the application registration and update the sign-in endpoint. Or Use Azure entitlement management to govern external users.

upvoted 3 times

✉️  **serget12** 6 months, 3 weeks ago

Answer seems correct because none of the other options are correct.

upvoted 2 times

✉️  **C\_M\_M** 11 months, 3 weeks ago

Basically making the app multi-tenant?

upvoted 2 times

✉️  **bryant12138** 3 weeks, 1 day ago

Not really, I think is to create the B2B connection and invite the other AD's identity as member accounts.

upvoted 1 times

zellck 1 year, 1 month ago

**Selected Answer: D**

D is the answer.

<https://learn.microsoft.com/en-us/security/zero-trust/develop/identity-supported-account-types>

The Microsoft identity platform provides support for specific identity types:

- External identities in Azure AD for partners (users outside of your organization)

upvoted 4 times

VBK8579 1 year, 2 months ago

D: Configure Supported account types in the application registration and update the sign-in endpoint.

upvoted 1 times

RandomNickname 1 year, 2 months ago

**Selected Answer: D**

Given answer looks good.

upvoted 1 times

janvandermerwer 1 year, 2 months ago

**Selected Answer: D**

<https://learn.microsoft.com/en-us/security/zero-trust/develop/identity-supported-account-types>

<https://learn.microsoft.com/en-us/azure/active-directory/develop/howto-modify-supported-accounts>

upvoted 5 times

[Removed] 1 year, 2 months ago

**Selected Answer: D**

D, makes sense to me. Looks like an alternative answer to the already existing duplicate of this question.

upvoted 3 times

You have an Azure AD tenant named contoso.com that has a security group named Group1. Group1 is configured for assigned memberships. Group1 has 50 members, including 20 guest users.

You need to recommend a solution for evaluating the membership of Group1. The solution must meet the following requirements:

- The evaluation must be repeated automatically every three months.
- Every member must be able to report whether they need to be in Group1.
- Users who report that they do not need to be in Group1 must be removed from Group1 automatically.
- Users who do not report whether they need to be in Group1 must be removed from Group1 automatically.

What should you include in the recommendation?

- A. Implement Azure AD Identity Protection.
- B. Change the Membership type of Group1 to Dynamic User.
- C. Create an access review.
- D. Implement Azure AD Privileged Identity Management (PIM).

**Correct Answer: D**

*Community vote distribution*

C (97%)

✉  **darthfodio**  1 year, 2 months ago

**Selected Answer: C**

Based on the requirements below:

The evaluation must be repeated automatically every three months.

- Every member must be able to report whether they need to be in Group1.
- Users who report that they do not need to be in Group1 must be removed from Group1 automatically.
- Users who do not report whether they need to be in Group1 must be removed from Group1 automatically.

The correct answer should be - C. Create an access. review.

<https://learn.microsoft.com/en-us/azure/active-directory/governance/access-reviews-overview>  
upvoted 29 times

✉  **GuyForget**  10 months, 4 weeks ago

How is this a legit question? The clear answer should be to configure an Access Review, but this is configured through PIM, so would they mark both C & D correct?

upvoted 6 times

✉  **AdventureChick** 7 months, 4 weeks ago

It's always "choose the BEST answer based on the scenario". Setting up an Access Review is required in order to meet the criteria. Best Answer. Period. Full stop.

Yes, Access Review is part of PIM, but PIM by itself doesn't meet the criteria (i.e. you could have PIM and say "screw that Access Review thing").

I have a bunch of MS certs, and regardless of the test, they give you a lot of questions where you can't decided between 2 answers because bot are "sort of right depending on how you look at it". Those answers? It's always some little detail in the scenario that decides the Best answer.

In this question, they are testing if you know the difference between PIM & Access Control. Someone who skims through material might remember PIM = reporting and not get in deep enough to know what Access Control is.

There is method to their madness ... even if it bugs the crap out of us.

upvoted 9 times

✉  **Nigromante**  3 weeks, 4 days ago

C is the correct answer!

upvoted 1 times

✉  **Fidel\_104** 1 month ago

**Selected Answer: C**

Present on today's exam (04/2024)

upvoted 1 times

✉  **andersonslls** 2 months, 3 weeks ago

C for sure  
upvoted 1 times

✉  **pmanglaviti** 2 months, 3 weeks ago

**Selected Answer: C**

PIM is inadequate to complete the questions requirements. An Access review is the MORE right answer. C = Access Review. Change it already!  
upvoted 1 times

✉  **azim1** 3 months, 3 weeks ago

**Selected Answer: D**

Definitely D  
upvoted 1 times

✉  **azim1** 3 months, 3 weeks ago

Sorry, I meant C. Examtopics wont allow to modify comments.  
upvoted 1 times

✉  **Rajkumar082021** 4 months, 1 week ago

C is the correct answer  
upvoted 1 times

✉  **Tplenty** 5 months ago

This is the same question in question 4, the answer is to Create an access review  
upvoted 1 times

✉  **MeisAdriano** 6 months, 1 week ago

**Selected Answer: C**

"Every three month"... that's access review  
upvoted 1 times

✉  **dimipap3** 6 months, 1 week ago

**Selected Answer: C**

That's literally the definition of access review  
upvoted 1 times

✉  **123exam** 6 months, 4 weeks ago

**Selected Answer: C**

<https://learn.microsoft.com/en-us/azure/active-directory/governance/access-reviews-overview>  
upvoted 1 times

✉  **zarko** 7 months ago

**Selected Answer: C**

repeated every x time = access reviews  
upvoted 1 times

✉  **BigShot0** 7 months ago

**Selected Answer: C**

Access reviews  
upvoted 2 times

✉  **iGhostEverywhere** 7 months ago

Answer is C  
This is 100% an access review - PIM doesn't create reports nor is it replicable.  
upvoted 1 times

✉  **Arun\_U** 7 months, 2 weeks ago

**Selected Answer: C**

The correct answer is C. Create an access review.

An access review is a feature in Azure AD that allows you to periodically evaluate the membership of groups and applications. You can configure access reviews to run automatically and to send notifications to users who need to take action.

upvoted 1 times

✉  **ksksilva2022** 7 months, 2 weeks ago

Admin please correct the answer as "C"  
upvoted 1 times

**HOTSPOT**

You have an Azure subscription named Sub1 that is linked to an Azure AD tenant named contoso.com.

You plan to implement two ASP.NET Core apps named App1 and App2 that will be deployed to 100 virtual machines in Sub1. Users will sign in to App1 and App2 by using their contoso.com credentials.

App1 requires read permissions to access the calendar of the signed-in user. App2 requires write permissions to access the calendar of the signed-in user.

You need to recommend an authentication and authorization solution for the apps. The solution must meet the following requirements:

- Use the principle of least privilege.
- Minimize administrative effort.

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Authentication:

- Application registration in Azure AD
- A system-assigned managed identity
- A user-assigned managed identity

Authorization:

- Application permissions
- Azure role-based access control (Azure RBAC)
- Delegated permissions

**Answer Area**

Authentication:

- Application registration in Azure AD
- A system-assigned managed identity
- A user-assigned managed identity

Correct Answer:

Authorization:

- Application permissions
- Azure role-based access control (Azure RBAC)
- Delegated permissions

  pkkalra 1 year, 2 months ago

Important point here is that both apps are deployed to the same machines. So Managed identities will violate the principle of least privilege. As a user/system managed identity will have to be assigned both read and write permission to user's calendar.

App registration will provide ability to use the service principal per app to set the correct permission required for the app.  
Use delegated permissions to access user's data as admin allowed/forces users to delegate the permission to the app.

answer:

App registration  
Delegated permissions  
upvoted 71 times

  Mosti 1 year, 1 month ago

Very good point: "As a user/system managed identity will have to be assigned both read and write permission to user's calendar"  
upvoted 9 times

✉️  **darthfodio**  1 year, 2 months ago

I believe box 1 should be "A user-assigned managed identity" because the apps will be deployed to 100 VMs. Keeping "Minimized administrative effort" in mind, a user-assigned managed identity can be used re-used.

upvoted 33 times

✉️  **HaniG** 1 year, 2 months ago

I agree

upvoted 2 times

✉️  **dimsok** 1 year, 2 months ago

Calendar might not be behind Azure AD. Delegated permissions is the correct one

upvoted 5 times

✉️  **malcubierre** 1 year, 2 months ago

All are the same App, same identity.... no need user-assigned managed identity, they are identified by Application ID

upvoted 5 times

✉️  **Hammer84**  5 months ago

Authentication: Application registration in Azure AD

Authorization: Azure role-based access control (Azure RBAC) for least privilege and minimal administrative effort.

upvoted 2 times

✉️  **nick\_lat12** 5 months, 3 weeks ago

Answer:

1. App Registration
2. Delegated Permissions

Read more here :<https://learn.microsoft.com/en-us/azure/active-directory/develop/permissions-consent-overview>

upvoted 4 times

✉️  **DTyagi** 2 months, 3 weeks ago

Can clear the exam with these questions?

upvoted 1 times

✉️  **xRiot007** 4 weeks ago

Take it and find out...

upvoted 2 times

✉️  **sivolko** 6 months, 3 weeks ago

correct answer

upvoted 1 times

✉️  **sieira** 8 months, 3 weeks ago

Important point: Managed identities are used when working with Azure resources and you need an identity to authenticate communication between these services. But for user authentication and authorisation with ASP.NET Core, you're going to be using Azure AD and that involves application registration.

upvoted 7 times

✉️  **techrat** 11 months, 2 weeks ago

The given answer is correct. I passed the exam today with 979. and I gave the same answer to this question:

App registration

Delegated permissions

upvoted 13 times

✉️  **NotMeAnyWay** 1 year ago

Question 1. Authentication type?

Option 1 - Application registration in Azure AD.

For each app (App1 and App2), you should register a separate application in Azure AD. This will allow users to authenticate using their contoso.com credentials and will enable you to request access tokens for accessing protected resources like the calendar.

Question 2. Authorization type?

Option 3 - Delegated permissions.

Delegated permissions allow the apps to perform actions on behalf of the signed-in user, such as reading or writing to their calendar. By configuring delegated permissions for each app, you can ensure that App1 has read access to the calendar while App2 has write access. This approach follows the principle of least privilege and minimizes administrative effort.

upvoted 11 times

✉️  **johnD16** 1 year ago

Showed in exam 18.03.2023. correct

passed 940/1000

upvoted 3 times

✉️  **jeffa\_jaja** 6 months, 3 weeks ago

Get yourself together and stop posting the same message all over the questions

upvoted 2 times

✉️  **babakeyfgir** 4 months, 4 weeks ago

it help us..  
upvoted 3 times

✉️  **memyslef2** 1 year, 1 month ago

This was a question was on my exam today (2/26/23) - Scored 844  
I agree with this answer  
upvoted 4 times

✉️  **Jacky\_exam** 1 year, 1 month ago

App1 requires read permissions to access the calendar of the signed-in user. App2 requires write permissions to access the calendar of the signed-in user.

If use App registration, how to meet the requirement of principle of least privilege ?

upvoted 1 times

✉️  **zellck** 1 year, 1 month ago

1. Application registration in Azure AD  
2. Delegated permissions

<https://learn.microsoft.com/en-us/azure/active-directory/develop/app-objects-and-service-principals#application-registration>

To delegate identity and access management functions to Azure AD, an application must be registered with an Azure AD tenant. When you register your application with Azure AD, you're creating an identity configuration for your application that allows it to integrate with Azure AD.

<https://learn.microsoft.com/en-us/azure/active-directory/develop/permissions-consent-overview#types-of-permissions>

Delegated permissions are used in the delegated access scenario. They're permissions that allow the application to act on a user's behalf. The application will never be able to access anything the signed in user themselves couldn't access.

upvoted 6 times

✉️  **OPT\_001122** 1 year, 2 months ago

App registration  
Delegated permissions  
upvoted 3 times

✉️  **VBK8579** 1 year, 2 months ago

Authentication:  
Application registration in Azure AD

Authorization:  
Delegated permissions  
upvoted 2 times

✉️  **Ivanvazovv** 1 year, 2 months ago

First we register the App to create a service principal in AAD. Then we Delegate permissions for that App to the Exchange app.  
upvoted 1 times

✉️  **GarryK** 1 year, 2 months ago

(a.k.a Gowind)  
We need access Microsoft Graph on behalf of the user to only access its own data. So we need an app registration (for user signs ins) and delegated permissions  
<https://learn.microsoft.com/en-us/azure/active-directory/develop/multi-service-web-app-access-microsoft-graph-as-user?tabs=azure-resource-explorer%2Cprogramming-language-csharp>  
Select App registrations > Owned applications > View all applications in this directory. Select your web app name, and then select API permissions  
Select Add a permission, and then select Microsoft APIs and Microsoft Graph.  
Select Delegated permissions, and then select User.Read from the list. Select Add permissions.

If we wanted only access on behalf of the app, then the user assigned managed identity would have made sense:

<https://learn.microsoft.com/en-us/azure/active-directory/develop/multi-service-web-app-access-microsoft-graph-as-app?tabs=azure-powershell%2Cprogramming-language-csharp>

upvoted 4 times

✉️  **GarryK** 1 year, 2 months ago

also here <https://learn.microsoft.com/en-us/azure/active-directory/develop/scenario-web-app-call-api-overview>

So yes, app registration + delegated permissions  
upvoted 1 times

✉️  **chessace2000** 1 year, 2 months ago

Answer is correct  
1. App registration - managed identity cannot be used here because both App1/App2 are deployed on same set of VMs, hence will get same managed identity, which goes against principle of least privilege.  
2. Delegated permissions: Because its the logged-in user's calendar that needs to be accessed and also helps least privilege  
upvoted 2 times

Your company has the divisions shown in the following table.

Division	Azure subscription	Azure AD tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.

You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1.

What should you recommend?

- A. Enable Azure AD pass-through authentication and update the sign-in endpoint.
- B. Use Azure AD entitlement management to govern external users.
- C. Configure assignments for the fabrikam.com users by using Azure AD Privileged Identity Management (PIM).
- D. Configure Azure AD Identity Protection.

**Correct Answer: B**

*Community vote distribution*

B (100%)

✉  jj22222 Highly Voted 1 year, 1 month ago

**Selected Answer: B**

this was repeated several times, maybe its important on the test  
upvoted 14 times

✉  zellck Highly Voted 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-overview#what-can-i-do-with-entitlement-management>

Here are some of capabilities of entitlement management:

- Select connected organizations whose users can request access. When a user who isn't yet in your directory requests access, and is approved, they're automatically invited into your directory and assigned access. When their access expires, if they have no other access package assignments their B2B account in your directory can be automatically removed.

upvoted 6 times

✉  WeepingMaplte Most Recent 2 months, 2 weeks ago

Same as 38,32, and 35, and 37

upvoted 1 times

✉  Tplenty 5 months ago

I kind of like repeated questions because it makes it stick to the brain by seeing it over and over again.

upvoted 1 times

✉  starseed 6 months, 3 weeks ago

feels so good when faced multiple repeated questions...can skip to next question fast..

upvoted 2 times

✉  musmas82473 8 months, 3 weeks ago

.. Be thankful you don't need to learn more new questions.

upvoted 5 times

✉  DaveGrain 9 months, 3 weeks ago

this is the 6th or 7th time this Q has been asked. Can the replicas be removed?

upvoted 6 times

✉  alen995454 7 months ago

it is on here so many times because MS asks it in so many different ways.. Form a study standpoint its just good to know whether ingrained or not

upvoted 1 times

 **markonfire** 6 months, 1 week ago

Indeed. The question is the same, but the answers to choose from are changing.

upvoted 2 times

 **sankar07** 11 months, 4 weeks ago

So many repeats of the same question!

upvoted 4 times

Your company has the divisions shown in the following table.

Division	Azure subscription	Azure AD tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.

You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1.

What should you recommend?

- A. Configure the Azure AD provisioning service.
- B. Enable Azure AD pass-through authentication and update the sign-in endpoint.
- C. Configure Supported account types in the application registration and update the sign-in endpoint.
- D. Configure Azure AD join.

**Correct Answer: C**

*Community vote distribution*

C (100%)

✉️  **TonySuccess**  3 months ago

This question was first found etched into the walls of the great pyramid, forged by Aliens. It has great significance.  
upvoted 7 times

✉️  **Softeng**  9 months, 3 weeks ago

What happens with this answer? It keeps getting repeated.  
upvoted 6 times

✉️  **Ras\_AI\_Ghul** 7 months ago

the question has 2 answers but they are never together. Therefore it can be Use Azure AD entitlement management to govern external users OR  
Configure Supported account types in the application registration and update the sign-in endpoint,  
upvoted 7 times

✉️  **Tplenty** 5 months ago

You're right  
upvoted 1 times

✉️  **nordbymikael**  8 months ago

**Selected Answer: C**  
Answer C  
upvoted 1 times

✉️  **Daemon69** 9 months, 3 weeks ago

It seems "Configure Supported account types in the application registration and update the sign-in endpoint" same as "Use Azure AD entitlement management to govern external users"  
upvoted 4 times

✉️  **jj22222** 1 year, 1 month ago

**Selected Answer: C**  
c is right  
upvoted 3 times

✉️  **zellck** 1 year, 1 month ago

**Selected Answer: C**  
C is the answer.

<https://learn.microsoft.com/en-us/security/zero-trust/develop/identity-supported-account-types>

upvoted 3 times

 **Alessandro365** 1 year, 1 month ago

**Selected Answer: C**

C is correct answer  
upvoted 2 times

**HOTSPOT**

You have an Azure AD tenant that contains a management group named MG1.

You have the Azure subscriptions shown in the following table.

Name	Management group
Sub1	MG1
Sub2	MG2
Sub3	Tenant Root Group

The subscriptions contain the resource groups shown in the following table.

Name	Subscription
RG1	Sub1
RG2	Sub2
RG3	Sub3

The subscription contains the Azure AD security groups shown in the following table.

Name	Member of
Group1	Group3
Group2	Group3
Group3	None

The subscription contains the user accounts shown in the following table.

Name	Member of
User1	Group1
User2	Group2
User3	Group1, Group2

You perform the following actions:

Assign User3 the Contributor role for Sub1.

Assign Group1 the Virtual Machine Contributor role for MG1.

Assign Group3 the Contributor role for the Tenant Root Group.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

**Answer Area**

Statements	Yes	No
------------	-----	----

User1 can create a new virtual machine in RG1.       

User2 can grant permissions to Group2.       

User3 can create a storage account in RG2.

**Answer Area****Statements****Yes**   **No**

User1 can create a new virtual machine in RG1.

 **Correct Answer:**

User2 can grant permissions to Group2.

User3 can create a storage account in RG2.

 **JBTC** Highly Voted 12 months ago

Answers are correct.

Since Group 1 is assigned VM contributor to MG1, it will be able to create a new VM in RG1.

User 2 is not able to grant permission to Group 2 because it is just a member with contributor role.

Since Group 3 has Contributor role for the Tenant Root Group, User3 can create storage account in RG2  
upvoted 29 times**fongode** 8 months ago

Answer is correct:

Add or remove a group from another group

You can add an existing Security group to another Security group (also known as nested groups). Depending on the group types, you can add a group as a member of another group, just like a user, which applies settings like roles and access to the nested groups.

<https://learn.microsoft.com/en-us/azure/active-directory/fundamentals/how-to-manage-groups>

upvoted 6 times

**Ameet9** 4 months, 3 weeks ago

User 3 is not in Group 3, its a member of Group 1 and 2

upvoted 4 times

**[Removed]** Highly Voted 12 months ago

A : YES User1 member of Group1 which is Contributor VM to MG1 (Sub1).

B : NO Granting access cannot be done with contributor role

C : NO User3 has Contributor role only for Sub1 and Sub3 (through group1/2 member of group3 which is Contributor of Tenant Root Group (Sub3))  
upvoted 20 times**yonie** 11 months, 3 weeks ago

But since User3 is a member of Group 3, User 3 has contributor role to everything, since the contributor role is inherited to anything under the Tenant Root Group

upvoted 11 times

**betterthanlife** 11 months, 1 week ago

I have checked it in my Azure lab &amp; the user I have permissioned at the Tenant Root Group does have the permission propagated down to everything subordinate, and everything is subordinate to the Tenant Root Group so User 3 has Contributor role to everything within the tenant.

Answer is correct:

Y

N

Y

upvoted 8 times

**BeastSlayer** 10 months, 1 week ago

User 3 is a member of Group 1 and Group 2. And hence the answer is Y,N,N

upvoted 2 times

**iGhostEverywhere** 7 months ago

Group 1 is a member of group 3 - Answer is YNY

upvoted 3 times

**varinder82** Most Recent 3 weeks, 1 day ago

Final Answer:

Y

N

Y

upvoted 1 times

**dejedi** 1 month ago

YNY answers given are correct

upvoted 1 times

**MichaelMelb** 1 month, 2 weeks ago

YYN

the 3rd answer should be NO because Group 3 doesn't have members, so nobody has permissions to create storage accounts in MG2 / SUB2 / RG  
upvoted 1 times

✉  **rishisoft1** 1 month, 1 week ago

I can understand, user 3 is member of group 1 & 2, however, Group 1 & 2 inherits the permission and access from Group3, means contributor role propagated to group 1 & 2 members so they can create the resource. So answer should be YNY

upvoted 1 times

✉  **profesorklaus** 2 months ago

Regarding a third point it is wrong answer. Here is an explanation:

RG2 is under Sub2, and User3 has the Contributor role on Sub1. No direct role assignment is given to User3 for Sub2.

User3 is a member of Group1, which has the Virtual Machine Contributor role on MG1, not on Sub2, and this role does not include permissions for creating storage accounts.

Even though User3 is also a member of Group2, there is no direct indication that Group2 has any role assignments.

Group3 has the Contributor role for the Tenant Root Group, but User3 is not a member of Group3.

Based on the information provided, User3 does not have the necessary permissions to create a storage account in RG2 because they have not been granted any role that would allow them to manage resources in Sub2. User3 would need the Contributor role (or a custom role with the necessary permissions) assigned either directly to them or to a group they are a member of that has scope over Sub2 or RG2 to be able to create a storage account in RG2.

upvoted 1 times

✉  **JonHanes** 1 month, 3 weeks ago

I'm inclined to believe the answer is still correct due to the indirect permissions assigned from Group3.

The answer from Bing AI.

----

Let's break down the explanation provided:

...

"Group3 has the Contributor role for the Tenant Root Group, but User3 is not a member of Group3."

\*This is where the misunderstanding lies.

While it's true that User3 is not directly a member of Group3, User3 is a member of Group1 and Group2, both of which are members of Group3. Therefore, User3 is indirectly a member of Group3 and would inherit the permissions assigned to Group3.

upvoted 2 times

✉  **ManosCaptain** 4 months, 3 weeks ago

Appeared on 11/21/2023

upvoted 3 times

✉  **MeisAdriano** 6 months, 1 week ago

User3 can create a storage account in RG2?

My answer:

Assign Group3 the -Contributor role- for the -Tenant Root Group-

Tenant Root Group includes

- Sub3 that includes:
- RG3 that includes:

- Group3 that includes:

- Security Group1 and Security Group2, both includes: User3

But the "Tenant Root Group" includes implicitly also MG1 and MG2,

that's why: YES -> User3 can create a storage account in RG2

upvoted 1 times

✉  **ntma3b** 6 months, 2 weeks ago

Tested - members in the nested group do inherit roles granted the parent group. So answers are correct.

upvoted 3 times

✉  **kenneth12** 7 months ago

This is correct. for the drop down 3 option its No. and I Test this in my production. I created a SG name SG1 nad SG.Root. User1 is a member of SG and member of SG.Root. then I assign SG.Root a contributor role in Root MG after waiting for several minutes the user can create a VM to any subscription. so the permission from SG.Root is inherited to SG1

upvoted 3 times

✉  **kenneth12** 7 months ago

sorry there's no edit here. User1 is Member of SG1. and SG1 is a member of SG.Root

upvoted 2 times

✉  **MichaelMelb** 8 months ago

YES

NO

NO

First 2 are clear. The last one:

The last one: User3 cannot create storage because Nested Group permissions are neglected in AAD. To be able to create a storage User3 has to be a member of the Group3.

upvoted 7 times

✉  **sawanti** 8 months ago

Exactly, people forget that the permissions in the groups are not inherited from other groups; only permissions of the group they are DIRECTLY assigned are valid, hence it should be Y, N, N

upvoted 5 times

✉  **InvalidNickname** 8 months, 1 week ago

Got this on Aug 5th, 2023.

upvoted 3 times

✉️ **safwan03** 8 months, 3 weeks ago

From ChatGPT,

In Azure, granting a user the "Contributor" role at the root management group level does not automatically give them the "Contributor" role for the child management groups. Role assignments in Azure are not inherited by default across management groups.

When you assign a role to a user or service principal at the root management group, it means they have the specified permissions at that level only. Any permissions granted at the root management group level do not cascade down to child management groups.

If you want the user to have the "Contributor" role for the child management groups as well, you will need to explicitly assign the "Contributor" role to the user at each child management group.

upvoted 1 times

✉️ **Darkeh** 9 months ago

The answers are correct. It's Yes No Yes.

Why is the last one Yes?

Group 3 has the contributor role for the tenant group and User 3 is apart of group 1 and group 2 which is a member of group 3. That means everyone in this equation at the MINIMUM has contributor rights to EVERYTHING! Which means they cannot set permissions (hence the 2nd answer is no), but everything else is a big YES!

upvoted 1 times

✉️ **Elecktrus** 6 months, 3 weeks ago

You are Wrong. Effectively, Group1 is member of Group3, but Group1 and Group3 are RBAC Groups (that is, they are groups with roles assigned to them). In this case, the roles are not inherited.

So, User3 only had the roles assigned directly to him, and the roles assigned to Group1 and Group2 because he is member of them)

upvoted 1 times

✉️ **pjn** 9 months ago

In my world it should be YNN

For the third question should be No according to the last point here

We currently don't support:

Adding groups to a group synced with on-premises Active Directory.

Adding Security groups to Microsoft 365 groups.

Adding Microsoft 365 groups to Security groups or other Microsoft 365 groups.

Assigning apps to nested groups.

Applying licenses to nested groups.

Adding distribution groups in nesting scenarios.

Adding security groups as members of mail-enabled security groups.

Adding groups as members of a role-assignable group.

<https://learn.microsoft.com/en-us/azure/active-directory/fundamentals/how-to-manage-groups>

upvoted 5 times

✉️ **lombri** 11 months ago

user1 can create a new virtual machine in rg1: Yes

user2 can grant permissions to group2: No

user3 can create a storage account in rg2: No

user1 can create a new virtual machine in rg1 because they are a member of Group1, which has the Virtual Machine Contributor role for MG1, and rg1 is under sub1.

user2 cannot grant permissions to group2 because they only have the Contributor role and not the necessary administrative role for group2.

user3 cannot create a storage account in rg2 because although Group3 has the Contributor role for the Tenant Root Group, user3 needs to be assigned a specific role that allows them to create storage accounts. Being a member of Group1 and Group2 does not provide the authority to create a storage account in rg2.

upvoted 6 times

✉️ **GuyForget** 10 months, 4 weeks ago

Group1 and Group2 are each members of Group3, so because Group3 has the Contributor role at the Tenant Root Group, Group1 & Group2 also have Contributor rights at the Tenant Root level. Keep in mind that the Tenant Root Group is the top level, and includes all subscriptions/resource groups.

User3 is a member of both Group1 & Group2, both of which have Contributor rights at the Tenant Root; therefore, User3 has Contributor rights to all subscriptions and resource groups. The Contributor role allows a user to create resources, pretty much across the board. They don't need to be assigned a more specific role (i.e. Storage Account Contributor) on top of that; it would be redundant.

In fact, you could take the VM Contributor role away from User1, and they would still be able to create a new VM, because they already have the Contributor role at the Tenant Root level

upvoted 6 times

✉️ **lombri** 10 months, 2 weeks ago

YOU RIGHT

upvoted 1 times

✉️ **Elecktrus** 7 months ago

Error, Group nested is not allowed when groups have assigned a role. So, Group1 and Group2 don't inherit the Contributor role from Group3.  
You have to assign directly the contributor role to user3, or to Group1 or Group2, to make changes

upvoted 1 times

✉  **lukiduc9625** 1 month, 1 week ago

"Group1 and Group2 don't inherit the Contributor role from Group3" - I can't agree. I made test in my Azure lab. I create 2 groups ('GroupA' and 'GroupB') and 1 new user (User1). I made User1 member of GroupA, and GroupA member of GroupB. Finally I assign GroupB a "Storage Blob Data Contributor" role on level of Tenant Root Group.  
On some of my Blobs containers in 'Access Control (IAM)' I checked access of User1: User1 had assigned "Storage Blob Data Contributor" role.

upvoted 1 times

✉  **xRiot007** 1 month, 1 week ago

Storage Blob Data Contributor - this role lets you control the content of a storage account, not the storage account itself. To create a storage account, you need to have the role of Storage Account Contributor

upvoted 1 times

✉  **zzflexzz** 11 months, 2 weeks ago

on exam 5/2/23

upvoted 5 times

Your company has the divisions shown in the following table.

Division	Azure subscription	Azure AD tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.

You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1.

What should you recommend?

- A. Configure Azure AD Identity Protection.
- B. Configure assignments for the fabrikam.com users by using Azure AD Privileged Identity Management (PIM).
- C. Configure Supported account types in the application registration and update the sign-in endpoint.
- D. Configure a Conditional Access policy.

**Correct Answer: C**

*Community vote distribution*

C (100%)

✉️  **rshinh** Highly Voted 10 months, 1 week ago

Why is this question being shown over and over again?

upvoted 13 times

✉️  **LowinLi** 1 month, 1 week ago

because it's very important

upvoted 1 times

✉️  **Tplenty** 5 months ago

It's shown over and over again because it's an important question, I will not be surprised if i see it in the exam question

upvoted 2 times

✉️  **riccardoto** Most Recent 2 weeks, 2 days ago

**Selected Answer: C**

I'm here just to see the funny comments of people finding this question over and over :-)

upvoted 2 times

✉️  **uffuchs1** 8 months ago

**Selected Answer: C**

Answer C - duplicated many times so that is slightly concerning

upvoted 3 times

✉️  **nordbymikael** 8 months ago

**Selected Answer: C**

Answer C

upvoted 1 times

✉️  **fred356** 11 months, 2 weeks ago

**Selected Answer: C**

C. Configure Supported account types in the application registration and update the sign-in endpoint.

Same Question and answer as Question 45.

<https://learn.microsoft.com/en-us/security/zero-trust/develop/identity-supported-account-types>

upvoted 2 times

✉️  **yogi2020** 11 months, 2 weeks ago

Answer D is correct

upvoted 1 times

✉  **yogi2020** 11 months, 2 weeks ago

Sorry Answer C is correct, this questions has been repeated many times, with different answer, Duplicate of Q41 which has the correct answer

upvoted 1 times

✉  **mehak2020** 11 months, 4 weeks ago

WHICH ONE IS RIGHT?

upvoted 1 times

Your company has the divisions shown in the following table.

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West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.

You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1.

What should you recommend?

- A. Use Azure AD entitlement management to govern external users.
- B. Enable Azure AD pass-through authentication and update the sign-in endpoint.
- C. Configure a Conditional Access policy.
- D. Configure assignments for the fabrikam.com users by using Azure AD Privileged Identity Management (PIM).

**Correct Answer: A**

*Community vote distribution*

A (100%)

✉  **yonie**  11 months, 3 weeks ago

**Selected Answer: A**

This has been repeated many times and has two answers based on the provided possibilities:  
Its either  
Use Azure AD entitlement management to govern external users

Or

Configure Supported account types in the application registration and update the sign-in endpoint

Both answers will lead you to the same solution.

upvoted 12 times

✉  **ExamUser11**  9 months, 2 weeks ago

This question repeated so many times!  
upvoted 5 times

✉  **riccardoto**  2 weeks, 2 days ago

If I don't find this question on the exam, I'll be very, very disappointed  
upvoted 2 times

✉  **nordbymikael** 8 months ago

**Selected Answer: A**  
Answer A  
upvoted 1 times

✉  **rshinh** 10 months, 1 week ago

Same question again and again, this exams topics set of questions is very narrow  
upvoted 4 times

✉  **mehak2020** 11 months, 4 weeks ago

Which one is correct answer?  
upvoted 1 times

✉  **JBTC** 12 months ago

Refer to this documentation:<https://learn.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-external-users>  
upvoted 1 times

You have an Azure subscription that contains 1,000 resources.

You need to generate compliance reports for the subscription. The solution must ensure that the resources can be grouped by department.

What should you use to organize the resources?

- A. application groups and quotas
- B. Azure Policy and tags
- C. administrative units and Azure Lighthouse
- D. resource groups and role assignments

**Correct Answer: B**

*Community vote distribution*

B (100%)

✉  **yonie**  11 months, 3 weeks ago

**Selected Answer: B**

Answer is B

upvoted 5 times

✉  **Tplenty**  5 months ago

Answer is correct B

upvoted 1 times

✉  **Jackhemo** 9 months, 1 week ago

Olabiba.ai says B.

" To organize the resources in your Azure subscription and generate compliance reports, you should use Azure Policy and tags.

Azure Policy allows you to define and enforce rules and regulations for your resources, ensuring compliance with organizational standards and industry regulations. You can create policies that specify the required tags for resources, such as department, and enforce their usage across the subscription. This will help you categorize and group resources based on departments.

Tags, on the other hand, are key-value pairs that you can assign to resources. By assigning tags to resources with the department information, you can easily filter and group resources based on departments when generating compliance reports.

Therefore, the correct answer is B. Azure Policy and tags."

upvoted 3 times

✉  **juliomorga** 9 months, 2 weeks ago

B es correcto 100%

upvoted 1 times

✉  **danioloaclima** 9 months, 2 weeks ago

**Selected Answer: B**

A resposta correta é B, pois é a única forma que vejo para que os recursos sejam agrupados por departamento (FROM: Brazil) ;-

upvoted 2 times

✉  **Petza** 10 months ago

**Selected Answer: B**

Answer is B

upvoted 3 times

✉  **T0bo** 11 months, 4 weeks ago

**Selected Answer: B**

B is correct.

upvoted 3 times

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

- A. Azure Arc
- B. Azure Monitor metrics
- C. Azure Advisor
- D. Azure Log Analytics

**Correct Answer: D**

*Community vote distribution*

D (100%)

✉  **nordbymikael** 8 months ago

**Selected Answer: D**

Answer D

upvoted 2 times

✉  **Jackhemo** 9 months, 1 week ago

**Selected Answer: D**

From olabiba.ai

" yments in your Azure subscription, you should include Azure Log Analytics in your recommendation.

Azure Log Analytics is a service that collects and analyzes data from various sources, including Azure resources, applications, and operating systems. It provides a centralized location for storing and querying log data, making it an ideal solution for monitoring and analyzing resource deployments.

By configuring Log Analytics to collect and store the deployment logs, you can easily query and filter the data to generate a report of all the new ARM resource deployments within a specific time frame, such as a month.

Therefore, the correct answer is D. Azure Log Analytics"

upvoted 3 times

✉  **Peedikakkandy** 11 months, 1 week ago

Log Analytics is a tool in the Azure portal that's used to edit and run log queries against data in the Azure Monitor Logs store. You might write a simple query that returns a set of records and then use features of Log Analytics to sort, filter, and analyze them

upvoted 4 times

✉  **T0bo** 11 months, 4 weeks ago

**Selected Answer: D**

Correct.

upvoted 4 times

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

- A. Azure Monitor action groups
- B. Azure Arc
- C. Azure Monitor metrics
- D. Azure Activity Log

**Correct Answer: D**

*Community vote distribution*

D (100%)

✉  **JohnPhan** Highly Voted 11 months, 4 weeks ago

**Selected Answer: D**

Correct Answer: D

upvoted 5 times

✉  **felipe1989** Most Recent 1 week, 6 days ago

Correct answer is letter D, and could be a Log Analytics Workspace

upvoted 1 times

✉  **Tplenty** 5 months ago

The answer is either D or Azure Log Analytics

upvoted 3 times

✉  **Juanchooo** 7 months, 3 weeks ago

Repeated question, topic 1, question 13, with the same answer.

upvoted 2 times

✉  **WeepingMaplte** 2 months, 2 weeks ago

Same as Q51 and 53

upvoted 1 times

✉  **nordbymikael** 8 months ago

**Selected Answer: D**

Correct Answer: D

upvoted 1 times

✉  **Moonmoona** 9 months, 2 weeks ago

Correct Answer: D

upvoted 3 times

## DRAG DROP

You have an Azure AD tenant that contains an administrative unit named MarketingAU. MarketingAU contains 100 users.

You create two users named User1 and User2.

You need to ensure that the users can perform the following actions in MarketingAU:

- User1 must be able to create user accounts.
- User2 must be able to reset user passwords.

Which role should you assign to each user? To answer, drag the appropriate roles to the correct users. Each role may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

**Roles**

- Helpdesk Administrator for MarketingAU
- Helpdesk Administrator for the tenant
- User Administrator for MarketingAU
- User Administrator for the tenant

**Answer Area**

- User1:  Role
- User2:  Role

**Answer Area**

- Correct Answer:
- User1  User Administrator for MarketingAU
- User2  Helpdesk Administrator for Marketing

CloudJordao Highly Voted 11 months, 2 weeks ago

Correct answer.

Here's an explanation:

The roles that you need to assign are:

User1: User Administrator for the MarketingAU administrative unit.

User2: Password Administrator or Helpdesk Administrator for the MarketingAU administrative unit.

The User Administrator role provides permissions to manage user accounts, including creating new users. The Password Administrator and Helpdesk Administrator roles provide permissions to reset user passwords.

Therefore, User1 needs the User Administrator role for the MarketingAU administrative unit to be able to create new user accounts. User2 needs either the Password Administrator or Helpdesk Administrator role for the MarketingAU administrative unit to be able to reset user passwords.

Note that assigning Helpdesk Administrator for the tenant role to User2 would provide permissions to reset passwords for all users in the Azure AD tenant, not just in the MarketingAU administrative unit.

<https://learn.microsoft.com/en-us/azure/active-directory/roles/admin-units-assign-roles>

upvoted 22 times

Minila92 2 months, 2 weeks ago

Just to add more clarity, assigning User Administrator for the MarketingAU administrative unit, will allow creating users in Azure AD itself as it holds the permission `microsoft.directory/users/create`, refer <https://learn.microsoft.com/en-us/entra/identity/role-based-access-control/permissions-reference#groups-administrator>

upvoted 3 times

memo454 Highly Voted 6 months, 4 weeks ago

This question is on today's exam.

I passed the exam today 17-09-2023 with a score of 906/1000.

The exam is easier than AZ-104.

upvoted 19 times

nav109 Most Recent 4 months, 3 weeks ago

This question appeared on my Exam today 11/17/2023

upvoted 6 times

✉️ 🚩 **InvalidNickname** 8 months, 1 week ago

Got this on Aug 5th, 2023.

upvoted 3 times

✉️ 🚩 **babakeyfgir** 4 months, 4 weeks ago

are you sure?

upvoted 1 times

✉️ 🚩 **theboywonder** 9 months, 3 weeks ago

answer is so obvious here, CloudJordao is right, and ofc users are part of tenant AD level, and AU's are a part of that, simple

upvoted 1 times

✉️ 🚩 **betterthanlife** 11 months, 2 weeks ago

User 1 response incorrect (impossible to answer this correctly).

1) You cannot create users in an Administrative unit, you can only create users in Azure AD, so User 1 would require the User Administrator role for the tenant.

2) You can only add/remove users within an Administrative unit, User 1 would require the Privileged Role Administrator role (or GA) to do so.  
<https://learn.microsoft.com/en-us/azure/active-directory/roles/admin-units-members-add#prerequisites>

I would choose "User Administrator for the tenant" for User 1.

upvoted 9 times

✉️ 🚩 **GuyForget** 10 months, 1 week ago

The Tenant is outside of Azure AD; roles assigned at the tenant level are for resource control

Administrative Units are a part of Azure AD

upvoted 1 times

✉️ 🚩 **mced** 5 months, 2 weeks ago

What do you mean? The tenant/directory is in Entra ID (AAD) It's not "outside". In the tenant/directory is where you have the users/groups/roles. Roles in the tenant are for administration of tenant level objects. Azure roles are for managing resources in Azure.

upvoted 2 times

✉️ 🚩 **MiniLa92** 2 months, 2 weeks ago

At the first look I also thought the same, but if we refer comment of Cloudjordao and do bit more search, we will see that, 'User Administrator' role can be assigned to Administrative unit as per <https://learn.microsoft.com/en-us/entra/identity/role-based-access-control/admin-units-assign-roles#roles-that-can-be-assigned-with-administrative-unit-scope>

and 'User Administrator' role holds permission "microsoft.directory/users/create" which creates user in Azure AD only (not in Administrative unit). So I think assigning User Administrator for the MarketingAU administrative unit will satisfy ques requirement.

upvoted 1 times

✉️ 🚩 **yonie** 11 months, 3 weeks ago

Given answer is correct

Though question could have been written better if it had a requirement for least privilege, since User Administrator can create user and reset their passwords. So potentially could be given to both users.

upvoted 3 times

✉️ 🚩 **AdventureChick** 7 months, 3 weeks ago

"least privilege" is the #1 best practice for designing security - across every tool/tech/company.

LP is assumed. In all scenarios. Yes, it's absolutely fair to not include all the info in a scenario:

1. MS cert info says that you are expected to know, and apply, best practices and that the "Skills Measured" are not comprehensive.

2. Exam instructions say that "If there are two correct questions, pick the BEST one". LP = best (I hope that's obvious)

3. LP applies at every level of Defense in Depth (covered in the AZ-305).

4. LP is part of the Well-Architected Framework (WAF). (also covered in AZ-305)

Microsoft often does not give you 100% of the information for a scenario.

They are testing if you know how to apply these in real-world situations.

upvoted 2 times

✉️ 🚩 **AdventureChick** 7 months, 3 weeks ago

LOL ... I meant "two correct answers" pick the BEST one

upvoted 1 times

✉️ 🚩 **Jackdisuin** 11 months, 3 weeks ago

correct answer. We have tested this in one of client environment.

upvoted 2 times

✉️ 🚩 **peeky** 11 months, 3 weeks ago

aren't user accounts at the tenant level?

upvoted 1 times

✉️ [Removed] 12 months ago

Correct answer no need Tenant level role, Admin required to create Users, HelpDesk enough to reset passwords

upvoted 3 times

Question #53

Topic 1

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

- A. Azure Arc
- B. Azure Log Analytics
- C. Application insights
- D. Azure Monitor action groups

**Correct Answer: B**

*Community vote distribution*

B (100%)

✉️ [AP30] Highly Voted 11 months, 2 weeks ago

we saw this question multiple times

upvoted 14 times

✉️ [Data\_Analytics] Highly Voted 8 months, 4 weeks ago

It might be Azure Log Analytics. feels like Deja vu

upvoted 8 times

✉️ [saqlain1] Most Recent 3 months, 1 week ago

**Selected Answer: B**

Azure Log Analytics

upvoted 1 times

✉️ [ArunS005] 6 months, 1 week ago

**Selected Answer: B**

Option B is correct, But this question is repeated too many times. Removing these duplicates will reduce the overall count and keep this question bank more relevant.

upvoted 2 times

✉️ [reddyreddy] 6 months, 3 weeks ago

the answer option are a little different from other questions ....

upvoted 1 times

✉️ [Elecktrus] 7 months ago

Technically, it's not the same question.

The answer options are different or in a different order from a question to other

upvoted 1 times

✉️ [shadda] 8 months ago

I am done with this question

upvoted 3 times

✉️ [rshinh] 10 months, 1 week ago

again and again and again,.....

upvoted 6 times

**HOTSPOT**

You are designing an app that will be hosted on Azure virtual machines that run Ubuntu. The app will use a third-party email service to send email messages to users. The third-party email service requires that the app authenticate by using an API key.

You need to recommend an Azure Key Vault solution for storing and accessing the API key. The solution must minimize administrative effort.

What should you recommend using to store and access the key? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Storage:	<input type="checkbox"/> Certificate <input type="checkbox"/> Key <input checked="" type="checkbox"/> Secret
Access:	<input type="checkbox"/> An API token <input type="checkbox"/> A managed service identity (MSI) <input type="checkbox"/> A service principal

**Answer Area**

Correct Answer:	<b>Storage:</b> <input type="checkbox"/> Certificate <input type="checkbox"/> Key <input checked="" type="checkbox"/> Secret
	<b>Access:</b> <input type="checkbox"/> An API token <input checked="" type="checkbox"/> A managed service identity (MSI) <input type="checkbox"/> A service principal

✉️  **NotMeAnyWay** Highly Voted 9 months, 1 week ago

1. Storage: c. Secret.

API keys are typically stored as secrets in Azure Key Vault. The key vault can store and manage secrets like API keys, passwords, or database connection strings.

2. Access: b. A managed service identity (MSI).

A managed service identity (MSI) is used to give your VM access to the key vault. The advantage of using MSI is that you do not have to manage credentials yourself. Azure takes care of rolling the credentials and ensuring their lifecycle. The application running on your VM can use its managed service identity to get a token to Azure AD, and then use that token to authenticate to Azure Key Vault.

upvoted 32 times

✉️  **marcellov** 6 months, 4 weeks ago

Managed identities for Azure resources is the new name for the service formerly known as Managed Service Identity (MSI).

upvoted 8 times

✉️  **JimmyYop** Highly Voted 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 9 times

✉️  **BShelat** Most Recent 4 months, 1 week ago

It seems that both answers are correct but have confusion. App is hosted on multiple VMs. I get that there will be a single API Key as secret but how can multiple VMs have single managed service identity?

upvoted 1 times

✉️  **Onobhas01** 3 months, 4 weeks ago

The managed identity is for the app (app registration) has nothing to do with the VMs that hosts the app

upvoted 1 times

 **Onobhas01** 3 months, 4 weeks ago

Come to think of it, for apps it's service principals, these are automatically generated during the app registration process.  
upvoted 1 times

 **xRiot007** 1 month, 2 weeks ago

It doesn't really say how many, but if they are part of a scale set, you can set up a system assigned managed identity for the scale set. Here is how for Windows, but Linux probably has a similar process:  
<https://learn.microsoft.com/en-us/entra/identity/managed-identities-azure-resources/qf-configure-portal-windows-vmss>  
upvoted 1 times

 **MeisAdriano** 6 months, 1 week ago

Both correct:

- 1) To connect on third-part e-mail service you have just an API key (i.g. a long token/password), so you can store the -secret- word in Azure Key Vault. (Third-part didn't give you a certificate or a key file).
- 2) Managed Identity provide an identity for applications to use when connecting to resources that support Azure Active Directory (Azure AD) authentication.

upvoted 1 times

## DRAG DROP

You have two app registrations named App1 and App2 in Azure AD. App1 supports role-based access control (RBAC) and includes a role named Writer.

You need to ensure that when App2 authenticates to access App1, the tokens issued by Azure AD include the Writer role claim.

Which blade should you use to modify each app registration? To answer, drag the appropriate blades to the correct app registrations. Each blade may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Blades	Answer Area
API permissions	App1: Blade
App roles	App2: Blade
Token configuration	

Blades	Answer Area
Correct Answer:	App1: App roles
	App2: Token configuration

 **Jay1111** Highly Voted 9 months ago

App1: App Roles

<https://learn.microsoft.com/en-us/azure/active-directory/develop/howto-add-app-roles-in-apps#app-roles-ui>

App2: API Permissions

<https://learn.microsoft.com/en-us/azure/active-directory/develop/howto-add-app-roles-in-apps#assign-app-roles-to-applications>  
upvoted 39 times

 **NotMeAnyWay** Highly Voted 9 months, 1 week ago

1. App1: b. App roles

2. App2: c. Token configuration

This is assuming that the exam expects you to know that an application requesting a token (App2) would need to have the roles claim added via Token Configuration. While in practice, this is not the exact place to assign a role to an application, but given the choices provided, this would be the most appropriate.

This is because token configuration does indeed impact the claims present in a token, and since no other suitable choice is available (API Permissions would not be used to assign a role to the application), it seems this would be the expected answer.

However, please note this is not entirely accurate based on the full capabilities of Azure AD, but it's the best choice given the options. Normally, you would assign the app role to the service principal of App2 in the context of Enterprise Applications, which is not an option here.  
upvoted 16 times

 **tatacsi** Most Recent 3 months ago

I was confused for a while then I found this at <https://learn.microsoft.com/en-us/entra/identity/managed-identities-azure-resources/overview>:

Note

Managed identities for Azure resources is the new name for the service formerly known as Managed Service Identity (MSI).

FYI

upvoted 2 times

 **JazzF** 3 months ago

Passed the exam on 10-Jan-24. This question appeared on the exam.

There were about 9 questions that came outside of this dump + the case study with 7 questions.

upvoted 10 times

✉️ **Felas** 3 weeks, 3 days ago

of the 294 only 9 appeared?  
upvoted 1 times

✉️ **bryant12138** 3 weeks, 1 day ago

I think he means the other way around? Only 9 questions not come from here  
upvoted 2 times

✉️ **Rajkumar082021** 4 months, 1 week ago

App roles, API permissions  
upvoted 3 times

✉️ **Paul\_white** 4 months, 2 weeks ago

To ensure that when App2 authenticates to access App1, the tokens issued by Azure AD include the Writer role claim, you should use the following blades in Azure AD:

For App2:

- API permissions blade: Here, you can add the necessary permissions to access App1. Make sure to grant the "Writer" role permission for App1. Remember to click on "Grant admin consent for {your directory}" after adding the necessary permissions. This ensures that the permissions are granted tenant-wide and the tokens issued by Azure AD will include the necessary claims.

upvoted 1 times

✉️ **OrangeSG** 6 months ago

Box 1: App roles

Box 2: Token configuration

To ensure that when App2 authenticates to access App1, the tokens issued by Azure AD include the Writer role claim:

1. In the Azure portal, navigate to Azure Active Directory > App registrations.

2. Select App1.

3. Under Manage, select App roles.

4. Select New app role.

5. In the Name field, enter Writer.

6. In the Description field, enter a description of the Writer role.

7. Select Create.

8. Select App2.

9. Under Manage, select Token configuration.

10. In the Issued token claims section, select Add claim.

11. In the Name field, enter roles.

12. In the Source field, select Application.

13. In the Value field, enter Writer.

14. Select Add.

15. Select Save.

Once you have completed these steps, when App2 authenticates to access App1, the tokens issued by Azure AD will include the Writer role claim.

Note: For native applications, such as App2, you cannot use the Manifest blade to add the Writer role claim. Instead, you must use the Token configuration blade.

upvoted 10 times

✉️ **TJ001** 2 months, 1 week ago

This is a clear documentation explaining the scenarios <https://learn.microsoft.com/en-us/entra/identity-platform/howto-add-app-roles-in-apps...which means for App2: Modify API Permissions looks the right answer>

upvoted 3 times

✉️ **Exams\_Prep\_2021** 6 months, 2 weeks ago

Got this on Sept. 29, 2023

upvoted 4 times

✉️ **husam421** 6 months, 2 weeks ago

2- API permissions

Grant admin consent

Because these are application permissions, not delegated permissions, an admin must grant consent to use the app roles assigned to the application.

In the app registration's API permissions pane, select Grant admin consent for <tenant name>.

upvoted 1 times

✉️ **stonwall12** 7 months, 1 week ago

App 1: App Roles

This app is already configured with a custom role, which is defined under the "App Roles" section.

Reference: <https://learn.microsoft.com/en-us/azure/active-directory/develop/howto-add-app-roles-in-apps#app-roles-ui>

App 2: API Permissions

To allow App 2 to authenticate to App1, it is necessary to assign the appropriate permissions. These can be configured under "API Permissions".

Reference: <https://learn.microsoft.com/en-us/azure/active-directory/develop/howto-add-app-roles-in-apps>

upvoted 8 times

✉️ **InvalidNickname** 8 months, 1 week ago

Got this on Aug 5th, 2023.

upvoted 5 times

✉️  **Debosree** 9 months, 1 week ago

For App2 its API Permission

Select My API .Find App1 and assign the permission to that writer role configured under App1

upvoted 2 times

Question #56

Topic 1

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

- A. Application Insights
- B. Azure Arc
- C. Azure Log Analytics
- D. Azure Monitor metrics

**Correct Answer: C**

*Community vote distribution*

C (100%)

✉️  **GotDamnImIn** Highly Voted 6 months, 3 weeks ago

This is the tenth time asking the same question.

upvoted 9 times

✉️  **musmas82473** Highly Voted 8 months, 3 weeks ago

Déjà Vu (Beyoncé song)

upvoted 8 times

✉️  **mark\_af** Most Recent 5 months, 3 weeks ago

**Selected Answer: C**

I hope I don't get this one wrong in the exam..... (repeated 1000 times in examtopics)

upvoted 5 times

✉️  **jemirz** 6 months ago

I hope I get this question on my exam. I am prepared for it now.

upvoted 6 times

✉️  **niket67** 4 months, 1 week ago

HAHAHHAHAA

upvoted 1 times

✉️  **nordbymikael** 7 months, 3 weeks ago

**Selected Answer: C**

Answer C

upvoted 1 times

You have an Azure subscription.

You plan to deploy a monitoring solution that will include the following:

- Azure Monitor Network Insights
- Application Insights
- Microsoft Sentinel
- VM insights

The monitoring solution will be managed by a single team.

What is the minimum number of Azure Monitor workspaces required?

- A. 1
- B. 2
- C. 3
- D. 4

**Correct Answer: C**

*Community vote distribution*

A (86%) 11%

✉️  NotMeAnyWay  9 months, 1 week ago

**Selected Answer: A**

A. 1

You only need a single Azure Monitor Log Analytics workspace for all these monitoring solutions.

Here's why:

- Azure Monitor Network Insights, Application Insights, Microsoft Sentinel, and VM insights, all of these components can send their data to a Log Analytics workspace.
- The workspace is a unique environment for Azure Monitor log data. Each workspace has its own data repository and configuration, and data sources and solutions are configured to store their data in a workspace.

Therefore, a single Azure Monitor Log Analytics workspace can be utilized to collect and analyze data from all the components of the monitoring solution. This will also enable a unified management and analysis of the collected data.

upvoted 9 times

✉️  WeepingMaplte 2 months, 2 weeks ago

A single Log Analytics workspace might be sufficient for many environments that use Azure Monitor and Microsoft Sentinel.

upvoted 1 times

✉️  nuyu00  8 months, 4 weeks ago

**Selected Answer: A**

<https://learn.microsoft.com/en-us/azure/azure-monitor/logs/workspace-design>

upvoted 8 times

✉️  andersonslls  2 months, 3 weeks ago

**Selected Answer: A**

I think it's A indeed.

upvoted 1 times

✉️  pmanglaviti 2 months, 3 weeks ago

**Selected Answer: A**

Minimum is 1

upvoted 1 times

✉️  juani\_gm 4 months, 3 weeks ago

**Selected Answer: R**

Correcta, A

upvoted 1 times

✉ **MeisAdriano** 6 months ago

**Selected Answer: A**

This question has no sense, depends by situations and strategies.

From <https://learn.microsoft.com/en-us/azure/azure-monitor/logs/workspace-design>

- 1) A single Log Analytics workspace might be sufficient for many environments that use Azure Monitor and Microsoft Sentinel. But many organizations will create multiple workspaces to optimize costs and better meet different business requirements.
- 2) Design strategy: Your design should always start with a single workspace to reduce the complexity of managing multiple workspaces and in querying data from them.
- 3) The decision whether to combine your operational data from Azure Monitor in the same workspace as security data from Microsoft Sentinel or separate each into their own workspace depends on your security requirements and the potential cost implications for your environment.

upvoted 1 times

✉ **xRiot007** 2 months ago

Depending on how important the data collected is and how much, multiple workspaces can be created. None of these details are present in the question, so we will consider none. One workspace should suffice until proven otherwise.

upvoted 1 times

✉ **ArunS005** 6 months, 2 weeks ago

**Selected Answer: A**

Option A is correct.

upvoted 2 times

✉ **serget12** 6 months, 2 weeks ago

With workspace-based resources, Application Insights sends telemetry to a common Log Analytics workspace, providing full access to all the features of Log Analytics while keeping your application, infrastructure, and platform logs in a single consolidated location.

upvoted 1 times

✉ **serget12** 6 months, 3 weeks ago

When you enable VM insights on a single virtual machine or virtual machine scale set by using the Azure portal, you can select an existing workspace or create a new one

upvoted 1 times

✉ **marcellov** 6 months, 3 weeks ago

**Selected Answer: A**

You can use a single workspace for all your data collection. You can also create multiple workspaces based on requirements such as:

The geographic location of the data.

Access rights that define which users can access data.

Configuration settings like pricing tiers and data retention.

<https://learn.microsoft.com/en-us/azure/azure-monitor/logs/log-analytics-workspace-overview>

upvoted 2 times

✉ **Ibang** 7 months ago

**Selected Answer: A**

A. No doubt.

upvoted 3 times

✉ **Arun\_U** 7 months, 2 weeks ago

**Selected Answer: C**

The Correct answer is C

Azure Monitor Network Insights requires a separate workspace.

Application Insights requires a separate workspace.

Microsoft Sentinel and VM insights can share a workspace.

upvoted 4 times

✉ **ccamlin111** 5 months, 3 weeks ago

This is what chatGPT says.

upvoted 1 times

✉ **xRiot007** 2 months ago

Then ChatGPT is wrong in this case. You only need 1 workspace for all your sources. I would advise reading the documentation and watching the video in the link below to get a correct understanding on how workspaces are used. <https://learn.microsoft.com/en-us/azure/azure-monitor/logs/workspace-design>

upvoted 1 times

✉ **skipandsnow** 7 months, 3 weeks ago

**Selected Answer: A**

A, no doubt

upvoted 1 times

✉ **fmelendezcr** 7 months, 3 weeks ago

Based on the information provided, the minimum number of Azure Monitor workspaces required is 1.

The key points:

Azure Monitor Network Insights, Application Insights, Microsoft Sentinel, and VM insights can all be enabled within a single Azure Monitor workspace.

Azure Monitor workspaces allow you to organize and manage monitoring data, configurations, and analytics.

Since a single team will be managing the monitoring solution, a single workspace is sufficient. Multiple workspaces are only needed if you want to divide management responsibilities.

All the mentioned monitoring services can be integrated into the same workspace. For example, you can ingest network and application logs into Microsoft Sentinel enabled in that workspace.

VM insights can also be configured for the VMs to send data to the same workspace.

Application Insights and Network Insights are natively integrated into the workspace.

upvoted 3 times

✉️  **alx3000** 8 months, 4 weeks ago

**Selected Answer: A**

should be A

upvoted 2 times

✉️  **Aaaud** 9 months ago

**Selected Answer: A**

should be A

upvoted 2 times

✉️  **MSC\_2022** 9 months ago

Yes, I think it should be A

upvoted 1 times

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

- A. Application Insights
- B. Azure Analysis Services
- C. Azure Advisor
- D. Azure Activity Log

**Correct Answer: D**

*Community vote distribution*

D (63%) C (38%)

✉  **jorabbit2021** Highly Voted 8 months ago

**Selected Answer: C**

Insanity, is doing the same thing over and over again expecting different results ... in this case I think I've gone insane.  
upvoted 14 times

✉  **Horus123** 6 months ago

Yes, it is repeated, but the answer changes position sometimes. Thus, the answer 'Azure Activity Log' is in position D this time, not C.  
upvoted 3 times

✉  **stonwall12** Highly Voted 7 months, 1 week ago

The correct answer is D: Azure Activity Log.  
The Azure Monitor activity log is a platform log in Azure that provides insight into subscription-level events. This includes ARM operational Data.  
It's not Azure Advisor. This is for analyzing resource configuration and following best practices. It doesn't provide detailed logs of ARM resource deployments, which is what the question is asking for.  
upvoted 13 times

✉  **Crossfader2208** Most Recent 1 month, 2 weeks ago

Correct answer is E  
upvoted 1 times

✉  **Vef** 2 months, 2 weeks ago

**Selected Answer: D**

I think I am ready for this question now  
upvoted 6 times

✉  **thamaster** 5 months ago

**Selected Answer: D**

activity log changed position this time  
upvoted 2 times

✉  **Micipsa** 6 months ago

**Selected Answer: D**

It's a repeated question  
upvoted 2 times

✉  **ArunS005** 6 months, 2 weeks ago

**Selected Answer: D**

This is a repeated question, kindly remove this.  
upvoted 3 times

✉  **reddyreddy** 6 months, 3 weeks ago

The correct answer is D: Azure Activity Log  
upvoted 4 times

✉  **Elecktrus** 7 months ago

**Selected Answer: D**

D is the correct option. I think that people is answering C because this question is n-plicated, but the order of the answers changes in every question. So, i suposse than in another question Log Analytics is in the C position

upvoted 3 times

✉  **xcs09** 7 months ago

**Selected Answer: D**

how can you expect to generate a report without logs? This question was repeated many times

upvoted 2 times

✉  **jerrychan** 7 months, 1 week ago

The correct answer is D.

[https://developerpublish.com/azure-tip-11-get-reports-of-arm-deployments-in-your-subscription/?expand\\_article=1](https://developerpublish.com/azure-tip-11-get-reports-of-arm-deployments-in-your-subscription/?expand_article=1)

upvoted 1 times

✉  **Leocan** 7 months, 1 week ago

**Selected Answer: D**

It is a repeated question many times.

upvoted 2 times

✉  **Skybert** 7 months, 1 week ago

**Selected Answer: D**

Well, i dont see why this one is different, and why people is voting C....

upvoted 1 times

✉  **Leocan** 7 months, 1 week ago

**Selected Answer: D**

It is a repeated question many times.

upvoted 1 times

✉  **sonixrw** 7 months, 1 week ago

**Selected Answer: D**

Answer is D

upvoted 2 times

✉  **ektorito** 7 months, 2 weeks ago

**Selected Answer: D**

Correct Answer: D

upvoted 1 times

✉  **nordbymikael** 7 months, 3 weeks ago

**Selected Answer: C**

Answer C

upvoted 1 times

✉  **emansourati** 7 months, 3 weeks ago

C or D?

upvoted 1 times

**HOTSPOT****Case Study**

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

**To start the case study**

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

**Overview**

Fabrikam, Inc. is an engineering company that has offices throughout Europe. The company has a main office in London and three branch offices in Amsterdam, Berlin, and Rome.

**Existing Environment: Active Directory Environment**

The network contains two Active Directory forests named corp.fabrikam.com and rd.fabrikam.com. There are no trust relationships between the forests.

Corp.fabrikam.com is a production forest that contains identities used for internal user and computer authentication.

Rd.fabrikam.com is used by the research and development (R&D) department only. The R&D department is restricted to using on-premises resources only.

**Existing Environment: Network Infrastructure**

Each office contains at least one domain controller from the corp.fabrikam.com domain. The main office contains all the domain controllers for the rd.fabrikam.com forest.

All the offices have a high-speed connection to the internet.

An existing application named WebApp1 is hosted in the data center of the London office. WebApp1 is used by customers to place and track orders. WebApp1 has a web tier that uses Microsoft Internet Information Services (IIS) and a database tier that runs Microsoft SQL Server 2016. The web tier and the database tier are deployed to virtual machines that run on Hyper-V.

The IT department currently uses a separate Hyper-V environment to test updates to WebApp1.

Fabrikam purchases all Microsoft licenses through a Microsoft Enterprise Agreement that includes Software Assurance.

#### Existing Environment: Problem Statements

The use of WebApp1 is unpredictable. At peak times, users often report delays. At other times, many resources for WebApp1 are underutilized.

#### Requirements: Planned Changes

-  
Fabrikam plans to move most of its production workloads to Azure during the next few years, including virtual machines that rely on Active Directory for authentication.

As one of its first projects, the company plans to establish a hybrid identity model, facilitating an upcoming Microsoft 365 deployment.

All R&D operations will remain on-premises.

Fabrikam plans to migrate the production and test instances of WebApp1 to Azure.

#### Requirements: Technical Requirements

Fabrikam identifies the following technical requirements:

- Website content must be easily updated from a single point.
- User input must be minimized when provisioning new web app instances.
- Whenever possible, existing on-premises licenses must be used to reduce cost.
- Users must always authenticate by using their corp.fabrikam.com UPN identity.
- Any new deployments to Azure must be redundant in case an Azure region fails.
- Whenever possible, solutions must be deployed to Azure by using the Standard pricing tier of Azure App Service.
- An email distribution group named IT Support must be notified of any issues relating to the directory synchronization services.
- In the event that a link fails between Azure and the on-premises network, ensure that the virtual machines hosted in Azure can authenticate to Active Directory.
- Directory synchronization between Azure Active Directory (Azure AD) and corp.fabrikam.com must not be affected by a link failure between Azure and the on-premises network.

#### Requirements: Database Requirements

Fabrikam identifies the following database requirements:

- Database metrics for the production instance of WebApp1 must be available for analysis so that database administrators can optimize the performance settings.
- To avoid disrupting customer access, database downtime must be minimized when databases are migrated.
- Database backups must be retained for a minimum of seven years to meet compliance requirements.

#### Requirements: Security Requirements

Fabrikam identifies the following security requirements:

- Company information including policies, templates, and data must be inaccessible to anyone outside the company.
- Users on the on-premises network must be able to authenticate to corp.fabrikam.com if an internet link fails.
- Administrators must be able to authenticate to the Azure portal by using their corp.fabrikam.com credentials.
- All administrative access to the Azure portal must be secured by using multi-factor authentication (MFA).
- The testing of WebApp1 updates must not be visible to anyone outside the company.

To meet the authentication requirements of Fabrikam, what should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

### Answer Area

Minimum number of Azure AD tenants:

0
1
2
3
4

Minimum number of conditional access policies to create:

0
1
2
3
4

### Answer Area

Minimum number of Azure AD tenants:

0
1
2
3
4

Minimum number of conditional access policies to create:

0
1
2
3
4

Correct Answer:

✉️  **QzLP2P** Highly Voted 8 months, 3 weeks ago

1. 1 AAD now Microsoft Entra ID
  2. 2 Conditional access policies :
    - Conditional Access Policy for Admin Access to the Azure Portal
    - Conditional Access Policy for Testing WebApp1 Updates
- upvoted 20 times

✉️  **QzLP2P** 8 months, 3 weeks ago

- All administrative access to the Azure portal must be secured by using multi-factor authentication (MFA).
  - The testing of WebApp1 updates must not be visible to anyone outside the company.
- upvoted 7 times

✉️  **iamhyumi** Highly Voted 7 months, 1 week ago

Got this on Sept. 5, 2023  
upvoted 11 times

✉️  **bryant12138** Most Recent 2 weeks, 5 days ago

Is that just me having the thought to give up on this question considering the chunk of words that need to be read?  
upvoted 1 times

✉️  **MAKH83** 3 months, 3 weeks ago

1. AAD Tenant
2. Company information including policies, templates, and data must be inaccessible to anyone outside the company.
- All administrative access to the Azure portal must be secured by using multi-factor authentication (MFA).

The testing of WebApp1 updates must not be visible to anyone outside the company - This one would use Deployment Slots under app services.

upvoted 3 times

✉️ **ALEX\_PARIS** 4 months, 1 week ago

It may perhaps be 0 access policies because MFA can be enforced for all admins accessing the Portal using PIM and for my understanding regarding the Testing WebApp1, outside the company would mean with no company account, therefore with no access without explicit guest access granting !!

upvoted 1 times

✉️ **ManosCaptain** 4 months, 3 weeks ago

Appeared on 11/21/2023

upvoted 5 times

✉️ **joesatriani** 6 months, 3 weeks ago

Are there any other Fabrikam case study questions besides this one?

upvoted 1 times

✉️ **Horus123** 6 months ago

Yes, see topics 7, 9, 11 and 16

upvoted 6 times

✉️ **SindhuM** 6 months, 3 weeks ago

2 Conditional Access Policies

1 for AZURE Admin's MFA Requirement

2 for Web App testing, the conditional access policy should contain named locations such as IP address/ subnets defined which R&D team might be accessing from their on-premise network.

upvoted 3 times

✉️ **stonwall12** 6 months, 4 weeks ago

Correct Answer

To meet the authentication requirements for the given case study, we need to evaluate the minimum number of Azure AD tenants and Conditional Access policies needed.

1. Number of Azure AD Tenants: 1

- With their aim to set up a hybrid identity model, this will typically use a single Azure AD tenant (Entra ID or whatever it's called now) connected to an on-premise AD domain.

2. Number of Conditional Access Policies: 2

Policy for MFA on Azure Portal Access:

- All administrative access must be secured by MFA, this will require a Conditional Access Policy to enforce.

Policy for WebApp1 Testing Access:

- The testing environment for WebApp1 should not be visible to those outside the company. So, a second policy is needed, which will restrict access to this testing instance based on criteria like belonging to certain user groups or logging in from specific internal IP addresses.

upvoted 7 times

✉️ **steus** 7 months, 3 weeks ago

poor wording as usual - outside the company means outside the corp LAN or corp user accounts?

upvoted 3 times

✉️ **aksrav** 8 months ago

what are the correct answers?

I am expecting 2(as there are two management groups ), 2

upvoted 1 times

✉️ **ptjuanramos** 7 months, 4 weeks ago

1 Azure Active Directory, RD will be maintained on premise

upvoted 3 times

✉️ **InvalidNickname** 8 months, 1 week ago

Got this on Aug 5th, 2023. There was only 1 case study.

upvoted 6 times

✉️ **mehak2020** 8 months, 1 week ago

What are the correct answers ?

upvoted 1 times

✉️ **wissemm** 8 months, 2 weeks ago

For ""The testing of WebApp1 updates must not be visible to anyone outside the company"" --> You can solve that with other solutions, it is not necessary to use conditional policies ?

upvoted 9 times

✉️ **mmarkiew** 4 months, 4 weeks ago

Yeah I agree. You'd deploy a separate testing environment and limit access to WebApp1 in that environment to authenticated users. You don't need a conditional access policy, and the question is asking for a minimum number. Answer should be 1 tenant and 1 policy (for MFA), IMO.

upvoted 5 times

You have an Azure subscription that contains 10 web apps. The apps are integrated with Azure AD and are accessed by users on different project teams.

The users frequently move between projects.

You need to recommend an access management solution for the web apps. The solution must meet the following requirements:

- The users must only have access to the app of the project to which they are assigned currently.
- Project managers must verify which users have access to their project's app and remove users that are no longer assigned to their project.
- Once every 30 days, the project managers must be prompted automatically to verify which users are assigned to their projects.

What should you include in the recommendation?

- A. Azure AD Identity Protection
- B. Microsoft Defender for Identity
- C. Microsoft Entra Permissions Management
- D. Azure AD Identity Governance

**Correct Answer: D**

*Community vote distribution*

D (100%)

✉  **Elecktrus**  6 months, 2 weeks ago

**Selected Answer: D**

Azure AD Identity Governance.

This is an updated version, in the old questions the right answers was "Access Review", but this options is not available here  
upvoted 16 times

✉  **m1dp**  6 months, 3 weeks ago

**Selected Answer: D**

Should be renamed to Microsoft Entra ID Governance.

upvoted 9 times

✉  **malcubierre**  6 months ago

**Selected Answer: D**

Not C, it is an active remediation permission tool... less broad than Identity Governance tool

upvoted 3 times

✉  **yuu\_oppai** 6 months, 3 weeks ago

Azure AD Identity Governance in the recommendation.

Azure AD Identity Governance provides a comprehensive solution for managing identity and access lifecycle, ensuring that access is granted in line with the principle of least privilege and is revoked when no longer needed<sup>1</sup>. It allows project managers to verify which users have access to their project's app and remove users that are no longer assigned to their project.

upvoted 3 times

✉  **marcellov** 6 months, 3 weeks ago

Microsoft AD Identity Governance (now Microsoft Entra ID Governance) allows you to balance your organization's need for security and employee productivity with the right processes and visibility. It provides you with capabilities to ensure that the right people have the right access to the right resources.

<https://learn.microsoft.com/en-us/azure/active-directory/governance/identity-governance-overview>

upvoted 5 times

**HOTSPOT**

You have an Azure subscription that contains 50 Azure SQL databases.

You create an Azure Resource Manager (ARM) template named Template1 that enables Transparent Data Encryption (TDE).

You need to create an Azure Policy definition named Policy1 that will use Template1 to enable TDE for any noncompliant Azure SQL databases.

How should you configure Policy1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Set available effects to:

DeployIfNotExists  
EnforceRegoPolicy  
Modify

Include in the definition:

The identity required to perform the remediation task  
The scopes of the policy assignments  
The role-based access control (RBAC) roles required to perform the remediation task

**Answer Area**

Set available effects to:

DeployIfNotExists  
EnforceRegoPolicy  
Modify

Correct Answer:

Include in the definition:

The identity required to perform the remediation task  
The scopes of the policy assignments  
The role-based access control (RBAC) roles required to perform the remediation task

✉️ **OrangeSG** Highly Voted 6 months ago

Box 1: DeployIfNotExists

DeployIfNotExists policy definition executes a template deployment when the condition is met. Policy assignments with effect set as DeployIfNotExists require a managed identity to do remediation.

Box 2: The role-based access control (RBAC) roles required to perform the remediation task

The question is what you have to "Include in the definition:" of the policy.

Refer to list of DeployIfNotExists properties, among them is roleDefinitionIds (required) - This property must include an array of strings that match role-based access control role ID accessible by the subscription.

<https://learn.microsoft.com/en-us/azure/governance/policy/concepts/effects#deployifnotexists>

upvoted 32 times

✉️ **profesorklaus** 1 month, 2 weeks ago

This is true what you are saying!

upvoted 1 times

✉️ **kl8585** 5 months, 2 weeks ago

Correct!

upvoted 1 times

✉️ **SDewan** 1 month, 3 weeks ago

Correct for Box 2, Scope is optional so it is wrong. Managed identity is not part of definition so its wrong. roleDefinitionId is required field in the definition, so it is right answer.

upvoted 2 times

✉  **paridao**  6 months, 2 weeks ago

The question is what you have to "Include in the definition:" of the policy.

The Managed Identity is linked after, during the remediation process phase, it's not included in the definition.

That restrict the possible answers two the scope or the RBAC Roles (roleDefinitionIds).

Because the "roleDefinitionIds" field is required while "scope" is optional, the correct answer is "roleDefinitionIds".

In detail, for the specific question, the property to be include is as follows:

```
"roleDefinitionIds": [  
    "/subscriptions/{subscriptionId}/providers/Microsoft.Authorization/roleDefinitions/{roleGUID}",  
    "/providers/Microsoft.Authorization/roleDefinitions/{builtinroleGUID}"  
]
```

Correctly mentioned by the other guys at the link: <https://learn.microsoft.com/en-us/azure/governance/policy/concepts/effects#deployifnotexists-example>

upvoted 7 times

✉  **varinder82**  1 week, 5 days ago

Final Answer:

1. DeployIfNotExists
2. The role-based access control (RABC) roles required to perform the remediation task

upvoted 1 times

✉  **MelKr** 2 weeks, 1 day ago

correct answers:

1. DeployIfNotExists
2. The role-based access control (RABC) roles required to perform the remediation task

The question is asking for the policy definition and not the policy assignment. The article clearly states, that for the policy definition the "roleDefinitionIds" are required whereas the policy assignment will require a Managed Identity for the remediation task having the required permissions.

<https://learn.microsoft.com/en-us/azure/governance/policy/concepts/effects#deployifnotexists>

upvoted 1 times

✉  **Ma\_Lez** 4 weeks ago

Provided answers are correct.

1. DeployIfNotExists
2. The required identity

RERENCE: " Exam Ref AZ-305 Designing Microsoft Azure Infrastructure Solutions by Ashish Agrawal" Page 71

DeployIfNotExists This effect is similar to AuditIfNotExists, except that this effect executes a template to deploy needed resources for the identified noncompliant resource rather than marking the resource as noncompliant. The policy assignment of a policy having the DeployIfNotExists effect requires managed identity to take remediation action.

upvoted 1 times

✉  **K\_yamini** 1 month, 2 weeks ago

What is the correct answer for Second Point?

upvoted 1 times

✉  **WeepingMaple** 2 months, 2 weeks ago

EnforceRegoPolicy (deprecated): configures the Open Policy Agent admissions controller with Gatekeeper v2 in Azure Kubernetes Service  
upvoted 2 times

✉  **JimmyYop** 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 4 times

✉  **icebreak** 2 months, 3 weeks ago

Answers are correct!

Box 1 ( i think we all agree its Deploy...)

Box 2 is "the identity required to .. remediation task" - because in order to make the definition you have to go to the remediation tab.

<https://learn.microsoft.com/en-us/azure/governance/policy/how-to/remediate-resources?tabs=azure-portal#configure-the-policy-definition>

upvoted 1 times

I don't think so...The question is mentioning ARM Template and not the portal. In the ARM Template you only specify the role ID, which is the RBAC-Role mentioned in the question and the link you provided. So as OrangeSG wrote, the role should be correct.

upvoted 2 times

✉  **MAKH83** 3 months, 2 weeks ago

Heres what it says on the Remediation page when creating a definition in the Azure Portal:

Policies with the deployIfNotExists and modify effect types need the ability to deploy resources and edit tags on existing resources respectively. To do this, choose between an existing user assigned managed identity or creating a system assigned managed identity.

No mention of RBAC roles. so i believe the answer given is correct.

upvoted 1 times

✉️ **BShelat** 4 months, 1 week ago

Both answers are correct. Managed identity is getting mapped with the role name in background and policy definition based remediation works with this mapped managed identity of a role NOT with the RBAC role name and hence "The identity to perform remediation task" is correct answer

<https://learn.microsoft.com/en-us/azure/governance/policy/how-to/remediate-resources?tabs=azure-portal>

<https://learn.microsoft.com/en-us/azure/governance/policy/how-to/remediate-resources?tabs=azure-portal#configure-the-policy-definition>

upvoted 1 times

✉️ **malcubierre** 6 months, 2 weeks ago

Upon this example: <https://learn.microsoft.com/en-us/azure/governance/policy/concepts/effects#deployifnotexists>, it seems that "RBAC roles" are needed

upvoted 2 times

✉️ **m1dp** 6 months, 3 weeks ago

Correct answer.

upvoted 2 times

✉️ **husam421** 6 months, 3 weeks ago

Given answer correct test in lap

upvoted 2 times

✉️ **Gato\_Pirao** 6 months, 3 weeks ago

<https://learn.microsoft.com/en-us/azure/governance/policy/concepts/effects#deployifnotexists-example>

Example: Evaluates SQL Server databases to determine whether transparentDataEncryption is enabled. If not, then a deployment to enable is executed.

upvoted 2 times

✉️ **ArunVignesh** 6 months, 3 weeks ago

Which is the correct answer?

upvoted 3 times

✉️ **marcellov** 6 months, 3 weeks ago

Right answer. DeployIfNotExists policy definition executes a template deployment when the condition is met. Policy assignments with effect set as DeployIfNotExists require a managed identity to do remediation.

<https://learn.microsoft.com/en-us/azure/governance/policy/concepts/effects#deployifnotexists>

upvoted 6 times

You have an Azure subscription. The subscription contains a tiered app named App1 that is distributed across multiple containers hosted in Azure Container Instances.

You need to deploy an Azure Monitor monitoring solution for App1. The solution must meet the following requirements:

- Support using synthetic transaction monitoring to monitor traffic between the App1 components.
- Minimize development effort.

What should you include in the solution?

- A. Network insights
- B. Application Insights
- C. Container insights
- D. Log Analytics Workspace insights

**Correct Answer: B**

*Community vote distribution*

B (100%)

✉  **AdventureChick** Highly Voted 6 months, 3 weeks ago

**Selected Answer: B**

B Application Insights

This is a Microsoft release. The title says it all: Generally available: Application Insights synthetic monitoring SLA report template  
<https://azure.microsoft.com/en-us/updates/generally-available-application-insights-synthetic-monitoring-sla-report-template/>  
upvoted 6 times

✉  **m1dp** Most Recent 6 months, 3 weeks ago

**Selected Answer: B**

Answer is B.

upvoted 2 times

✉  **starseed** 6 months, 3 weeks ago

Yes correct ans----> B

upvoted 1 times

✉  **joesatriani** 6 months, 3 weeks ago

**Selected Answer: B**

This is B.

upvoted 1 times

✉  **joesatriani** 6 months, 3 weeks ago

This is B.

upvoted 1 times

**HOTSPOT**

You have an Azure subscription that contains the resources shown in the following table:

Name	Type	Description
App1	Azure App Service app	<i>None</i>
Workspace1	Log Analytics workspace	Configured to use a pay-as-you-go pricing tier
App1Logs	Log Analytics table	Hosted in Workspace1 Configured to use the Analytics Logs data plan

Log files from App1 are registered to App1Logs. An average of 120 GB of log data is ingested per day.

You configure an Azure Monitor alert that will be triggered if the App1 logs contain error messages.

You need to minimize the Log Analytics costs associated with App1. The solution must meet the following requirements:

- Ensure that all the log files from App1 are ingested to App1Logs.
- Minimize the impact on the Azure Monitor alert.

Which resource should you modify, and which modification should you perform? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Resource:

App1  
 App1Logs  
 Workspace1

Modification:

Change to a commitment pricing tier.  
 Change to the Basic Logs data plan.  
 Set a daily cap.

**Answer Area**

Correct Answer: Resource:

App1  
 App1Logs  
**Workspace1**

Modification:

**Change to a commitment pricing tier**  
 Change to the Basic Logs data plan.  
 Set a daily cap.

 **marcellov** Highly Voted  6 months, 3 weeks ago

I think it is the right answer.

"In addition to the pay-as-you-go model, Log Analytics has commitment tiers, which can save you as much as 30 percent compared to the pay-as-you-go price. With commitment tier pricing, you can commit to buy data ingestion for a workspace, starting at 100 GB per day, at a lower price than pay-as-you-go pricing."

<https://learn.microsoft.com/en-us/azure/azure-monitor/logs/cost-logs#commitment-tiers>

upvoted 13 times

 **nav109** Highly Voted  4 months, 3 weeks ago

This question appeared on my Exam today 11/17/2023

upvoted 9 times

✉  **varinder82** Most Recent ⓘ 1 week, 5 days ago

Final Answer:

1. Workspace1
2. Change to Commitment Pricing tier

In addition to the pay-as-you-go model, Log Analytics has commitment tiers, which can save you as much as 30 percent compared to the pay-as-you-go price. With commitment tier pricing, you can commit to buy data ingestion for a workspace, starting at 100 GB per day, at a lower price than pay-as-you-go pricing."

upvoted 1 times

✉  **MeisAdriano** 6 months ago

Answer is correct.

Since you have an average of 120GB of log data per day, to minimize costs and impact you should change the "Workspace1" plan from "pay-as-you-go" to "commitment pricing tier"; the "commitment pricing tier" is good starting at 100GB per day of logs.

<https://learn.microsoft.com/en-us/azure/azure-monitor/logs/cost-logs#commitment-tiers>

upvoted 5 times

✉  **Exams\_Prep\_2021** 6 months, 2 weeks ago

Got this on Sept. 29, 2023

upvoted 5 times

✉  **m1dp** 6 months, 3 weeks ago

Answer is correct. We know the average amount of logs is over 100GB ingested daily so we can commit to buy data ingestion.

upvoted 3 times

✉  **Forex19** 6 months, 3 weeks ago

I had question at 24th Sep 2023

upvoted 5 times

You have 12 Azure subscriptions and three projects. Each project uses resources across multiple subscriptions.

You need to use Microsoft Cost Management to monitor costs on a per project basis. The solution must minimize administrative effort.

Which two components should you include in the solution? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. budgets
- B. resource tags
- C. custom role-based access control (RBAC) roles
- D. management groups
- E. Azure boards

**Correct Answer: BD**

*Community vote distribution*

AB (83%)

BD (17%)

✉️  **Forex19** Highly Voted 6 months, 3 weeks ago

I had question at 24th Sep 2023  
upvoted 9 times

✉️  **m1dp** Highly Voted 6 months, 3 weeks ago

**Selected Answer: AB**

We first create tags on the resources per project, afterwards we create a budget for monitoring the costs.  
upvoted 7 times

✉️  **prshntdxt7** Most Recent 4 weeks ago

**Selected Answer: AB**

budgets, resource tags  
upvoted 1 times

✉️  **RockyChak** 1 month, 2 weeks ago

B and D are the correct answers. Refer to the below:

<https://learn.microsoft.com/en-us/azure/cost-management-billing/costs/understand-work-scopes>  
<https://learn.microsoft.com/en-us/azure/cost-management-billing/costs/quick-acm-cost-analysis>  
upvoted 3 times

✉️  **SDewan** 1 month, 3 weeks ago

**Selected Answer: AB**

Budget and resource tags. Management group is wrong.  
upvoted 1 times

✉️  **f2c587e** 1 month, 3 weeks ago

**Selected Answer: BD**

Minimizar el esfuerzo administrativo. los grupos de administracion cumplen con esto.  
upvoted 1 times

✉️  **TonySuccess** 3 months ago

**Selected Answer: AB**

AB - :)  
upvoted 1 times

✉️  **vRP007** 3 months, 3 weeks ago

The Question states "Which 'TWO' components...?"  
Is budget a component..?

my view on this is, budget would be covered under 'Management Group' as part of cost management policies...

Also, I get that while budgets can be useful for setting spending limits and monitoring costs against those limits, they don't directly facilitate per-project cost monitoring.

upvoted 1 times

✉ **youngzyl** 4 months ago

**Selected Answer: BD**

Since "You have 12 Azure subscriptions and three projects." Use management groups helps you managing subscriptions across different projects, and "Each project uses resources across multiple subscriptions." which resource tags help you managing resources within different subs

upvoted 4 times

✉ **BShelat** 4 months, 1 week ago

"Budgets" is NOT a component but it is a method to keep an eye on the usage of the resources and get alerted when usage exceeding beyond whatever \$ we want to spend and perform some action to stop that exceeding usage. We can "Monitor" cost analysis blade without configuring budgets. So answers B & D are correct answers.

upvoted 2 times

✉ **GODUSGREAT** 5 months, 1 week ago

**Selected Answer: AB**

correct answer

upvoted 2 times

✉ **ArunS005** 6 months, 1 week ago

**Selected Answer: AB**

"Budget & Resource Tags" are the correct options.

upvoted 1 times

✉ **yuu\_oppai** 6 months, 3 weeks ago

**Selected Answer: AB**

Resource Tags (B): Tagging is an easy way to classify assets. That metadata can be used to classify the asset based on various data points. When tags are used to classify assets as part of a cost management effort, companies often need tags such as project. Azure Cost Management + Billing can use these tags to create different views of cost data.

Budgets (A): Budgets in Azure Cost Management + Billing help you plan for and drive organizational accountability. With budgets, you can account for the Azure services you consume or subscribe to during a specific period, and proactively notify teams about how they're tracking against their spending targets.

upvoted 3 times

✉ **JeyD** 6 months, 3 weeks ago

**Selected Answer: AB**

To monitor costs on a per project basis using Microsoft Cost Management, you should include the following components in your solution:

- A. Budgets: Azure Cost Management + Billing allows you to create and manage budgets, which can help you monitor costs proactively1.
- B. Resource Tags: Tagging is an easy way to classify assets. Tagging associates metadata to an asset, which can be used to classify the asset based on various data points. When tags are used to classify assets as part of a cost management effort, companies often need tags such as project, business unit, department, billing code, geography, environment, and workload or application categorization2. Azure Cost Management + Billing can use these tags to create different views of cost data2.

So the correct answers are A. budgets and B. resource tags.

upvoted 4 times

✉ **marcellov** 6 months, 3 weeks ago

**Selected Answer: AB**

A few examples of what you can do in Cost Management include:

- Report on and analyze costs in the Azure portal, Microsoft 365 admin center, or Power BI.
- Monitor costs proactively with budget, anomaly, reservation utilization, and scheduled alerts.
- Enable tag inheritance and split shared costs with cost allocation rules.
- Automate business processes or integrate cost into external tools by exporting data.

Budgets in Cost Management help you plan for and drive organizational accountability. They help you proactively inform others about their spending to manage costs and monitor how spending progresses over time.

upvoted 4 times

**HOTSPOT**

You have an Azure subscription that contains multiple storage accounts.

You assign Azure Policy definitions to the storage accounts.

You need to recommend a solution to meet the following requirements:

- Trigger on-demand Azure Policy compliance scans.
- Raise Azure Monitor non-compliance alerts by querying logs collected by Log Analytics.

What should you recommend for each requirement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

To trigger the compliance scans, use:

An Azure template
The Azure Command-Line Interface (CLI)
The Azure portal

To generate the non-compliance alerts, configure diagnostic settings for the:

Azure activity logs
Log Analytics workspace
Storage accounts

**Answer Area**

To trigger the compliance scans, use:

An Azure template
<b>The Azure Command-Line Interface (CLI)</b>
The Azure portal

**Correct Answer:**

To generate the non-compliance alerts, configure diagnostic settings for the:

<b>Azure activity logs</b>
Log Analytics workspace
Storage accounts

godchild Highly Voted 6 months ago

my experience on Azure Policy alert:

box1: CLI is correct. I use powershell command to do this

box2: I first set the diagnostic setting on activity log so that all policy related messages are sent to log analytic workspace. And then on log analytic workspace setup alert rules that send alert whenever non-informative messages are found. Simply speaking, diagnostic setting is on activity log, alert rule setup is on log analytic workspace.

upvoted 12 times

mmarkiew 4 months, 3 weeks ago

Adding a reference supporting Azure CLI for box 1:

<https://learn.microsoft.com/en-us/azure/governance/policy/how-to/get-compliance-data#on-demand-evaluation-scan>

It doesn't appear that on-demand scans can be initiated from Azure Portal.

upvoted 2 times

mykola\_yakovliev Highly Voted 6 months, 1 week ago

Provided answers look correct:

To trigger the compliance scans, use Azure CLI

> <https://learn.microsoft.com/en-us/azure/governance/policy/how-to/get-compliance-data#on-demand-evaluation-scan>

An evaluation scan for a subscription or a resource group can be started with Azure CLI, Azure PowerShell, a call to the REST API, or by using the Azure Policy Compliance Scan GitHub Action. This scan is an asynchronous process. An evaluation scan for a subscription or a resource group can be started with Azure CLI, Azure PowerShell, a call to the REST API, or by using the Azure Policy Compliance Scan GitHub Action. This scan is an asynchronous process.

To generate alerts, configure diagnostic settings for the Azure activity logs

> <https://learn.microsoft.com/en-us/azure/azure-monitor/alerts/alerts-create-new-alert-rule>

upvoted 9 times

✉  **mykola\_yakovliev** 6 months, 1 week ago

Also, note that on-demand evaluation scan can be triggered not only by Azure CLI, but also using Azure PowerShell, REST API call and Azure Policy Compliance Scan GitHub action.

upvoted 3 times

✉  **varinder82** Most Recent 3 weeks, 3 days ago

Final Answer:

- 1- CLI
- 2- Storage account

upvoted 1 times

✉  **Fidel\_104** 1 month, 1 week ago

- 1- CLI

- 2- Storage account

-1-

For the 1st question as others pointed out, you have to use CLI - you cannot trigger them from the Portal, and the 3rd option (Templates) doesn't make any sense.

Source: <https://learn.microsoft.com/en-us/azure/governance/policy/how-to/get-compliance-data#on-demand-evaluation-scan>

-2-

This is tricky, I actually changed my mind after going through the docs. If you read the article 'Create diagnostic settings in Azure Monitor' (link below), you will see that the guide explicitly states (with screenshots) that within Azure Monitor, you have to select a resource (that is the Storage account in our case), select the Diagnostic settings, and then you can add a new or edit the existing diagnostic settings.

Source: <https://learn.microsoft.com/en-us/azure/azure-monitor/essentials/create-diagnostic-settings?tabs=portal>

upvoted 2 times

✉  **profesorklaus** 1 month, 1 week ago

Here how you can do it:

1. Create a log workspace
2. Create a policy referring to Storage Account which will be violated i.e Storage accounts should restrict network access or Storage accounts should disable public network access
3. Go to Monitor => Activity Log and see an option Export Activity Logs and click it
4. Add diagnostic setting for Policy and send it to newly created workspace. Now all policy alerts should go to log workspace.

upvoted 2 times

✉  **profesorklaus** 1 month, 1 week ago

5. Run policy scan by az policy state trigger-scan. This is manual run and should show a policy compliance violation  
6. Go to Monitor => Alerts => Create alert rule. You need to choose Custom Log search with a query which triggers alert i.e. AzureActivity | where CategoryValue == "Policy" and Level == "Warning"  
| count and triggers when count > 0

upvoted 2 times

✉  **profesorklaus** 1 month, 1 week ago

7. Select or create an action group to email you about policy violation  
8. Last final step. Add storage account and wait until alert is triggered. You should see it in inbox or any target you specified. Enjoy!  
upvoted 1 times

✉  **Risto83** 1 month, 3 weeks ago

- 1- CLI
- 2- Log analytics

<https://medium.com/azure-architects/using-log-analytics-alerts-for-non-compliant-azure-policies-8d99f74089d9>

upvoted 1 times

✉  **GSChoff** 2 months, 4 weeks ago

First option is correct, for second, the diagnostic log blade for azure monitor shows all the storage accounts with their diagnostic settings on or off is second answer still correct ?

upvoted 1 times

✉  **kodathedog** 5 months ago

It does indeed look like Activity Logs don't have the necessary information to create the required alerts. See

<https://techcommunity.microsoft.com/t5/fasttrack-for-azure/generate-azure-policy-compliance-alerts-by-sending-custom-data/ba-p/3671119>

upvoted 3 times

✉  **TonySuccess** 3 months ago

Replaced by the Diagnostic Setting:

<https://azure.microsoft.com/en-us/updates/azure-activity-logs-legacy-solution-is-replaced-by-diagnostic-settings/#:~:text=Azure%20Activity%20Logs%20Legacy%20solution,settings%20%7C%20Azure%20updates%20%7C%20Microsoft%20Azure>  
upvoted 1 times

✉  **matanzpl** 6 months ago

box 2 - Azure Activity logs are no longer supported:  
<https://techcommunity.microsoft.com/t5/itops-talk-blog/how-to-create-azure-monitor-alerts-for-non-compliant-azure/ba-p/713466>  
upvoted 4 times

✉️ **StixxNSnares** 5 months, 1 week ago

I'd say look into the MS Learn resource as it has the most updated information:  
<https://learn.microsoft.com/en-us/azure/azure-monitor/essentials/activity-log?tabs=powershell>  
upvoted 2 times

✉️ **StixxNSnares** 5 months ago

The Azure Monitor activity log is a platform log in Azure that provides insight into subscription-level events. The activity log includes information like when a resource is modified or a virtual machine is started. You can view the activity log in the Azure portal or retrieve entries with PowerShell and the Azure CLI. This article provides information on how to view the activity log and send it to different destinations.

For more functionality, create a diagnostic setting to send the activity log to one or more of these locations for the following reasons:

Send to Azure Monitor Logs for more complex querying and alerting and for longer retention, up to two years.  
Send to Azure Event Hubs to forward outside of Azure.

Send to Azure Storage for cheaper, long-term archiving.

upvoted 2 times

✉️ **serget12** 6 months, 1 week ago

You should setup using workflow automation in the portal. With continuous export set to the correct workspace.  
upvoted 1 times

✉️ **kecskesajt** 6 months, 1 week ago

Is it correct?

upvoted 1 times

**HOTSPOT**

You have an Azure subscription.

You plan to deploy five storage accounts that will store block blobs and five storage accounts that will host file shares. The file shares will be accessed by using the SMB protocol.

You need to recommend an access authorization solution for the storage accounts. The solution must meet the following requirements:

- Maximize security.
- Prevent the use of shared keys.
- Whenever possible, support time-limited access.

What should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

For the blobs:

- A user delegation shared access signature (SAS) only
- A shared access signature (SAS) and a stored access policy
- A user delegation shared access signature (SAS) and a stored access policy

For the file shares:

- Azure AD credentials
- A user delegation shared access signature (SAS) only
- A user delegation shared access signature (SAS) and a stored access policy

**Answer Area**

For the blobs:

- A user delegation shared access signature (SAS) only
- A shared access signature (SAS) and a stored access policy**
- A user delegation shared access signature (SAS) and a stored access policy

**Correct Answer:**

For the file shares:

- Azure AD credentials**
- A user delegation shared access signature (SAS) only
- A user delegation shared access signature (SAS) and a stored access policy

✉  **mykola\_yakovliev**  6 months, 1 week ago

1. For the blobs - a user delegation SAS only

To maximize security it's better to use a user delegation SAS:

From docs: As a security best practice, we recommend that you use Azure AD credentials when possible, rather than the account key, which can be more easily compromised. When your application design requires shared access signatures, use Azure AD credentials to create a user delegation SAS to help ensure better security.

This also prevents using shared keys & supports time-limited access. Note: user delegation SAS do not support stored access policies.

2. For the file shares - Azure AD credentials

It fulfills the requirement to maximize security (the most secure way recommended by Microsoft), but doesn't support time-limited access, which is optional and has lower priority than security.

Source: <https://learn.microsoft.com/en-us/rest/api/storageservices/create-user-delegation-sas>.

upvoted 36 times

✉  **varinder82**  3 weeks, 4 days ago

Final Answer :

1. A user delegation SAS only
2. Azure AD credentials

upvoted 2 times

✉  **randy0077** 5 months, 4 weeks ago

Answer:

- user delegation SAS only
- AzureAD authentication

upvoted 4 times

✉  **U4ea** 6 months ago

I'm not 100% sure on the correct answers but found the following info:

"Stored access policies are not supported for the user delegation SAS or the account SAS."

<https://learn.microsoft.com/en-us/rest/api/storageservices/define-stored-access-policy>

So "user SAS + stored access policies" are wrong at least for both questions.

File Share doesn't allow Azure AD (only AD DS like btboudreux said) login so I guess it is regular user SAS for question2?

It feels wrong though.

upvoted 2 times

✉  **ec2user** 5 months, 4 weeks ago

A user delegation SAS is supported for Azure Blob Storage and Azure Data Lake Storage Gen2. Stored access policies are not supported for a user delegation SAS.

<https://learn.microsoft.com/en-us/rest/api/storageservices/create-user-delegation-sas>

so since user delegated SAS isn't supported for file share, the only answer left is Azure AD credentials for question 2 and has to be the answer(though incomplete) for this specific question.

upvoted 6 times

✉  **btboudreux** 6 months, 1 week ago

I'm confused about the File Shares part of the question.

The question states that the File Shares will be accessed over SMB. According to this documentation, and testing, you cannot access File Shares via SMB by Azure AD alone. You need On Prem Synced accounts or Azure ADDS.

<https://learn.microsoft.com/en-us/azure/storage/files/storage-files-active-directory-overview>

upvoted 3 times

✉  **chair123** 1 month, 1 week ago

That's interestingly true

upvoted 2 times

**HOTSPOT**

You have an Azure subscription. The subscription contains 100 virtual machines that run Windows Server 2022 and have the Azure Monitor Agent installed.

You need to recommend a solution that meets the following requirements:

- Forwards JSON-formatted logs from the virtual machines to a Log Analytics workspace
- Transforms the logs and stores the data in a table in the Log Analytics workspace

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

To forward the logs:

- A linked storage account for the Log Analytics workspace
- An Azure Monitor data collection endpoint
- A service endpoint

To transform the logs and store the data:

- A KQL query
- A WQL query
- An XPath query

**Answer Area**

To forward the logs:

- A linked storage account for the Log Analytics workspace
- An Azure Monitor data collection endpoint
- A service endpoint

Correct Answer:

To transform the logs and store the data:

- A KQL query
- A WQL query
- An XPath query

✉  **Elecktrus**  6 months ago

in the exam today 11-Oct. Answered:

Box1 - Azure Monitor Data collection

Box2 - KQL

upvoted 15 times

✉  **GeorgiAngelov** 5 months, 3 weeks ago

and what was your score?

upvoted 3 times

✉  **TaoLu** 5 months ago

Box2 should be XPATH

upvoted 1 times

✉  **mmarkiew** 4 months, 3 weeks ago

For those arguing XPATH over KQL, as far as I can tell, XPATH can only filter (not transform) event log data that is sent to a Log Analytics workspace. KQL, on the other hand, can be used for ingestion-time transformations that allow for filtering or modification of incoming data before it's stored in a Log Analytics workspace. So Box 2 should indeed be KQL.

References:

<https://learn.microsoft.com/en-us/azure/azure-monitor/agents/data-collection-rule-azure-monitor-agent?tabs=portal#filter-events-using-xpath-queries>

<https://learn.microsoft.com/en-us/azure/azure-monitor/agents/azure-monitor-agent-transformation>

upvoted 5 times

✉️👤 **xRiot007** 1 month, 4 weeks ago

Microsoft recommends in their official documentation to use KQL to transform data at ingestion, but it seems that some people here are smarter than the creators of these tools :))

upvoted 4 times

✉️👤 **chair123** 1 month, 1 week ago

KQL is correct. Here is the link as reference for ingested-transformation:

<https://learn.microsoft.com/en-us/azure/azure-monitor/essentials/data-collection-transformations#how-transformations-work>:~:text=Transformations%20are%20defined%20in%20a%20data%20collection%20rule%20(DCR)%20and%20use%20a%20Kusto%20Query%20Language%20(KQL)%20statement

upvoted 1 times

✉️👤 **chair123** 1 month, 1 week ago

\*\* Ingestion-Time Transformation

upvoted 1 times

✉️👤 **vensub** Highly Voted 5 months, 3 weeks ago

For Box 2 - It should be KQL

<https://learn.microsoft.com/en-us/azure/azure-monitor/agents/azure-monitor-agent-transformation>

upvoted 8 times

✉️👤 **peterp007** Most Recent 3 months, 1 week ago

DCE

KQL

<https://learn.microsoft.com/en-us/azure/azure-monitor/essentials/data-collection-transformations#how-transformations-work>:~:text=Transformations%20are%20defined%20in%20a%20data%20collection%20rule%20(DCR)%20and%20use%20a%20Kusto%20Query%20Language%20(KQL)%20statement

"Transformations are defined in a data collection rule (DCR) and use a Kusto Query Language (KQL) statement that's applied individually to each entry in the incoming data. It must understand the format of the incoming data and create output in the structure expected by the destination."

upvoted 4 times

✉️👤 **kishoredeena** 3 months, 1 week ago

Box2 - KQL feels appropriate

<https://learn.microsoft.com/en-us/azure/azure-monitor/essentials/data-collection-transformations>

upvoted 1 times

✉️👤 **Aryan171** 3 months, 2 weeks ago

For (2) you must consider "Forwards JSON-formatted logs ". XPath can extract information from XML documents. For non-XML documents as in this case, KQL is the suggested approach.

upvoted 1 times

✉️👤 **ManosCaptain** 4 months, 3 weeks ago

Appeared on 11/21/2023

upvoted 3 times

✉️👤 **Tay2234** 4 months, 4 weeks ago

For Box 2 - It should be KQL

<https://learn.microsoft.com/en-us/azure/azure-monitor/essentials/data-collection-transformations-structure>

upvoted 2 times

✉️👤 **malcubierre** 5 months ago

Should be XPath: <https://learn.microsoft.com/en-us/azure/azure-monitor/agents/data-collection-rule-azure-monitor-agent?tabs=portal>

upvoted 1 times

XPath just collects the data. it does NOT transform the data KQL Query Language is used to transform the collected data.

<https://learn.microsoft.com/en-us/azure/azure-monitor/essentials/data-collection-transformations-structure>

upvoted 1 times

✉️👤 **mykola\_yakovliev** 6 months, 1 week ago

The first answer is correct (<https://learn.microsoft.com/en-us/azure/azure-monitor/agents/data-collection-rule-azure-monitor-agent>)

To transform the logs and store the data use an XPath query (<https://learn.microsoft.com/en-us/azure/azure-monitor/agents/data-collection-rule-azure-monitor-agent#filter-events-using-xpath-queries>).

upvoted 8 times

✉️👤 **TheOlli** 6 months, 1 week ago

XPath is for XML only. KQL can query JSON. AFAIK.

upvoted 11 times

✉️👤 **TaoLu** 5 months ago

Who told you XPath can only used for XML?

upvoted 1 times

✉️👤 **kayceeeec** 6 months ago

To forward the logs: Use the Azure Monitor Agent. The Azure Monitor Agent can collect different types of data into a Log Analytics workspace, including JSON-formatted logs from your virtual machines.

To transform the logs and store the data: Use Kusto Query Language (KQL). Once the data is in the Log Analytics workspace, you can write KQL queries to transform the logs and store the data in a table in the workspace. KQL is a read-only request to process data and return results.

upvoted 6 times

**HOTSPOT**

You have five Azure subscriptions. Each subscription is linked to a separate Azure AD tenant and contains virtual machines that run Windows Server 2022.

You plan to collect Windows security events from the virtual machines and send them to a single Log Analytics workspace.

You need to recommend a solution that meets the following requirements:

- Collects event logs from multiple subscriptions
- Supports the use of data collection rules (DCRs) to define which events to collect

What should you recommend for each requirement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

To collect the event logs:

Azure Event Grid
Azure Lighthouse
Azure Purview

To support the DCRs:

The Log Analytics agent
The Azure Monitor agent
The Azure Connected Machine agent

### Answer Area

To collect the event logs:

Azure Event Grid
Azure Lighthouse
Azure Purview

Correct Answer:

To support the DCRs:

The Log Analytics agent
The Azure Monitor agent
The Azure Connected Machine agent

  **AmineD**  3 months ago

Box 1: Azure Lighthouse

To send data across tenants, you must first enable Azure Lighthouse.

Box 2: Azure Log Analytics agent

<https://learn.microsoft.com/en-us/azure/azure-monitor/agents/agents-overview#install-the-agent-and-configure-data-collection>  
upvoted 5 times

  **MiniLa92** 3 months ago

As per the link you provided, the second ans should be Azure Monitor agent. In doc it says "Azure Monitor Agent uses data collection rules, where you define which data you want each agent to collect. Data collection rules let you manage data collection settings at scale and define unique, scoped configurations for subsets of machines. You can define a rule to send data from multiple machines to multiple destinations across regions and tenants."

upvoted 3 times

✉️ **MiniLa92** 3 months ago

It also mentions that "If you have machines already deployed with legacy Log Analytics agents, we recommend you migrate to Azure Monitor Agent as soon as possible. The legacy Log Analytics agent will not be supported after August 2024."

upvoted 4 times

✉️ **JimmyYop** 2 months, 3 weeks ago

answer to box 2 should be the 'Azure Monitor Agent' as Log Analytics Agent is on the path to be deprecated.  
<https://learn.microsoft.com/en-us/azure/azure-monitor/agents/log-analytics-agent>

upvoted 10 times

✉️ **varinder82** Most Recent 3 weeks, 4 days ago

Final Answer:

- 1: Azure Lighthouse
2. Azure Monitor Agent

upvoted 4 times

✉️ **SDewan** 1 month, 3 weeks ago

This seems a bit confusing question. Azure light house is needed for multitenant management. As per documentation, it says log analytics workspace should be created at each tenant, and then "You can run log queries to retrieve data across Log Analytics workspaces in different customer tenants by creating a union that includes multiple workspaces. ". But in the question it says all logs need to be ingested to a single workspace.

I would go for "Azure lighthouse" for the first one since eventgrid and purview are not related to the topic. Azure monitoring agent cannot natively send logs to event grid. 2nd answer is Azure monitoring agent.

upvoted 2 times

✉️ **TonySuccess** 3 months ago

Yes this is a funny one because Lighthouse is needed to connect to multiple tenants, but Event Grid is needed to collect the logs. Since they are asking for a solution it's hard to assume lighthouse is already in place and select Event Grid...

Anybody able to add to this?

upvoted 1 times

✉️ **TJ001** 2 months, 2 weeks ago

I will vote for Light house. Event logs need to be sourced to a Log Analytics workspace of MSP subscription set up by Lighthouse

upvoted 4 times

✉️ **[Removed]** 3 months, 1 week ago

Shouldn't box1 be Azure Lighthouse?

upvoted 4 times

✉️ **[Removed]** 3 months ago

Had a second look at this and I think it should be Azure Lighthouse.

<https://learn.microsoft.com/en-us/azure/lighthouse/how-to/monitor-at-scale>

But I think the second box is correct - AMA agent. The LA agent is gonna be deprecated in August 2024 and customers are already migrating away from it.

upvoted 2 times

## Topic 2 - Question Set 2

Question #1

Topic 2

You have 100 servers that run Windows Server 2012 R2 and host Microsoft SQL Server 2014 instances. The instances host databases that have the following characteristics:

- Stored procedures are implemented by using CLR.
- The largest database is currently 3 TB. None of the databases will ever exceed 4 TB.

You plan to move all the data from SQL Server to Azure.

You need to recommend a service to host the databases. The solution must meet the following requirements:

- Whenever possible, minimize management overhead for the migrated databases.
- Ensure that users can authenticate by using Azure Active Directory (Azure AD) credentials.
- Minimize the number of database changes required to facilitate the migration.

What should you include in the recommendation?

- A. Azure SQL Database elastic pools
- B. Azure SQL Managed Instance
- C. Azure SQL Database single databases
- D. SQL Server 2016 on Azure virtual machines

### Correct Answer: B

SQL Managed Instance allows existing SQL Server customers to lift and shift their on-premises applications to the cloud with minimal application and database changes. At the same time, SQL Managed Instance preserves all PaaS capabilities (automatic patching and version updates, automated backups, high availability) that drastically reduce management overhead and TCO.

Reference:

<https://docs.microsoft.com/en-us/azure/sql-database/sql-database-managed-instance>

*Community vote distribution*

B (100%)

✉  **Redimido** Highly Voted 2 years, 2 months ago

**Selected Answer: B**

CLR is supported on SQL Managed instance and not on Azure SQL Database.  
upvoted 43 times

✉  **magichappens** 1 year, 8 months ago

But it is also supported for elastic pools and these are probably easier to manage? SQL Managed Instance is a service to reach nearly 100% compatibility with your on-prem machines but that was not required here.  
upvoted 3 times

✉  **rtony69** 1 year, 3 months ago

As far as I know, CLR is not supported in AZ SQL database elastic pools. Do you have a doc reference to prove your statement?  
upvoted 5 times

✉  **ayadmaawla** 3 months, 1 week ago

See my comment for reference  
upvoted 1 times

✉  **[Removed]** Highly Voted 2 years, 3 months ago

**Selected Answer: B**

B is correct  
upvoted 11 times

✉  **ayadmaawla** Most Recent 3 months, 1 week ago

**Selected Answer: B**

Some high-level guidelines might be:  
-Use Elastic pools if you need to group a large number of single databases that don't need all instance Transact-SQL functionalities that exist in SQL Server.  
-Use Managed Instance if you want to migrate a large number of SQL Server databases that heavily use instance level features such as CLR, Service Broker, SQL Agent, etc.  
upvoted 2 times

 **ayadmawla** 3 months, 1 week ago

See: <https://learn.microsoft.com/en-us/answers/questions/842070/elastic-pool-in-azure-sql-sql-server-managed-insta>  
upvoted 1 times

 **stonwall12** 6 months, 3 weeks ago

Correct Answer - B: Azure SQL Managed Instance

Given the requirements and the need for a seamless migration with reduced management overhead, Azure SQL Managed Instance is the most appropriate choice.

Reduced Management Overhead

- As a fully managed instance in Azure, it offloads many of the administrative tasks, such as backups, patching, and scaling.

Azure AD Authentication

- Natively supports Azure Active Directory (Azure AD) credentials, providing integrated and secure authentication.

Minimal Database Changes

- Offers broad compatibility with SQL Server features, ensuring a smooth transition from on-premises SQL Server 2014 environments.

CLR Support

- Supports Common Language Runtime (CLR) procedures, which is essential given that your stored procedures use CLR.

Database Size

- Capable of handling databases of significant size, ensuring it can accommodate databases that approach or exceed 3 TB.

upvoted 7 times

 **memo454** 6 months, 4 weeks ago

This question is on today's exam.

I passed the exam today 17-09-2023 with a score of 906/1000.

The exam is easier than AZ-104.

upvoted 8 times

 **NotMeAnyWay** 1 year ago

**Selected Answer: B**

B. Azure SQL Managed Instance

Azure SQL Managed Instance is a fully managed SQL Server instance hosted in Azure that supports most of the SQL Server features. It provides easier migration from on-premises SQL Server with minimal database changes, while also minimizing management overhead.

Here's how Azure SQL Managed Instance meets your requirements:

Minimizes management overhead: As a fully managed service, Azure SQL Managed Instance handles many administrative tasks like automatic backups, patching, and monitoring.

Azure AD authentication: Azure SQL Managed Instance supports Azure Active Directory (Azure AD) authentication, which allows users to authenticate using their Azure AD credentials.

Minimizes database changes: Since Azure SQL Managed Instance is highly compatible with SQL Server, migrating to it requires minimal changes to the databases. It supports features like CLR, which are not available in Azure SQL Database.

upvoted 7 times

 **zellck** 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/features-comparison?view=azuresql#features-of-sql-database-and-sql-managed-instance>

Azure SQL Managed Instance

Common language runtime - CLR

- Yes, but without access to file system in CREATE ASSEMBLY statement

upvoted 4 times

 **Eusouzati** 1 year, 2 months ago

**Selected Answer: B**

B is correct

upvoted 1 times

 **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

B. Azure SQL Managed Instance

upvoted 1 times

 **VBK8579** 1 year, 2 months ago

B. Azure SQL Managed Instance

upvoted 1 times

 **janvandermerwer** 1 year, 2 months ago

**Selected Answer: B**

B was my first guess.

upvoted 1 times

✉ **Ghoshy** 1 year, 3 months ago

Exam Question 12/28/2022

upvoted 3 times

✉ **leoletopic** 1 year, 4 months ago

why not D,

<https://learn.microsoft.com/en-us/azure/azure-sql/azure-sql-iaas-vs-paas-what-is-overview?view=azuresql#comparison-table>

support all feature, up to 256 TB, full control, easiest migration

,requirement only mentioned an easy way to migrate, not maintenance, not high availability,

upvoted 1 times

✉ **FabrityDev** 1 year, 2 months ago

"Whenever possible, minimize management overhead for the migrated databases"

upvoted 2 times

✉ **leoletopic** 1 year, 4 months ago

why not D

<https://learn.microsoft.com/en-us/azure/active-directory/manage-apps/plan-sso-deployment#single-sign-on-options>

support all feature , up to 256 TB, full control , easiest migration

upvoted 1 times

✉ **FabrityDev** 1 year, 2 months ago

"Whenever possible, minimize management overhead for the migrated databases"

DB on VMs isn't exactly the easiest to manage, definitely not more than Managed Instance, which by definiton is well... managed.

upvoted 2 times

✉ **in\_da\_cloud** 1 year, 4 months ago

Gowind seems to be new answer champion here, thank you!

upvoted 3 times

✉ **Dinima** 1 year, 6 months ago

It's B, managed instance has CLR facility and another clue is DB size never exceeds 4TB. In SQL managed instance, the max db size is 16GB

upvoted 2 times

✉ **Gowind** 1 year, 7 months ago

**Selected Answer: B**

Answer is B.

Azure SQL Database (single or elastic) does not support CLR and we need to minimize management (managed vs no managed)

<https://docs.microsoft.com/en-us/azure/azure-sql/database/features-comparison?view=azuresql>

Both support 3gb size.

<https://docs.microsoft.com/en-us/azure/azure-sql/database/service-tier-general-purpose?view=azuresql>

upvoted 8 times

You have an Azure subscription that contains an Azure Blob Storage account named store1.

You have an on-premises file server named Server1 that runs Windows Server 2016. Server1 stores 500 GB of company files.

You need to store a copy of the company files from Server1 in store1.

Which two possible Azure services achieve this goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. an Azure Logic Apps integration account
- B. an Azure Import/Export job
- C. Azure Data Factory
- D. an Azure Analysis services On-premises data gateway
- E. an Azure Batch account

**Correct Answer: BC**

B: You can use the Azure Import/Export service to securely export large amounts of data from Azure Blob storage. The service requires you to ship empty drives to the Azure datacenter. The service exports data from your storage account to the drives and then ships the drives back.

C: Big data requires a service that can orchestrate and operationalize processes to refine these enormous stores of raw data into actionable business insights.

Azure Data Factory is a managed cloud service that's built for these complex hybrid extract-transform-load (ETL), extract-load-transform (ELT), and data integration projects.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-data-from-blobs> <https://docs.microsoft.com/en-us/azure/data-factory/introduction>

*Community vote distribution*

BC (97%)

✉  **Eltooth**  2 years, 4 months ago

**Selected Answer: BC**

B & C are correct  
upvoted 36 times

✉  **Eltooth** 2 years, 4 months ago

<https://docs.microsoft.com/en-gb/azure/storage/blobs/storage-blobs-introduction#move-data-to-blob-storage>  
upvoted 11 times

✉  **sw1000**  10 months, 3 weeks ago

**Selected Answer: BC**

A. an Azure Logic Apps integration account  
no, this is an integration service with visual flows with If-Then style logic. It does not support a way to import data from on-premise to blobstorage

B. an Azure Import/Export job  
Agree, with other people here.

C. Azure Data Factory  
Agree, is a way of importing data, but looking at 500GB it is a bit of overkill

D. an Azure Analysis services On-premises data gateway  
not a data import option

E. an Azure Batch account  
Is part of Azure Batch service and involve HPC job scheduling etc. but is not a way of importing or exporting data from on-premise to Azure

Note:

For 500GB we would probably use AzCopy instead.

If it was a Typo and actually 500TB we would use Azure Data Box Heavy or maybe the Azure Import/Export Service if you provide your own drives.  
upvoted 12 times

✉  **JimmyYop**  2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 3 times

✉  **BShelat** 4 months, 1 week ago

Well B & C seem to be the answers. For B, though windows 2016 is NOT a supported version based on following link.

<https://learn.microsoft.com/en-us/azure/import-export/storage-import-export-requirements>

upvoted 1 times

✉  **TomdeBom** 1 month, 4 weeks ago

I think those OS requirements where only meant to describe older versions of Windows that are still support (I know, this is bad documentation form MS part, but MS Learn is far from perfect, documentation wise.)

The support is about the waimportexport.exe tool used.

<https://learn.microsoft.com/en-us/previous-versions/azure/storage/common/storage-import-export-tool-preparing-hard-drives-import#requirements-for-waimportexportexe>

states Windows 7, Windows Server 2008 R2, or a newer Windows operating system are supported!

upvoted 1 times

✉  **nav109** 4 months, 3 weeks ago

Got this on Nov. 17, 2023

upvoted 3 times

✉  **stonwall12** 6 months, 3 weeks ago

Correct Answer - B & C: Azure Import/Export & Azure Data Factory

Azure Import/Export:

- This is used for transferring large amounts of data to and from Azure Blob, File, and Disk storage using physical hard drives. It would be suitable for transferring 500 GB of data.

<https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-service>

Azure Data Factory:

- Azure Data Factory is a cloud-based data integration service that can move and integrate data from various sources to various destinations. It would be suitable for copying files from Server1 to Blob Storage.

<https://learn.microsoft.com/en-us/azure/data-factory/introduction>

upvoted 2 times

✉  **memo454** 6 months, 4 weeks ago

This question is on today's exam.

The exam is easier than AZ-104.

upvoted 4 times

✉  **iamhyumi** 7 months, 1 week ago

Got this on Sept. 5, 2023

upvoted 3 times

✉  **lvz** 10 months, 3 weeks ago

ok, I will go with ADF, however I dont see question mentioning the connectivity between on-prem and Azure AD. I think ADF can only be used when on-prem is connected with Azure AD.

upvoted 2 times

✉  **NotMeAnyWay** 1 year ago

**Selected Answer: BC**

B. an Azure Import/Export job

C. Azure Data Factory

B. Azure Import/Export job: This service allows you to securely import or export large amounts of data to or from Azure Blob Storage by shipping hard disk drives to an Azure data center. You can use the Azure Import/Export service to transfer the company files from your on-premises server to the Azure Blob Storage account.

C. Azure Data Factory: It is a cloud-based data integration service that enables you to create, schedule, and manage data pipelines. You can create pipeline in Azure Data Factory to copy data from your on-premises file server to Azure Blob Storage. You will need to use a Self-hosted Integration Runtime installed on your on-premises server to facilitate the data movement between your on-premises server and Azure Blob Storage.

upvoted 5 times

✉  **memyslef2** 1 year, 1 month ago

This was a question was on my exam today (2/26/23) - Scored 844

I agree with this answer

upvoted 5 times

✉  **ukivanlamipi** 1 year, 1 month ago

**Selected Answer: BE**

files is not fit for data factory

upvoted 2 times

✉  **AdventureChick** 6 months, 3 weeks ago

Data Factory can move files. It isn't just for DBs. I accidentally upvoted this when I went to click reply.  
upvoted 2 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: BC**

BC is the answer.

<https://learn.microsoft.com/en-gb/azure/storage/blobs/storage-blobs-introduction#move-data-to-blob-storage>

A number of solutions exist for migrating existing data to Blob Storage:

- Azure Data Factory supports copying data to and from Blob Storage by using the account key, a shared access signature, a service principal, or managed identities for Azure resources.
- The Azure Import/Export service provides a way to import or export large amounts of data to and from your storage account using hard drives that you provide.

upvoted 3 times

✉  **totalz** 1 year, 2 months ago

LOL, I see sarcasm in the voted answers. Or may be it's just me seeing the question differently~

upvoted 1 times

✉  **totalz** 1 year, 2 months ago

I mean B is possible, but a really stupid solution unless there's a typo, it's actually 500TB!

My answer are B & E.

My real life choice is Azure File storage.

upvoted 4 times

✉  **Eusouzati** 1 year, 2 months ago

**Selected Answer: BC**

B and C are correct

upvoted 1 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: BC**

B. an Azure Import/Export job

C. Azure Data Factory

upvoted 1 times

✉  **VBK8579** 1 year, 2 months ago

C. Azure Data Factory

B. an Azure Import/Export job.

upvoted 1 times

You have an Azure subscription that contains two applications named App1 and App2. App1 is a sales processing application. When a transaction in App1 requires shipping, a message is added to an Azure Storage account queue, and then App2 listens to the queue for relevant transactions.

In the future, additional applications will be added that will process some of the shipping requests based on the specific details of the transactions.

You need to recommend a replacement for the storage account queue to ensure that each additional application will be able to read the relevant transactions.

What should you recommend?

- A. one Azure Data Factory pipeline
- B. multiple storage account queues
- C. one Azure Service Bus queue
- D. one Azure Service Bus topic

**Correct Answer: D**

A queue allows processing of a message by a single consumer. In contrast to queues, topics and subscriptions provide a one-to-many form of communication in a publish and subscribe pattern. It's useful for scaling to large numbers of recipients. Each published message is made available to each subscription registered with the topic. Publisher sends a message to a topic and one or more subscribers receive a copy of the message, depending on filter rules set on these subscriptions.

Reference:

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-queues-topics-subscriptions>

*Community vote distribution*

D (92%) 8%

✉  **Eltooth**  2 years, 3 months ago

**Selected Answer: D**

Correct answer - D

upvoted 25 times

✉  **MicroNoob**  2 years, 2 months ago

**Selected Answer: D**

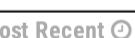
No doubt, the Service Bus Topic is exactly what you would need if multiple applications want to send messages to consumers.

upvoted 20 times

✉  **ksksilva2022** 7 months, 3 weeks ago

Correct. Below url will provide better understanding on those services - <https://learn.microsoft.com/en-us/training/modules/design-application-architecture/3-design-messaging-solution>

upvoted 2 times

✉  **nav109**  4 months, 3 weeks ago

Got this on Nov. 17, 2023

upvoted 4 times

✉  **stonwall12** 7 months ago

Correct Answer - D: Azure Service Bus Topic

- The key detail in the requirement is that in the future, multiple applications will process the shipping requests. This implies a need for a publish-subscribe model where multiple subscribers (applications) can independently process messages (transactions).

- Azure Service Bus Topic: Topics in Azure Service Bus support the publish-subscribe pattern. Multiple subscribers can independently retrieve filtered or unfiltered messages from the topic. This is the best fit for the described requirement.

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/service-bus-queues-topics-subscriptions>

upvoted 5 times

✉  **NotMeAnyWay** 1 year ago

**Selected Answer: D**

D. one Azure Service Bus topic

In this scenario, you should recommend using an Azure Service Bus topic. Topics provide a publish-subscribe messaging pattern that allows multiple subscribers to independently retrieve messages based on their specific needs. As you add more applications to process shipping requests each application can subscribe to the topic and filter the messages based on the transaction details.

upvoted 4 times

✉ **zellck** 1 year, 1 month ago

**Selected Answer: D**

D is the answer.

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/service-bus-queues-topics-subscriptions#topics-and-subscriptions>  
A queue allows processing of a message by a single consumer. In contrast to queues, topics and subscriptions provide a one-to-many form of communication in a publish and subscribe pattern. It's useful for scaling to large numbers of recipients. Each published message is made available to each subscription registered with the topic. Publisher sends a message to a topic and one or more subscribers receive a copy of the message.

upvoted 3 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: D**

D. one Azure Service Bus topic

Correct answer

Topic is for one to many

upvoted 1 times

✉ **Snownoodles** 1 year, 5 months ago

**Selected Answer: D**

service bus topic - 1:N

upvoted 2 times

✉ **Gowind** 1 year, 7 months ago

**Selected Answer: C**

Answer is C.

The shipping must be handled by only ONE receiver at a time. If you use D (Topic) several subscribers can receive the message and processes the shipment resulting in several shipments.

Queue does not mean only one receiver but only ONE AT A TIME to process the message.

<https://medium.com/awesome-azure/azure-difference-between-azure-service-bus-queues-and-topics-comparison-azure-servicebus-queue-vs-topic-4cc97770b65>

Queues

Queues offer First In, First Out (FIFO) message delivery to one or more competing consumers. That is, receivers typically receive and process messages in the order in which they were added to the queue. And, only one message consumer receives and processes each message.

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-queues-topics-subscriptions>

upvoted 6 times

✉ **Gowind** 1 year, 7 months ago

Sorry answer is D not because of having multiple consumers but because of the need of filtering based on the transaction details. Publisher sends a message to a topic and one or more subscribers receive a copy of the message, depending on filter rules set on these subscriptions.

upvoted 14 times

✉ **princessgalz** 1 year, 9 months ago

**Selected Answer: D**

Azure service bus topic is support many application

upvoted 2 times

✉ **tictaclu** 1 year, 9 months ago

A queue allows processing of a message by a single consumer. In contrast to queues, topics and subscriptions provide a one-to-many form of communication in a publish and subscribe pattern.

upvoted 1 times

✉ **al608** 1 year, 9 months ago

did my Exam today. This was on there.

upvoted 6 times

✉ **Gor** 1 year, 10 months ago

**Selected Answer: D**

Correct answer: D

upvoted 1 times

✉ **Teringzooi** 1 year, 11 months ago

**Selected Answer: D**

Correct answer - D

Service Bus Topic

upvoted 2 times

✉ **Contactfornitish** 2 years ago

Came in exam today 04/04/2022

upvoted 4 times

✉  **Suwani** 2 years ago

Correct answer is D

upvoted 2 times

✉  **Insanewhip** 2 years, 1 month ago

Appeared in my exam, March 10th, 2022. I chose D.

upvoted 4 times

**HOTSPOT -**

You need to design a storage solution for an app that will store large amounts of frequently used data. The solution must meet the following requirements:

- Maximize data throughput.
- Prevent the modification of data for one year.
- Minimize latency for read and write operations.

Which Azure Storage account type and storage service should you recommend? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Storage account type:

BlobStorage
BlockBlobStorage
FileStorage
StorageV2 with Premium performance
StorageV2 with Standard performance

Storage service:

Blob
File
Table

Correct Answer:

**Answer Area**

Storage account type:

BlobStorage
BlockBlobStorage
FileStorage
StorageV2 with Premium performance
StorageV2 with Standard performance

Storage service:

Blob
File
Table

Box 1: BlockBlobStorage -

Block Blob is a premium storage account type for block blobs and append blobs. Recommended for scenarios with high transaction rates, or scenarios that use smaller objects or require consistently low storage latency.

Box 2: Blob -

The Archive tier is an offline tier for storing blob data that is rarely accessed. The Archive tier offers the lowest storage costs, but higher data retrieval costs and latency compared to the online tiers (Hot and Cool). Data must remain in the Archive tier for at least 180 days or be

subject to an early deletion charge.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/archive-blob>

✉  **albertozgz** Highly Voted  2 years, 3 months ago

The solution is CORRECT, because BlockBlobStorage provide a very low latency(x40) (Read and Write) and Throughput (x5)

BECAUSE: One big file is splitted in "blobs" that are processed in parallel (for read and write)

<https://azure.microsoft.com/en-us/blog/premium-block-blob-storage-a-new-level-of-performance/>

upvoted 58 times

✉  **Asten** 1 year, 2 months ago

Yes. the key word is maximize data throughput

upvoted 4 times

✉  **FrancisFerreira** Highly Voted  2 years ago

Correct answer, but given reasoning for Archive Tier is wrong.

You achieve the immutability requirement through a Time-Based Retention Policy at the container-level. That will prevent write and delete operations for all blobs in the container for a given period (in this case, 1 year).

upvoted 32 times

✉  **randy0077** Most Recent  5 months, 3 weeks ago

correct ans:

Azure StorageV2 with Premium performance(immutable storage: no data modification for 1 year)  
blob storage

upvoted 5 times

✉  **TomdeBom** 1 month, 4 weeks ago

Azure StorageV2 only supports Standard performance:

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blobs-introduction#storage-accounts>

Immutable storage is supported by both BlockBlobStorage and StorageV2:

<https://learn.microsoft.com/en-us/azure/storage/blobs/immutable-storage-overview#supported-account-configurations>  
upvoted 3 times

✉  **chair123** 1 month ago

True, I have tried to create storage account and there is only two options:

- 1- Standard (General Purpose V2)
- 2- Premium (BlockBlob, FileShare or PageBlob)

there is no premium storageV2!

upvoted 4 times

✉  **InvalidNickname** 8 months, 1 week ago

Got this on Aug 5th, 2023.

upvoted 9 times

✉  **sieira** 8 months, 3 weeks ago

But if one of the requirements is to prevent the modification of data for one year, I think the correct choice would be a StorageV2 with standard performance because blob immutability is only available in General Purpose V2 storage account

upvoted 4 times

✉  **marcellov** 6 months, 3 weeks ago

No, blob immutability is also available in Premium block blob (BlockBlobStorage in the question).

<https://learn.microsoft.com/en-us/azure/storage/blobs/immutable-storage-overview#supported-account-configurations>  
upvoted 3 times

✉  **NotMeAnyWay** 9 months, 1 week ago

Based on your requirements, the following options should be chosen:

1. Storage account type: BlockBlobStorage.

This storage account type offers high-performance block blobs and append blobs. It provides the highest throughput for object storage in Azure, which will help maximize data throughput. Block blobs are ideal for storing text and binary data, such as documents and media files.

2. Storage service: Blob.

Blob storage is optimized for storing massive amounts of unstructured data, and it can handle frequently accessed data very well. Also, Azure Blob Storage supports object-level immutability policies, which can prevent the modification of data for a certain period, satisfying your requirement to prevent data modification for one year.

upvoted 7 times

✉  **zellck** 1 year, 1 month ago

## 1. BlockBlobStorage 2. Blob

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-block-blob-premium>

Premium block blob storage accounts make data available via high-performance hardware. Data is stored on solid-state drives (SSDs) which are optimized for low latency. SSDs provide higher throughput compared to traditional hard drives. File transfer is much faster because data is stored on instantly accessible memory chips. All parts of a drive accessible at once. By contrast, the performance of a hard disk drive (HDD) depends on the proximity of data to the read/write heads.

upvoted 6 times

✉ **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/storage/blobs/immutable-storage-overview#supported-account-configurations>

Immutable storage for Azure Blob Storage enables users to store business-critical data in a WORM (Write Once, Read Many) state. While in a WORM state, data cannot be modified or deleted for a user-specified interval. By configuring immutability policies for blob data, you can protect your data from overwrites and deletes.

upvoted 4 times

✉ **\_fvt** 1 year, 1 month ago

Solution is Correct.

You create a Storage Account (not StorageV2 something), then you chose the performance:

- Standard: type will be General Purpose v2
- Premium: 3 choices of type
- BlockBlob
- FileShares
- PageBlobs

So here we should choose premium block blob type, with blob

<https://learn.microsoft.com/en-us/azure/storage/common/storage-account-overview?toc=%2Fazure%2Fstorage%2Fblobs%2Ftoc.json>

upvoted 12 times

✉ **yonie** 11 months, 3 weeks ago

that was helpful thanks

upvoted 1 times

✉ **totalz** 1 year, 2 months ago

Was there such a thing called "StorageV2 with Premium performance"? Is this question sort of outdated?

upvoted 3 times

✉ **Ivanvazovv** 1 year, 2 months ago

When you try to create a new storage account, there are two options : Standard and Premium. When you click on Premium, there are three options:  
- Block Blobs, Page Blobs and File Shares. We need Block Blobs to satisfy the first and last requirements. For the second requirement we need Blob for the retention ability.

upvoted 3 times

✉ **OPT\_001122** 1 year, 2 months ago

BlockBlobStorage

Blob

Correct answer

Thanks to all who have mentioned the exam dates

upvoted 2 times

✉ **dimsok** 1 year, 2 months ago

I am a bit confused because storageV2 premium includes blockblob, isn't it?

upvoted 6 times

✉ **sawanti** 8 months ago

Yeah, it also always confuses me... But I get it finally. StorageV2 with Premium performance doesn't even exist. If we use Premium performance, we DON'T have StorageV2 as a storage kind. If we use standard StorageV2, it will be then just called StorageV2. StorageV2 with Premium/Standard performance should NOT be even an option as above: Standard is only option for StorageV2; Using Premium Performance don't uses StorageV2 at all

upvoted 2 times

✉ **sawanti** 8 months ago

I have tested that in the Azure and I am still confused..

Premium Block Blob: BlockBlobStorage Kind

Premium File Share: FileStorage Kind

Premium Page Blob: StorageV2 (???????????)

Standard: StorageV2

upvoted 1 times

✉ **andersonslls** 2 months, 3 weeks ago

I am also confused.

upvoted 1 times

✉ **Ghoshy** 1 year, 3 months ago

Exam Question 12/28/2022

upvoted 6 times

✉️ **eduardomoralles** 1 year, 3 months ago

Here answer options makes confusion between account performance and premium account type:

#1- Premium Block Blobs

#2- OK

<https://learn.microsoft.com/en-us/azure/storage/common/storage-account-overview#types-of-storage-accounts>

upvoted 2 times

✉️ **Backy** 1 year, 4 months ago

The first dropdown does not make sense. BlockBlobStorage and FileStorage are examples of "StorageV2 with Premium performance", so if you want to select Blobs then how do you decide between BlockBlobStorage and "StorageV2 with Premium performance". It is like deciding between Ferrari and car.

upvoted 7 times

✉️ **wwwmmmm** 1 year, 3 months ago

I think v2 is only for standard? And premium doesn't refer to v2?

And BlockBlob is only available in premium (premium has blockblob, pageblob or file blob), so even though the options are badly worded, but seems correct.

upvoted 2 times

✉️ **rtony69** 1 year, 3 months ago

The answer should be "StorageV2 with Premium performance"

I don't think blockblobstorage is an example of "StorageV2 with Premium performance" as it is available in standard as well.

upvoted 2 times

✉️ **rtony69** 1 year, 3 months ago

ignore the above reply... it's literally called as premium block blob. My bad.

<https://learn.microsoft.com/en-us/azure/storage/common/storage-account-overview#types-of-storage-accounts>

upvoted 1 times

✉️ **marco25** 1 year, 7 months ago

confused. how you allow write operation on one hand then dont allow modification on the other hand

upvoted 1 times

✉️ **[Removed]** 1 year, 6 months ago

<https://docs.microsoft.com/en-us/azure/storage/blobs/immutable-storage-overview>

upvoted 2 times

✉️ **paulb2b** 1 year, 8 months ago

service type : correct

service

: correct

upvoted 1 times

**HOTSPOT -**

You have an Azure subscription that contains the storage accounts shown in the following table.

Name	Type	Performance
storage1	StorageV2	Standard
storage2	StorageV2	Premium
storage3	BlobStorage	Standard
storage4	FileStorage	Premium

You plan to implement two new apps that have the requirements shown in the following table.

Name	Requirement
App1	Use lifecycle management to migrate app data between storage tiers
App2	Store app data in an Azure file share

Which storage accounts should you recommend using for each app? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

App1:

Storage1 and storage2 only  
 Storage1 and storage3 only  
 Storage1, storage2, and storage3 only  
 Storage1, storage2, storage3, and storage4

App2:

Storage4 only  
 Storage1 and storage4 only  
 Storage1, storage2, and storage4 only  
 Storage1, storage2, storage3, and storage4

## Answer Area

App1:

Correct Answer:

Storage1 and storage2 only
Storage1 and storage3 only
Storage1, storage2, and storage3 only
Storage1, storage2, storage3, and storage4

App2:

Storage4 only
Storage1 and storage4 only
Storage1, storage2, and storage4 only
Storage1, storage2, storage3, and storage4

Box 1: Storage1 and storage3 only

Need to use Standard accounts.

Data stored in a premium block blob storage account cannot be tiered to hot, cool, or archive using Set Blob Tier or using Azure Blob Storage lifecycle management

Box 2: Storage1 and storage4 only

Azure File shares requires Premium accounts. Only Storage1 and storage4 are premium.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/access-tiers-overview#feature-support> <https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-create-file-share?tabs=azure-portal#basics>

✉  **SANA**  2 years, 3 months ago

I think the proposed answer is correct.

App1: Storage1 and storage3 only

App2: Storage1 and storage4 only

Note: Storage2, StorageV2 with Premium Performance does NOT exist

<https://docs.microsoft.com/en-ca/azure/storage/common/storage-account-overview?toc=/azure/storage/blobs/toc.json#types-of-storage-accounts>

upvoted 61 times

✉  **SilverFox22** 2 years, 3 months ago

App1: "Lifecycle management policies are supported for block blobs and append blobs in general-purpose v2, premium block blob, and Blob Storage accounts." from <https://docs.microsoft.com/en-us/azure/storage/blobs/lifecycle-management-overview> so answer is 1 and 3 (2 does not exist. go ahead, try to create one :)

upvoted 5 times

✉  **fits08pistils** 7 months ago

While this is true, the only available option within a Lifecycle Management Policy for a premium block blob is to Delete the blob. Therefore Premium Block blobs don't have any access tiers (same as other premium storage accounts)

upvoted 2 times

✉  **chair123** 1 month ago

is this old question? because i tried to create storage account and found this only two options:

- 1- Standard (General Purpose V2)
- 2- Premium (BlockBlob, FileShare or PageBlob)

there is no premium storageV2! then Storage2(premium StorageV2) doesn't exist?

may someone explain here?

upvoted 2 times

✉  **bluedave** 8 months, 3 weeks ago

If you create a premium pageblob and in the portal generate an export template the ARM type is StandardV2 and the SKU.tier is Premium. In the configuration blade for the premium pageblob you can choose Hot or Cool storage tiers.

upvoted 1 times

✉  **itmaster** 2 years, 2 months ago

Storage2, StorageV2 with premium performance is the same as Premium Page Blobs according to this reference: <https://www.ais.com/how-to-choose-the-right-kind-of-azure-storage-account/>

upvoted 5 times

✉ **jkklm** Highly Voted 2 years, 2 months ago

GENERATION V1 ==> CANNOT HAVE LIFECYCLE  
GENERATION V2 => CAN HAVE LIFECYCLE  
PREMIUM FILE STORAGE ==> CANNOT HAVE LIFECYCLE  
PREMIUM BLOG ==> CANNOT HAVE LIFECYCLE (FYI - I TESTED THESE) . MORE OF FYI

I TESTED ALL ABOVE

THEREFORE  
STANDARD ==> LIFE CYCLE YES (STORAGE 1 AND STORAGE 3)

APPS DATA - STORAGE 1 AND 4

upvoted 46 times

✉ **jkklm** 2 years, 2 months ago

STORAGE 2 ==> V2 PREMIUM ==> THIS SERVICE DOES NOT EXIST IN AZURE

STORAGE V1 STANDARD ONLY EXIST (WHICH IS WHY STORAGE 2 IS NEVER AN ANSWER)

upvoted 7 times

✉ **sawanti** 8 months ago

STORAGE V2 PREMIUM EXISTS IN THE AZURE. It's called Premium Page Blob. In Premium Page Blob you don't have both Lifecycle Management and File Shares, only blobs

upvoted 1 times

✉ **prshntdxt7** Most Recent 3 weeks, 5 days ago

Please note : in the 1st image, storage2 and storage4 have premium performances.  
so shouldn't for APP2, the answer be storage 2 & 4 ?  
but i don't see that combination in answers, so does anyone know whether the given answer is correct ?

upvoted 1 times

✉ **andersonslls** 2 months, 3 weeks ago

This anwser in the website looks wrong to me, look below the reason I say that.  
<https://learn.microsoft.com/en-us/answers/questions/1289726/life-cycle-management-and-access-tiers>

"This feature is available for Blob storage (standard) accounts, GPv2 (general-purpose v2) accounts, and block blob storage accounts (premium). With lifecycle management policies, you can transition blobs between the hot, cool, and archive tiers within these supported storage accounts."

upvoted 1 times

✉ **andersonslls** 2 months, 3 weeks ago

Lifecycle Management Policies: Lifecycle management policies allow you to define rules that automatically move or delete blobs based on their age or other criteria. This feature is available for Blob storage (standard) accounts, GPv2 (general-purpose v2) accounts, and block blob storage accounts (premium). With lifecycle management policies, you can transition blobs between the hot, cool, and archive tiers within these supported storage accounts.

upvoted 1 times

✉ **nav109** 4 months, 3 weeks ago

Got this on Nov. 17, 2023

upvoted 3 times

✉ **alexander\_panfilenok** 10 months ago

Storage1 (Standard storage v2) can have both blobs with tiers and file shares  
Storage2 (Premium storage v2) does not exist. When toy select premium you have to select Block blobs, File shares, or page blobs. If you select Block blobs you will find out that there are no tiers. Because premium storage should be fast. Having a Cool access tier does not have any sense here.  
Storage3 (Standard BlobStorage) is technically a reference to 1 of the services in Standard Storage v2 (BlobStorage), there are other services like TableService, File Service, and Queue Service. This one can have tiers for blobs as it is the same thing as Standard Storage v2.  
Storage4 (Premium FileStorage) is the file storage by definition. It does not have blob storage features like life cycles and tiers.

upvoted 3 times

✉ **betterthanlife** 11 months, 2 weeks ago

Proposed answers are correct.

- Only the Standard type/kind storage accounts support lifecycle management
- Only the StorageV2 Standard offers "File shares" ("File shares" is not an option on a StorageV2 Premium) & of course the FileStorage type/kind.

upvoted 2 times

✉ **betterthanlife** 11 months, 1 week ago

It is true, I just created a StorageV2 (general purpose v2) Premium storage account in my lab & it only provides for "Containers". That's it.  
upvoted 1 times

✉ **yonie** 11 months, 3 weeks ago

Given answer is correct:

App1 can use Storage 1 and 3

App2 can use Storage 1 and 4

\*But\* given explanation for App2 is wrong. Also, question may be outdated, since Azure uses Kind not Type.

Explanation:

According to this (see below), file shares are available via \*both\* Premium/File Shares and Standard general purpose version 2. Since Storage 1 is Type(Kind) StorageV2 and standard Tier, then App2 can use it for a file share. Since Storage 2 doesn't exist, (there is no StorageV2 Premium) then answer is not relevant. Since Storage 3 is Type(Kind) BlobStorage, then it is not suitable (see below) Since Storage 4 is Type(Kind) File Storage and Premium Tier then App2 can use it for a file share.

upvoted 6 times

✉  **yonic** 11 months, 3 weeks ago

<https://learn.microsoft.com/en-us/azure/storage/files/understanding-billing#storage-units>

"Azure Files provides two distinct billing models: provisioned and pay-as-you-go. The provisioned model is only available for \*premium\* file shares, which are file shares deployed in the FileStorage storage account kind. The pay-as-you-go model is only available for standard file shares, which are file shares deployed in the \*general purpose version 2\* (GPv2) storage account kind."

upvoted 1 times

✉  **Cocouw** 1 year ago

It said in the comment box 2: Storage1 and storage4 only

Azure File shares requires Premium accounts. Only Storage1 and storage4 are premium. But storage 1 is Standard so I think it should be Storage 4 only for Box 2.

upvoted 3 times

✉  **NK19** 8 months, 3 weeks ago

I thought the same, but NFS is premium, Azure file share is on both:

[https://learn.microsoft.com/en-us/azure/storage/files/storage-how-to-create-file-share?tabs=azure-portal#:~:text=What%20are%20the%20performance%20requirements%20for%20your%20Azure%20file%20share%3F%0AAzure%20Files%20offers%20standard%20file%20shares%20which%20are%20hosted%20on%20hard%20disk%2Dbased%20\(HDD%2Dbased\)%20hardware%2C%20and%20premium%20file%20shares%2C%20which%20are%20hosted%20on%20solid%2Dstate%20disk%2Dbased%20\(SSD%2Dbased\)%20hardware](https://learn.microsoft.com/en-us/azure/storage/files/storage-how-to-create-file-share?tabs=azure-portal#:~:text=What%20are%20the%20performance%20requirements%20for%20your%20Azure%20file%20share%3F%0AAzure%20Files%20offers%20standard%20file%20shares%20which%20are%20hosted%20on%20hard%20disk%2Dbased%20(HDD%2Dbased)%20hardware%2C%20and%20premium%20file%20shares%2C%20which%20are%20hosted%20on%20solid%2Dstate%20disk%2Dbased%20(SSD%2Dbased)%20hardware)

upvoted 1 times

✉  **winy** 1 year ago

This was in the exam on 04/01/2023 (mm/dd/yyyy)

upvoted 1 times

✉  **zellck** 1 year, 1 month ago

1. Storage1 and storage3 only.
2. Storage1 and storage4 only.

<https://learn.microsoft.com/en-us/azure/storage/blobs/lifecycle-management-overview>

Lifecycle management policies are supported for block blobs and append blobs in general-purpose v2, premium block blob, and Blob Storage accounts. Lifecycle management doesn't affect system containers such as the \$logs or \$web containers.

upvoted 3 times

✉  **zellck** 1 year, 1 month ago

Got this in Feb 2023 exam.

upvoted 3 times

✉  **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/storage/files/storage-files-planning#management-concepts>

There are two main types of storage accounts you will use for Azure Files deployments:

- General purpose version 2 (GPv2) storage accounts: GPv2 storage accounts allow you to deploy Azure file shares on standard/hard disk-based (HDD-based) hardware. In addition to storing Azure file shares, GPv2 storage accounts can store other storage resources such as blob containers, queues, or tables.
- FileStorage storage accounts: FileStorage storage accounts allow you to deploy Azure file shares on premium/solid-state disk-based (SSD-based) hardware. FileStorage accounts can only be used to store Azure file shares; no other storage resources (blob containers, queues, tables, etc.) can be deployed in a FileStorage account. Only FileStorage accounts can deploy both SMB and NFS file shares.

upvoted 2 times

✉  **gugamotarj** 1 year, 2 months ago

So, the right is, App1 can be use 1, 2 and 3, because all of them can have a blob to use lifecycle, and app2 can use storage 1, 2, and 4, because we can create Azure Files Share on both!

upvoted 3 times

✉  **gugamotarj** 1 year, 2 months ago

I think you guys are wrong.

Look, Azure file Share can be created on Storage Account v2 Standard and Premium. And lifecycle can be used on a blob, even if he is on a storage V2.

upvoted 1 times

✉  **Ivanvazovv** 1 year, 2 months ago

When you create a new storage account, there is no other option than StorageV2. So new storage accounts are all V2. What you can choose is performance - standard or premium. Standard includes all storage object types - blobs, tables, queues and file shares. Premium is only for block blobs, page blobs and file shares. So in this case file shares are supported by Storage 1, storage 2 and storage 4.

The correct answers are :

Storage 1 and storage 3.

Storage 1, storage 2 and storage 4.

upvoted 6 times

✉  **totalz** 1 year, 2 months ago

This question is either outdated or confusing because the doc <https://learn.microsoft.com/en-us/azure/storage/common/storage-account-overview> listed just 4 account type. But through your GUI 'test', it seems the question is legit. And if so, the answer for App1 should be Storage1,2&3.

upvoted 2 times

✉️ **OPT\_001122** 1 year, 2 months ago

Answer is correct

App1-

storage 1-StorageV2-Standard

storage 3-BlobStorage-Standard

App2

storage 1-StorageV2-Standard

storage 4-FileStorage-Premium

upvoted 2 times

✉️ **Tom85** 1 year, 2 months ago

getting confused -

Agreed on App1: Storage 1 and 3 only

But App2: Im inclined to say 1,3,4 at the very least but thats not available as an answer.

azure file share can come in general purpose v2 flavor? <https://learn.microsoft.com/en-us/azure/storage/files/storage-how-to-create-file-share?tabs=azure-portal>

upvoted 1 times

✉️ **paulb2b** 1 year, 4 months ago

Lifecycle management policies are supported for block blobs and append blobs in general-purpose v2, premium block blob, and Blob Storage accounts. Lifecycle management doesn't affect system containers such as the \$logs or \$web containers.

upvoted 2 times

You are designing an application that will be hosted in Azure.

The application will host video files that range from 50 MB to 12 GB. The application will use certificate-based authentication and will be available to users on the internet.

You need to recommend a storage option for the video files. The solution must provide the fastest read performance and must minimize storage costs.

What should you recommend?

- A. Azure Files
- B. Azure Data Lake Storage Gen2
- C. Azure Blob Storage
- D. Azure SQL Database

**Correct Answer: C**

**Blob Storage:** Stores large amounts of unstructured data, such as text or binary data, that can be accessed from anywhere in the world via HTTP or HTTPS. You can use Blob storage to expose data publicly to the world, or to store application data privately.

Max file in Blob Storage. 4.77 TB.

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/solution-ideas/articles/digital-media-video>

*Community vote distribution*

C (100%)

✉  **Eltooth** Highly Voted  2 years, 4 months ago

**Selected Answer: C**

Correct answer - C

Azure Blob storage is Microsoft's object storage solution for the cloud. Blob storage is optimized for storing massive amounts of unstructured data such as text or binary data.

Blob storage is ideal for:

Serving images or documents directly to a browser.

Storing files for distributed access.

Streaming video and audio.

Storing data for backup and restore, disaster recovery, and archiving.

Storing data for analysis by an on-premises or Azure-hosted service.

Objects in Blob storage can be accessed from anywhere in the world via HTTP or HTTPS. Users or client applications can access blobs via URLs, the Azure Storage REST API, Azure PowerShell, Azure CLI, or an Azure Storage client library.

<https://docs.microsoft.com/en-gb/azure/storage/common/storage-introduction#blob-storage>

upvoted 37 times

✉  **[Removed]** Highly Voted  2 years, 3 months ago

**Selected Answer: C**

C is correct, Azure Blob

upvoted 8 times

✉  **NotMeAnyWay** Most Recent  1 year ago

**Selected Answer: C**

C. Azure Blob Storage

In this scenario, I recommend using Azure Blob Storage for hosting the video files. Azure Blob Storage is a cost-effective, scalable, and durable storage service that is suitable for storing large, unstructured data like video files.

Here's why Azure Blob Storage is the right choice:

Fast read performance: Azure Blob Storage provides fast read performance for serving video files to users on the internet.

Cost-effective: Blob Storage offers a competitive pricing model that minimizes storage costs.

Scalability: Azure Blob Storage can scale to store a large number of files, making it suitable for hosting video files of various sizes.

upvoted 5 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: C**

C is the answer.

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blobs-introduction#about-blob-storage>

Blob Storage is designed for:

- Serving images or documents directly to a browser.
- Storing files for distributed access.
- Streaming video and audio.
- Writing to log files.
- Storing data for backup and restore, disaster recovery, and archiving.
- Storing data for analysis by an on-premises or Azure-hosted service.

upvoted 4 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: C**

C. Azure Blob Storage

Thanks all who have mentioned the exam dates

upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago

remember - Fastest read - C. Azure Blob Storage

upvoted 2 times

✉ **Bummer\_boy** 1 year, 2 months ago

**Selected Answer: C**

blob storage is the way to store video files in azure

upvoted 1 times

✉ **pingpongset** 1 year, 7 months ago

Does anyone know why B is not the answer?

upvoted 2 times

✉ **Gowind** 1 year, 7 months ago

Datalake is design for Big Data analytics, not service videos files to consumers

upvoted 5 times

✉ **TRN80** 1 year, 5 months ago

And it's expensive

upvoted 3 times

✉ **mtc9** 1 year, 9 months ago

Why not datalake? Blob (hot tier) is fast in read, but does not optimize storage costs, actually (in hot tier) it optimizes costs read/write transactions but has higher cost of storage. Onyone can confirm please?

upvoted 2 times

✉ **magichappens** 1 year, 8 months ago

Even if it is cheaper I don't know if it actually supports cert based auth. And it's definitely not made to stream videos to end users.

upvoted 2 times

✉ **anupit** 1 year, 9 months ago

C. Blob Storage

upvoted 1 times

✉ **mileytores** 1 year, 9 months ago

Respuesta es la c

upvoted 1 times

✉ **Gor** 1 year, 10 months ago

**Selected Answer: C**

C is correct, Azure Blob

upvoted 1 times

✉ **hertino** 2 years ago

**Selected Answer: C**

In my exam, 9 april 22, 817/1000, I chose this answer

upvoted 5 times

✉ **esther823** 2 years ago

in my exam on 31 Mar 22

upvoted 2 times

✉ **AKYK** 2 years, 2 months ago

Correct answer - C

upvoted 2 times

✉ **Tyler2021** 2 years, 4 months ago

The given answer is correct.

upvoted 4 times

✉  **kenobiD** 2 years, 4 months ago

the answer needs to be azure files as you need to be able to store video files up to 12GB which blob can't do. Azure files can store individual files c  
sizes up to 100GB

upvoted 3 times

✉  **default\_wizard** 2 years, 4 months ago

wrong, lokulluz is correct. max blob is 4.7tb

upvoted 3 times

✉  **Lokulluz** 2 years, 4 months ago

max. File Size is 4,7TB, hence given answer is correct.

<https://azure.microsoft.com/de-de/blog/general-availability-larger-block-blobs-in-azure-storage/>

upvoted 8 times

You are designing a SQL database solution. The solution will include 20 databases that will be 20 GB each and have varying usage patterns.

You need to recommend a database platform to host the databases. The solution must meet the following requirements:

- The solution must meet a Service Level Agreement (SLA) of 99.99% uptime.
- The compute resources allocated to the databases must scale dynamically.
- The solution must have reserved capacity.

Compute charges must be minimized.

What should you include in the recommendation?

- A. an elastic pool that contains 20 Azure SQL databases
- B. 20 databases on a Microsoft SQL server that runs on an Azure virtual machine in an availability set
- C. 20 databases on a Microsoft SQL server that runs on an Azure virtual machine
- D. 20 instances of Azure SQL Database serverless

**Correct Answer: A**

The compute and storage redundancy is built in for business critical databases and elastic pools, with a SLA of 99.99%.

Reserved capacity provides you with the flexibility to temporarily move your hot databases in and out of elastic pools (within the same region and performance tier) as part of your normal operations without losing the reserved capacity benefit.

Reference:

<https://azure.microsoft.com/en-us/blog/understanding-and-leveraging-azure-sql-database-sla/>

*Community vote distribution*

A (100%)

✉  **Eltooth** Highly Voted 2 years, 4 months ago

**Selected Answer: A**

Correct answer - A

Databases vary in usage so an elastic pool would fit best.

upvoted 20 times

✉  **[Removed]** Highly Voted 2 years, 3 months ago

**Selected Answer: A**

A is correct. Elastic pool is needed for SLA 99,95 % and auto scale.

upvoted 12 times

✉  **babakeyfgir** Most Recent 4 months, 3 weeks ago

it was a exam Question

upvoted 6 times

✉  **ArunS005** 6 months, 1 week ago

**Selected Answer: A**

Elastic pool is the best fit solution based on the requirements.

upvoted 1 times

✉  **stonwall12** 7 months ago

Correct Answer - A: Elastic Pool containing 20 Azure SQL databases

- The primary consideration in the scenario is the presence of 20 databases, each 20 GB, with varying usage patterns. There's a need to ensure 99.99% uptime, dynamic scalability of compute resources, and reserved capacity, while also minimizing compute charges.

- Elastic Pool with Azure SQL databases: Elastic pools in Azure are specifically designed to manage multiple databases with varying loads. They allow these databases to share resources in a cost-effective manner, guaranteeing dynamic scalability and a high SLA of 99.99% uptime. This aligns with the question requirements.

<https://docs.microsoft.com/en-us/azure/azure-sql/database/elastic-pool-overview>

upvoted 4 times

✉  **techrat** 11 months, 2 weeks ago

**Selected Answer: A**

The answer is correct. I had this question in my exam today, I passed with 979.

upvoted 6 times

✉  **NotMeAnyWay** 1 year ago

**Selected Answer: A**

A. an elastic pool that contains 20 Azure SQL databases

Elastic pools in Azure SQL Database are designed to handle multiple databases with varying usage patterns within a shared resource pool. This option meets the following requirements:

SLA of 99.99% uptime: Azure SQL Database provides an SLA of 99.99% uptime, ensuring high availability for your databases.

Dynamic scaling of compute resources: Elastic pools allow you to allocate resources dynamically, adjusting to the varying usage patterns of your databases.

Reserved capacity: Elastic pools enable you to reserve capacity for multiple databases within the pool, ensuring resources are available when needed.

Minimize compute charges: By sharing resources among the databases within the elastic pool, you can minimize compute charges while still meeting the performance requirements.

upvoted 10 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/elastic-pool-overview?view=azuresql>

Azure SQL Database elastic pools are a simple, cost-effective solution for managing and scaling multiple databases that have varying and unpredictable usage demands. The databases in an elastic pool are on a single server and share a set number of resources at a set price. Elastic pools in SQL Database enable software as a service (SaaS) developers to optimize the price performance for a group of databases within a prescribed budget while delivering performance elasticity for each database.

upvoted 7 times

✉  **omerc061** 1 year, 2 months ago

Correct Answer:A

C-Not correct because;

If you want access your database OS level. You can use this option.It main way.

D-Not correct because;

Microsoft quotation;

Serverless option. Use the serverless compute tier for a single SQL database. You're billed only for the amount of compute used.

upvoted 2 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: A**

A. an elastic pool that contains 20 Azure SQL databases

Thanks to all who have mentioned the exam dates

upvoted 2 times

✉  **Bummer\_boy** 1 year, 2 months ago

**Selected Answer: A**

Different usage patterns across dbs is the key thing here

upvoted 1 times

✉  **Q12346** 1 year, 2 months ago

shown on 1/14/23

upvoted 6 times

✉  **mscgbgslt** 1 year, 3 months ago

**Selected Answer: A**

"varying usage patterns" => Elastic pool

upvoted 1 times

✉  **Ghoshy** 1 year, 3 months ago

Exam Question 12/28/2022

upvoted 4 times

✉  **mufflon** 1 year, 6 months ago

SQL Database Reserved Capacity, Reservation can be assigned to either a single Azure Subscription or shared, and there's vCore Size Flexibility as well where the Reservation can be applied dynamically to any databases and elastic pools within a performance tier and region.

Dynamic scalability is different from autoscale. Autoscale is when a service scales automatically based on criteria, whereas dynamic scalability allows for manual scaling with a minimal downtime. Single databases in Azure SQL Database can be scaled manually, or in the case of the Serverless tier, set to automatically scale the compute resources. Elastic pools, which allow databases to share resources in a pool, can currently only be scaled manually.

upvoted 1 times

✉  **mileytores** 1 year, 9 months ago

Elastic pool es la respuesta

upvoted 1 times

 **tictaclu** 1 year, 9 months ago

Serverless is price-performance optimized for single databases with intermittent, unpredictable usage patterns that can afford some delay in compute warm-up after idle usage periods. In contrast, the provisioned compute tier is price-performance optimized for single databases or multiple databases in elastic pools with higher average usage that cannot afford any delay in compute warm-up.

upvoted 4 times

**HOTSPOT -**

You have an on-premises database that you plan to migrate to Azure.

You need to design the database architecture to meet the following requirements:

- Support scaling up and down.
- Support geo-redundant backups.
- Support a database of up to 75 TB.
- Be optimized for online transaction processing (OLTP).

What should you include in the design? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Service:

Azure SQL Database
Azure SQL Managed Instance
Azure Synapse Analytics
SQL Server on Azure Virtual Machines

Service tier:

Basic
Business Critical
General Purpose
Hyperscale
Premium
Standard

**Answer Area**

Service:

Azure SQL Database
Azure SQL Managed Instance
Azure Synapse Analytics
SQL Server on Azure Virtual Machines

Correct Answer:

Service tier:

Basic
Business Critical
General Purpose
Hyperscale
Premium
Standard

Box 1: Azure SQL Database -

Azure SQL Database:

Database size always depends on the underlying service tiers (e.g. Basic, Business Critical, Hyperscale).

It supports databases of up to 100 TB with Hyperscale service tier model.

Active geo-replication is a feature that lets you to create a continuously synchronized readable secondary database for a primary database.

The readable secondary database may be in the same Azure region as the primary, or, more commonly, in a different region. This kind of readable secondary databases are also known as geo-secondaries, or geo-replicas.

Azure SQL Database and SQL Managed Instance enable you to dynamically add more resources to your database with minimal downtime.

Box 2: Hyperscale -

Incorrect Answers:

- SQL Server on Azure VM: geo-replication not supported.
- Azure Synapse Analytics is not optimized for online transaction processing (OLTP).

⇒ Azure SQL Managed Instance max database size is up to currently available instance size (depending on the number of vCores).

Max instance storage size (reserved) - 2 TB for 4 vCores

- 8 TB for 8 vCores

- 16 TB for other sizes

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/active-geo-replication-overview> <https://medium.com/awesome-azure/azure-difference-between-azure-sql-database-and-sql-server-on-vm-comparison-azure-sql-vs-sql-server-vm-cf02578a1188>

✉  **Syd**  2 years, 3 months ago

Answer is correct. -Azure SQL Database with Hyperscale(support up to 100TB).

<https://docs.microsoft.com/en-us/azure/azure-sql/database/service-tier-hyperscale#:~:text=A%20Hyperscale%20database%20is%20created%20with%20a%20starting,about%20Hyperscale%20pricing%2C%20see%20Azure%20SQL%20Database%20Pricing>

Managed Instance is incorrect because the database limit is 2-8TB max.

<https://docs.microsoft.com/en-us/azure/azure-sql/managed-instance/resource-limits#:~:text=Up%20to%20280%2C%20unless%20the%20instance%20storage%20size,TB%29%20and%20Azure%20Premium%20Disk%20storage%20allocation%20space>

upvoted 50 times

✉  **Amrx** 1 year, 2 months ago

Azure SQL MI also does not support active geo replication.

upvoted 6 times

✉  **xRiot007** 1 month, 4 weeks ago

The limit for MI is now 16 TB - still far away from 75 TB.

upvoted 1 times

✉  **Snownoodles**  2 years ago

75T can only be supported by hyperscale.

upvoted 13 times

✉  **malcubierre**  4 months, 3 weeks ago

The key is that only Hyperscale can deal with 75 Tb, All other have limit of 4 Tb

upvoted 3 times

✉  **NotMeAnyWay** 1 year ago

Azure SQL Database Hyperscale:

Support scaling up and down: The Hyperscale service tier supports scaling compute resources up and down based on your workload requirements  
Support geo-redundant backups: It offers automatic backups with the ability to enable geo-redundant backups to ensure data durability in case of regional disasters.

Support a database of up to 75 TB: Hyperscale supports databases up to 100 TB in size, which meets the requirement of 75 TB.

Be optimized for online transaction processing (OLTP): Azure SQL Database Hyperscale is designed to handle OLTP workloads with high performance and low latency.

In summary, you should include Azure SQL Database with the Hyperscale service tier in your database architecture design to meet all the listed requirements.

upvoted 9 times

✉  **zellck** 1 year, 1 month ago

1. Azure SQL DB

2. Hyperscale

<https://learn.microsoft.com/en-us/azure/azure-sql/database/service-tier-hyperscale?view=azuresql#what-are-the-hyperscale-capabilities>  
The Hyperscale service tier in Azure SQL Database provides the following additional capabilities:

- Support for up to 100 TB of database size.
- Higher overall performance due to higher transaction log throughput and faster transaction commit times regardless of data volumes.
- Rapid Scale up - you can, in constant time, scale up your compute resources to accommodate heavy workloads when needed, and then scale the compute resources back down when not needed.

upvoted 4 times

✉  **omerc061** 1 year, 2 months ago

Answer is correct;

let me compare with explain on microsoft official site;

<https://learn.microsoft.com/en-us/training/modules/design-data-storage-solution-for-relational-data/4-design-for-sql-server-azure#:~:text=SQL%20Server%20licenses.-,Compare%20Azure%20SQL%20deployment%20options,-You%27ve%20reviewed%20the>

upvoted 1 times

✉  **OPT\_001122** 1 year, 2 months ago

Answer is correct

Box 1: Azure SQL Database

Box 2: Hyperscale - key point 75TB

## Azure SQL Database with Hyperscale

Thanks all who have mentioned the exam dates  
upvoted 6 times

✉ **Ghoshy** 1 year, 3 months ago

Exam Question 12/28/2022  
upvoted 7 times

✉ **NarasimhanMV** 1 year, 5 months ago

Ans - Correct  
upvoted 2 times

✉ **jellybiscuit** 1 year, 6 months ago

Correct.

Resource limits for SQL Database tiers

<https://learn.microsoft.com/en-us/azure/azure-sql/database/service-tier-hyperscale?view=azuresql#compare-resource-limits>  
upvoted 1 times

✉ **catfood** 1 year, 7 months ago

"Support geo-redundant backups". - this is not the same as geo replication as the answer states.... Both MI and SQL variants have auto backup that is stored as geo redundant blobs replicated to a paired region. But yes, hyperscale is correct due to DB size.  
upvoted 1 times

✉ **tictaclu** 1 year, 9 months ago

The reason to choose Hyperscale, since its the design of db migration:  
The Hyperscale service tier in Azure SQL Database provides the following additional capabilities:

Support for up to 100 TB of database size.

Fast database backups (based on file snapshots stored in Azure Blob storage) regardless of size with no IO impact on compute resources.

Fast database restores (based on file snapshots) in minutes rather than hours or days (not a size of data operation).

Higher overall performance due to higher transaction log throughput and faster transaction commit times regardless of data volumes.

Rapid scale out - you can provision one or more read-only replicas for offloading your read workload and for use as hot-standbys.

Rapid Scale up - you can, in constant time, scale up your compute resources to accommodate heavy workloads when needed, and then scale the compute resources back down when not needed.  
upvoted 5 times

✉ **Gor** 1 year, 10 months ago

Answers are correct - Azure SAL Database with Hyperscale.  
upvoted 1 times

✉ **datafyk** 1 year, 11 months ago

was in exam 8 May 22  
upvoted 4 times

✉ **hertino** 2 years ago

In my exam, 9 april 22, 817/1000, I chose this answer : Database/Hyperscale  
upvoted 5 times

✉ **esther823** 2 years ago

in my exam on 31 Mar 22  
upvoted 2 times

✉ **esther823** 2 years ago

in my exam on 31 Mar 22  
upvoted 1 times

You are planning an Azure IoT Hub solution that will include 50,000 IoT devices.

Each device will stream data, including temperature, device ID, and time data. Approximately 50,000 records will be written every second. The data will be visualized in near real time.

You need to recommend a service to store and query the data.

Which two services can you recommend? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Azure Table Storage
- B. Azure Event Grid
- C. Azure Cosmos DB SQL API
- D. Azure Time Series Insights

**Correct Answer:** CD

D: Time Series Insights is a fully managed service for time series data. In this architecture, Time Series Insights performs the roles of stream processing, data store, and analytics and reporting. It accepts streaming data from either IoT Hub or Event Hubs and stores, processes, analyzes, and displays the data in near real time.

C: The processed data is stored in an analytical data store, such as Azure Data Explorer, HBase, Azure Cosmos DB, Azure Data Lake, or Blob Storage.

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/data-guide/scenarios/time-series>

*Community vote distribution*

CD (89%) 11%

✉  **manojchavan** Highly Voted 2 years ago

C and D are correct:

Need to find a service to store and query the data.

- A. Azure Table Storage: You can't query data.
- B. Azure Event Grid: You can't store or query data.
- C. Azure Cosmos DB SQL API: You can store and query data.
- D. Azure Time Series Insights: You can store and query data.

upvoted 50 times

✉  **Eltooth** Highly Voted 2 years, 4 months ago

C & D appear to be correct.

Cosmos dB SQL API is somewhat confusing as an accurate answer though:

<https://docs.microsoft.com/en-gb/azure/cosmos-db/introduction#solutions-that-benefit-from-azure-cosmos-db>

upvoted 21 times

✉  **Eltooth** 2 years, 4 months ago

<https://docs.microsoft.com/en-gb/azure/cosmos-db/use-cases#iot-and-telematics>

upvoted 7 times

✉  **MAKH83** Most Recent 3 months, 2 weeks ago

I think its Event Grid and Time Series Insights:

Azure Event Grid is used at different stages of data pipelines to achieve a diverse set of integration goals.

MQTT messaging. IoT devices and applications can communicate with each other over MQTT. Event Grid can also be used to route MQTT message to Azure services or custom endpoints for further data analysis, visualization, or storage. This integration with Azure services enables you to build data pipelines that start with data ingestion from your IoT devices.

<https://learn.microsoft.com/en-us/azure/event-grid/overview>

upvoted 1 times

✉  **ManosCaptain** 4 months, 3 weeks ago

Appeared on 11/21/2023

upvoted 3 times

✉  **felipeao1** 8 months, 2 weeks ago

**Selected Answer: CD**

C and D

upvoted 1 times

✉ **NotMeAnyWay** 1 year ago

**Selected Answer: CD**

- C. Azure Cosmos DB SQL API
- D. Azure Time Series Insights

C. Azure Cosmos DB SQL API: Azure Cosmos DB is a globally distributed, multi-model database service that is designed for high throughput and low-latency scenarios. The SQL API for Cosmos DB provides a JSON-based, document-oriented database that can be used to store and query the IoT data. It can handle large volumes of data and scale horizontally, making it suitable for the high volume of records generated by the IoT devices.

D. Azure Time Series Insights: This is an Azure service specifically designed for analyzing time-series data in near real-time. It can ingest, store, and query large amounts of time-series data generated by IoT devices. It also provides visualization capabilities to monitor and explore the data, which makes it suitable for the described scenario.

upvoted 6 times

✉ **zellck** 1 year, 1 month ago

Same as Question 20.

<https://www.examtopics.com/discussions/microsoft/view/94045-exam-az-305-topic-2-question-20-discussion>

upvoted 3 times

✉ **zellck** 1 year, 1 month ago

**Selected Answer: CD**

CD is the answer.

<https://learn.microsoft.com/en-us/azure/architecture/solution-ideas/articles/iot-using-cosmos-db>

Azure Cosmos DB is ideal for IoT workloads because it's capable of:

- Ingesting device telemetry data at high rates, and return indexed queries with low latency and high availability.
- Storing JSON format from different device vendors, which provides flexibility in payload schema.
- By using wire protocol-compatible API endpoints for Cassandra, MongoDB, SQL, Gremlin, etcd, and table databases, and built-in support for Jupyter Notebook files.

upvoted 5 times

✉ **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/time-series-insights/overview-what-is-tsi>

Azure Time Series Insights Gen2 is an open and scalable end-to-end IoT analytics service featuring best-in-class user experiences and rich APIs to integrate its powerful capabilities into your existing workflow or application.

You can use it to collect, process, store, query and visualize data at Internet of Things (IoT) scale--data that's highly contextualized and optimized for time series.

Azure Time Series Insights Gen2 is designed for ad hoc data exploration and operational analysis allowing you to uncover hidden trends, spotting anomalies, and conduct root-cause analysis. It's an open and flexible offering that meets the broad needs of industrial IoT deployments.

upvoted 4 times

✉ **[Removed]** 1 year, 2 months ago

The Time Series Insights (TSI) service is being deprecated.

We will likely see Azure Data Explorer as a replacement for a real time ("hot path") data store option.

<https://learn.microsoft.com/en-us/azure/time-series-insights/migration-to-adx>

<https://learn.microsoft.com/en-us/azure/architecture/data-guide/scenarios/time-series#dataflow>

upvoted 6 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: CD**

- C. Azure Cosmos DB SQL API
- D. Azure Time Series Insights

upvoted 1 times

✉ **tfulanchan** 1 year, 2 months ago

MongoDB API is the right answer...

upvoted 1 times

✉ **VBK8579** 1 year, 2 months ago

- C. Azure Cosmos DB SQL API
- D. Azure Time Series Insights

upvoted 1 times

✉ **jmay** 1 year, 3 months ago

**Selected Answer: CD**

For those who picked B as a correct option, you may have confused Azure Event Grid with Azure Event Hub.

upvoted 3 times

✉ **diego\_alejandro** 1 year, 5 months ago

C & D correct answers

upvoted 1 times

✉️  **Samko635** 1 year, 6 months ago

**Selected Answer: CD**

CD is the correct answer.

upvoted 1 times

✉️  **Sam928** 1 year, 8 months ago

Ans. C,D

\*Solutions that benefit from Azure Cosmos DB

Any web, mobile, gaming, and IoT application that needs to handle massive amounts of data, reads, and writes at a global scale with near-real response times for a variety of data will benefit from Cosmos DB's guaranteed high availability, high throughput, low latency, and tunable consistency. Learn about how Azure Cosmos DB can be used to build IoT and telematics, retail and marketing, gaming and web and mobile applications.

\*Many time series-based systems, such as Internet of things (IoT) scenarios, capture data in real time by using a real-time processing architecture.

Azure IoT Hub, Azure Event Hubs, or Kafka on HDInsight ingest data from one or more data sources into the stream processing layer.

The stream processing layer processes the data, and can hand off the processed data to a machine learning service for predictive analytics.

An analytical data store like Azure Data Explorer, HBase, Azure Cosmos DB, or Azure Data Lake stores the processed data.

An analytics and reporting application or service like Power BI or OpenTSDB for HBase can display the time series data for analysis.

upvoted 2 times

✉️  **al608** 1 year, 9 months ago

did my Exam today. This was on there.

upvoted 4 times

You are designing an application that will aggregate content for users.

You need to recommend a database solution for the application. The solution must meet the following requirements:

- Support SQL commands.
- Support multi-master writes.
- Guarantee low latency read operations.

What should you include in the recommendation?

- A. Azure Cosmos DB SQL API
- B. Azure SQL Database that uses active geo-replication
- C. Azure SQL Database Hyperscale
- D. Azure Database for PostgreSQL

**Correct Answer: A**

With Cosmos DB's novel multi-region (multi-master) writes replication protocol, every region supports both writes and reads. The multi-region writes capability also enables:

Unlimited elastic write and read scalability.

99.999% read and write availability all around the world.

Guaranteed reads and writes served in less than 10 milliseconds at the 99th percentile.

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/distribute-data-globally>

*Community vote distribution*

A (100%)

✉  **Eltooth** Highly Voted 2 years, 4 months ago

**Selected Answer: A**

Correct answer - A

upvoted 23 times

✉  **Ghoshy** Highly Voted 1 year, 3 months ago

Exam Question 12/28/2022. Instead of the Cosmos DB SQL, the option was Cosmos DB NoSQL

upvoted 15 times

✉  **nav109** Most Recent 4 months, 3 weeks ago

Got this on Nov. 17, 2023

upvoted 5 times

✉  **marcellov** 6 months, 3 weeks ago

**Selected Answer: A**

Azure SQL Database that uses active geo-replication cannot be an answer because it does not offer multi-master write. Active geo-replication is a feature that lets you create a continuously synchronized readable secondary database for a primary database. The secondary database is read-only. So, Cosmos DB SQL is the only right answer.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/active-geo-replication-overview?view=azuresql>

upvoted 1 times

✉  **NotMeAnyWay** 9 months, 1 week ago

**Selected Answer: A**

A. Azure Cosmos DB SQL API

Azure Cosmos DB is a globally distributed, multi-model database service. It offers turnkey global distribution, automatically replicating your data to any number of Azure regions so you can achieve low latency access from anywhere in the world.

Cosmos DB supports various APIs for data access including SQL (Core) API, which uses SQL commands. It provides multi-master support, which allows you to perform writes on any of your replicas and replicate data across all of them for high availability. So it will cover your requirement of supporting multi-master writes.

In terms of guaranteeing low latency read operations, Azure Cosmos DB offers <10 ms latencies at the 99th percentile for reads and writes, which would serve your need of low latency reads.

upvoted 3 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/cosmos-db/introduction#key-benefits>

- Gain unparalleled SLA-backed speed and throughput, fast global access, and instant elasticity. Real-time access with fast read and write latencies globally, and throughput and consistency all backed by SLAs
- Multi-region writes and data distribution to any Azure region with just a button.

upvoted 4 times

✉ **omerc061** 1 year, 2 months ago

Correct;

<https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/how-to-multi-master?tabs=api-async#:~:text=data%20globally%20pane.-,Under%20the%20Multi%2Dregion%20writes%20option%2C%20choose%20enable.%20It%20automatically%20adds%20the%20existing%20regions%20to%20read%20and%20write%20regions.,-You%20can%20add>

upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: A**

A. Azure Cosmos DB SQL API

As Ghoshy mentioned, the option could have been Cosmos DB NoSQL also

upvoted 1 times

✉ **AzureJobsTillRetire** 1 year, 3 months ago

In the exam I had in Jan 2023, I got the same question with different answering items.

There was no "Azure Cosmos DB SQL API ", and the answering items presented were

Azure Cosmos DB for NoSQL

Azure Cosmos DB for PostgreSQL

upvoted 5 times

✉ **mark\_af** 5 months, 2 weeks ago

Which one was the correct one?

upvoted 1 times

✉ **Gor** 1 year, 10 months ago

**Selected Answer: A**

Correct answer - A

<https://docs.microsoft.com/en-us/azure/cosmos-db/sql/how-to-multi-master?tabs=api-async>

upvoted 1 times

✉ **Teringzooi** 1 year, 11 months ago

Correct answer - A

<https://docs.microsoft.com/en-us/azure/cosmos-db/sql/how-to-multi-master?tabs=api-async>

upvoted 1 times

✉ **hertino** 2 years ago

**Selected Answer: A**

In my exam, 9 april 22, 817/1000, I chose this answer

upvoted 4 times

✉ **vandergun** 2 years ago

**Selected Answer: A**

A is the good choice

upvoted 2 times

✉ **PeterHu** 2 years, 1 month ago

only A is correct

upvoted 3 times

✉ **HGD545** 2 years, 1 month ago

On the AZ-305 2/22/22

upvoted 4 times

✉ **Redimido** 2 years, 2 months ago

**Selected Answer: A**

Only Cosmos DB supports multi-master writes:

<https://docs.microsoft.com/en-us/azure/cosmos-db/sql/how-to-multi-master?tabs=api-async>

upvoted 8 times

✉ **AKYK** 2 years, 2 months ago

**Selected Answer: A**

Correct Answer: A

upvoted 3 times

**HOTSPOT -**

You have an Azure subscription that contains the SQL servers on Azure shown in the following table.

Name	Resource group	Location
SQLsvr1	RG1	East US
SQLsvr2	RG2	West US

The subscription contains the storage accounts shown in the following table.

Name	Resource group	Location	Account kind
storage1	RG1	East US	StorageV2 (general purposev2)
storage2	RG2	Central US	BlobStorage

You create the Azure SQL databases shown in the following table.

Name	Resource group	Server	Pricing tier
SQLdb1	RG1	SQLsvr1	Standard
SQLdb2	RG1	SQLsvr1	Standard
SQLdb3	RG2	SQLsvr2	Premium

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

- | Statements                                                                            | Yes                   | No                    |
|---------------------------------------------------------------------------------------|-----------------------|-----------------------|
| When you enable auditing for SQLdb1, you can store the audit information to storage1. | <input type="radio"/> | <input type="radio"/> |
| When you enable auditing for SQLdb2, you can store the audit information to storage2. | <input type="radio"/> | <input type="radio"/> |
| When you enable auditing for SQLdb3, you can store the audit information to storage2. | <input type="radio"/> | <input type="radio"/> |

**Correct Answer:****Answer Area**

- | Statements                                                                            | Yes                              | No                               |
|---------------------------------------------------------------------------------------|----------------------------------|----------------------------------|
| When you enable auditing for SQLdb1, you can store the audit information to storage1. | <input checked="" type="radio"/> | <input type="radio"/>            |
| When you enable auditing for SQLdb2, you can store the audit information to storage2. | <input type="radio"/>            | <input checked="" type="radio"/> |
| When you enable auditing for SQLdb3, you can store the audit information to storage2. | <input type="radio"/>            | <input checked="" type="radio"/> |

Box 1: Yes -

Auditing works fine for a Standard account.

Box 2: No -

Auditing limitations: Premium storage is currently not supported.

Box 3: No -

Auditing limitations: Premium storage is currently not supported.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/auditing-overview#auditing-limitations>

## CONCEPT TO REMEMBER

1. TO WRITE INTO STORAGE, MUST BE IN SAME REGION
2. TO WRITE IN LOG ANALYTICS SPACE - CAN BE IN DIFFERENT REGION

SINCE WE ARE USING CONCEPT 1, CAN ONLY WRITE INTO SAME REGION

IT HAS NOTHING TO DO WITH PRICING TIER

upvoted 160 times

✉ **Rayane** 1 year, 3 months ago

Why are you writing in capital, LOL ?

upvoted 19 times

✉ **nigw** 1 year, 2 months ago

because it's SQL :)

upvoted 77 times

✉ **annabelbm** 1 year, 2 months ago

According to MS documentation: If you are deploying from the Azure portal, be sure that the storage account is in the same region as your database and server. If you are deploying through other methods, the storage account can be in any region.

upvoted 5 times

✉ **moshos** 1 year, 2 months ago

Yes and that statement comes from:

<https://learn.microsoft.com/en-us/azure/azure-sql/database/auditing-overview?view=azuresql#auditing-limitations>

upvoted 4 times

✉ **olympe** 7 months, 3 weeks ago

it's wrong, this has nothing to do with regions!!!!!!

upvoted 2 times

✉ **SDiwan** 1 month, 3 weeks ago

you are wrong. For auditing, storage account needs to be in same region as db. I have tested just now in lab. It won't show any storage accounts in other regions while configuring auditing.

upvoted 3 times

✉ **default\_wizard** Highly Voted 2 years, 4 months ago

answer should be Yes, No, No

Auditing limitations

Premium storage is currently not supported.

<https://docs.microsoft.com/en-us/azure/azure-sql/database/auditing-overview>

upvoted 67 times

✉ **Shadow983** 2 years, 4 months ago

I saw this in document, but I am not sure that means sql database or storage account.

upvoted 4 times

✉ **Shadow983** 2 years, 4 months ago

BTW, the region is not the same.

Y, N, N should be correct.

upvoted 15 times

✉ **makkros** 2 years, 1 month ago

Who said that? Storage does indicate the Resource group only not the region

upvoted 1 times

✉ **epomatti** 1 year, 9 months ago

Makkros yes it DOES indicate the location.

upvoted 2 times

✉ **Eltooth** 2 years, 4 months ago

<https://docs.microsoft.com/en-us/azure/azure-sql/database/auditing-overview#auditing-limitations>

upvoted 5 times

✉ **sonoksm** 1 year, 6 months ago

Storage 2 can be standard BlobStorage, therefore this explanation is not correct

upvoted 3 times

✉ **Markoduk** Most Recent 3 weeks, 3 days ago

Yes

No

No

1. is a given

2. <https://learn.microsoft.com/en-us/azure/azure-sql/database/audit-write-storage-account-behind-vnet-firewall?view=azuresql#prerequisites>

The storage account must be on the same tenant and at the same location as the logical SQL server (it's OK to be on different subscriptions).

3. BlockBlobStorage is not mentioned! (Blob Storage)

<https://learn.microsoft.com/en-us/azure/azure-sql/database/audit-write-storage-account-behind-vnet-firewall?view=azuresql#prerequisites>  
The premium storage with BlockBlobStorage is supported

upvoted 1 times

✉ **SDewan** 1 month, 3 weeks ago

Test in Lab.

Answer is indeed Y,N,N.

Reason:

While configuring auditing for azure sql db, azure portal only will show storage accounts which are in same region. Both standard and premium storage accounts can be used but they need to be in same region as db.

upvoted 2 times

✉ **JimmyYop** 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 6 times

✉ **cesco1286** 4 months ago

Y, N, N should be the correct response now. as of december 2023, Premium storage is supported for SQL Auditing - but you can't write to a different region (just try it in the portal, see if storages in different regions pop up ;)

upvoted 3 times

✉ **nav109** 4 months, 3 weeks ago

Got this on Nov. 17, 2023

upvoted 5 times

✉ **ncseffai** 5 months, 4 weeks ago

I tried. MY SQL server is in West Europe. I created a Standard V2 storage account in North Europe. When I try to configure the auditing the storage account does not show up in the dropdown. A standard v2 storage account in west Europe is in the list however.

upvoted 2 times

✉ **Learningcurve101** 6 months, 2 weeks ago

yes no no. blobstorage is unsupported. blockblobstorage is supported..

upvoted 2 times

✉ **xurxosan** 6 months, 3 weeks ago

YYY

<https://docs.microsoft.com/en-us/azure/azure-sql/database/auditing-overview#auditing-limitations>

Premium storage with BlockBlobStorage is supported. Standard storage is supported. However, for audit to write to a storage account behind a VNet or firewall, you must have a general-purpose v2 storage account. If you have a general-purpose v1 or Blob Storage account, upgrade to a general-purpose v2 storage account. For specific instructions see, Write audit to a storage account behind VNet and firewall. For more information see Types of storage accounts.

upvoted 3 times

✉ **memo454** 6 months, 4 weeks ago

This question is on today's exam.

The exam is easier than AZ-104.

upvoted 9 times

✉ **Spoon3r** 6 months, 4 weeks ago

Keep doing these comments you're my hero

upvoted 5 times

✉ **Mladen\_66** 7 months, 1 week ago

YNN. Only one limitation: "If you have a general-purpose v1 or Blob Storage account, upgrade to a general-purpose v2 storage account." Storage2 is not usable in this case.

upvoted 1 times

✉ **Elecktrus** 7 months ago

No, man. Microsoft says:

"However, for audit to write to a storage account !!! behind a VNet or firewall !!!, you must have a general-purpose v2 storage account. If you have a general-purpose v1 or Blob Storage account, upgrade to a general-purpose v2 storage account."

Here there isn't firewall o vnet, so storage2 is valid.

Answer is YYY

upvoted 2 times

✉ **mehak2020** 8 months, 1 week ago

What is the correct answer then ?

upvoted 1 times

✉ **morito** 10 months, 2 weeks ago

This article (<https://learn.microsoft.com/en-us/azure/azure-sql/database/auditing-setup?source=recommendations&view=azuresql>) states: "If you are deploying from the Azure portal, make sure that the storage account is in the same region as your database and server. If you are deploying through other methods, the storage account can be in any region." Therefore the region limitations only apply when using the portal, but not using the Azure CLI. So 3x Y

upvoted 3 times

✉ **gauravit43** 1 year ago

YNN

Premium storage with BlockBlobStorage is supported. Standard storage is supported. However, for audit to write to a storage account behind a VNet or firewall, you must have a general-purpose v2 storage account. If you have a general-purpose v1 or blob storage account, upgrade to a general-purpose v2 storage account. For specific instructions see, Write audit to a storage account behind VNet and firewall. For more information see Types of storage accounts.

By this comment we can't audit on storage2 because it is on blocstorage. So we must need to change it to GPv2  
upvoted 4 times

✉️👤 **litsarda** 1 year, 1 month ago

- The auditing information for a SQL database can be stored in a storage account within the same region as the SQL server. Since SQLSRV1 is located in RG1 in East US and STORAGE1 is also located in RG1 in East US, we can store the audit information of sqldb1 to storage1.
- Although STORAGE2 is located in RG2, which is the same resource group as SQLSVR2, it is located in a different region (Central US) than the SQL server's location (West US). Therefore, we cannot store the audit information of sqldb2 to storage2.
- Since SQLSVR2 and STORAGE2 are located in the same resource group (RG2) and in the same region (Central US), we can store the audit information of sqldb3 to storage2.

upvoted 1 times

✉️👤 **litsarda** 1 year, 1 month ago

Chat.gpt says Y-N-Y - comment?

upvoted 1 times

✉️👤 **GuyForget** 10 months, 1 week ago

Chat GPT says a lot of things that aren't always correct. Provide any kind of argument against one of those answers, and it's almost guaranteed to apologize and give you the opposite answer.

upvoted 5 times

DRAG DROP -

You plan to import data from your on-premises environment to Azure. The data is shown in the following table.

On-premises source	Azure target
A Microsoft SQL Server 2012 database	An Azure SQL database
A table in a Microsoft SQL Server 2014 database	An Azure Cosmos DB account that uses the SQL API

What should you recommend using to migrate the data? To answer, drag the appropriate tools to the correct data sources. Each tool may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Tools	Answer Area
AzCopy	From the SQL Server 2012 database: <input type="text"/> Tool
Azure Cosmos DB Data Migration Tool	From the table in the SQL Server 2014 database: <input type="text"/> Tool
Data Management Gateway	
Data Migration Assistant	

Correct Answer:

Tools	Answer Area
AzCopy	From the SQL Server 2012 database: <input type="text"/> Data Migration Assistant
Azure Cosmos DB Data Migration Tool	From the table in the SQL Server 2014 database: <input type="text"/> Azure Cosmos DB Data Migration Tool
Data Management Gateway	
Data Migration Assistant	

Box 1: Data Migration Assistant -

The Data Migration Assistant (DMA) helps you upgrade to a modern data platform by detecting compatibility issues that can impact database functionality in your new version of SQL Server or Azure SQL Database. DMA recommends performance and reliability improvements for your target environment and allows you to move your schema, data, and uncontained objects from your source server to your target server.

Incorrect:

AzCopy is a command-line utility that you can use to copy blobs or files to or from a storage account.

Box 2: Azure Cosmos DB Data Migration Tool

Azure Cosmos DB Data Migration Tool can be used to migrate a SQL Server Database table to Azure Cosmos.

Reference:

<https://docs.microsoft.com/en-us/sql/dma/dma-overview>

<https://docs.microsoft.com/en-us/azure/cosmos-db/cosmosdb-migrationchoices>

✉  **Gowind**  1 year, 7 months ago

Correct.

1. <https://docs.microsoft.com/en-us/azure/azure-sql/migration-guides/database/sql-server-to-sql-database-overview?view=azuresql>  
Data migration services
2. <https://docs.microsoft.com/en-us/azure/cosmos-db/cosmosdb-migrationchoices>

upvoted 22 times

✉  **memo454**  6 months, 4 weeks ago

This question is on today's exam.

The exam is easier than AZ-104.

upvoted 20 times

✉  **Spoon3r** 6 months, 4 weeks ago

My hero <3

upvoted 3 times

✉  **tgfakhrul** 1 month, 2 weeks ago

No he's not

upvoted 2 times

✉  **JimmyYop**  2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 4 times

✉️ **Exams\_Prep\_2021** 6 months, 2 weeks ago

Got this on Sept. 29, 2023

upvoted 7 times

✉️ **Forex19** 6 months, 3 weeks ago

I had question at 24th Sep 2023

upvoted 6 times

✉️ **NotMeAnyWay** 9 months, 1 week ago

Answers:

1. From the SQL server 2012 database to Azure SQL Database: Data Migration Assistant.

The Data Migration Assistant (DMA) helps you upgrade to a modern data platform by detecting compatibility issues that can impact database functionality in your new version of SQL Server or Azure SQL Database. DMA recommends performance and reliability improvements for your target environment and allows you to move your schema, data, and uncontained objects from your source server to your target server.

2. From the table in the SQL server 2014 database to Azure Cosmos DB: Azure Cosmos DB Data Migration tool.

The Azure Cosmos DB Data Migration tool is an open-source solution that imports data to Azure Cosmos DB from a variety of sources, including SQL Server. For the SQL API, the tool supports import from JSON files, MongoDB, SQL Server, CSV files, Azure Table storage, Amazon DynamoDB, and other Azure Cosmos DB databases.

upvoted 8 times

✉️ **au95\_aznieto** 1 year ago

If helps I found github project from Azure about cosmos db data migration tool, it seems to be active <https://github.com/Azure/azure-documentdb-datamigrationtool>

upvoted 1 times

✉️ **OPT\_001122** 1 year, 2 months ago

Answer is correct

Box 1: Data Migration Assistant

Box 2: Azure Cosmos DB Data Migration Tool

upvoted 3 times

✉️ **OPT\_001122** 1 year, 2 months ago

Thanks all who have mentioned the exam dates

upvoted 4 times

✉️ **ssgg100** 1 year, 3 months ago

I think there is a mistake in this question - there is no Azure Cosmos DB for SQL API. The supported APIs are:

Azure Cosmos DB for NoSQL

Azure Cosmos DB for MongoDB

Azure Cosmos DB for PostgreSQL

Azure Cosmos DB for Cassandra

Azure Cosmos DB for Gremlin

Azure Cosmos DB for Table

If question means Azure Cosmos DB for NoSQL API, then if we look in the table in <https://docs.microsoft.com/en-us/azure/cosmos-db/cosmosdb-migrationchoices> the tool should be Azure Data Factory.

Azure Cosmos DB Data Migration tool is not mentioned in related article. I found other article about this tool <https://azure.microsoft.com/en-us/updates/documentdb-data-migration-tool/> but it is old and I think that tool is obsolete, as well as the question.

upvoted 3 times

✉️ **rvnz45** 1 year, 2 months ago

PostgreSQL is one kind of SQL

upvoted 1 times

✉️ **sw1000** 10 months, 3 weeks ago

It's mentioned here that SQL Servers are supported with the Desktop Migration Tool:

<https://learn.microsoft.com/en-gb/azure/cosmos-db/how-to-migrate-desktop-tool?tabs=azure-cli>

upvoted 1 times

✉️ **Darkx** 1 year, 6 months ago

appeared on 11th Oct 2022

upvoted 6 times

✉️ **Racinely** 1 year, 6 months ago

The Data management gateway is a client agent that you must install in your on-premises environment to copy data between cloud and on-premises data stores

upvoted 1 times

✉️ **most\_lenyora** 1 year, 7 months ago

Correct

upvoted 1 times

You store web access logs data in Azure Blob Storage.  
You plan to generate monthly reports from the access logs.  
You need to recommend an automated process to upload the data to Azure SQL Database every month.  
What should you include in the recommendation?

- A. Microsoft SQL Server Migration Assistant (SSMA)
- B. Data Migration Assistant (DMA)
- C. AzCopy
- D. Azure Data Factory

**Correct Answer: D**

You can create Data Factory pipelines that copies data from Azure Blob Storage to Azure SQL Database. The configuration pattern applies to copying from a file-based data store to a relational data store.

Required steps:

Create a data factory.

Create Azure Storage and Azure SQL Database linked services.

Create Azure Blob and Azure SQL Database datasets.

Create a pipeline contains a Copy activity.

Start a pipeline run.

Monitor the pipeline and activity runs.

Reference:

<https://docs.microsoft.com/en-us/azure/data-factory/tutorial-copy-data-dot-net>

*Community vote distribution*

D (100%)

✉  **Gowind** Highly Voted  1 year, 7 months ago

**Selected Answer: D**

Correct

<https://docs.microsoft.com/en-us/azure/data-factory/tutorial-copy-data-tool>

upvoted 17 times

✉  **NotMeAnyWay** Highly Voted  1 year ago

**Selected Answer: D**

D. Azure Data Factory

You should recommend using Azure Data Factory for this scenario. Azure Data Factory is a cloud-based data integration service that allows you to create, schedule, and manage data pipelines. In this case, you can create a pipeline to automatically extract data from the Azure Blob Storage, transform the data if needed, and load it into the Azure SQL Database on a monthly basis. This will help you generate the required monthly reports from the access logs.

upvoted 12 times

✉  **au95\_aznieto** Most Recent  1 year ago

If helps I found github project from Azure about cosmos db data migration tool, it seems to be active <https://github.com/Azure/azure-documentdb-datamigrationtool>

upvoted 2 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: D**

D is the answer.

<https://learn.microsoft.com/en-us/azure/data-factory/introduction>

Big data requires a service that can orchestrate and operationalize processes to refine these enormous stores of raw data into actionable business insights. Azure Data Factory is a managed cloud service that's built for these complex hybrid extract-transform-load (ETL), extract-load-transform (ELT), and data integration projects.

upvoted 3 times

✉  **totalz** 1 year, 2 months ago

None of the answers are an automated process...

upvoted 1 times

✉  **totalz** 1 year, 2 months ago

my bad, it says "include in the recommendation"  
upvoted 1 times

✉️  **VBK8579** 1 year, 2 months ago

**Selected Answer: D**

D. Azure Data Factory  
upvoted 1 times

✉️  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: D**

D. Azure Data Factory  
upvoted 2 times

✉️  **libran** 1 year, 7 months ago

**Selected Answer: D**

Given is correct  
upvoted 4 times

✉️  **most\_lenyora** 1 year, 7 months ago

Correct

upvoted 2 times

You have an Azure subscription.

Your on-premises network contains a file server named Server1. Server1 stores 5 TB of company files that are accessed rarely.

You plan to copy the files to Azure Storage.

You need to implement a storage solution for the files that meets the following requirements:

- The files must be available within 24 hours of being requested.
- Storage costs must be minimized.

Which two possible storage solutions achieve this goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Create an Azure Blob Storage account that is configured for the Cool default access tier. Create a blob container, copy the files to the blob container, and set each file to the Archive access tier.
- B. Create a general-purpose v1 storage account. Create a blob container and copy the files to the blob container.
- C. Create a general-purpose v2 storage account that is configured for the Cool default access tier. Create a file share in the storage account and copy the files to the file share.
- D. Create a general-purpose v2 storage account that is configured for the Hot default access tier. Create a blob container, copy the files to the blob container, and set each file to the Archive access tier.
- E. Create a general-purpose v1 storage account. Create a file share in the storage account and copy the files to the file share.

#### Correct Answer: AD

To minimize costs: The Archive tier is optimized for storing data that is rarely accessed and stored for at least 180 days with flexible latency requirements (on the order of hours).

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-storage-tiers>

*Community vote distribution*

AD (94%) 6%

✉  mse89  1 year, 7 months ago

**Selected Answer: AD**

I believe the correct answers are A and D, since the archive tier is the cheapest for storing data.

In addition, a maximum of 15 hours may be required to rehydrate the data from an archive tier; the requirements are met.

upvoted 21 times

✉  Gowind  1 year, 7 months ago

**Selected Answer: AD**

<https://docs.microsoft.com/en-us/azure/storage/blobs/access-tiers-overview>

While a blob is in the Archive tier, it can't be read or modified. To read or download a blob in the Archive tier, you must first rehydrate it to an onlin tier, either Hot or Cool. Data in the Archive tier can take up to 15 hours to rehydrate, depending on the priority you specify for the rehydration operation. For more information about blob rehydration, see Overview of blob rehydration from the Archive tier.

upvoted 10 times

✉  AravindCertification  2 months, 1 week ago

Got this on exam Feb 4, 2024

upvoted 5 times

✉  randy0077 5 months, 3 weeks ago

I beleive A and C is correct answer

upvoted 2 times

✉  Fidel\_104 1 month, 1 week ago

A is fine, but the tricky part for C is that the second sentence mentions that it is a File storage, not Blob storage.

As lifecycle management is not applicable for Files, you cannot store the data in cheaper (eg. Archival) tiers, meaning that your overall cost will be higher, thus D becomes a better choice.

upvoted 2 times

✉  NotMeAnyWay 9 months, 1 week ago

**Selected Answer: AD**

A & D

The available access tiers include:

- Hot: Optimized for storing data that is accessed frequently.
- Cool: Optimized for storing data that is infrequently accessed and stored for at least 30 days.
- Archive: Optimized for storing data that is rarely accessed and stored for at least 180 days with flexible latency requirements (on the order of hours).

Since the files are accessed rarely and you need to minimize storage costs, the Archive tier is appropriate. Both A and D suggest setting the files to the Archive access tier.

Please note that Archive tier data is offline and it takes time to rehydrate data to an online tier if/when access is needed, but it satisfies your requirement of the files being available within 24 hours of being requested. In addition, creating an Azure Blob Storage or general-purpose v2 storage account allows you to utilize these access tiers, as they are not available in the general-purpose v1 accounts.

upvoted 7 times

✉  **ZUMY** 11 months, 2 weeks ago

A & D are correct

upvoted 2 times

✉  **malcubierre** 1 year ago

**Selected Answer: AD**

B and E cannot have access tier because are v1 storage accounts

C is a File share, that cannot have access tier

Then: A, D

upvoted 8 times

✉  **yonie** 11 months, 3 weeks ago

Thanks

upvoted 1 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: AD**

AD is the answer.

<https://learn.microsoft.com/en-us/azure/storage/blobs/access-tiers-overview>

Archive tier - An offline tier optimized for storing data that is rarely accessed, and that has flexible latency requirements, on the order of hours. Data in the archive tier should be stored for a minimum of 180 days.

upvoted 5 times

✉  **totalz** 1 year, 2 months ago

What's the size in the question? All I see is "5 1\$!"!!

What's the min blob size? Like if I store a 1Kb file, what size does it end up in cost?

upvoted 3 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: AD**

Keyword is archive tier for cost minimization

upvoted 3 times

✉  **Bummer\_boy** 1 year, 2 months ago

**Selected Answer: AD**

Archiving tier is a must in this scenario for cost optimization

upvoted 1 times

✉  **lmy** 1 year, 3 months ago

A and C

upvoted 3 times

✉  **jellybiscuit** 1 year, 6 months ago

**Selected Answer: AD**

Archive tier rehydration time is a claimed 15 hours. This meets their needs at the lowest cost.

<https://learn.microsoft.com/en-us/azure/storage/blobs/access-tiers-overview>

upvoted 2 times

✉  **maarten4119** 1 year, 7 months ago

What is meant by 'set each file to the Archive access tier' in answer A and D? It says in A the storage account is Cool and in D it is Hot. You can only set one access tier, no? Why do they refer at the end to Archive?

upvoted 1 times

✉  **jellybiscuit** 1 year, 6 months ago

You can only create the storage account as hot or cool.

Once you get them there, you're sending the files to archive.

In this case, it doesn't really matter which tier you create the account as... the end result is the same.

upvoted 5 times

✉  **Balaji\_c\_s** 1 year, 7 months ago

**Selected Answer: AD**

A and D is correct, C is not correct, AFAIK only blobs can be changed to archive access tier.  
upvoted 3 times

✉  **codingdown** 1 year, 7 months ago

**Selected Answer: AC**

only A and C allow to choose a cold tier which is the correct one for this scenario  
upvoted 4 times

✉  **most\_lenyora** 1 year, 7 months ago

Answer is correct

upvoted 2 times

You have an app named App1 that uses two on-premises Microsoft SQL Server databases named DB1 and DB2.

You plan to migrate DB1 and DB2 to Azure

You need to recommend an Azure solution to host DB1 and DB2. The solution must meet the following requirements:

- Support server-side transactions across DB1 and DB2.
- Minimize administrative effort to update the solution.

What should you recommend?

- A. two Azure SQL databases in an elastic pool
- B. two databases on the same Azure SQL managed instance
- C. two databases on the same SQL Server instance on an Azure virtual machine
- D. two Azure SQL databases on different Azure SQL Database servers

**Correct Answer: B**

Elastic database transactions for Azure SQL Database and Azure SQL Managed Instance allow you to run transactions that span several databases.

SQL Managed Instance enables system administrators to spend less time on administrative tasks because the service either performs them for you or greatly simplifies those tasks.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/elastic-transactions-overview?view=azuresql>

*Community vote distribution*

B (100%)

✉  **Gowind**  1 year, 7 months ago

**Selected Answer: B**

<https://docs.microsoft.com/en-us/azure/azure-sql/database/elastic-transactions-overview?view=azuresql>

A server-side distributed transactions using Transact-SQL are available only for Azure SQL Managed Instance. Distributed transaction can be executed only between Managed Instances that belong to the same Server trust group. In this scenario, Managed Instances need to use linked server to reference each other.

upvoted 20 times

✉  **NotMeAnyWay**  1 year ago

**Selected Answer: B**

B. two databases on the same Azure SQL managed instance

An Azure SQL Managed Instance is a fully managed SQL Server Database Engine hosted in Azure that provides most of the SQL Server capabilities. It supports features like cross-database queries and transactions, which is crucial for your requirement of supporting server-side transactions across DB1 and DB2. Additionally, since it's a fully managed solution, it minimizes the administrative effort needed to update and maintain the system.

upvoted 12 times

✉  **zellck**  1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/elastic-transactions-overview?view=azuresql#transact-sql-development-experience>  
A server-side distributed transactions using Transact-SQL are available only for Azure SQL Managed Instance. Distributed transaction can be executed only between instances that belong to the same Server trust group. In this scenario, managed instances need to use linked server to reference each other.

upvoted 4 times

✉  **totalz** 1 year, 2 months ago

B is the best answer no doubt, but D is also a correct answer according to the doc. See limitations 1st point! This doc is missing a lot of things...  
upvoted 1 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

B. two databases on the same Azure SQL managed instance  
upvoted 1 times

✉  **Bummer\_boy** 1 year, 2 months ago

**Selected Answer: B**

The thing is server-side transaction execution across multiple dbs. it's one of the key features of SQL managed instance.

upvoted 1 times

✉ **mscbgslt** 1 year, 3 months ago

12/29/2022 -> This article describes using elastic database transactions which allow you to run distributed transactions across cloud databases for Azure SQL Database and Azure SQL Managed Instance.

upvoted 7 times

✉ **OPT\_001122** 1 year, 2 months ago

Thanks for mentioning the date

upvoted 1 times

✉ **Samko635** 1 year, 6 months ago

**Selected Answer: B**

Azure SQL DB does NOT support server-side transaction, only client-side.

Ref: <https://learn.microsoft.com/en-us/azure/azure-sql/database/elastic-transactions-overview?view=azuresql#common-scenarios>

upvoted 4 times

✉ **jellybiscuit** 1 year, 6 months ago

**Selected Answer: B**

Elastic query for Azure SQL Databases is currently in preview mode, which would allow this.

For now, SQL MI is the right answer though.

upvoted 2 times

✉ **Samko635** 1 year, 6 months ago

Azure SQL DB does NOT support server-side transaction, only client-side.

Ref: <https://learn.microsoft.com/en-us/azure/azure-sql/database/elastic-transactions-overview?view=azuresql#common-scenarios>

upvoted 1 times

✉ **xRiot007** 1 month, 4 weeks ago

You posted the docs, but did you actually read them? Seems not. Let's do it together:

"A server-side experience (code written in stored procedures or server-side scripts) using Transact-SQL is available for SQL Managed Instance only"

And then it continues telling you that you can either have transactions between DB or DB MIs like this:

"Running elastic database transactions between Azure SQL Database and Azure SQL Managed Instance is not supported. Elastic database transaction can only span across a set of databases in SQL Database or a set databases across managed instances."

upvoted 1 times

✉ **most\_lenyora** 1 year, 7 months ago

Correct

upvoted 2 times

✉ **Snownoodles** 1 year, 7 months ago

**Selected Answer: B**

Given answer is correct.

Keywords: instance to instance/minimal management

upvoted 4 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Database Hyperscale
- B. Azure SQL Database Premium
- C. Azure SQL Database Basic
- D. Azure SQL Managed Instance General Purpose

**Correct Answer: B**

Azure SQL Database Premium tier supports multiple redundant replicas for each database that are automatically provisioned in the same datacenter within a region. This design leverages the SQL Server AlwaysON technology and provides resilience to server failures with 99.99% availability SLA and RPO=0.

With the introduction of Azure Availability Zones, we are happy to announce that SQL Database now offers built-in support of Availability Zones in its Premium service tier.

Incorrect:

Not A: Hyperscale is more expensive than Premium.

Not C: Need Premium for Availability Zones.

Not D: Zone redundant configuration that is free on Azure SQL Premium is not available on Azure SQL Managed Instance.

Reference:

<https://azure.microsoft.com/en-us/blog/azure-sql-database-now-offers-zone-redundant-premium-databases-and-elastic-pools/>

*Community vote distribution*

B (100%)

✉  **jellybiscuit** Highly Voted 1 year, 6 months ago

**Selected Answer: B**

I had a near-impossible time finding documentation for this, so I just went to my own portal and checked.

SQL Database options that support Geo Redundancy

vCore model

- General Purpose (at additional cost)
- Business Critical

DTU model

- Premium

SQL MI does not support geo-redundancy at all.

upvoted 20 times

✉  **AdventureChick** 6 months, 3 weeks ago

Sept 25, 2023. There are 2 errors in jellybiscuit's comment:

1) the scenario calls for Zone redundancy (handle a zone outage). It does not require Geo redundancy

2) Managed Instances now allow Zone Redundant (ZRS), Geo Redundant (GRS), and Geo Zone Redundant (GZRS). It depends on the Region, but the scenario does not include a Region. <https://learn.microsoft.com/en-us/azure/azure-sql/managed-instance/automated-backups-overview?view=azuresql>

So both MI & SQL DB Premium will work, but SQL DB premium is considerably less expensive. I tried both in the Azure Pricing Calculator (Zone redundant & different sizes). SQL DB Premium is always far cheaper than Managed Instance.

Azure Pricing Calculator: <https://azure.microsoft.com/en-us/pricing/calculator/>

upvoted 8 times

✉  **Gowind** Highly Voted 1 year, 7 months ago

**Selected Answer: B**

Answer is correct but explanation is wrong for C. You need General Purpose level as a minimum, not premium.

<https://docs.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

NB: Zone-redundant configuration is not available in SQL Managed Instance. In SQL Database this feature is only available when the Gen5 hardware is selected.

upvoted 13 times

✉  **tatacsi** Most Recent 1 month, 4 weeks ago

I am curious how can be compared the prices of DTU and vCore based solutions without describing any further needs?

I created the below order based on <https://azure.microsoft.com/en-us/pricing/details/azure-sql-database/single/>

-- Azure SQL Database Standard (DTU-based; Zone Redundancy not fully available)

-- Azure SQL Database Hyperscale (vCore-based)

-- Azure SQL Database General Purpose (vCore-based)

-- Azure SQL Database Premium (DTU-based)

-- Azure SQL Database Business Critical (vCore-based)

& Azure SQL Database Basic does not provide zone redundancy at all.

upvoted 1 times

✉  **randy0077** 5 months, 3 weeks ago

I think A is correct answer to support automatic failover with no dataloss.

upvoted 1 times

✉  **Sarankrish** 7 months, 3 weeks ago

why not Azure SQL Database basic?

Also, I don't find the option to specify basic or premium!!!

upvoted 2 times

✉  **AdventureChick** 6 months, 3 weeks ago

Azure SQL DB - Basic & Standard only have LRS. They do not have ZRS (which is required by the scenario). The other Azure SQL DB service tiers have ZRS: DTU (Premium) and vCore (General Purpose, Business Critical, and Hyperscale)

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

upvoted 2 times

✉  **MAKH83** 3 months, 2 weeks ago

According to this article, basic and standard both support ZRS:

<https://learn.microsoft.com/en-us/azure/azure-sql/database/service-tiers-dtu?view=azuresql>

upvoted 1 times

✉  **mr\_m\_plow** 2 months, 3 weeks ago

I think that's for backups only. According to this articale, ZRS is only supported on Azure SQL Premium: <https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

upvoted 3 times

✉  **SDewan** 1 month, 3 weeks ago

Basic supports ZRS and GRS for its backup and not for the database itself.

upvoted 1 times

✉  **ZUMY** 11 months, 2 weeks ago

Answer is correct

Azure SQL Managed Instance also offers high availability and disaster recovery capabilities, but it does not support zone redundant configuration. Instead, it uses a different approach called instance failover groups to provide high availability across different regions. Instance failover groups enable you to create and manage groups of managed instances that fail over together during a regional outage, allowing you to maintain availability of your database workloads.

upvoted 2 times

✉  **winy** 1 year ago

this was in the exam on 01/04/2023

upvoted 4 times

✉  **NotMeAnyWay** 1 year ago

**Selected Answer: B**

B. Azure SQL Database Premium

To meet the requirements of a highly available Azure SQL database with no data loss during failover and availability during a zone outage, you should use Azure SQL Database Premium. The Premium tier provides built-in support for active geo-replication, which allows you to create readable secondary replicas in different regions, ensuring the database remains available in the event of a zone outage. Additionally, the Premium tier offers better performance and more resources compared to the Basic and General Purpose tiers, while Hyperscale, although highly scalable, can be more costly than the Premium tier.

upvoted 4 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/sql-database-paas-overview?view=azuresql#service-tiers>

The Premium service tier is designed for OLTP applications with high transaction rates and low latency I/O requirements. It offers the highest resilience to failures by using several isolated replicas.

upvoted 4 times

✉️ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

B. Azure SQL Database Premium

upvoted 2 times

✉️ **annabelbm** 1 year, 2 months ago

Zone-redundant configuration is currently in preview for SQL Managed Instance, and only available for the Business Critical service tier.  
<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

upvoted 1 times

✉️ **Snownoodles** 1 year, 7 months ago

B is correct

If D is "Azure SQL DATABASE General Purpose", then D is correct.

Azure SQL database general purpose support Zone but Azure MI general purpose doesn't support zone redundancy.

upvoted 3 times

**HOTSPOT -**

You are planning an Azure Storage solution for sensitive data. The data will be accessed daily. The dataset is less than 10 GB.

You need to recommend a storage solution that meets the following requirements:

- All the data written to storage must be retained for five years.
- Once the data is written, the data can only be read. Modifications and deletion must be prevented.
- After five years, the data can be deleted, but never modified.
- Data access charges must be minimized.

What should you recommend? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Storage account type:

General purpose v2 with Archive access tier for blobs
General purpose v2 with Cool access tier for blobs
General purpose v2 with Hot access tier for blobs

Configuration to prevent modifications and deletions:

Container access level
Container access policy
Storage account resource lock

**Correct Answer:**

**Answer Area**

Storage account type:

General purpose v2 with Archive access tier for blobs
General purpose v2 with Cool access tier for blobs
General purpose v2 with Hot access tier for blobs

Configuration to prevent modifications and deletions:

Container access level
Container access policy
Storage account resource lock

Box 1: General purpose v2 with Hot access tier for blobs

Note:

- \* All the data written to storage must be retained for five years.
- \* Data access charges must be minimized

Hot tier has higher storage costs, but lower access and transaction costs.

Incorrect:

Not Archive: Lowest storage costs, but highest access, and transaction costs.

Not Cool: Lower storage costs, but higher access and transaction costs.

Box 2: Storage account resource lock

As an administrator, you can lock a subscription, resource group, or resource to prevent other users in your organization from accidentally deleting or modifying critical resources. The lock overrides any permissions the user might have.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/access-tiers-overview> <https://docs.microsoft.com/en-us/azure/resource-manager/management/lock-resources>

✉  mse89  1 year, 7 months ago

gpv2 hot tier, container access policy to configure a time-based retention policy for immutable storage.  
Storage account resource lock does not prevent data editing or deletion, but only the storage account deletion.  
upvoted 122 times

✉  ike001 1 year, 7 months ago

agree 100%  
upvoted 7 times

✉  kJigneshk 1 year, 6 months ago

yes you set the resources lock as read-only and delete prevention but can to for data, that is only for resources change not for in the data.  
upvoted 1 times

✉  webbies 1 year, 6 months ago

You can set the storage resource lock to CannotDelete and ReadOnly isn't?  
<https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/lock-resources?tabs=json>  
upvoted 4 times

✉  kJigneshk 1 year, 6 months ago

yes you set the resources lock as read-only and delete prevention but can to for data, that is only for resources change not for in the data.  
upvoted 10 times

✉  Gowind  1 year, 7 months ago

Answer is GPv2 HOT to have frequent access :  
<https://docs.microsoft.com/en-us/azure/storage/blobs/access-tiers-overview>

Answer is container access (immutable) policy at least at the container scope.  
<https://docs.microsoft.com/en-us/azure/storage/blobs/immutable-storage-overview>  
upvoted 41 times

✉  Azure2020  1 week, 4 days ago

1 Hot tier  
2 should be access policy.  
PS Locking a storage account does not protect containers or blobs within that account from being deleted or overwritten!!!  
upvoted 1 times

✉  Zein135 1 week, 5 days ago

I think the right choice for second question is  
"Container Access Level"  
we can adjust access level to read only  
upvoted 1 times

✉  Daychill 2 months, 3 weeks ago

Immutability policies can be scoped to a blob version or to a container. How an object behaves under an immutability policy depends on the scope of the policy. For more information about policy scope for each type of immutability policy, see the following sections:

Time-based retention policy scope

Legal hold scope

Depending on the scope, you can configure both a time-based retention policy and a legal hold for a resource (container or blob version).  
upvoted 1 times

✉  nav109 4 months, 3 weeks ago

Got this on Nov. 17, 2023  
upvoted 4 times

✉  mark\_af 5 months, 2 weeks ago

1. "Hot tier". Lower access transaction costs, meets requirement "Data access charges must be minimized"  
2. "Container access policy" seems to be the best one. I still struggle to find it in the documentation (only found immutable storage references)  
upvoted 3 times

✉  xRiot007 1 month, 2 weeks ago

1. Wrong, the cheapest tier is Archive, then Cool, then Hot. The reason why we need Hot access is because this data has to be accessed a lot on a daily basis.  
upvoted 2 times

✉  jcxxxxx2020 5 months, 3 weeks ago

This question appeared on my Exam today 10/22/2023  
Total of 48 questions  
upvoted 8 times

✉  babakeyfgir 4 months, 4 weeks ago

answer?  
upvoted 1 times

✉  GeorgiAngelov 5 months, 4 weeks ago

General purpose v2 with Hot access tier and Storage resource lock.

upvoted 1 times

✉️ **aksrav** 8 months ago

its general puprose v2 with hot tier  
container access policy

upvoted 3 times

✉️ **NotMeAnyWay** 9 months ago

1. Storage Account type: c. GP v2 Hot.

Considering the data will be accessed daily, the Hot access tier is the most cost-effective for storing frequently accessed data.

2. Configuration to prevent the modification and deletions: Container access policy.

The Container access policy is indeed the place to configure Azure's Immutable Blob Storage to ensure data is retained without modifications or deletions for a specified amount of time, which suits your needs. The Azure Blob Storage's Immutable Blob Storage feature provides a WORM (Write Once, Read Many) capability which aligns with your requirements perfectly.

upvoted 13 times

✉️ **sw1000** 10 months, 3 weeks ago

Moderator/Admins: could you please update the answer. We have a lot of consense here that the answers are General Purpose v2 Blobs + hot tier AND Container Access Policy are needed to get the desired outcome.

upvoted 8 times

✉️ **ZUMY** 11 months, 2 weeks ago

General Purpose V2 Hot tier  
Container access policy

I would recommend using Azure hot Blob Storage with a WORM (Write Once Read Many) policy. WORM policies prevent data from being modified or deleted after it has been written, and they can be applied to individual blobs or entire containers.

upvoted 6 times

✉️ **ZUMY** 11 months, 2 weeks ago

To implement this solution, you can follow these steps:

Create an Azure Blob Storage account and enable the WORM feature. This can be done through the Azure Portal or via Azure CLI or PowerShell

Create a new blob container for your sensitive data.

Set the WORM policy for the container to enforce write-once-read-many access for all blobs in the container.

Upload your sensitive data to the blob container.

Configure a retention period of five years for the data in the container.

upvoted 2 times

✉️ **malcubierre** 1 year ago

General Purpose V2 Hot tier  
Container access policy

upvoted 7 times

✉️ **Stone82** 1 year, 1 month ago

Second is Container Access Policy  
upvoted 4 times

✉️ **MadPanda** 1 year, 1 month ago

It should be Hot Tier with Container Access Policy. Storage Account Resource Lock does not prevent the data from being modified/deleted inside the container.

<https://learn.microsoft.com/en-us/azure/storage/blobs/data-protection-overview#overview-of-data-protection-options>

upvoted 3 times

✉️ **zellck** 1 year, 1 month ago

Same as Question 21.  
<https://www.examtopics.com/discussions/microsoft/view/95594-exam-az-305-topic-2-question-21-discussion>  
upvoted 1 times

**HOTSPOT -**

You are designing a data storage solution to support reporting.

The solution will ingest high volumes of data in the JSON format by using Azure Event Hubs. As the data arrives, Event Hubs will write the data to storage. The solution must meet the following requirements:

- Organize data in directories by date and time.
- Allow stored data to be queried directly, transformed into summarized tables, and then stored in a data warehouse.
- Ensure that the data warehouse can store 50 TB of relational data and support between 200 and 300 concurrent read operations.

Which service should you recommend for each type of data store? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Data store for the ingested data:

Azure Blob Storage
Azure Data Lake Storage Gen2
Azure Files
Azure NetApp Files

Data store for the data warehouse:

Azure Cosmos DB Cassandra API
Azure Cosmos DB SQL API
Azure SQL Database Hyperscale
Azure Synapse Analytics dedicated SQL pools

**Correct Answer:**

**Answer Area**

Data store for the ingested data:

Azure Blob Storage
Azure Data Lake Storage Gen2
Azure Files
Azure NetApp Files

Data store for the data warehouse:

Azure Cosmos DB Cassandra API
Azure Cosmos DB SQL API
Azure SQL Database Hyperscale
Azure Synapse Analytics dedicated SQL pools

Box 1: Azure Data Lake Storage Gen2

Azure Data Explorer integrates with Azure Blob Storage and Azure Data Lake Storage (Gen1 and Gen2), providing fast, cached, and indexed access to data stored in external storage. You can analyze and query data without prior ingestion into Azure Data Explorer. You can also query across ingested and uningested external data simultaneously.

Azure Data Lake Storage is optimized storage for big data analytics workloads.

Use cases: Batch, interactive, streaming analytics and machine learning data such as log files, IoT data, click streams, large datasets

Box 2: Azure SQL Database Hyperscale

Azure SQL Database Hyperscale is optimized for OLTP and high throughput analytics workloads with storage up to 100TB.

A Hyperscale database supports up to 100 TB of data and provides high throughput and performance, as well as rapid scaling to adapt to the workload requirements. Connectivity, query processing, database engine features, etc. work like any other database in Azure SQL Database.

Hyperscale is a multi-tiered architecture with caching at multiple levels. Effective IOPS will depend on the workload.

Compare to:

General purpose: 500 IOPS per vCore with 7,000 maximum IOPS

Business critical: 5,000 IOPS with 200,000 maximum IOPS

Incorrect:

\* Azure Synapse Analytics Dedicated SQL pool.

Max database size: 240 TB -

A maximum of 128 concurrent queries will execute and remaining queries will be queued.

Reference:

<https://docs.microsoft.com/en-us/azure/data-explorer/data-lake-query-data> <https://docs.microsoft.com/en-us/azure/azure-sql/database/service-tier-hyperscale> <https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-service-capacity-limits>

✉️  **Snownoodles** Highly Voted 1 year, 7 months ago

Azure Synapse Analytics SQL pool only support 128 concurrent queries:

"A maximum of 128 concurrent queries will execute and remaining queries will be queued"

<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-service-capacity-limits>

Azure Sql hyperscale have read replica... and supports up to 100TB data size.

So I think the correct answer should be Hyperscale

upvoted 38 times

✉️  **NotMeAnyWay** Highly Voted 9 months ago

1. Data store for the ingestion data: b. Azure Data Lake Storage Gen2.

Azure Data Lake Storage Gen2 is designed for big data analytics, it combines the power of a high-performance file system with massive scale and economy to help you speed up your big data analytics. It allows the data to be organized in directories by date and time.

2. Data store for the data warehouse: c. Azure SQL Database Hyperscale.

Azure SQL Database Hyperscale is a highly scalable service tier that is designed to provide high performance, and supports up to 100 TB of data. The Hyperscale service tier in Azure SQL Database is the newest service tier in the vCore-based purchasing model. This service tier is a highly scalable storage and compute performance tier that leverages the Azure architecture to scale out the storage and compute resources for an Azure SQL Database substantially beyond the limits available for the General Purpose and Business Critical service tiers.

upvoted 20 times

✉️  **varinder82** Most Recent 3 weeks, 4 days ago

Final Answer:

1. Azure Data Lake Storage Gen2.

2. Azure SQL Database Hyperscale.

upvoted 1 times

✉️  **peterp007** 3 months, 1 week ago

Was on my Exam Today - 4th Jan 2024

upvoted 15 times

✉️  **Paul\_white** 4 months, 3 weeks ago

For the ingested data, I recommend using Azure Data Lake Storage Gen2.

It is a highly scalable and cost-effective data lake solution for big data analytics.

For the data warehouse, I recommend using Azure Synapse Analytics (formerly SQL Data Warehouse). It is an analytics service that brings together enterprise data warehousing and Big Data analytics. It gives you the freedom to query data on your terms, using either serverless or provisioned resources at scale. It can store 50 TB of relational data and support between 200 and 300 concurrent read operations.

upvoted 1 times

✉️  **mehak2020** 8 months, 1 week ago

What would be right answer ?

upvoted 1 times

✉️  **Bigbluee** 1 year ago

If You dont know what to choose, choose cheapest one or "more cost safe" so IMO, Azure SQL Database Hyperscale is the answer even if Synapse meets requirements.

upvoted 3 times

✉️  **NotMeAnyWay** 1 year ago

1. Data store for the ingested data: B. Azure Data Lake Storage Gen2

Azure Data Lake Storage Gen2 is designed for big data analytics workloads and supports organizing data in directories by date and time, as well as hierarchical namespace. It also allows stored data to be queried directly and is well-integrated with Azure Event Hubs.

2. Data store for the data warehouse: C. Azure SQL Database Hyperscale is an alternative option for the data store for the data warehouse. It is a highly scalable service tier for single databases within Azure SQL Database that can auto-scale up to 100 TB. It supports a large number of concurrent connections and offers rapid scaling capabilities.

upvoted 2 times

✉ **Helice** 1 year ago

The second is hyperscale: <https://learn.microsoft.com/en-us/azure/azure-sql/database/service-tier-hyperscale-frequently-asked-questions-faq?view=azuresql#how-can-i-choose-between-azure-synapse-analytics-and-azure-sql-database-hyperscale-> based on Microsoft docs. For this type of scenarios, Hyperscale works

upvoted 3 times

✉ **Helice** 1 year ago

Hyperscale is OLTP not OLAP (Data warehouse). Synapse is a DW

upvoted 3 times

✉ **zellck** 1 year, 1 month ago

1. Azure Data Lake Storage Gen2
2. Azure SQL DB Hyperscale

<https://learn.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-introduction>

Azure Data Lake Storage Gen2 is a set of capabilities dedicated to big data analytics, built on Azure Blob Storage.

Data Lake Storage Gen2 converges the capabilities of Azure Data Lake Storage Gen1 with Azure Blob Storage. For example, Data Lake Storage Gen provides file system semantics, file-level security, and scale. Because these capabilities are built on Blob storage, you'll also get low-cost, tiered storage, with high availability/disaster recovery capabilities.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/service-tier-hyperscale?view=azuresql#what-are-the-hyperscale-capabilities>

The Hyperscale service tier in Azure SQL Database provides the following additional capabilities:

- Support for up to 100 TB of database size.

upvoted 4 times

✉ **abxc** 1 year, 1 month ago

I think the answer should be Azure Synapse Analytics SQLPool

bcz: once data is stored in ADLS in directories, data needs to be queried directly and transformed and stored in tables.

Synapse has that capability. ???

upvoted 2 times

✉ **Putra19** 1 year, 2 months ago

synapse vs hyperscale which is the better answer?

upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago

- Box 1: Azure Data Lake Storage Gen2  
Box 2: Azure SQL Database Hyperscale

upvoted 5 times

✉ **Lu5ck** 1 year, 2 months ago

According to chatgpt,

Both Azure Data Lake Storage Gen2 and Azure Blob storage can store json but Azure Data Lake Storage Gen2 does a better job at it for this scenario where analytics is involve.

Azure Synapse Analytics dedicated SQL pools is a better answer because the concurrent read limit is not established for Azure SQL Database Hyperscale. Furthermore, Azure Synapse Analytics dedicated SQL pools is optimized to for this purpose. 50TB is below the 100TB limit as well.

Thus the answer is

Azure Data Lake Storage Gen2

Azure Synapse Analytics dedicated SQL pools

upvoted 2 times

✉ **np2021** 1 year, 2 months ago

I agree chatgpt answers need to stop. It is not as smart, or comprehensive at researching a relevant answer as people make out.

upvoted 7 times

✉ **jecawi9630** 1 year, 2 months ago

Please stop with your chatgpt answers. It's not as smart as you think when it comes to questions like this. If you ask a follow up question saying "bit isn't this the correct answer" it will immediately say "oh yeah you're right" instead of defending why the answer it chose was correct.

upvoted 10 times

✉ **Lu5ck** 1 year, 2 months ago

I forgot to add that Azure Stream Analytics is also in preview state for Event Hub to Azure SQL Database. So yea, I think Azure Synapse Analytics is the better answer.

upvoted 1 times

✉ **Lu5ck** 1 year, 2 months ago

I am sorry, I copied the wrong explanation. The reality is both solutions are viable at first glance but there is indeed a key difference. The solution must ingest the data DIRECTLY. We cannot ingest the data and transform it directly into Azure SQL Database, that will require the use of a medium like Azure Stream Analytics. However, we can indeed do it directly with Azure Synapse Analytics.

upvoted 2 times

✉️ 🚩 **Lu5ck** 1 year, 2 months ago

Ah, in case you asked. There is a difference between concurrent queries and concurrent session. The scenario require concurrent read aka concurrent query aka concurrent session. The queues will only kick in after the session is filled. Azure Synapse Analytics can do up to 1000 concurrent session and can do rowstore up to 60 TB. It actually fit all requirements at first glance. So I am unsure why nobody make that comparisons and why they think SQL Database Hyperscale is better fit.

upvoted 1 times

✉️ 🚩 **OrangeSG** 1 year, 3 months ago

Box 2 shall be 'Azure SQL Database Hyperscale'

Keyword are 'data warehouse', '50 TB of relational data', '200 and 300 concurrent read'

Azure SQL Database Hyperscale FAQ

<https://learn.microsoft.com/en-us/azure/azure-sql/database/service-tier-hyperscale-frequently-asked-questions-faq>

How can I choose between Azure Synapse Analytics and Azure SQL Database Hyperscale?

If you are currently running interactive analytics queries using SQL Server as a data warehouse, Hyperscale is a great option because you can host small and mid-size data warehouses (such as a few TB up to 100 TB) at a lower cost, and you can migrate your SQL Server data warehouse workloads to Hyperscale with minimal T-SQL code changes.

If you are running data analytics on a large scale with complex queries and sustained ingestion rates higher than 100 MB/s, or using Parallel Data Warehouse (PDW), Teradata, or other Massively Parallel Processing (MPP) data warehouses, Azure Synapse Analytics may be the best choice.

upvoted 12 times

✉️ 🚩 **infimagine** 1 year, 5 months ago

why not comos DB SQL API?

upvoted 8 times

You have an app named App1 that uses an on-premises Microsoft SQL Server database named DB1.

You plan to migrate DB1 to an Azure SQL managed instance.

You need to enable customer managed Transparent Data Encryption (TDE) for the instance. The solution must maximize encryption strength.

Which type of encryption algorithm and key length should you use for the TDE protector?

- A. RSA 3072
- B. AES 256
- C. RSA 4096
- D. RSA 2048

**Correct Answer: A**

*Community vote distribution*

A (90%) 10%

✉️  **NotMeAnyWay** Highly Voted 1 year ago

**Selected Answer: A**

A. RSA 3072

RSA 3072 provides a higher level of encryption strength compared to RSA 2048. While RSA 4096 offers even stronger encryption, it is not supported by Azure SQL Database and Azure SQL Managed Instance for TDE protectors.

By choosing RSA 3072 for the TDE protector, you ensure strong encryption for your Azure SQL Managed Instance while complying with the platform's requirements. This will help protect sensitive data and maintain compliance with relevant security standards and regulations.  
upvoted 21 times

✉️  **chair123** 1 month ago

Correct, Reference:

<https://learn.microsoft.com/en-us/azure/azure-sql/database/transparent-data-encryption-byok-overview?view=azuresql#:~:text=TDE%20protector%20can%20only%20be%20an%20asymmetric%2C%20RSA%2C%20or%20RSA%20HSM%20key.%20The%20supported%20key%20lengths%20are%202048%20bits%20and%203072%20bits.>  
upvoted 2 times

✉️  **wdjonz** Highly Voted 11 months, 1 week ago

The Answer is A and here is why...

Per <https://learn.microsoft.com/en-us/azure/azure-sql/database/transparent-data-encryption-tde-overview?view=azuresql&tabs=azure-portal>,

if the TDE uses the system managed key, it uses a built in certificate for encryption, hence AES 256  
if the TDE uses a customer managed key, then it uses an asymmetric RSA key at 2048 or 3072

And since the question says TDE is using the customer managed key... the answer is A Viola!

upvoted 9 times

✉️  **peterp007** Most Recent 3 months, 1 week ago

Was on my exam today - 4th Jan 2024

upvoted 8 times

✉️  **babakeyfgir** 4 months, 3 weeks ago

it was a exam Question

upvoted 5 times

✉️  **Elecktrus** 7 months ago

**Selected Answer: A**

RSA 3072, because is custom managed

upvoted 2 times

✉️  **sw1000** 10 months, 3 weeks ago

**Selected Answer: A**

There are a lot of confusing elements in this question.

At first it mentions on-premise SQL Server, which would allow AES or RSA ...

However, the system is to be migrated over to Azure.

And here the requirements for customer managed TDE are pretty clear and are listed here:  
<https://learn.microsoft.com/en-us/azure/azure-sql/database/transparent-data-encryption-byok-overview?view=azuresql#requirements-for-configuring-tde-protector>

AES can be enabled as an additional Infrastructure encryption to have two layers, but that was not the question here.

upvoted 3 times

✉️ **Tr619899** 11 months, 1 week ago

<https://learn.microsoft.com/en-us/azure/azure-sql/database/transparent-data-encryption-byok-overview?source=recommendations&view=azuresql#requirements-for-configuring-tde-protector>

A. 3072

upvoted 2 times

✉️ **zellck** 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/transparent-data-encryption-byok-overview?view=azuresql#requirements-for-configuring-tde-protector>

TDE protector can only be an asymmetric, RSA, or RSA HSM key. The supported key lengths are 2048 bytes and 3072 bytes.

upvoted 5 times

✉️ **dagomo** 1 year, 2 months ago

**Selected Answer: A**

<https://learn.microsoft.com/en-us/azure/azure-sql/database/transparent-data-encryption-byok-overview?view=azuresql#requirements-for-configuring-tde-protector>

upvoted 4 times

✉️ **VBK8579** 1 year, 2 months ago

**Selected Answer: A**

Answer A because Azure SQL Database and Azure Synapse Analytics support RSA 3072-bit key length for customer managed TDE with Bring Your Own Key (BYOK) configurations

upvoted 2 times

✉️ **bigz2021** 1 year, 2 months ago

A. RSA 3072

(TDE protector can only be an asymmetric, RSA, or RSA HSM key. The supported key lengths are 2048 bytes and 3072 bytes.)

upvoted 4 times

✉️ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: A**

A. RSA 3072

upvoted 4 times

✉️ **OPT\_001122** 1 year, 2 months ago

A. RSA 3072

upvoted 2 times

✉️ **Liveroso** 1 year, 2 months ago

**Selected Answer: B**

The answer is AES 256

Transparent Data Encryption (TDE) in Azure SQL Managed Instance uses the Advanced Encryption Standard (AES) algorithm to encrypt the data stored in the database and its backups. The AES algorithm is a symmetric encryption algorithm and it supports key lengths of 128, 192, and 256 bits. Among these, AES 256 provides the highest encryption strength and is considered the most secure option for TDE. Therefore, you should use AES 256 for the TDE protector.

Check MS docs: <https://learn.microsoft.com/en-us/azure/azure-sql/database/transparent-data-encryption-tde-overview?view=azuresql&tabs=azure-portal>

upvoted 3 times

✉️ **study\_for\_azure** 1 year, 2 months ago

Per following contents in

<https://learn.microsoft.com/en-us/azure/azure-sql/database/transparent-data-encryption-byok-overview?view=azuresql#requirements-for-configuring-tde-protector>

To provide Azure SQL customers with two layers of encryption of data at rest, infrastructure encryption (using AES-256 encryption algorithm) with platform managed keys is being rolled out. This provides an addition layer of encryption at rest along with TDE with customer-managed keys, which is already available.

ASE is platform managed key, this question is asking for customer managed keys, for now only RSA is qualified.

upvoted 5 times

✉️ **armpro** 1 year, 2 months ago

**Selected Answer: A**

Only RSA 3072 and RSA 2048 are supported for TDE protector  
maximum encryption possible is RSA 3072

<https://learn.microsoft.com/en-us/azure/azure-sql/database/transparent-data-encryption-byok-overview?view=azuresql#requirements-for-configuring-tde-protector>

upvoted 1 times

✉️ 🚩 Liveroso 1 year, 2 months ago

The information provided is not accurate. Transparent Data Encryption (TDE) in Azure SQL Managed Instance uses the Advanced Encryption Standard (AES) algorithm to encrypt the data stored in the database and its backups. AES algorithm is a symmetric encryption algorithm, it supports key lengths of 128, 192, and 256 bits. Among these, AES 256 provides the highest encryption strength and is considered the most secure option for TDE.

RSA is not used for TDE. RSA is an asymmetric encryption algorithm, it is used in many different encryption scenarios, not just for TDE. Therefore, you should use AES 256 for the TDE protector.

upvoted 1 times

✉️ 🚩 RandomNickname 1 year, 3 months ago

From what I can find, I agree with A, RSA 3072 maximum encryption.

AES256 for built-in cert.

As per below URL, with SQL MI customer managed key

<https://learn.microsoft.com/en-us/azure/azure-sql/database/transparent-data-encryption-byok-overview?view=azuresql>

It's not RSA4096 since that's for storage encryption as per below;

<https://learn.microsoft.com/en-us/azure/storage/common/customer-managed-keys-overview>

&

<https://learn.microsoft.com/en-us/azure/data-factory/enable-customer-managed-key>

&

<https://learn.microsoft.com/en-us/azure/virtual-machines/disk-encryption>

upvoted 2 times

✉️ 🚩 mVic 1 year, 3 months ago

**Selected Answer: A**

agree with A

upvoted 4 times

You are planning an Azure IoT Hub solution that will include 50,000 IoT devices.

Each device will stream data, including temperature, device ID, and time data. Approximately 50,000 records will be written every second. The data will be visualized in near real time.

You need to recommend a service to store and query the data.

Which two services can you recommend? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Azure Table Storage
- B. Azure Event Grid
- C. Azure Cosmos DB for NoSQL
- D. Azure Time Series Insights

**Correct Answer: CD**

*Community vote distribution*

CD (100%)

✉️  **Sammy1989** Highly Voted 1 year, 3 months ago

Cleared the exam on 01/05/23 with 871 / 1000. Chose CD. There is a similar question on ET where the option was SQL DB API  
upvoted 17 times

✉️  **OPT\_001122** 1 year, 2 months ago

Thanks for mentioning the exam date  
upvoted 1 times

✉️  **rgargar78** Highly Voted 1 year, 3 months ago

A. Azure Table Storage -> Throughput: scalability limit of 20,000 operations/s. -> Not enough for this question  
B. Azure Event Grid -> It is only a broker, not a storage solution  
Therefore, C and D are right

Refs:

<https://learn.microsoft.com/en-us/azure/cosmos-db/table/>  
<https://learn.microsoft.com/en-us/azure/event-grid/overview>  
upvoted 14 times

✉️  **JimmyYop** Most Recent 2 months, 3 weeks ago

appeared in Exam 01/2024  
upvoted 4 times

✉️  **OrangeSG** 6 months ago

**Selected Answer: CD**

The Time Series Insights (TSI) service will no longer be supported after March 2025. Consider migrating existing TSI environments to alternative solutions (such as Azure Data Explorer) as soon as possible.

Azure Data Explorer is a fast, fully managed data analytics service for real-time and time-series analysis on large volumes of data streams from business activities, human operations, applications, websites, Internet of Things (IoT) devices, and other sources.

<https://learn.microsoft.com/en-us/azure/time-series-insights/migration-to-adx>  
upvoted 1 times

✉️  **NagaByrd** 1 year ago

**Selected Answer: CD**

Same as Question #9  
upvoted 3 times

✉️  **NotMeAnyWay** 1 year ago

**Selected Answer: CD**

C. Azure Cosmos DB for NoSQL  
D. Azure Time Series Insights

Both Azure Cosmos DB and Azure Time Series Insights are suitable services for storing and querying the data in this scenario.

C. Azure Cosmos DB for NoSQL is a globally distributed, multi-model database service that can handle large amounts of data with low-latency and high throughput. Its support for various consistency levels and partitioning strategies makes it suitable for handling IoT data at scale.

D. Azure Time Series Insights is a fully managed, real-time analytics service specifically designed for time-series data generated by IoT devices. It provides storage, visualization, and advanced querying capabilities for time-series data, making it an ideal choice for handling data from a large number of IoT devices and visualizing it in near real-time.

upvoted 7 times

✉️ **NotMeAnyWay** 1 year ago

**Selected Answer: CD**

C. Azure Cosmos DB for NoSQL

D. Azure Time Series Insights

Both Azure Cosmos DB and Azure Time Series Insights are suitable services for storing and querying the data in this scenario.

C. Azure Cosmos DB for NoSQL is a globally distributed, multi-model database service that can handle large amounts of data with low-latency and high throughput. Its support for various consistency levels and partitioning strategies makes it suitable for handling IoT data at scale.

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upvoted 1 times

✉️ **zellck** 1 year, 1 month ago

**Selected Answer: CD**

CD is the answer.

<https://learn.microsoft.com/en-us/azure/architecture/solution-ideas/articles/iot-using-cosmos-db>

Azure Cosmos DB is ideal for IoT workloads because it's capable of:

- Ingesting device telemetry data at high rates, and return indexed queries with low latency and high availability.
- Storing JSON format from different device vendors, which provides flexibility in payload schema.
- By using wire protocol-compatible API endpoints for Cassandra, MongoDB, SQL, Gremlin, etcd, and table databases, and built-in support for Jupyter Notebook files.

upvoted 4 times

✉️ **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/time-series-insights/overview-what-is-tsi>

Azure Time Series Insights Gen2 is an open and scalable end-to-end IoT analytics service featuring best-in-class user experiences and rich APIs to integrate its powerful capabilities into your existing workflow or application.

You can use it to collect, process, store, query and visualize data at Internet of Things (IoT) scale--data that's highly contextualized and optimized for time series.

Azure Time Series Insights Gen2 is designed for ad hoc data exploration and operational analysis allowing you to uncover hidden trends, spotting anomalies, and conduct root-cause analysis. It's an open and flexible offering that meets the broad needs of industrial IoT deployments.

upvoted 2 times

✉️ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: CD**

C. Azure Cosmos DB for NoSQL

D. Azure Time Series Insights

upvoted 2 times

✉️ **tfulanchan** 1 year, 2 months ago

MongoDB...

upvoted 1 times

✉️ **Beng\_ali** 1 year, 2 months ago

**Selected Answer: CD**

CD is correct.

upvoted 2 times

✉️ **Liveroso** 1 year, 2 months ago

C. Azure Cosmos DB for NoSQL

D. Azure Time Series Insights

Azure Cosmos DB is a globally distributed, multi-model database service that can be used to store and query large amounts of data with low latency. Cosmos DB supports various data models, including NoSQL, and is designed for high throughput and low latency. It can be used to store the data from the IoT devices and can handle the high write and read throughput required for the solution.

Azure Time Series Insights is a time-series data platform that is designed for analyzing time-stamped data. It can be used to visualize the data from the IoT devices in near real-time, providing a way to monitor and analyze the device data in real-time. It also has built-in support for IoT data, making it a good choice for this scenario.

upvoted 2 times

✉️  **maku067** 1 year, 3 months ago

**Selected Answer: CD**

Seems correct.

upvoted 4 times

✉️  **jage01** 1 year, 3 months ago

**Selected Answer: CD**

CD

Real-time access with fast read and write latencies globally, and throughput and consistency all backed by SLAs  
<https://learn.microsoft.com/en-us/azure/cosmos-db/introduction>

Azure Time Series Insights is a fully managed analytics, storage, and visualization service that makes it simple to explore and analyze billions of IoT events simultaneously.

<https://learn.microsoft.com/en-us/azure/time-series-insights/time-series-insights-explorer>

upvoted 3 times

**HOTSPOT**

You are planning an Azure Storage solution for sensitive data. The data will be accessed daily. The dataset is less than 10 GB.

You need to recommend a storage solution that meets the following requirements:

- All the data written to storage must be retained for five years.
- Once the data is written, the data can only be read. Modifications and deletion must be prevented.
- After five years, the data can be deleted, but never modified.
- Data access charges must be minimized.

What should you recommend? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Storage account type:

- Premium block blobs
- General purpose v2 with Cool access tier for blobs
- General purpose v2 with Hot access tier for blobs

Configuration to prevent modifications and deletions:

- Container access level
- Container access policy
- Storage account resource lock

**Answer Area**

Storage account type:

- Premium block blobs
- General purpose v2 with Cool access tier for blobs
- General purpose v2 with Hot access tier for blobs

Correct Answer:

Configuration to prevent modifications and deletions:

- Container access level
- Container access policy
- Storage account resource lock

✉ **IRISone** Highly Voted 1 year, 2 months ago

1. correct
  2. Should be Container Policy for immutable storage. A resource lock does not prevent removal of files and folders. Prevents deleting resource inside the resource group
- upvoted 65 times

✉ **OPT\_001122** Highly Voted 1 year, 2 months ago

- 1 is correct
  - 2 - Container access policy
- upvoted 25 times

✉ **xRiot007** Most Recent 1 month, 4 weeks ago

Box 2 is a container access policy (for immutable storage)  
A resource lock will only prevent the modification/deletion of the said resource, not of the data inside of that resource.  
upvoted 2 times

✉ **NagaByrd** 1 year ago

Same as Question #17

1. GpV2 with hot access tier for blobs
2. Container access policy

upvoted 9 times

✉ **Elecktrus** 6 months, 2 weeks ago

It's not the same question #17. This question have a different option (Premium Block blobs) and this is the correct answer, because access cost to Premium Block is cheaper than GPv2 hot tier

upvoted 2 times

✉ **NotMeAnyWay** 1 year ago

1. Storage account type:

C. General purpose v2 with hot access tier for blobs

The hot access tier provides lower data access costs compared to the cool access tier, making it more suitable for minimizing charges when data is accessed daily. Although the cool tier has lower storage costs, the data access charges are higher, which would not be ideal for your scenario.

Premium block blobs are meant for high-performance scenarios and are not necessary for a small dataset of less than 10 GB.

2. Configuration to prevent modifications and deletions:

B. Container access policy

You can create a container access policy with specific permissions (in this case, read-only) and set an expiry time of five years. This policy prevents modifications and deletions, while still allowing the data to be read. After five years, the policy will expire, and the data can be deleted but not modified. Storage account resource locks and container access level settings don't offer the same granularity of control over the data as the container access policy.

upvoted 13 times

✉ **Rams\_84z06n** 1 year, 1 month ago

1. Premium block blobs

2. Container Policy

<https://azure.microsoft.com/en-us/pricing/details/storage/blobs/>

Operations and data transfer

upvoted 4 times

✉ **AzureMasterChamp** 1 year ago

This is correct answer!!!

<https://learn.microsoft.com/en-us/azure/storage/blobs/immutable-storage-overview>

upvoted 1 times

✉ **Rams\_84z06n** 1 year, 1 month ago

premium block blob, container access policy

We only need to minimize access charge, not storage cost.

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-block-blob-premium>

In other words, to access same amount of data within a given time - 500 million reads /second. That is much faster than GPv2 hot tier milisecond access time

upvoted 2 times

✉ **OrangeSG** 6 months ago

The question mentioned "The data will be accessed daily.". Can not assume super high read frequency.

upvoted 1 times

✉ **zellck** 1 year, 1 month ago

1. GPv2 with hot access tier for blobs

2. Container access policy

<https://learn.microsoft.com/en-us/azure/storage/blobs/immutable-storage-overview>

Immutable storage for Azure Blob Storage enables users to store business-critical data in a WORM (Write Once, Read Many) state. While in a WORM state, data cannot be modified or deleted for a user-specified interval. By configuring immutability policies for blob data, you can protect your data from overwrites and deletes.

upvoted 2 times

✉ **Amrx** 1 year, 1 month ago

For Data Storage and Access, Premium will be the cheapest. <https://azure.microsoft.com/en-us/pricing/details/storage/blobs/>

upvoted 1 times

✉ **PatFFM** 1 year, 2 months ago

The second answer is wrong. A resource lock does exactly what the name suggests - it locks the resource itself. To prevent modification of the files, a container access policy is needed.

upvoted 1 times

✉ **ed79** 1 year, 2 months ago

Why not Premium block blobs and the storage amount is small. Access charges are cheapest in the scenario

upvoted 1 times

✉ **CallmeZdzisiek** 1 year, 2 months ago

Imho - GPV2 will be cheaper than Premium Block Blobs. You can check with Azure pricing calculator.

upvoted 1 times

✉ **ed79** 1 year, 2 months ago

Check it out Premium is cheaper for data access

<https://azure.microsoft.com/en-us/pricing/details/storage/blobs/?cdn=disable>

upvoted 1 times

 **LeeVee** 1 year, 2 months ago

GPv2 and Container Policy

upvoted 5 times

**HOTSPOT**

You are designing a data analytics solution that will use Azure Synapse and Azure Data Lake Storage Gen2.

You need to recommend Azure Synapse pools to meet the following requirements:

- Ingest data from Data Lake Storage into hash-distributed tables.
- Implement query, and update data in Delta Lake.

What should you recommend for each requirement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Ingest data from Data Lake Storage into hash-distributed tables:

A dedicated SQL pool
A serverless Apache Spark pool
A serverless SQL pool

Implement, query, and update data in Delta Lake:

A dedicated SQL pool
A serverless Apache Spark pool
A serverless SQL pool

**Answer Area**

Ingest data from Data Lake Storage into hash-distributed tables:

A dedicated SQL pool
A serverless Apache Spark pool
A serverless SQL pool

Correct Answer:

Implement, query, and update data in Delta Lake:

A dedicated SQL pool
A serverless Apache Spark pool
A serverless SQL pool

  **saiyandjinn** Highly Voted 1 year, 2 months ago

The second question is confusing, and I am not sure what the answer is

- Can query delta lake with Serverless SQL pool but won't be able to update it.
- Only Apache Spark pools support updates to Delta Lakes files. It can also be used to query long-time series as well if I understand the doc correctly...

I think the answer to 2 is Apache Spark tools on that basis...

upvoted 35 times

  **WeepingMaplte** 3 weeks, 4 days ago

Apache Spark pools in Azure Synapse enable data engineers to modify Delta Lake files

Taken from:

<https://learn.microsoft.com/en-us/azure/synapse-analytics/sql/query-delta-lake-format>

upvoted 1 times

  **Fidel\_104** 1 month, 1 week ago

The question mentions 'Data Lake Storage', not Delta Lake - there is no explicit indication that the data is stored in a delta lake format. Therefore I don't think that the Spark pool is needed.

Nevertheless, Delta Lake is indeed a very confusing name for what is essentially a data format ("optimized storage layer").

upvoted 1 times

  **Fidel\_104** 1 month, 1 week ago

Ah I take it back, Delta lake is also mentioned later, sry for the confusion.

upvoted 1 times

✉️ **RandomNickname** 1 year, 2 months ago

Agree.

From what I can find SQL pool can't update delta lake files only Apache Spark can do that, assuming article is accurate below;

<https://www.jamesserra.com/archive/2022/03/azure-synapse-and-delta-lake/#:~:text=Serverless%20SQL%20pools%20do%20not%20support%20updating%20delta,in%20Azure%20Synapse%20Analytics%20to%20update%20Delta%20Lake.>

upvoted 2 times

✉️ **Liveroso** Highly Voted 1 year, 2 months ago

The answer is correct.

Azure Synapse Analytics (also named SQL Data Warehouse) is a cloud-based analytics service that allows you to analyze large amounts of data using a combination of on-demand and provisioned resources. It offers several different options for working with data, including:

- Dedicated SQL pool: It's best for big and complex tasks.
- Serverless Apache Spark pool: It's best for big data analysis and machine learning tasks using Spark SQL and Spark DataFrames.
- Serverless SQL pool: This is a service that automatically adjusts the amount of resources you use based on your needs. You only pay for what you use. It's best for small to medium-sized tasks and tasks that change often.

upvoted 21 times

✉️ **sawanti** 8 months ago

How can you spent so much time to give explained answers, but you still get them wrong? First answer is correct, second one is Apache Spark pool.

Serverless SQL pool doesn't provides updates: <https://learn.microsoft.com/en-us/azure/synapse-analytics/sql/query-delta-lake-format>. Do you see any information about updates there?

Updates are possible in Apache Spark: <https://docs.delta.io/latest/delta-update.html>

Btw - what "Apache Spark is best for big data analysis and ML tasks" have in common with Delta Lake updates? Are you copying the answers from the ChatGPT? I have worked with Databricks for 2 years and Apache Spark is the right answer. Apache Spark can be also used for small scenarios as it's not that expensive and is often used by data engineers, not just big data engineers

upvoted 22 times

✉️ **sawanti** 8 months ago

Last note - Hash-distributed tables are used for VERY LARGE FACT TABLES. As per documentation (<https://learn.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-tables-distribute>): Consider using a hash-distributed table when:

The table size on disk is more than 2 GB.

upvoted 10 times

✉️ **RanOlfati** Most Recent 3 weeks, 1 day ago

Dedicated SQL Pools

Purpose: Dedicated SQL pools provide massive parallel processing (MPP) capabilities ideal for handling large volumes of data. They are optimized for complex queries over large datasets and are suitable for building enterprise-level, big data analytics solutions.

Spark Pools

Purpose: Spark pools in Azure Synapse provide a fully managed Apache Spark environment. They are designed to handle big data processing, analytics, and machine learning tasks. Spark pools can process data in various formats and from multiple sources, including Azure Data Lake Storage.

upvoted 2 times

✉️ **ahmedkmj** 1 month ago

from ChatGPT : For implementing, querying, and updating data in Delta Lake, the most suitable option among the ones you listed would be A serverless Apache Spark pool.

Here's why:

Integration with Delta Lake: Apache Spark is tightly integrated with Delta Lake, offering native support for reading from and writing to Delta tables. This integration ensures seamless compatibility and efficient data processing capabilities

upvoted 1 times

✉️ **Paul\_white** 4 months, 2 weeks ago

OPTION 2: SERVERLESS APACHE SPARK POOL

upvoted 3 times

✉️ **Exams\_Prep\_2021** 6 months, 2 weeks ago

Got this on Sept. 29, 2023

upvoted 5 times

✉️ **Forex19** 6 months, 3 weeks ago

I had question at 24th Sep 2023

upvoted 5 times

✉️ **salman\_23\_c4** 6 months, 3 weeks ago

Serverless SQL pools don't support updating Delta Lake files. You can use serverless SQL pool to query the latest version of Delta Lake. Use Apache Spark pools in Synapse Analytics to update Delta Lake.

<https://learn.microsoft.com/en-us/azure/synapse-analytics/sql/resources-self-help-sql-on-demand?tabs=x80070002#delta-lake>

upvoted 4 times

✉️ **calotta1** 8 months ago

From MSFT docs:

Serverless SQL pools don't support updating Delta Lake files. You can use serverless SQL pool to query the latest version of Delta Lake. Use Apache Spark pools in Synapse Analytics to update Delta Lake.

upvoted 6 times

✉️ **Tr619899** 11 months, 1 week ago

To meet the requirements of ingesting data from Data Lake Storage into hash-distributed tables and implementing query and update operations in Delta Lake, the recommended Azure Synapse pool options are as follows:

Ingest Data from Data Lake Storage into Hash-Distributable Tables:

A dedicated SQL pool: This option allows you to leverage the power of the dedicated SQL pool (formerly SQL Data Warehouse) in Azure Synapse to perform high-performance ingest operations into hash-distributed tables. The dedicated SQL pool is optimized for large-scale data warehousing scenarios.

Implement Query and Update Data in Delta Lake:

A serverless Apache Spark pool: This option allows you to use Apache Spark as a serverless processing engine within Azure Synapse. Spark provides robust support for querying and updating data in Delta Lake, which is an open-source storage layer for reliable big data processing.

upvoted 5 times

✉️ **xRiot007** 1 month, 4 weeks ago

It would be nice to also include a disclaimer saying that this is a response generated by ChatGPT or another similar tool.

upvoted 2 times

✉️ **Bigbluee** 1 year ago

From the Delat Lake:

"Delta Lake is fully compatible with Apache Spark APIs, and was developed for tight integration with Structured Streaming, allowing you to easily use a single copy of data for both batch and streaming operations and providing incremental processing at scale."

So Delta Lake points to Apache Spark. In this case 2nd is Apache Spark Pool

upvoted 2 times

✉️ **NotMeAnyWay** 1 year ago

1. Ingest data from Data Lake Storage into hash-distributed tables:

A. A dedicated SQL pool

A dedicated SQL pool in Azure Synapse provides the ability to create hash-distributed tables, which help distribute data evenly across multiple nodes and improve query performance. This option is well-suited for ingesting data from Data Lake Storage into hash-distributed tables.

2. Implement query, and update data in Delta Lake:

B. A serverless Apache Spark pool

A serverless Apache Spark pool in Azure Synapse allows you to run Apache Spark jobs on-demand without having to manage the underlying infrastructure. This option is ideal for working with Delta Lake, as it provides native support for querying and updating data stored in Delta Lake format.

upvoted 10 times

✉️ **Helice** 1 year ago

Second looks to be Apache spark pools as Serverless pool cannot update delta.

<https://learn.microsoft.com/en-us/azure/synapse-analytics/sql/resources-self-help-sql-on-demand?tabs=x80070002#delta-lake>

upvoted 4 times

✉️ **betterthanlife** 11 months, 1 week ago

Says it plain as do (what a shock!)

"Serverless SQL pools don't support updating Delta Lake files. You can use serverless SQL pool to query the latest version of Delta Lake. Use Apache Spark pools in Synapse Analytics to update Delta Lake."

upvoted 1 times

✉️ **SD\_Coordinator** 1 year, 1 month ago

For each requirement, I recommend the following Azure Synapse pools:

Ingest data from Data Lake Storage into hash-distributed tables: Use a "Dedicated SQL Pool" (formerly known as Azure Synapse Analytics SQL Data Warehouse). This pool provides the necessary performance and scaling capabilities to handle large-scale data ingestion and transformation. It also supports hash-distributed tables for better performance and query parallelism.

Implement query and update data in Delta Lake: Use a "Serverless Apache Spark Pool". Apache Spark provides native support for Delta Lake, allowing you to query and update data efficiently. The serverless pool allows you to only pay for the resources you consume during job execution, offering cost efficiency for varying workloads.

upvoted 3 times

latia6 1 year, 1 month ago

- 1- Dedicated SQL pools
- 2- Serverless spark pools

<https://learn.microsoft.com/en-us/azure/synapse-analytics/sql/resources-self-help-sql-on-demand?tabs=x80070002#delta-lake>  
"Serverless SQL pools don't support updating Delta Lake files. You can use serverless SQL pool to query the latest version of Delta Lake. Use Apache Spark pools in Synapse Analytics to update Delta Lake."

Sql serverless cannot update (using MERGE) delta tables

upvoted 2 times

zellck 1 year, 1 month ago

- 1. Dedicated SQL pool
- 2. Serverless SQL pool

<https://learn.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-tables-distribute>

<https://learn.microsoft.com/en-us/azure/synapse-analytics/sql/on-demand-workspace-overview>

Every Azure Synapse Analytics workspace comes with serverless SQL pool endpoints that you can use to query data in the Azure Data Lake (Parquet, Delta Lake, delimited text formats), Azure Cosmos DB, or Dataverse.

Serverless SQL pool is a distributed data processing system, built for large-scale data and computational functions. Serverless SQL pool enables you to analyze your Big Data in seconds to minutes, depending on the workload. Thanks to built-in query execution fault-tolerance, the system provides high reliability and success rates even for long-running queries involving large data sets.

Serverless SQL pool is serverless, hence there's no infrastructure to setup or clusters to maintain. A default endpoint for this service is provided within every Azure Synapse workspace, so you can start querying data as soon as the workspace is created.

upvoted 3 times

fahrulnizam 10 months, 3 weeks ago

- 2. A Serverless Apache Spark pool

<https://learn.microsoft.com/en-us/azure/synapse-analytics/sql/resources-self-help-sql-on-demand?tabs=x80070002#delta-lake>

"Serverless SQL pools don't support updating Delta Lake files. You can use serverless SQL pool to query the latest version of Delta Lake. Use Apache Spark pools in Synapse Analytics to update Delta Lake."

upvoted 1 times

4PHL 1 year, 2 months ago

Answers are correct.

- Dedicated SQL pool (To shard data into a hash-distributed table, dedicated SQL pool uses a hash function to deterministically assign each row to one distribution).
- Serverless (Serverless SQL pool allows you to query your data lake files, while dedicated SQL pool allows you to query and ingest data from your data lake files).

See <https://learn.microsoft.com/en-us/azure/synapse-analytics/sql/overview-architecture>

upvoted 1 times

fahrulnizam 10 months, 3 weeks ago

- 2. A Serverless Apache Spark pool

<https://learn.microsoft.com/en-us/azure/synapse-analytics/sql/resources-self-help-sql-on-demand?tabs=x80070002#delta-lake>

"Serverless SQL pools don't support updating Delta Lake files. You can use serverless SQL pool to query the latest version of Delta Lake. Use Apache Spark pools in Synapse Analytics to update Delta Lake."

upvoted 1 times

np2021 1 year, 2 months ago

The difference is the "update" delta lake requirement - serverless wont do that. So your assertion doesn't seem right? See robmac17.

upvoted 2 times

You have an on-premises storage solution.

You need to migrate the solution to Azure. The solution must support Hadoop Distributed File System (HDFS).

What should you use?

- A. Azure Data Lake Storage Gen2
- B. Azure NetApp Files
- C. Azure Data Share
- D. Azure Table storage

**Correct Answer: A**

*Community vote distribution*

A (100%)

✉️  [Removed]  1 year, 2 months ago

**Selected Answer: A**

Azure Data Lake Storage Gen2: This is a fully managed, cloud-native data lake that supports the HDFS protocol. It allows you to store and analyze large amounts of data in its native format, without the need to move or transform the data.

upvoted 9 times

✉️  NotMeAnyWay  1 year ago

**Selected Answer: A**

A. Azure Data Lake Storage Gen2

Azure Data Lake Storage Gen2 is the best choice for migrating your on-premises storage solution to Azure with support for Hadoop Distributed File System (HDFS). It is a highly scalable and cost-effective storage service designed for big data analytics, providing integration with Azure HDInsight, Azure Databricks, and other Azure services. It is built on Azure Blob Storage and combines the advantages of HDFS with Blob Storage, offering a hierarchical file system, fine-grained security, and high-performance analytics.

upvoted 8 times

✉️  cris\_exam  3 weeks ago

**Selected Answer: A**

"Azure Data Lake Storage Gen2 is primarily designed to work with Hadoop and all frameworks that use the Apache Hadoop Distributed File System (HDFS) as their data access layer."

<https://learn.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-introduction#hadoop-compatible-access>

upvoted 1 times

✉️  arnaud\_nauwynck 7 months, 2 weeks ago

Azure DataLake Storage Gen2 has its own private API on top of https protocol, which is not compatible with HDFS internal protocol (used by NameNode and DataNode servers of the "Distributed File System" in hadoop) ...

However, the java API class hadoop "FileSystem" has an implementation for abfs  
see here : <https://github.com/apache/hadoop/blob/trunk/hadoop-tools/hadoop-azure/src/main/java/org/apache/hadoop/fs/azurebfs/AzureBlobFileSystem.java#L133>

upvoted 1 times

✉️  zellck 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-introduction#key-features-of-data-lake-storage-gen2>

Hadoop compatible access: Data Lake Storage Gen2 allows you to manage and access data just as you would with a Hadoop Distributed File System (HDFS). The new ABFS driver (used to access data) is available within all Apache Hadoop environments. These environments include Azure HDInsight, Azure Databricks, and Azure Synapse Analytics.

upvoted 4 times

✉️  RandomNickname 1 year, 2 months ago

**Selected Answer: A**

Correct

<https://learn.microsoft.com/en-us/azure/architecture/guide/hadoop/apache-hdfs-migration>

upvoted 4 times

✉️ OPT\_001122 1 year, 2 months ago

**Selected Answer: A**

A. Azure Data Lake Storage Gen2

upvoted 1 times

✉️ OPT\_001122 1 year, 2 months ago

remember HDFS

upvoted 2 times

✉️ armpro 1 year, 2 months ago

**Selected Answer: A**

Azure Data Lake Gen 2

upvoted 2 times

✉️ francescoc 1 year, 2 months ago

Data Lake Storage Gen2 allows you to manage and access data just as you would with a Hadoop Distributed File System (HDFS)

<https://learn.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-introduction>

upvoted 2 times

**DRAG DROP**

You have an on-premises app named App1.

Customers use App1 to manage digital images.

You plan to migrate App1 to Azure.

You need to recommend a data storage solution for App1. The solution must meet the following image storage requirements:

- Encrypt images at rest.
- Allow files up to 50 MB.
- Manage access to the images by using Azure Web Application Firewall (WAF) on Azure Front Door.

The solution must meet the following customer account requirements:

- Support automatic scale out of the storage.
- Maintain the availability of App1 if a datacenter fails.
- Support reading and writing data from multiple Azure regions.

Which service should you include in the recommendation for each type of data? To answer, drag the appropriate services to the correct type of data. Each service may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct answer is worth one point.

<b>Services</b>	<b>Answer Area</b>
Azure Blob storage	Image storage: <input type="text"/>
Azure Cosmos DB	Customer accounts: <input type="text"/>
Azure SQL Database	
Azure Table storage	

<b>Answer Area</b>	
Correct Answer:	Image storage: <input type="text" value="Azure Blob storage"/>
	Customer accounts: <input type="text" value="Azure Cosmos DB"/>

  rex303  1 year ago

Box 1 - Azure blob storage

The requirement to be accessible through a WAF limit the options to the Blob storage.

Box 2 - Cosmos DB

Concurrent writes from multiple regions make this the only option.

upvoted 18 times

  NotMeAnyWay  1 year ago

Box 1 - Image storage: A. Azure Blob Storage

Azure Blob Storage is a suitable choice for storing digital images, as it supports encryption at rest, handles large file sizes (up to 50 MB or even larger), and can be used in conjunction with Azure Web Application Firewall (WAF) on Azure Front Door.

## Box 2 - Customer accounts: B. Azure Cosmos DB

Azure Cosmos DB is a highly scalable, globally distributed, multi-model database service that supports automatic scale-out, ensures high availability even in the event of a datacenter failure, and allows for reading and writing data from multiple Azure regions. This makes it an ideal choice for storing customer account data in your scenario.

upvoted 13 times

✉️  **JimmyYop** Most Recent ⓘ 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 8 times

✉️  **zellck** 1 year, 1 month ago

1. Azure Blob storage
2. Azure Cosmos DB

<https://learn.microsoft.com/en-us/azure/frontdoor/scenario-storage-blobs>

Azure Front Door accelerates the delivery of static content from Azure Storage blobs, and enables a secure and scalable architecture. Static content delivery is useful for many different use cases, including website hosting and file delivery

<https://learn.microsoft.com/en-us/azure/cosmos-db/introduction#guaranteed-speed-at-any-scale>

- Multi-region writes and data distribution to any Azure region with just a button

upvoted 8 times

✉️  **SH\_22** 1 year, 1 month ago

correct

upvoted 2 times

You are designing an application that will aggregate content for users.

You need to recommend a database solution for the application. The solution must meet the following requirements:

- Support SQL commands.
- Support multi-master writes.
- Guarantee low latency read operations.

What should you include in the recommendation?

- A. Azure Cosmos DB for NoSQL
- B. Azure SQL Database that uses active geo-replication
- C. Azure SQL Database Hyperscale
- D. Azure Cosmos DB for PostgreSQL

**Correct Answer: A**

*Community vote distribution*

A (100%)

✉  **Coolfrenesie**  1 year, 1 month ago

**Selected Answer: A**

cosmos for the multi writer  
postgre is not good at reading  
upvoted 10 times

✉  **Debosree** 1 year ago

No SQL supports SQLquery ?  
upvoted 3 times

✉  **Lonlystar** 9 months ago

It is not a "No SQL", it is a "Not Only SQL".  
Hence, it does support SQL query. Hope it helps.  
upvoted 25 times

✉  **xRiot007** 1 month, 4 weeks ago

This is an unfortunate abbreviation, to say the least :) Should have called it SQL+ or something that shows SQL availability, plus other options.  
upvoted 4 times

✉  **jozir8** 12 months ago

Yes, it does.

<https://learn.microsoft.com/en-us/azure/cosmos-db/nosql/how-to-dotnet-query-items>

- The Azure Cosmos DB for NoSQL supports the use of Structured Query Language (SQL) to perform queries on items in containers.  
upvoted 8 times

✉  **GS300** 11 months, 3 weeks ago

microsoft is weird  
upvoted 15 times

✉  **NotMeAnyWay**  1 year ago

**Selected Answer: A**

2 / 2

- A. Azure Cosmos DB for NoSQL

Azure Cosmos DB is a globally distributed, multi-model database service that supports SQL commands, multi-master writes, and guarantees low latency read operations. It supports a variety of NoSQL data models including document, key-value, graph, and column-family. Azure Cosmos DB provides automatic and instant scalability, high availability, and low latency globally by replicating and synchronizing data across multiple Azure regions.

On the other hand, Azure SQL Database and Azure SQL Database Hyperscale are traditional relational database services that do not natively support multi-master writes.

upvoted 6 times

✉  **Zein135** Most Recent 4 weeks ago

Why "D - Azure Cosmos DB for PostgreSQL" is incorrect ?

Azure Cosmos DB for PostgreSQL fulfills all the requirements in the question

upvoted 1 times

✉  **BShelat** 4 months, 1 week ago

Content aggregation is the main objective. Content can be structured or unstructured. NoSQL = "Not Only SQL" i.e. it can deal with any kind of content - structured or unstructured. Cosmos DB supports multi master writes synchronously during replication and provide low latency for reads across regions as long as distributed DBs are nearer (local) to users who access it. So answer is Azure Cosmos DB for NoSQL.

upvoted 2 times

✉  **dave22339** 8 months, 3 weeks ago

Although Azure Cosmos supports Multi Region Writes, Azure Cosmos for PostgreSQL does not.

<https://learn.microsoft.com/en-us/azure/cosmos-db/postgresql/introduction#fully-managed-resilient-database>

upvoted 3 times

✉  **jwu2023** 9 months, 2 weeks ago

As for speed, NoSQL is generally faster than SQL, especially for key-value storage in our experiment

upvoted 2 times

✉  **zellck** 1 year, 1 month ago

Same as Question 10.

<https://www.examtopics.com/discussions/microsoft/view/67751-exam-az-305-topic-2-question-10-discussion>

upvoted 4 times

✉  **Debosree** 1 year ago

nope . Here it is Cosmos DB for NoSQL earlier question had right option Azure Cosmos DB for SQL API.

upvoted 6 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/cosmos-db/introduction#key-benefits>

- Gain unparalleled SLA-backed speed and throughput, fast global access, and instant elasticity. Real-time access with fast read and write latencies globally, and throughput and consistency all backed by SLAs

- Multi-region writes and data distribution to any Azure region with just a button.

upvoted 3 times

✉  **Alessandro365** 1 year, 1 month ago

**Selected Answer: A**

correct answer

upvoted 1 times

You plan to migrate on-premises MySQL databases to Azure Database for MySQL Flexible Server.

You need to recommend a solution for the Azure Database for MySQL Flexible Server configuration. The solution must meet the following requirements:

- The databases must be accessible if a datacenter fails.
- Costs must be minimized.

Which compute tier should you recommend?

- A. Burstable
- B. General Purpose
- C. Memory Optimized

**Correct Answer: A**

*Community vote distribution*

B (90%) 10%

✉  **zellck**  1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/mysql/flexible-server/concepts-high-availability#limitations>

Here are some considerations to keep in mind when you use high availability:

- High availability isn't supported in the burstable compute tier.

upvoted 25 times

✉  **study\_for\_azure** 1 year, 1 month ago

But the question did not ask for high availability

upvoted 1 times

✉  **study\_for\_azure** 1 year, 1 month ago

sry, my bad, it is Zone Redundant High Availability. It should be B

upvoted 1 times

✉  **zellck** 1 year, 1 month ago

Got this in Feb 2023 exam.

upvoted 12 times

✉  **Tr619899**  11 months ago

B. General Purpose

The General Purpose compute tier provides a balance between performance and cost. It is suitable for most common workloads and offers a good combination of CPU and memory resources. It provides high availability and fault tolerance by utilizing Azure's infrastructure across multiple datacenters. This ensures that the databases remain accessible even if a datacenter fails.

The Burstable compute tier (option A) is designed for workloads with variable or unpredictable usage patterns. It provides burstable CPU performance but may not be the optimal choice for ensuring availability during a datacenter failure.

The Memory Optimized compute tier (option C) is designed for memory-intensive workloads that require high memory capacity. While it provides excellent performance for memory-bound workloads, it may not be necessary for minimizing costs or meeting the specified requirements.

upvoted 11 times

✉  **AM77**  1 week, 3 days ago

I think answer is correct. <https://learn.microsoft.com/en-us/azure/mysql/flexible-server/concepts-service-tiers-storage>

upvoted 1 times

✉  **Azure2020** 1 week, 4 days ago

The databases must be accessible if a datacenter fails!

Azure availability zones are at least three physically separate groups of datacenters within each Azure region.

If one datacenter fails then the data will be available in other datacenter in same zone.

So the answer is correct.

<https://learn.microsoft.com/en-us/azure/reliability/reliability-postgresql-flexible-server>

upvoted 1 times

✉ **chair123** 1 month ago

**Selected Answer: B**

Tested in Lab, B - General Purpose is correct.

Burstable doesn't support high availability. Only General Purpose or Business Critical

upvoted 1 times

✉ **ziggy1117** 4 months ago

**Selected Answer: A**

A. Burstable. It provides the lowest cost. Both Burstable and General Purpose provide Zone Redundancy

<https://learn.microsoft.com/en-us/azure/mysql/flexible-server/concepts-service-tiers-storage>

<https://azure.microsoft.com/en-us/pricing/details/mysql/>

upvoted 2 times

✉ **JAUMPE** 3 months, 2 weeks ago

High availability isn't supported in the burstable compute tier.

<https://learn.microsoft.com/en-us/azure/mysql/flexible-server/concepts-high-availability>

upvoted 2 times

✉ **TonySuccess** 2 months, 3 weeks ago

Therefore, while the Burstable compute tier offers significant cost and flexibility advantages for certain types of workloads, it is not recommended for production workloads that require consistent CPU performance. Note that the Burstable tier doesn't support functionality of creating Read Replicas and High availability feature. For such workloads and features, other compute tiers, such as the General Purpose or Business Critical are more appropriate.

<https://learn.microsoft.com/en-us/azure/mysql/flexible-server/concepts-service-tiers-storage#performance-limitations-of-burstable-series-instances>

upvoted 1 times

✉ **Exams\_Prep\_2021** 6 months, 2 weeks ago

Got this on Sept. 29, 2023

upvoted 2 times

✉ **Forex19** 6 months, 3 weeks ago

I had question at 24th Sep 2023

upvoted 3 times

✉ **GotDamnImIn** 6 months, 3 weeks ago

How was the exam? I'm writing tomorrow on the 26th

upvoted 2 times

✉ **marcellov** 6 months, 3 weeks ago

**Selected Answer: B**

When trying to enable high availability with the Burstable tier, I see this message:

"High availability is not supported with the compute tier choice. If you would like to configure high availability, the compute tier will be upgraded to the General Purpose compute tier or you may choose a different compute tier by clicking 'Configure Server' below."

So, General Purpose is the answer to minimize costs.

upvoted 3 times

✉ **Elecktrus** 6 months, 4 weeks ago

**Selected Answer: B**

General purpose provides Zone redundancy

upvoted 1 times

✉ **suneitpate1** 9 months ago

**Selected Answer: B**

Zone redundancy requirement which General purpose provides.

upvoted 1 times

✉ **sk2022** 10 months, 1 week ago

Burstable is not zone redundant - so B is correct

upvoted 2 times

✉ **yonie** 11 months, 3 weeks ago

**Selected Answer: B**

High availability isn't supported in the burstable compute tier.

<https://learn.microsoft.com/en-us/azure/mysql/flexible-server/concepts-high-availability#limitations>

upvoted 1 times

✉ **MeerKatZA** 1 year ago

**Selected Answer: B**

Has to be B, if the requirement states "The databases must be accessible if a datacenter fails.".

Checked in portal, could not set up high availability unless I switched from burstable to Gen-Purpose.  
upvoted 1 times

✉  **EXzw** 1 year ago

**Selected Answer: B**

Only general-purpose tier supports Zone Redundant. tested in portal.  
upvoted 1 times

✉  **NotMeAnyWay** 1 year ago

**Selected Answer: B**

B. General Purpose

The General Purpose compute tier provides a balance between performance and cost. While it may not be as cost-effective as the Burstable tier, it supports high availability, which is essential for meeting the requirement of database accessibility if a datacenter fails. In addition, the General Purpose tier will generally have lower costs compared to the Memory Optimized tier. To ensure high availability, you will need to configure zone-redundant backups and enable the geo-redundant backup option.

upvoted 3 times

✉  **VBK8579** 1 year, 1 month ago

**Selected Answer: B**

B. General Purpose is recommended as it balances performance and cost, and provides options for automatic failover to ensure high availability in case of datacenter failure.

upvoted 3 times

You are designing an app that will use Azure Cosmos DB to collate sales from multiple countries.

You need to recommend an API for the app. The solution must meet the following requirements:

- Support SQL queries.
- Support geo-replication.
- Store and access data relationally.

Which API should you recommend?

- A. Apache Cassandra
- B. PostgreSQL
- C. MongoDB
- D. NoSQL

**Correct Answer: B**

*Community vote distribution*

B (100%)

✉  **jозir8** Highly Voted 12 months ago

Correct answer: B

<https://learn.microsoft.com/en-us/azure/cosmos-db/choose-api>

Store data relationally:

- NoSQL stores data in document format
- MongoDB stores data in a document structure (BSON format)

Support SQL Queries:

- Apache Cassandra uses Cassandra Query Language (CQL)

If you're looking for a managed open source relational database with high performance and geo-replication, Azure Cosmos DB for PostgreSQL is the recommended choice.

upvoted 16 times

✉  **NotMeAnyWay** Highly Voted 9 months ago

**Selected Answer: B**

The correct answer is B. PostgreSQL.

Azure Cosmos DB's API for PostgreSQL provides full support for SQL queries, geo-replication, and allows you to store and access data relationally. It offers automatic and instant scalability, global distribution, and effortless replication of data across Azure regions, fulfilling all of your mentioned requirements.

A. Apache Cassandra is a NoSQL database that does not natively support SQL queries. While it does offer some SQL-like capabilities, it is not a fully relational database.

C. MongoDB is a NoSQL database and does not support the relational data model, although it does provide SQL-like query language.

D. NoSQL is a type of database design that can store and retrieve data, but it isn't a specific API. Also, not all NoSQL databases support SQL queries and relational data storage.

upvoted 7 times

✉  **fire009** Most Recent 4 months, 3 weeks ago

**Selected Answer: B**

If you're looking for a managed open source relational database with high performance and geo-replication, Azure Cosmos DB for PostgreSQL is the recommended choice. To learn more, see the Azure Cosmos DB for PostgreSQL introduction.

upvoted 3 times

✉  **Tr619899** 11 months ago

B. PostgreSQL

Azure Cosmos DB provides support for multiple APIs, each tailored to different data models and query languages. The PostgreSQL API is well-suited for applications that require relational data storage and the ability to execute SQL queries. It offers compatibility with the PostgreSQL wire protocol and supports standard SQL syntax, allowing you to leverage your existing SQL skills and tools.

Additionally, the PostgreSQL API in Azure Cosmos DB provides built-in support for geo-replication, allowing you to replicate your data across multiple regions for high availability and disaster recovery purposes. This ensures that your data is accessible and resilient even in the event of a regional outage or failure.

Therefore, the recommended API for Azure Cosmos DB in this scenario is the PostgreSQL API.

upvoted 4 times

✉ **yonie** 11 months, 3 weeks ago

**Selected Answer: B**

If you're looking for a managed open source relational database with high performance and geo-replication, Azure Cosmos DB for PostgreSQL is the recommended choice. To learn more, see the

<https://learn.microsoft.com/en-us/azure/cosmos-db/choose-api#api-for-postgresql>

upvoted 1 times

✉ **Bigbluee** 12 months ago

**Selected Answer: B**

B: PostgreSQL

But finding proper info in one place.....

I am not DB guy at all.

<https://learn.microsoft.com/en-us/azure/cosmos-db/choose-api#api-for-postgresql>

upvoted 1 times

✉ **stdevops** 12 months ago

API for NoSQL is native to Azure Cosmos DB.

upvoted 3 times

**HOTSPOT**

You have an app that generates 50,000 events daily.

You plan to stream the events to an Azure event hub and use Event Hubs Capture to implement cold path processing of the events. The output of Event Hubs Capture will be consumed by a reporting system.

You need to identify which type of Azure storage must be provisioned to support Event Hubs Capture, and which inbound data format the reporting system must support.

What should you identify? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Storage type:

- Azure Data Lake Storage Gen2
- Premium block blobs
- Premium file shares

Data format:

- Apache Parquet
- Avro
- JSON

**Answer Area**

Storage type:

- Azure Data Lake Storage Gen2
- Premium block blobs
- Premium file shares

Data format:

- Apache Parquet
- Avro
- JSON

 **jspisak**  10 months, 2 weeks ago

Man sometimes I think I know what I'm talking about with Azure, and then I see a question like this and I question my sanity.  
upvoted 124 times

 **maltlk** 2 months, 3 weeks ago

I guess we are on the same boat  
upvoted 6 times

 **U4ea** 6 months ago

Seriously, who knows this by heart?  
upvoted 5 times

 **Ivantor** 7 months ago

You are not alone  
upvoted 17 times

 **Tplenty** 5 months ago

You're not alone, some question makes me feel like I don't know anything.

upvoted 8 times

✉ **NotMeAnyWay** Highly Voted 9 months ago

1. Storage Type: Azure Data Lake Storage Gen2

Azure Event Hubs Capture allows captured data to be written either to Azure Blob Storage or Azure Data Lake Storage Gen2. Given the nature of the data and its use in reporting and analysis, Azure Data Lake Storage Gen2 is the more appropriate choice because it is designed for big data analytics.

2. Data format: Avro

Event Hubs Capture uses Avro format for the data it captures. Avro is a row-oriented format that is suitable for various data types, it's compact, fast binary, and enables efficient and fast serialization of data. This makes it a good choice for Event Hubs Capture.

upvoted 28 times

✉ **chair123** Most Recent 1 month ago

Based on Gemini AI:

Box 2-

upvoted 1 times

✉ **chair123** 1 month ago

Box 2 - Avro

Explanation:

Supported Formats: While Event Hubs itself can handle various data formats including JSON, Avro, and Apache Parquet, Event Hubs Capture specifically writes data in Apache Avro format. This format is well-suited for cold path processing due to its:

- Compact nature
- Speed
- Ability to represent complex data structures
- Inline schema definition for easier data understanding

Why not JSON or Parquet?

JSON: While JSON is a common data interchange format, it can be less efficient for cold path processing due to its larger size compared to Avro

Parquet: Although Azure Stream Analytics can be used to capture Event Hubs data in Parquet format, Event Hubs Capture itself doesn't directly support Parquet.

upvoted 1 times

✉ **4fd861f** 1 month, 1 week ago

For streaming Avro is made for it compared to Parquet as it row oriented format so if you have batch in the question => Parquet, Streaming => Avro

upvoted 1 times

✉ **fodocel235** 4 months, 2 weeks ago

Correct given answers.

"Azure Data Lake Storage Gen 2" or "Azure Storage Account" can be used as a Storage Account via the Portal. Just to be sure, I created a Premium Storage Account (blob) and this is - NOT - a valid option to store the Captured files.

By default Avro is selected via the Portal. Also Parquet and Delta Lake (preview) are supported via the Portal.

upvoted 1 times

✉ **J404** 4 months, 2 weeks ago

Correct Answer:

- Azure Data Lake Storage Gen2
- Apache Parquet

I am thinkin rather best-practice driven rather than looking into docs. If I'd set up an analytics service in Azure, I'd prefer Databricks. In Databricks I am always working with Parquet files rather than Avro.

Avro is often used in case of streaming. Single messages can be compressed and a schema is still enforced. But the question is only about analytics.

While as I am preferring Avro in context of streaming, I am preferring Parquet for data analysis.

upvoted 2 times

✉ **randy0077** 5 months, 2 weeks ago

avro or apache parquet both are correct answer. however apache parquet is columnar storage format that provides efficient compression and query performance.

upvoted 2 times

✉ **ntma3b** 6 months, 2 weeks ago

The answer is correct.

<https://learn.microsoft.com/en-us/azure/event-hubs/event-hubs-capture-overview#how-event-hubs-capture-works>

The capture can be in Parquet format however if you use no code editor which is outside the scope of the question.

upvoted 3 times

✉ **Mladen\_66** 7 months, 1 week ago

Capture data to ADLS Gen2 in Parquet format: <https://learn.microsoft.com/en-us/azure/stream-analytics/event-hubs-parquet-capture-tutorial>  
upvoted 2 times

✉ **husam421** 6 months, 2 weeks ago

Capture data to ADLS Gen2 in Parquet format tile.  
upvoted 1 times

✉ **Ashfarqk** 9 months, 2 weeks ago

Azure Data Lake Storage Gen2 is not a premium storage account. It is a storage account type that provides a unified storage solution for both structured and unstructured data. As Premium Storage options are not supported by Event Hubs Capture  
upvoted 1 times

✉ **Tr619899** 10 months, 2 weeks ago

To support Event Hubs Capture, the appropriate Azure storage type is Azure Data Lake Storage Gen2. Event Hubs Capture is specifically designed to write captured events directly to Azure Data Lake Storage Gen2, providing a durable and scalable storage solution.

Regarding the inbound data format that the reporting system must support, the data format supported by Event Hubs Capture is Apache Avro. Event Hubs Capture writes the captured events in Avro format by default. Therefore, the reporting system should be able to consume and process data in the Apache Avro format.

So the correct selections would be:

Storage Type: Azure Data Lake Storage Gen2

Data Format: Apache Avro

upvoted 4 times

✉ **sw1000** 10 months, 3 weeks ago

Answer is not correct I side and agree with the explanation by Sanaie.

Azure Data Lake Storage Gen2, as premium storage options are not supported by Event Hubs Capture.

Apache Parquet is better suited for data analytics compared to Avro and JSON.

Avro and Parquet are the only supported formats I have seen in the documentation.

As we have an analytics case here I would suggest Parquet.

Avro, however, is the default option and doesn't need any specific configurations.

upvoted 1 times

✉ **C\_M\_M** 11 months, 3 weeks ago

Event hub writes only in Avro format

<https://learn.microsoft.com/en-us/azure/event-hubs/event-hubs-capture-overview>

upvoted 2 times

✉ **[Removed]** 11 months, 1 week ago

That's not true, it can also write in Parquet if you use the no code editor.

<https://learn.microsoft.com/en-us/azure/event-hubs/event-hubs-capture-overview#how-event-hubs-capture-works>

upvoted 2 times

✉ **Bigbluee** 12 months ago

Correct answers.

<https://learn.microsoft.com/en-us/azure/event-hubs/event-hubs-capture-overview#how-event-hubs-capture-works>

Also:

The destination storage (Azure Storage or Azure Data Lake Storage) account must be in the same subscription as the event hub.  
Event Hubs doesn't support capturing events in a premium storage account.

upvoted 6 times

✉ **Sanaie** 12 months ago

The storage type that must be provisioned to support Event Hubs Capture is Azure Data Lake Storage Gen2.

Event Hubs Capture stores the data it captures in Azure Blob storage or Azure Data Lake Storage Gen2. While Premium Block Blobs and Premium file shares are both Azure Blob storage options, they are not specifically required for this scenario. Therefore, Azure Data Lake Storage Gen2 is the best choice because it is optimized for big data analytics workloads, supports high-volume, low-latency workloads, and has built-in security and compliance features.

The inbound data format that the reporting system must support is Apache parquet.

Event Hubs Capture can store captured data in either Avro or JSON format, but Apache parquet is the most efficient format for big data analytics. Parquet is columnar, which means that it is optimized for reading only the columns that are needed, rather than reading entire rows of data. This makes it faster and more efficient for processing large amounts of data. Therefore, the reporting system should support Apache parquet as the inbound data format.

upvoted 2 times

You have the resources shown in the following table.

Name	Type
AS1	Azure Synapse Analytics instance
CDB1	Azure Cosmos DB for NoSQL account

CDB1 hosts a container that stores continuously updated operational data.

You are designing a solution that will use AS1 to analyze the operational data daily.

You need to recommend a solution to analyze the data without affecting the performance of the operational data store.

What should you include in the recommendation?

- A. Azure Data Factory with Azure Cosmos DB and Azure Synapse Analytics connectors
- B. Azure Synapse Analytics with PolyBase data loading
- C. Azure Synapse Link for Azure Cosmos DB
- D. Azure Cosmos DB change feed

**Correct Answer: C**

*Community vote distribution*

C (100%)

 **NotMeAnyWay** Highly Voted 9 months ago

**Selected Answer: C**

The correct answer is C. Azure Synapse Link for Azure Cosmos DB.

Azure Synapse Link for Azure Cosmos DB creates a tight integration between Azure Cosmos DB and Azure Synapse Analytics, allowing you to run near real-time analytics over operational data in Azure Cosmos DB. It creates a "no-ETL" (Extract, Transform, Load) environment that allows you to analyze data directly without affecting the performance of the transactional workload, which is exactly what is required in this scenario.

- A. Azure Data Factory with Azure Cosmos DB and Azure Synapse Analytics connectors would require ETL operations which might impact the performance of the operational data store.
  - B. Azure Synapse Analytics with PolyBase data loading is more appropriate for loading data from external data sources such as Azure Blob Storage or Azure Data Lake Storage.
  - C. Azure Synapse Link for Azure Cosmos DB creates a tight integration between Azure Cosmos DB and Azure Synapse Analytics, allowing you to run near real-time analytics over operational data in Azure Cosmos DB. It creates a "no-ETL" (Extract, Transform, Load) environment that allows you to analyze data directly without affecting the performance of the transactional workload, which is exactly what is required in this scenario.
  - D. Azure Cosmos DB change feed doesn't directly address the need for analytics without affecting the performance of the operational data store.
- upvoted 18 times

 **Elecktrus** Highly Voted 6 months, 3 weeks ago

**Selected Answer: C**

Azure Synapse Link for Azure Cosmos DB.

Azure Synapse Link for Azure Cosmos DB is a cloud-native hybrid transactional and analytical processing (HTAP) capability that enables near real time analytics over operational data in Azure Cosmos DB. Azure Synapse Link creates a tight seamless integration between Azure Cosmos DB and Azure Synapse Analytics. It enables customers to run near real-time analytics over their operational data with full performance isolation from their transactional workloads and without an ETL pipeline

<https://learn.microsoft.com/en-us/azure/cosmos-db/synapse-link>

upvoted 6 times

 **kingfighters** Most Recent 2 months, 2 weeks ago

the same as topic 1st question 26.

upvoted 3 times

 **thamaster** 5 months ago

**Selected Answer: C**

same question as before i forgot the number  
upvoted 2 times

 **AdventureChick** 6 months, 3 weeks ago

**Selected Answer: C**

I agree with others & their logic. Just adding my vote.  
upvoted 4 times

**HOTSPOT**

You have an Azure subscription. The subscription contains an Azure SQL managed instance that stores employee details, including social security numbers and phone numbers.

You need to configure the managed instance to meet the following requirements:

- The helpdesk team must see only the last four digits of an employee's phone number.
- Cloud administrators must be prevented from seeing the employee's social security numbers.

What should you enable for each column in the managed instance? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Phone numbers:

- Always Encrypted
- Column encryption
- Dynamic data masking
- Transparent Data Encryption (TDE)

Social security numbers:

- Always Encrypted
- Column encryption
- Dynamic data masking
- Transparent Data Encryption (TDE)

**Answer Area**

Phone numbers:

- Always Encrypted
- Column encryption
- Dynamic data masking
- Transparent Data Encryption (TDE)

Correct Answer:

Social security numbers:

- Always Encrypted
- Column encryption
- Dynamic data masking
- Transparent Data Encryption (TDE)

  marcellov Highly Voted 6 months, 3 weeks ago

I agree with the answer.

Dynamic data masking helps prevent unauthorized access to sensitive data by enabling customers to designate how much of the sensitive data to reveal with minimal effect on the application layer.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/dynamic-data-masking-overview>

Always Encrypted is a feature designed to protect sensitive data, such as credit card numbers or national/regional identification numbers (for example, U.S. social security numbers), stored in Azure SQL Database, Azure SQL Managed Instance, and SQL Server databases.

<https://learn.microsoft.com/en-us/sql/relational-databases/security/encryption/always-encrypted-database-engine>

upvoted 20 times

  chair123 Most Recent 1 month ago

Based on Gemini AI:

Box2 for SSN: "Always Encrypted": This feature encrypts data at rest and in transit, ensuring it remains unreadable even by Azure administrators with access to the database server. The decryption keys are stored in Azure Key Vault, separate from the database, requiring stricter access controls.

Why not the other options?

- Column Encryption: While it encrypts data at rest, the decryption key is stored within the database server, potentially accessible to cloud administrators.

- Dynamic Data Masking: This technique masks data within the query results but doesn't encrypt the data itself. Cloud administrators could still access the underlying data.

upvoted 1 times

✉  **U4ea** 6 months ago

Can't Dynamic Data Masking also be used to mask the SSN's?

upvoted 1 times

✉  **godchild** 5 months, 3 weeks ago

The wording of the question is bad. The question only states "Cloud administrators must be prevented from seeing the employee's social security numbers", but not mentions about others. So I also thought it should also be dynamic masking.

upvoted 3 times

✉  **andersonslls** 2 months, 3 weeks ago

Me too

upvoted 1 times

✉  **mmarkiew** 4 months, 1 week ago

DDM won't address the SSN requirement: "Administrative users and roles can always view unmasked data via the CONTROL permission, which includes both the ALTER ANY MASK and UNMASK permission. Administrative users or roles such as sysadmin, serveradmin, or db\_owner have CONTROL permissions on the database by design, and can view unmasked data."

Reference:

<https://learn.microsoft.com/en-us/sql/relational-databases/security/dynamic-data-masking?view=sql-server-ver16#permissions>

upvoted 5 times

You plan to use an Azure Storage account to store data assets.

You need to recommend a solution that meets the following requirements:

- Supports immutable storage
- Disables anonymous access to the storage account
- Supports access control list (ACL)-based Azure AD permissions

What should you include in the recommendation?

- A. Azure Files
- B. Azure Data Lake Storage
- C. Azure NetApp Files
- D. Azure Blob Storage

**Correct Answer: C**

*Community vote distribution*

B (59%) D (41%)

✉  ntma3b  6 months, 2 weeks ago

In terms of supporting immutable storage, both Azure Data Lake storage and Azure Blob storage are correct. But ACL is supported by Azure Data Lake storage, not supported by Azure Blob storage. See below link.

<https://learn.microsoft.com/en-us/azure/data-lake-store/data-lake-store-comparison-with-blob-storage>

So the correct answer is B.

upvoted 37 times

✉  marcellov  6 months, 3 weeks ago

**Selected Answer: B**

Azure Data Lake Storage.

"Azure Data Lake Storage Gen2 implements an access control model that supports both Azure role-based access control (Azure RBAC) and POSIX-like access control lists (ACLs)."

<https://learn.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-access-control>

"Immutable storage for Azure Data Lake Storage is now generally available."

<https://azure.microsoft.com/en-us/updates/immutable-storage-for-azure-data-lake-storage-is-now-generally-available/>

upvoted 9 times

✉  MenadeCai 6 months, 3 weeks ago

I'm agree

upvoted 1 times

✉  jga\_private  2 weeks ago

**Selected Answer: B**

Azure Data Lake Storage.

upvoted 1 times

✉  Markoduk 3 weeks, 3 days ago

**Selected Answer: B**

For your Azure Storage account that needs to support immutable storage, disable anonymous access, and support ACL-based Azure AD permissions, I recommend using Azure Data Lake Storage Gen2. Here's why:

Immutable Storage: Azure Data Lake Storage Gen2 supports immutable storage, which is essential for scenarios requiring write-once-read-many (WORM) policies.<sup>1</sup>

Disabling Anonymous Access: It allows you to disable anonymous access to the storage account, ensuring that data access is restricted to authenticated and authorized users only.<sup>1</sup>

ACL-based Azure AD Permissions: Azure Data Lake Storage Gen2 implements an access control model that supports both Azure role-based access control (Azure RBAC) and POSIX-like access control lists (ACLs), which are crucial for fine-grained access control.<sup>1</sup>

This solution aligns with your requirements and provides a robust and secure environment for storing your data assets.

<https://learn.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-access-control>

upvoted 1 times

✉  ubiquituz 4 weeks, 1 day ago

B  
azure blob storage does not support ACL  
upvoted 2 times

✉  ahmedkmj 1 month ago

**Selected Answer: D**

The recommended solution that meets the provided requirements is Azure Blob Storage.

Here's why:

Supports Immutable Storage: Azure Blob Storage supports the "Immutable Blob" feature, which allows you to store data in a WORM (Write Once, Read Many) state. Once data is written to an immutable blob, it cannot be modified or deleted for a specified retention period, making it suitable for compliance and regulatory requirements.

Disables Anonymous Access: Azure Blob Storage allows you to disable anonymous access to the storage account, ensuring that only authorized users or applications can access the stored data. This enhances security by preventing unauthorized access to your data assets.

Supports ACL-based Azure AD Permissions: Azure Blob Storage supports access control lists (ACLs) for managing permissions on blobs and containers. You can grant access to users and groups in Azure Active Directory (Azure AD) and define granular permissions using ACLs, providing fine-grained control over who can access the data stored in the storage account.

upvoted 1 times

✉  ca\_melendez47 1 month, 1 week ago

**Selected Answer: D**

this disables anonymous access: <https://learn.microsoft.com/en-us/azure/storage/blobs/anonymous-read-access-prevent?tabs=portal>

blob supports immutable storage: <https://learn.microsoft.com/en-us/azure/storage/blobs/immutable-storage-overview>

upvoted 1 times

✉  mtc9 2 months, 1 week ago

This discussion makes feel that this question is an overkill requiring very specific knowledge. After getting through discussion and searching internet I still don't know if blob supports posix ACL, only blob, only adls or both?

upvoted 2 times

✉  TonySuccess 2 months, 3 weeks ago

**Selected Answer: D**

I'm inclined to agree with Houzer. Azure Data Lake seems overkill for the required solution.

I also did ask the question to Co-pilot and the answer was D, based on Blob hitting all requirements at a lower transactional cost. Not a great question, as Gen2 for ADL is not specified either.

ACL is supported by both Azure Blob Storage and Azure Data Lake Storage Gen2, but with some differences. Azure Blob Storage supports container-level ACLs, which apply to all the blobs in the container. Azure Data Lake Storage Gen2 supports file-level and directory-level ACLs, which are more granular and flexible.

upvoted 1 times

✉  [Removed] 3 months ago

**Selected Answer: D**

I think I'll have to go with D on this one - Azure Bob Storage.

Azure Data Lake Storage could also be a viable option for storing data assets, especially for big data analytics workloads. However, there are a few reasons why Azure Blob Storage might be more suitable for your specific requirements:

- Both Azure Data Lake Storage and Azure Blob Storage support immutable storage. However, Azure Blob Storage provides more flexibility with time-based retention policies.
- Azure Blob Storage does not permit anonymous access by default, which aligns with the requirement to disable anonymous access.

upvoted 1 times

✉  [Removed] 3 months ago

While Azure Data Lake Storage supports POSIX ACLs, Azure Blob Storage supports AAD based access control. This can provide more granular control over permissions.

Azure Blob Storage is more cost-effective in the given scenario, especially if you're not dealing with big data analytics workloads for which Azure Data Lake Storage is optimised, so if the use case doesn't involve such workloads, you might not fully utilise its capabilities - why pay for something you don't use?

upvoted 3 times

✉  Jonsey 3 months, 2 weeks ago

**Selected Answer: D**

Blob supports ACL, is cheaper than Data Lake

upvoted 1 times

✉  azim1 4 months ago

**Selected Answer: D**

Definitely D

upvoted 1 times

✉ **Paul\_white** 4 months, 3 weeks ago

The best solution that meets all the requirements is \*\*Azure Blob Storage\*\* (Option D). Azure Blob Storage supports immutable storage, which is crucial for storing sensitive information that must not be altered or deleted. It also allows for the disabling of anonymous access to the storage account, ensuring that only authorized users can access the data. Additionally, Azure Blob Storage supports access control list (ACL)-based Azure AD permissions, providing granular control over who can access what data. So, Azure Blob Storage is the recommended solution for your needs.

upvoted 2 times

✉ **TomdeBom** 1 month, 3 weeks ago

I disagree. Azure Blob Storage does not support ACL-based Azure AD permissions. It does support authorization with Azure AD RBAC and ABAC, but that is not ACL-based. RBAC is role based access and ABAC is condition based access. That is not the same as ACL. Therefore the answer is option B.

upvoted 1 times

✉ **milan92stankovic** 5 months ago

**Selected Answer: B**

I vote for B

upvoted 2 times

✉ **thamaster** 5 months ago

**Selected Answer: D**

common sense are you going to tell your client to use a datalake with the cost implied without the need to store a lot of data?

upvoted 2 times

✉ **ZUMY** 5 months, 2 weeks ago

I'll go with Azure Data Lake storage

---  
The Storage Blob Data Contributor and Storage Blob Data Reader permissions provide access to the data and not the storage account. You can grant access at the storage account level or container level. If Storage Blob Data Contributor is assigned, ACLs can't be used to manage access. Where Storage Blob Data Reader is assigned, you can grant elevated write permissions using ACLs

upvoted 1 times

✉ **OrangeSG** 6 months ago

**Selected Answer: B**

Both Azure Data Lake storage and Azure Blob storage supporting immutable storage.

Azure Data Lake Storage Gen2 implements an access control model that supports both Azure role-based access control (Azure RBAC) and POSIX-like access control lists (ACLs). ACLs based on Microsoft Entra identities can be set at the file and folder level.

Azure Blob storage only support Azure role-based access control (Azure RBAC).

upvoted 1 times

**HOTSPOT**

You are designing a storage solution that will ingest, store, and analyze petabytes (PBs) of structured, semi-structured, and unstructured text data. The analyzed data will be offloaded to Azure Data Lake Storage Gen2 for long-term retention.

You need to recommend a storage and analytics solution that meets the following requirements:

- Stores the processed data
- Provides interactive analytics
- Supports manual scaling, built-in autoscaling, and custom autoscaling

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

For storage and interactive analytics:

Azure Data Explorer
Azure Data Lake Analytics
Log Analytics

Query language:

KQL
Transact-SQL
U-SQL

**Answer Area**

For storage and interactive analytics:

Azure Data Explorer
Azure Data Lake Analytics
Log Analytics

Correct Answer:

Query language:

KQL
Transact-SQL
U-SQL

✉️  ntma3b  6 months, 2 weeks ago

Data Lake Analytics does not work with ADLS Gen2 and it will be retired on February 29, 2024. So I support the answer for Data Explorer + KQL.

<https://learn.microsoft.com/en-us/azure/data-lake-analytics/data-lake-analytics-overview>  
upvoted 36 times

✉️  AdventureChick  6 months, 3 weeks ago

Sept 24 2023

Data Explorer + KQL

This is my own research & logic (Google + my brain), not a ChatGPT answer. I haven't taken the exam yet.

The scenario criteria maps directly to Data Explorer "Decision Criteria" & tree in this link: When to use Data Explorer <https://learn.microsoft.com/en-us/training/modules/intro-to-azure-data-explorer/4-when-to-use-azure-data-explorer>

The scenario does not include anything that prevents the use of DE based on that link & Data Explorer CAN scale to PB (it's a big data platform)

The scenario doesn't specifically say "real-time" or say what's producing the data, but ingesting/storing PBs of data + interactive analytics ... to me that means "streaming + real-time analytics".

and KQL (Kusto Query Language) because that's the query language for Data Explorer  
upvoted 20 times

👤 Gato\_Pirao 6 months, 3 weeks ago

Actually, I think you are right, I just reviewed the 'Data Explorer' documentation and in this case I think the key is in the autoscaling requirement

<https://learn.microsoft.com/en-us/azure/data-explorer/manage-cluster-horizontal-scaling>

So I think it should be Data Explorer and KQL

upvoted 1 times

👤 varinder82 [Most Recent] 3 weeks, 3 days ago

Final Answer:

1. Data Explorer
2. KQL

upvoted 1 times

👤 RockyChak 1 month, 1 week ago

Answer: Data Explorer + KQL

<https://learn.microsoft.com/en-us/azure/data-explorer/data-explorer-overview#when-should-you-use-azure-data-explorer>

When should you use Azure Data Explorer?

Use the following questions to help decide if Azure Data Explorer is right for your use case:

Interactive analytics: Is interactive analysis part of the solution? For example, aggregation, correlation, or anomaly detection.

Variety, Velocity, Volume: Is your schema diverse? Do you need to ingest massive amounts of data in near real-time?

Data organization: Do you want to analyze raw data? For example, not fully curated star schema.

Query concurrency: Will multiple users or processes use Azure Data Explorer?

Build vs Buy: Do you plan on customizing your data platform?

upvoted 1 times

👤 Paul\_white 4 months, 2 weeks ago

Analytics: Azure Data Explorer + KQL

Azure Data Explorer provides interactive analytics. It allows you to examine structured, semi-structured, and unstructured data with improvised, interactive, fast queries. You can use Azure Data Explorer Web UI, web client for Azure Data Explorer, or Kusto Explorer, a rich windows client for Azure Data Explorer. To connect to your Azure Data Explorer cluster, you can use Jupyter notebooks, Spark connector, any TDS-compliant SQL client, and JDBC and ODBC connections

upvoted 4 times

👤 babakeyfgir 4 months, 3 weeks ago

ASKED% IMPORTant

upvoted 1 times

👤 ec2user 5 months, 3 weeks ago

Data Lake Analytics doesn't work with Azure Data Lake Storage Gen2 yet until further notice.

<https://learn.microsoft.com/en-us/azure/data-lake-analytics/data-lake-analytics-overview#works-with-all-your-azure-data>

upvoted 4 times

👤 marcellov 6 months, 3 weeks ago

Right answer, Azure Data Lake Analytics with U-SQL.

"Data Lake Analytics dynamically provisions resources and lets you do analytics on terabytes to petabytes of data."

"Data Lake Analytics includes U-SQL, a query language that extends the familiar, simple, declarative nature of SQL with the expressive power of C#." <https://learn.microsoft.com/en-us/azure/data-lake-analytics/data-lake-analytics-overview>

Data Explorer is not an answer because it can only elastically scale to terabytes of data.

upvoted 3 times

👤 AdventureChick 6 months, 3 weeks ago

You are incorrect with the statement that "Data Explorer is not an answer because it only scales elastically to terabytes of data". That sounds like a ChatGPT explanation.

The reason I say that is the Data Explorer marketing material says that it "ingests TBs of data within minutes" .... ready more ... it also says that it handles PBs of data overall for ingestion/storage/analysis

This is the Data Explorer marketing page: <https://azure.microsoft.com/en-us/products/data-explorer/#:~:text=Scale%20to%20petabytes%20of%20streaming,to%2012%20Mbps%20per%20core>

Data Explorer is a big data analytics platform. Here's the Overview page <https://learn.microsoft.com/en-us/azure/data-explorer/data-explorer-overview>

See my original comment elsewhere

upvoted 1 times

👤 Gato\_Pirao 6 months, 3 weeks ago

Data Lake Analytics will soon be retired so I guess this question will be removed from the exam but.

Language for Data Lake Analytics is U-SQL.

<https://learn.microsoft.com/en-us/azure/data-lake-analytics/data-lake-analytics-overview>

upvoted 4 times

**HOTSPOT**

You plan to use Azure SQL as a database platform.

You need to recommend an Azure SQL product and service tier that meets the following requirements:

- Automatically scales compute resources based on the workload demand
- Provides per second billing

What should you recommend? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Azure SQL product:

A single Azure SQL database  
An Azure SQL Database elastic pool  
Azure SQL Managed Instance

Service tier:

Basic  
Business Critical  
General Purpose  
Hyperscale  
Standard

**Answer Area**

Azure SQL product:

A single Azure SQL database  
An Azure SQL Database elastic pool  
Azure SQL Managed Instance

Correct Answer:

Service tier:

Basic  
Business Critical  
General Purpose  
Hyperscale  
Standard

✉  marcellov  6 months, 3 weeks ago

I agree with the answer.

"Serverless is a compute tier for single databases in Azure SQL Database that automatically scales compute based on workload demand and bills for the amount of compute used per second. The serverless compute tier is available in the General Purpose service tier and currently in preview in the Hyperscale service tier."

<https://learn.microsoft.com/en-us/azure/azure-sql/database/serverless-tier-overview>

upvoted 14 times

✉  chair123 1 month ago

Correct. Reference highlighting the exact answer:

<https://learn.microsoft.com/en-us/azure/azure-sql/database/serverless-tier-overview?view=azuresql&tabs=general-purpose#:~:text=Serverless%20is%20a%20compute%20tier%20for%20single%20databases%20in%20Azure%20SQL%20Database%20that%20automatically%20scales%20compute%20based%20on%20workload%20demand%20and%20bills%20for%20the%20amount%20of%20compute%20used%20per%20second.>

upvoted 2 times

✉  thamaster  5 months ago

i dont see serverless in the question why ppl talk about that?  
is it possible that the question changed?

upvoted 6 times

pkfeclpwycckfbnfvw 5 months ago

@thamaster no, they mean General Purpose service tier. Reading the question and documentation the most suitable answer is related to Serverless compute tier which can be achieved choosing the General purpose Service Tier.

upvoted 3 times

Lazylinux Most Recent 4 days, 23 hours ago

I tend to disagree with answer and those who say Hyperscale is NOT publicly available, obviously you are NOT practicing what you study!! can easily be checked by creating SQL DB in azure under vCore compute

answer is

Single SQL DB - as all agreed

Hyperscale service tier and below is why (NOTE no mention of cost as condition)

The widest variety of workloads, including those workloads with highly scalable storage and read-scale requirements. Offers higher resilience to failures by allowing configuration of more than one high availability secondary replica. The Hyperscale service tier is suitable for all workload types. Its cloud native architecture provides independently scalable compute and storage to support the widest variety of traditional and modern applications. Compute and storage resources in Hyperscale substantially exceed the resources available in the General Purpose and Business Critical tiers

Follow below

upvoted 1 times

Lazylinux 4 days, 23 hours ago

Keywords are below:

\* widest variety of workloads, including those workloads with highly scalable storage and read-scale requirements

\* Its cloud native architecture provides independently scalable compute and storage to support the widest variety of traditional and modern applications

\* Compute and storage resources in Hyperscale substantially exceed the resources available in the General Purpose and Business Critical tiers

Below is link shows it is available in serveless compute

<https://techcommunity.microsoft.com/t5/azure-sql-blog/general-availability-serverless-for-hyperscale-in-azure-sql/ba-p/4053589>

upvoted 1 times

BShelat 4 months, 1 week ago

<https://learn.microsoft.com/en-us/azure/azure-sql/database/serverless-tier-overview?view=azuresql&tabs=general-purpose>

Based on above link, both answers are correct.

upvoted 4 times

Paul\_white 4 months, 2 weeks ago

1: SINGLE SQL DATABASE

2: GENERAL PURPOSE SERVICE TIER

upvoted 4 times

a03 5 months, 1 week ago

Both "General Purpose" and "Hyperscale" support Serverless, but "Serverless for Hyperscale is currently in preview." So, better to select "General Purpose".

upvoted 2 times

randy0077 5 months, 2 weeks ago

give answer is correct. Hyperscale doen't provide per second billing: <https://learn.microsoft.com/en-us/azure/azure-sql/database/service-tier-hyperscale?view=azuresql>

upvoted 3 times

GeorgiAngelov 5 months, 3 weeks ago

To meet the requirements of automatically scaling compute resources based on workload demand and providing per-second billing, you should recommend the following:

Azure SQL Product: Azure SQL Database

Service Tier: Hyperscale

Azure SQL Database Hyperscale provides automatic scaling of compute resources based on the workload demand, allowing your database to handle varying workloads effectively. It also offers per-second billing, which means you are billed based on the actual usage, providing cost efficiency. Hyperscale is particularly suitable for large and mission-critical databases that require high performance and scalability.

upvoted 4 times

BShelat 4 months, 1 week ago

Hyperscale tier is still in preview, it is NOT in production/published to public yet.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/serverless-tier-overview?view=azuresql&tabs=general-purpose>

upvoted 2 times

cesco1286 4 months ago

not public? I use it daily at work. Stop using chat gpt

upvoted 3 times

Gato\_Pirao 6 months, 3 weeks ago

Azure SQL DB with vCore and Serverless provides per second billing

<https://learn.microsoft.com/en-us/azure/azure-sql/database/serverless-tier-overview?view=azuresql&tabs=general-purpose>

upvoted 3 times

**HOTSPOT**

You have an Azure subscription.

You need to deploy a solution that will provide point-in-time restore for blobs in storage accounts that have blob versioning and blob soft delete enabled.

Which type of blob should you create, and what should you enable for the accounts? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Blob type:

- Append
- Block
- Page

Enable:

- A stored access policy
- Immutable blob storage
- Object replication
- The change feed

**Answer Area**

Blob type:

- Append
- Block**
- Page

Correct Answer:

Enable:

- A stored access policy
- Immutable blob storage
- Object replication
- The change feed**

✉  mykola\_yakovliev  6 months, 1 week ago

The answers look correct according to documentation:

Point-in-time restore for block blobs: <https://learn.microsoft.com/en-us/azure/storage/blobs/point-in-time-restore-overview>  
This mentions enabling the change feed: <https://learn.microsoft.com/en-us/azure/storage/blobs/point-in-time-restore-manage?tabs=portal#enable-and-configure-point-in-time-restore>

upvoted 17 times

✉  ManosCaptain  4 months, 3 weeks ago

Appeared on 11/21/2023

upvoted 7 times

✉  Lazylinux  4 days, 22 hours ago

Given answer is correct

Check below all in there - look at Data Protection => Recovery and Tracking

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-change-feed?tabs=azure-portal>

upvoted 1 times

✉  profesorklaus 3 weeks, 6 days ago

The answer is correct

1. Only block blobs in a standard general-purpose v2 storage account can be restored as part of a point-in-time restore operation. Append blobs, page blobs, and premium block blobs aren't restored

<https://learn.microsoft.com/en-us/azure/storage/blobs/point-in-time-restore-overview>

2. Prequisites to enable restoring

Soft delete

Change feed

Blob versioning

upvoted 3 times

✉️ **PRACKY** 1 month, 2 weeks ago

Point-in-time restore requires that the following Azure Storage features be enabled before you can enable point-in-time restore:

Soft delete

Change feed

Blob versioning

<https://learn.microsoft.com/en-us/azure/storage/blobs/point-in-time-restore-overview>

upvoted 1 times

✉️ **ec2user** 5 months, 3 weeks ago

Only block blobs in a standard general-purpose v2 storage account can be restored as part of a point-in-time restore operation. Append blobs, page blobs, and premium block blobs aren't restored.

<https://learn.microsoft.com/en-us/azure/storage/blobs/point-in-time-restore-overview#limitations-and-known-issues>

upvoted 4 times

✉️ **Leimone** 6 months ago

Change feed is a prerequisite feature for Object Replication and Point-in-time restore for block blobs.

upvoted 4 times

✉️ **ec2user** 5 months, 3 weeks ago

<https://learn.microsoft.com/en-us/azure/storage/blobs/point-in-time-restore-overview#prerequisites-for-point-in-time-restore>

upvoted 4 times

**HOTSPOT**

Your company, named Contoso, Ltd., has an Azure subscription that contains the following resources:

- An Azure Synapse Analytics workspace named contosoworkspace1
- An Azure Data Lake Storage account named contosolake1
- An Azure SQL database named contososql1

The product data of Contoso is copied from contososql1 to contosolake1.

Contoso has a partner company named Fabrikam Inc. Fabrikam has an Azure subscription that contains the following resources:

- A virtual machine named FabrikamVM1 that runs Microsoft SQL Server 2019
- An Azure Storage account named fabrikamsa1

Contoso plans to upload the research data on FabrikamVM1 to contosolake1. During the upload, the research data must be transformed to the data formats used by Contoso.

The data in contosolake1 will be analyzed by using contosoworkspace1.

You need to recommend a solution that meets the following requirements:

- Upload and transform the FabrikamVM1 research data.
- Provide Fabrikam with restricted access to snapshots of the data in contosoworkspace1.

What should you recommend for each requirement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Upload and transform the data:

Azure Data Box Gateway  
Azure Data Share  
Azure Synapse pipelines

Provide restricted access:

Azure Data Box Gateway  
Azure Data Share  
Azure Synapse pipelines

**Answer Area**

Upload and transform the data:

Azure Data Box Gateway  
Azure Data Share  
**Azure Synapse pipelines**

Correct Answer:

Provide restricted access:

Azure Data Box Gateway  
**Azure Data Share**  
Azure Synapse pipelines

For ETL operations use Azure Data Factory and Azure Synapse Pipelines are based on Azure Data Factory.  
Source: <https://learn.microsoft.com/en-us/azure/synapse-analytics/data-integration/concepts-data-factory-differences>

For restricted access use Azure Data Share:

Azure Data Share enables organizations to securely share data with multiple customers and partners. Data providers are always in control of the data that they've shared and Azure Data Share makes it simple to manage and monitor what data was shared, when and by whom.

In this case snapshot-based sharing should be used.

Source: <https://learn.microsoft.com/en-us/azure/data-share/overview>

upvoted 17 times

✉  **jcxxxxx2020**  3 months, 3 weeks ago

This question appeared on my exam today.

Answer is correct

upvoted 9 times

✉  **RanOlfati**  3 weeks, 2 days ago

Data Warehouse Layer: Use Azure Synapse Analytics (formerly known as Azure SQL Data Warehouse).

Managed Serving Layer for OLAP: Use Azure Analysis Services. Azure Analysis Services is an enterprise-grade analytics engine that provides a managed OLAP database for running and serving complex analytical models.

upvoted 1 times

✉  **eduardobbs** 1 month, 1 week ago

Got his on my exam on 06/Mar/24

upvoted 9 times

✉  **StixxNSnares** 5 months ago

Azure synapse pipelines - Azure Synapse Pipelines is a cloud-based data integration service that allows you to create data-driven workflows for orchestrating and automating data movement and data transformation

<https://www.sqlshack.com/export-data-from-azure-sql-database-to-azure-data-lake-storage/>

Azure Data Share - Azure Data Share is a simple and safe service for sharing big data with external organizations<sup>2</sup>. It allows you to easily share data with other organizations, and it provides capabilities to ensure that only authorized users have access to the shared data.

<https://learn.microsoft.com/en-us/azure/synapse-analytics/security/how-to-set-up-access-control>

upvoted 4 times

**HOTSPOT**

You are designing a data pipeline that will integrate large amounts of data from multiple on-premises Microsoft SQL Server databases into an analytics platform in Azure. The pipeline will include the following actions:

- Database updates will be exported periodically into a staging area in Azure Blob storage.
- Data from the blob storage will be cleansed and transformed by using a highly parallelized load process.
- The transformed data will be loaded to a data warehouse.
- Each batch of updates will be used to refresh an online analytical processing (OLAP) model in a managed serving layer.
- The managed serving layer will be used by thousands of end users.

You need to implement the data warehouse and serving layers.

What should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

To implement the data warehouse:

- An Apache Spark pool in Azure Synapse Analytics
- An Azure Synapse Analytics dedicated SQL pool
- Azure Data Lake Analytics

To implement the serving layer:

- Azure Analysis Services
- An Apache Spark pool Azure Synapse Analytics
- An Azure Synapse Analytics dedicated SQL pool

**Answer Area**

To implement the data warehouse:

- An Apache Spark pool in Azure Synapse Analytics
- An Azure Synapse Analytics dedicated SQL pool**
- Azure Data Lake Analytics

**Correct Answer:**

To implement the serving layer:

- Azure Analysis Services**
- An Apache Spark pool Azure Synapse Analytics
- An Azure Synapse Analytics dedicated SQL pool

  **BShelat** Highly Voted 4 months ago

Trick to remember:

Synapse Analytics - massive parallel processing

Analysis Services - OLAP

upvoted 18 times

  **ArunS005** Highly Voted 6 months, 1 week ago

The selected answer is correct.

Data Warehouse: Azure Synapse Analytics (formerly SQL Data Warehouse)

Azure Synapse Analytics is a massively parallel processing (MPP) data warehouse that can handle large amounts of data and provides a scalable solution for analytics.

Managed Serving Layer: Azure Analysis Services

Azure Analysis Services provides a fully managed platform-as-a-service (PaaS) solution for online analytical processing (OLAP) and data modeling. It is suitable for serving analytical models to thousands of end users.

upvoted 10 times

  **RJalal** Most Recent 6 months, 1 week ago

Here's how the pipeline would work:

Periodically export database updates to Azure Blob storage.  
Use Azure Data Factory to cleanse and transform the data from Blob storage.  
Load the transformed data into your Azure Synapse Analytics data warehouse.  
Use Azure Analysis Services to create and manage OLAP models based on the data in your data warehouse.  
End users can connect to Azure Analysis Services to query and analyze the data.

upvoted 9 times

 **RJalal** 6 months, 1 week ago

correct answer

upvoted 1 times

**HOTSPOT**

You have an Azure subscription.

You need to deploy a relational database. The solution must meet the following requirements:

- Support multiple read-only replicas.
- Automatically load balance read-only requests across all the read-only replicas.
- Minimize administrative effort

What should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area****Service**

A single Azure SQL database	▼
An Azure SQL Database elastic pool	▼
Azure SQL Managed Instances	▼

**Service tier**

Business Critical	▼
Hyperscale	▼
Premium	▼

**Answer Area****Service**

A single Azure SQL database	▼
An Azure SQL Database elastic pool	▼
Azure SQL Managed Instances	▼

**Correct Answer:****Service tier**

Business Critical	▼
Hyperscale	▼
Premium	▼

✉  **kishoredeena**  3 months ago

As part of the requirement -> Support multiple read-only replicas.

Hyperscale is the right choice. Business critical tier has only 1 additional read replica.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/service-tiers-sql-database-vcore?view=azuresql>

upvoted 7 times

✉  **Lazylinux**  4 days, 21 hours ago

It is hard one to figure out (Between Hyperscale and business critical) but based on this comment from the requirements

\* Automatically load balance read-only requests across all the read-only replicas

Only Hyperscale can do this

Note: for thos who made comment that "Business critical tier has only 1 additional read replica." is NOT true, see link below and as per comment "each single database or elastic pool database in the Premium and Business Critical service tier is automatically provisioned with a primary read-

write replica and one or more secondary read-only replicas. The secondary replicas are provisioned with the same compute size as the primary replica. \*\*

<https://learn.microsoft.com/en-us/azure/azure-sql/database/read-scale-out?view=azuresql>

upvoted 1 times

✉️ **MiniLa92** 3 months ago

The given answers are correct. Please refer MS doc, it says that "In Premium and Business Critical service tiers, only one of the read-only replicas is accessible at any given time. Hyperscale supports multiple read-only replicas." Hence for load balancing between multiple read replica, first need is that they should be available, which makes Hyperscale suitable for this. I hope this helps. <https://learn.microsoft.com/en-us/azure/azure-sql/database/read-scale-out?view=azuresql>

upvoted 4 times

✉️ **lukiduc9625** 1 month, 1 week ago

what about "An Azure SQL Database elastic pool" for first box? elastic pool can have Hyperscale service tier... and read-scale-out seems to depend only on service tier... (<https://learn.microsoft.com/en-us/azure/azure-sql/database/read-scale-out?view=azuresql>)

upvoted 1 times

✉️ **[Removed]** 3 months ago

First box seems correct.

For the second one, the Azure SQL Database in the Business Critical or Hyperscale service tiers automatically provisions a primary read-write replica and one or more secondary read-only replicas, so theoretically both are valid, not sure which one to choose, maybe Hyperscale is overkill.

upvoted 1 times

✉️ **MiniLa92** 3 months ago

Please refer MS doc, it says that "In Premium and Business Critical service tiers, only one of the read-only replicas is accessible at any given time. Hyperscale supports multiple read-only replicas." Hence for load balancing between multiple read replica, first need is that they should be available, which makes Hyperscale suitable for this. I hope this helps. <https://learn.microsoft.com/en-us/azure/azure-sql/database/read-scale-out?view=azuresql>

upvoted 4 times

✉️ **[Removed]** 3 months ago

Thank you!

upvoted 2 times

You have an app named App1 that uses an Azure Blob Storage container named app1data.

App1 uploads a cumulative transaction log file named File1.txt to a block blob in app1data once every hour. File1.txt only stores transaction data from the current day.

You need to ensure that you can restore the last uploaded version of File1.txt from any day for up to 30 days after the file was overwritten. The solution must minimize storage space.

What should you include in the solution?

- A. container soft delete
- B. blob snapshots
- C. blob soft delete
- D. blob versioning

**Correct Answer: D**

*Community vote distribution*

D (67%)      B (33%)

✉  **jayaj** 22 hours, 40 minutes ago

It says "cumulative transaction log file named File1.txt" means last file updated will have all the changes happened every hour. Taking snapshot of the last updated file at midnight will suffice the requirement.

Answer B

upvoted 1 times

✉  **SDiwan** 1 month, 3 weeks ago

I feel B is the right answer.

Reasons:

We need only the last updated version for each day, so taking snapshot of a day at midnight would be sufficient.

Secondly, we need to minimise storage space. Versioning will make 24 versions for each day. Lifecycle mgmt rules can easily delete the snapshot after 30 days.

upvoted 1 times

✉  **xRiot007** 4 weeks, 1 day ago

No.

The file is updated hourly, so the last updated version is also hourly.

You need to restore the last upload, which is hourly, not daily.

Storage is minimized by keeping daily data available.

upvoted 2 times

✉  **mta\_outlook** 2 months, 1 week ago

**Selected Answer: D**

Couldn't be more obvious to me. Versioning. File is uploaded every hour and we need to make sure we can restore the last upload. Snapshots are daily, a restore after 11pm would mean you'd miss out on the last 23 uploads. Question is pants but the answer is still clear.

upvoted 4 times

✉  **TJ001** 2 months, 1 week ago

I will go with blob-versioning for the reason that version optimizes storage by additionally storing the delta and not the entire data as in case of snapshots

upvoted 2 times

✉  **TonySuccess** 2 months, 3 weeks ago

Storage space: Blob versioning and daily snapshots both consume storage space, but blob versioning might consume more space if there are frequent changes to the blob. Daily snapshots only create one copy of the blob per day, while blob versioning creates a new version every time the blob is modified or deleted. Therefore, blob versioning might be more suitable for blobs that are rarely changed, while daily snapshots might be more suitable for blobs that are frequently changed.

It is a very circumstantial question, I do not feel that enough information is provided.

Copilot suggests Versioning would be the best option, but it is a terrible question.

upvoted 2 times

✉  **Muffay** 3 months ago

**Selected Answer: B**

I will vote for B here, as the requirement is to minimize storage costs and also states it is only needed to archive the \*last uploaded version\* of the day.

I am not aware of a native solution to schedule those snapshots, but worst case we could use scheduled Azure Functions for that.  
upvoted 4 times

✉️ [Removed] 3 months ago

**Selected Answer: D**

I believe the given answer is correct. The key here is that File1.txt is changed every hour. Theoretically, you can do this with B as well but you need to configure a given time when the snapshot is taken. With blob versioning, you have access to 24 versions, and you can restore for example a version that took place 6 hours ago as opposed to when the blob snapshot took place (you will only have a single version, the one that the snapshot captured at the moment it was taken). For this reason I would go with D.

upvoted 4 times

✉️ [Removed] 3 months ago

<https://learn.microsoft.com/en-us/azure/storage/blobs/snapshots-overview>

Note

Blob versioning offers a superior way to maintain previous versions of a blob. For more information, see Blob versioning.

<https://learn.microsoft.com/en-us/azure/storage/blobs/versioning-overview>

upvoted 2 times

✉️ [Removed] 3 months ago

I was debating whether to go with Blob Snapshots in the end because our requirement is that we only need one version of the file, so we can schedule a snapshot to take place let's say right before midnight, and it would work just fine. However, there's some administrative overhead to do so.

<https://learn.microsoft.com/en-us/azure/storage/blobs/snapshots-manage-dotnet>

<https://learn.microsoft.com/en-us/azure/storage/blobs/snapshots-overview>

To automate the snapshot creation process, you can use Azure Logic Apps or Azure Functions.

upvoted 1 times

✉️ [Removed] 3 months ago

I will, however, stick with Blob Versioning, even Microsoft suggests this is a better way. And to minimise the costs you can simply use lifecycle policies to delete old versions.

upvoted 6 times

✉️ prshntdxt7 3 weeks, 2 days ago

Yep, seems all right.

upvoted 1 times

✉️ mns0173 3 months, 1 week ago

Versioning will store all 24 cumulative files daily. Instead we can do daily snapshots at the end of a day as it has cumulative data for the whole day. It will add administrative overhead, but reduce storage usage.

upvoted 4 times

✉️ mtc9 2 months ago

Versioning will store 24\*delta content of file which is comparable storage to daily snapshot

upvoted 3 times

You have 12 on-premises data sources that contain customer information and consist of Microsoft SQL Server, MySQL, and Oracle databases.

You have an Azure subscription.

You plan to create an Azure Data Lake Storage account that will consolidate the customer information for analysis and reporting.

You need to recommend a solution to automatically copy new information from the data sources to the Data Lake Storage account by using extract, transform and load (ETL). The solution must minimize administrative effort.

What should you include in the recommendation?

- A. Azure Data Factory
- B. Azure Data Explorer
- C. Azure Data Share
- D. Azure Data Studio

**Correct Answer: A**

*Community vote distribution*

A (100%)

✉️  **Muffay** Highly Voted 3 months ago

**Selected Answer: A**

Azure Data Factory is correct.

> Big data requires a service that can orchestrate and operationalize processes to refine these enormous stores of raw data into actionable business insights. Azure Data Factory is a managed cloud service that's built for these complex hybrid extract-transform-load (ETL), extract-load-transform (ELT), and data integration projects.

<https://learn.microsoft.com/en-us/azure/data-factory/introduction>

upvoted 7 times

✉️  **Crossfader2208** Most Recent 1 month, 1 week ago

**Selected Answer: A**

TBH for the exam like this the question seems to be a bit too simple.

upvoted 1 times

✉️  **kishoredeena** 3 months, 1 week ago

Given answer is correct

<https://azure.microsoft.com/en-in/products/data-factory>

upvoted 4 times

## Topic 3 - Question Set 3

Question #1

Topic 3

You have SQL Server on an Azure virtual machine. The databases are written to nightly as part of a batch process.

You need to recommend a disaster recovery solution for the data. The solution must meet the following requirements:

- Provide the ability to recover in the event of a regional outage.
- Support a recovery time objective (RTO) of 15 minutes.
- Support a recovery point objective (RPO) of 24 hours.
- Support automated recovery.
- Minimize costs.

What should you include in the recommendation?

- A. Azure virtual machine availability sets
- B. Azure Disk Backup
- C. an Always On availability group
- D. Azure Site Recovery

**Correct Answer: D**

Replication with Azure Site Recover:

- RTO is typically less than 15 minutes.
- RPO: One hour for application consistency and five minutes for crash consistency.

Incorrect Answers:

B: Too slow.

C: Always On availability group RPO: Because replication to the secondary replica is asynchronous, there's some data loss.

Reference:

<https://docs.microsoft.com/en-us/azure/site-recovery/site-recovery-sql>

*Community vote distribution*

D (82%)

C (18%)

✉️ [User] [Removed] Highly Voted 2 years, 3 months ago

**Selected Answer: D**

D is correct. Automatic Site Recovery needed.

upvoted 21 times

✉️ [User] **Gowind** Highly Voted 1 year, 7 months ago

**Selected Answer: C**

Answer is C Automated failover is needed. Azure site recovery does not support it

<https://docs.microsoft.com/en-us/azure/site-recovery/site-recovery-faq>

Is failover automatic?

Failover isn't automatic. You initiate failovers with single click in the portal, or you can use Site Recovery PowerShell to trigger a failover. Failing back is a simple action in the Site Recovery portal.

upvoted 8 times

✉️ [User] **Vad133** 1 year, 3 months ago

The requirements state "Support automated recovery", not "Automatic failover" thus we can automate the recovery process by a script and fulfill the requirement with low cost.

upvoted 5 times

✉️ [User] **GarryK** 1 year, 2 months ago

You are right. Just checked the learning document, there is a whole section about Automating the recovery using Azure Automation Runbooks.

upvoted 1 times

✉️ [User] **maku067** 1 year, 3 months ago

I think the same C. (Synchronous-commit mode with automatic failover)

<https://learn.microsoft.com/en-us/sql/database-engine/availability-groups/windows/availability-modes-always-on-availability-groups?view=sql-server-ver16>

upvoted 1 times

✉️ [User] **GarryK** 1 year, 2 months ago

Hi (a.k.a Gowind) correcting me, Answer is D. The requirement is to support an automated recovery. We can automate the recovery with Azure Automation: <https://learn.microsoft.com/en-us/azure/site-recovery/site-recovery-runbook-automation>  
<https://learn.microsoft.com/en-us/azure/site-recovery/site-recovery-create-recovery-plans>

Runbooks in recovery plans

You add an Azure Automation account and runbooks to a recovery plan. The runbook is invoked when the recovery plan runs.

upvoted 4 times

✉ **thamaster** Most Recent 5 months ago

**Selected Answer: D**

question is about Recovery not HA, not restore

upvoted 3 times

✉ **marcellov** 6 months, 3 weeks ago

**Selected Answer: D**

Replication with Azure Site Recovery. RTO is typically less than 15 minutes. RPO: One hour for application consistency and five minutes for crash consistency.

<https://learn.microsoft.com/en-us/azure/site-recovery/site-recovery-sql>

upvoted 3 times

✉ **Elecktrus** 6 months, 3 weeks ago

**Selected Answer: D**

Site Recovery because An Always On availability group is a high-availability and disaster recovery solution that provides automatic failover to a secondary replica in the same or a different data center. It can meet the RTO and RPO requirements, but it requires more resources and higher costs compared to the option of Azure Site Recovery

upvoted 1 times

✉ **VijayMS** 10 months, 1 week ago

Always-On supports both Sync & Async replication and "C" should be the correct answer

upvoted 1 times

✉ **sw1000** 10 months, 3 weeks ago

**Selected Answer: D**

The only solutions making sense in this context are C and D:

As we are talking about an SQL DB on an Azure VM (IaaS), there are NO cross-regional disaster recovery capabilities.

<https://learn.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/availability-group-overview?view=azuresql#deployment-options>:~:text=All-,DR%20with%20multiple%20regions,Yes,-Multisubnet%20support

As we need to cover the scenario for a regional outage (which means all 3 data centers of an Azure region), the only option available to achieve this is Azure Site Recovery (with the help of runbooks if you must)

upvoted 1 times

✉ **sw1000** 10 months, 3 weeks ago

D is the correct answer

upvoted 1 times

✉ **lvz** 10 months, 3 weeks ago

Very interesting insight

why it can't be Azure Backup? I was wondering because RPO of 24 hrs is supported by Azure Backup, however after some research realized that RTO of 15 mins will not be supported by Azure Backup, so my second option was automatically Azure Site Recovery.

upvoted 1 times

✉ **NotMeAnyWay** 1 year ago

**Selected Answer: D**

D. Azure Site Recovery

Azure Site Recovery is a disaster recovery service that allows you to protect your Azure virtual machines by orchestrating replication, failover, and recovery. It helps you meet the RTO and RPO requirements, automates recovery, and provides protection against regional outages. While it may not be the lowest cost solution, it meets all the other requirements, including automated recovery and support for the specified RTO and RPO.

upvoted 4 times

✉ **zellck** 1 year, 1 month ago

**Selected Answer: D**

D is the answer.

<https://learn.microsoft.com/en-us/azure/site-recovery/azure-to-azure-enable-global-disaster-recovery#disaster-recovery-for-global-azure-regions>  
Azure Site Recovery now supports global disaster recovery. You can now replicate and fail over your applications from any Azure region, across continents.

upvoted 3 times

✉ **abxc** 1 year, 1 month ago

**Selected Answer: D**

<https://learn.microsoft.com/en-us/azure/site-recovery/site-recovery-sql#combining-bcdr-technologies-with-site-recovery>.  
Check last option in the table

upvoted 2 times

✉  **totalz** 1 year, 2 months ago

If I look at RPO, it's D. But I wouldn't call using the SDK for automation = support automated recovery. And if comparing the workload for cross regions, then the ans is def. D!!

upvoted 1 times

✉  **totalz** 1 year, 2 months ago

However, with the super speedy azure, RTO of 15 minutes could be "fatal"!

upvoted 1 times

✉  **Putra19** 1 year, 2 months ago

D because regional outage

upvoted 1 times

✉  **omerc061** 1 year, 2 months ago

Correct Answer: D

"minimize cost" please notice here. key point.

C not correct because "Always On" that options expensive way.

upvoted 3 times

✉  **Ivanvazovv** 1 year, 2 months ago

We have SQL server installed on a VM. How an availability group can be replicated to another region in this case?

upvoted 1 times

✉  **VBK8579** 1 year, 2 months ago

**Selected Answer: D**

The recommended solution for disaster recovery should be Azure Site Recovery (Option D: Azure Site Recovery) as it meets the requirements of providing the ability to recover in the event of a regional outage, supporting a RTO of 15 minutes, supporting an RPO of 24 hours, supporting automated recovery and minimizing costs.

upvoted 1 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: D**

D is correct. Automatic Site Recovery needed.

Replication with Azure Site Recover:

RTO is typically less than 15 minutes.

RPO: One hour for application consistency and five minutes for crash consistency.

upvoted 1 times

**HOTSPOT -**

You plan to deploy the backup policy shown in the following exhibit.

## Policy 1

Associated items Delete Save Discard

### Backup schedule

\*Frequency \*Time \*Timezone

### Instant Restore

Retain instant recovery snapshot(s) for

Day(s)

### Retention range

Retention of daily backup point.

\*At For  
  Day(s)

Retention of weekly backup point.

\*On \*At For  
   Week(s)

Retention of monthly backup point.

Week Based

Day Based

\*On \*Day \*At For

Retention of yearly backup point.

Not Configured

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Virtual machines that are backed up by using the policy can be recovered for up to a maximum of [answer choice]:

90 days
26 weeks
36 months
45 months

The minimum recovery point objective (RPO) for virtual machines that are backed up by using the policy is [answer choice]:

1 hour
1 day
1 week
1 month
1 year

### Answer Area

Virtual machines that are backed up by using the policy can be recovered for up to a maximum of [answer choice]:

90 days
26 weeks
36 months
45 months

Correct Answer:

The minimum recovery point objective (RPO) for virtual machines that are backed up by using the policy is [answer choice]:

1 hour
1 day
1 week
1 month
1 year

✉  **default\_wizard** Highly Voted  2 years, 4 months ago

answer is correct

upvoted 44 times

✉  **yeanlingmedal71** 1 year, 2 months ago

<https://docs.microsoft.com/en-us/azure/backup/backup-azure-vm-backup-faq#what-s-the-minimum-rpo-and-rto-for-vm-backups-in-azure-backup>

RPO: The minimum RPO is 1 day or 24 hours.

upvoted 5 times

✉  **Eltooth** Highly Voted  2 years, 4 months ago

Answer is correct - 36 weeks and 1 day

upvoted 23 times

✉  **Eltooth** 2 years, 4 months ago

\*months

upvoted 8 times

✉  **komoyek** 1 year, 9 months ago

not 36 weeks but 36 month and 1 day

upvoted 6 times

✉  **Forex19** Most Recent  6 months, 3 weeks ago

I had question at 24th Sep 2023

upvoted 8 times

✉  **zellck** 1 year, 1 month ago

1. 36 months
2. 1 day (backup daily)

upvoted 4 times

✉  **totalz** 1 year, 2 months ago

The term "instant" is misleading, m\$ style as usual.

upvoted 3 times

✉  **DeBoer** 1 year, 1 month ago

the "instant" refers to the restore operation: the snapshot is kept local as well as in the vault so during a restore it can be mounted straight away instead of having to be restored from the vault first. <https://learn.microsoft.com/en-us/azure/backup/backup-instant-restore-capability#what's-new-in-this-feature>

upvoted 4 times

✉  **OPT\_001122** 1 year, 2 months ago

given answer is correct

upvoted 1 times

✉  **SirGizha** 1 year, 7 months ago

Its 36 months and 1 day

upvoted 2 times

✉  **al608** 1 year, 9 months ago

did my Exam today. This was on there.

upvoted 4 times

✉  **Gor** 1 year, 10 months ago

36 months and 1 hour.

upvoted 2 times

✉  **DeBoer** 1 year, 1 month ago

the backups are taken daily, not hourly. Instant recovery refers to the backup snapshot being available straight away instead of having to go to the vault first. So this has nothing to do with backup frequency

upvoted 3 times

✉  **Teringzooi** 1 year, 11 months ago

36 weeks and 1 day

Answer is correct!

upvoted 1 times

✉  **FabioVi** 1 year, 11 months ago

Agree that "minimum" here is confusing... If machine breaks at 7PM, then I could get back the 6PM backup (and quickly, as there is Instant Restore Capability) so the RPO would be 1 hour... Isn't it?

upvoted 5 times

✉  **certgetter101** 1 year, 11 months ago

These types of questions being worded this way always is a bit frustrating, but you have to extrapolate the most correct answer from it and hope for the best :|

upvoted 1 times

✉  **jellybiscuit** 1 year, 6 months ago

RPO is the administrative policy; what you're going to tell the business.

In your example, the recovery point is one-hour, but the objective did not change.

upvoted 2 times

✉  **WANNABEE** 1 year, 12 months ago

1hr RPO - Outage occurs post 6am e.g. at 7am, 1 hr data loss results.

upvoted 2 times

✉  **Contactfornitish** 2 years ago

Came in exam today 04/04/2022

upvoted 3 times

✉  **FrancisFerreira** 2 years ago

Answer is correct... But what's with "minimum RPO"?

When the talk RPO, doesn't make sense working with 'minimum'...

Yeah, we could talk in terms of 'maximum acceptable RPO', but not 'minimum'...

That's there just to confuse us and throw us off.

upvoted 6 times

✉  **p\_t\_2\_0\_2\_1** 2 years ago

36 months and 1 day

upvoted 1 times

✉  **Preeto18** 2 years ago

Retention on 36 month is not checked so Answer is 26 Weeks and 1 day !!!!

upvoted 1 times

✉  **Preeto18** 2 years ago

Ignore my previous comment ....Answer is 36 months and 1 day !  
upvoted 3 times

 **Justin0020** 2 years, 1 month ago

Was in my exam om March. 10  
upvoted 2 times

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to deploy resources to host a stateless web app in an Azure subscription. The solution must meet the following requirements:

- Provide access to the full .NET framework.

Provide redundancy if an Azure region fails.

- 
- Grant administrators access to the operating system to install custom application dependencies.

Solution: You deploy two Azure virtual machines to two Azure regions, and you create an Azure Traffic Manager profile.

Does this meet the goal?

A. Yes

B. No

**Correct Answer: A**

Azure Traffic Manager is a DNS-based traffic load balancer that enables you to distribute traffic optimally to services across global Azure regions, while providing high availability and responsiveness.

*Community vote distribution*

A (100%)

✉  **Eltooth**  2 years, 4 months ago

**Selected Answer: A**

Correct answer - Traffic manager is global I.e. multi region - layer 7 traffic balancer option.

upvoted 21 times

✉  **Shadow983** 2 years, 4 months ago

Answer is A, but Traffic Manager is not layer 7 load balancer.

<https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/load-balancing-overview>

upvoted 11 times

✉  **Eltooth** 2 years, 4 months ago

The most important point to understand is that Traffic Manager works at the DNS level which is at the Application layer (Layer-7).

<https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-how-it-works>

upvoted 4 times

✉  **JayBee65** 1 year, 8 months ago

Nope DNS returns an IP address, which is layer 3, see <https://www.cohesive.net/blog/4-things-everyone-should-know-about-network-layers/>. Layer 7, the application layer refers to the http or https app protocol.

upvoted 3 times

✉  **Eltooth** 2 years, 4 months ago

Yes it is.

<https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-overview>

Azure Traffic Manager is a DNS-based traffic load balancer. This service allows you to distribute traffic to your public facing applications across the global Azure regions.

upvoted 2 times

✉  **FrancisFerreira** 2 years ago

typo: [...] why they DONT refer to it as a L7 appliance [...]

upvoted 2 times

✉  **FrancisFerreira** 2 years ago

Layer 7 is application... If TM was a L7 appliance it would be able to do SSL offload, TLS termination, cookie-based session affinity, etc. That's why they refer to it as a L7 appliance, but only as DNS-based.

upvoted 5 times

✉  **KrisDeb** 1 year, 3 months ago

I agree, only Traffic Manager + Application Gateway or Front Door alone is layer 7 solution.  
[https://portal.azure.com/#view/Microsoft\\_Azure\\_Network/LoadBalancingHubMenuBlade/~/overview](https://portal.azure.com/#view/Microsoft_Azure_Network/LoadBalancingHubMenuBlade/~/overview)  
upvoted 2 times

✉ **HGD545** Highly Voted 2 years, 1 month ago

On the AZ-305 2/22/22  
upvoted 8 times

✉ **aksrav** Most Recent 8 months ago

is it not Azure front door?  
upvoted 1 times

✉ **sieira** 7 months, 1 week ago

Traffic manager distributes traffic at the DNS level and Front Door at the layer 7 (http/https). If the statement had considered a scenario of web application then we would probably use Azure Front door  
upvoted 1 times

✉ **azkumar305** 1 year ago

Got this on 14-Apr-2023  
upvoted 7 times

✉ **NotMeAnyWay** 1 year ago

Selected Answer: A

A. Yes. This solution meets the goal. By deploying two Azure virtual machines in two separate Azure regions, you provide redundancy if one of the regions fails. Azure Traffic Manager can be used to distribute traffic between the virtual machines in different regions, ensuring high availability.

Additionally, deploying Azure virtual machines allows you to have access to the full .NET Framework and grants administrators the ability to access the operating system to install custom application dependencies.

upvoted 6 times

✉ **zellck** 1 year, 1 month ago

Selected Answer: A

A is the answer.

<https://learn.microsoft.com/en-us/azure/traffic-manager/traffic-manager-overview>

Azure Traffic Manager is a DNS-based traffic load balancer. This service allows you to distribute traffic to your public-facing applications across the global Azure regions. Traffic Manager also provides your public endpoints with high availability and quick responsiveness.

upvoted 5 times

✉ **totalz** 1 year, 1 month ago

Should we consider the 1st and last requirements utterly pointless?  
upvoted 1 times

✉ **Putra19** 1 year, 2 months ago

DNS-based load balancing operates at the network layer (layer 3), while layer 7 load balancing operates at the application layer  
upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago

Selected Answer: A

You deploy two Azure virtual machines to two Azure regions, and you create an Azure Traffic Manager profile.

Thanks to all who mentioned the exam dates because they came here to mention after their exam which is really incredible  
upvoted 6 times

✉ **iyerbh** 1 year, 5 months ago

Traffic manager is layer 3 and Azure Front Door is layer 7. Both support globally (across region).  
upvoted 4 times

✉ **Gor** 1 year, 10 months ago

Selected Answer: A

A is correct

upvoted 1 times

✉ **dasEnder** 1 year, 11 months ago

The traffic manager is DNS-based; and has health checks with HTTP(S) but is not level 7. I find the question rather ambiguous because it doesn't mention that you need to configure the health check and give access to the user.  
upvoted 1 times

✉ **Teringzooi** 1 year, 11 months ago

Selected Answer: A

Correct answer - Traffic manager is global i.e. multi-region - layer 7 traffic balancer option.  
<https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-overview>

upvoted 1 times

✉ **hertino** 2 years ago

**Selected Answer: A**

In my exam, 9 april 22, 817/1000, I chose this answer  
upvoted 3 times

✉  **esther823** 2 years ago

in my exam on 31 Mar 22  
upvoted 3 times

✉  **Justin0020** 2 years, 1 month ago

Was in my exam om March. 10  
upvoted 2 times

✉  **Insanewhip** 2 years, 1 month ago

Appeared on my exam today, March 10th, 2022. I selected Yes.  
upvoted 3 times

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to deploy resources to host a stateless web app in an Azure subscription. The solution must meet the following requirements:

- Provide access to the full .NET framework.
- Provide redundancy if an Azure region fails.
- Grant administrators access to the operating system to install custom application dependencies.

Solution: You deploy two Azure virtual machines to two Azure regions, and you deploy an Azure Application Gateway.

Does this meet the goal?

A. Yes

B. No

**Correct Answer: B**

App Gateway will balance the traffic between VMs deployed in the same region. Create an Azure Traffic Manager profile instead.

*Community vote distribution*

B (100%)

✉  **Eltooth**  2 years, 4 months ago

**Selected Answer: B**

Correct answer - B. App gateway cannot span regions.

upvoted 23 times

✉  **HGD545**  2 years, 1 month ago

On the AZ-305 2/22/22

upvoted 6 times

✉  **allanon**  4 months ago

Azure Application Gateway can load balance traffic to multiple backend servers or virtual machines, including those in different regions. However, you need to consider the following:

The virtual machines should be in the same virtual network or in a peered virtual network.

The virtual machines should be in the same subscription as the Application Gateway.

The virtual machines should have a public IP address or be accessible through a virtual private network (VPN).

To load balance traffic to virtual machines in different regions, you can create a backend pool in the Application Gateway and add the IP addresses or FQDNs of the virtual machines to the pool. Then, you can create a rule to route traffic to the backend pool. The Application Gateway will automatically distribute the traffic to the available virtual machines based on the load balancing algorithm you choose..

upvoted 1 times

✉  **NotMeAnyWay** 9 months ago

**Selected Answer: B**

B. No

While Azure Application Gateway is a powerful tool for handling application traffic at the application layer and can assist with routing, load balancing, and other functions, it operates within a single region. It doesn't automatically provide geo-redundancy across multiple Azure regions.

For redundancy across regions, Azure Traffic Manager or Azure Front Door would be more suitable. They operate at the DNS level and are designed to route traffic across different regions for high availability and failover purposes.

So, in this case, deploying two Azure virtual machines to two Azure regions and deploying an Azure Application Gateway would not fully meet the stated goals due to the lack of a regional failover strategy.

upvoted 6 times

✉  **totalz** 1 year, 1 month ago

If Q3 is Yes, then this one should be Yes. Application Gateway can use VNet peering.

upvoted 1 times

✉  **totalz** 1 year, 1 month ago

My bad, finally find the doc on its being regional!

upvoted 1 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

No - Azure Traffic Manager is correct

Thanks to all who mentioned the exam dates

upvoted 2 times

✉  **Gor** 1 year, 10 months ago

**Selected Answer: B**

No. AAG is regional

upvoted 1 times

✉  **Teringzooi** 1 year, 11 months ago

**Selected Answer: B**

Correct answer - B. App gateway cannot span regions.

<https://docs.microsoft.com/en-us/azure/application-gateway/overview>

upvoted 2 times

✉  **hertino** 2 years ago

**Selected Answer: B**

In my exam, 9 april 22, 817/1000, I chose this answer

upvoted 2 times

✉  **esther823** 2 years ago

in my exam on 31 Mar 22

upvoted 1 times

✉  **Justin0020** 2 years, 1 month ago

Was in my exam om March. 10

upvoted 3 times

✉  **Insanewhip** 2 years, 1 month ago

Appeared on my exam today, March 10th, 2022. I selected No.

upvoted 3 times

✉  **[Removed]** 2 years, 3 months ago

**Selected Answer: B**

No is right.

upvoted 3 times

**HOTSPOT -**

You plan to create an Azure Storage account that will host file shares. The shares will be accessed from on-premises applications that are transaction intensive.

You need to recommend a solution to minimize latency when accessing the file shares. The solution must provide the highest-level of resiliency for the selected storage tier.

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Storage tier:

Hot
Premium
Transaction optimized

Redundancy:

Geo-redundant storage (GRS)
Zone-redundant storage (ZRS)
Locally-redundant storage (LRS)

**Answer Area**

Storage tier:

Hot
Premium
Transaction optimized

Correct Answer:

Redundancy:

Geo-redundant storage (GRS)
Zone-redundant storage (ZRS)
Locally-redundant storage (LRS)

Box 1: Premium -

Premium: Premium file shares are backed by solid-state drives (SSDs) and provide consistent high performance and low latency, within single-digit milliseconds for most IO operations, for IO-intensive workloads.

Incorrect Answers:

- ☛ Hot: Hot file shares offer storage optimized for general purpose file sharing scenarios such as team shares. Hot file shares are offered on the standard storage hardware backed by HDDs.
- ☛ Transaction optimized: Transaction optimized file shares enable transaction heavy workloads that don't need the latency offered by premium file shares.

Transaction optimized file shares are offered on the standard storage hardware backed by hard disk drives (HDDs). Transaction optimized has historically been called "standard", however this refers to the storage media type rather than the tier itself (the hot and cool are also "standard" tiers, because they are on standard storage hardware).

Box 2: Zone-redundant storage (ZRS):

Premium Azure file shares only support LRS and ZRS.

Zone-redundant storage (ZRS): With ZRS, three copies of each file stored, however these copies are physically isolated in three distinct

storage clusters in different Azure availability zones.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/files/storage-files-planning>

✉  **Eltooth** Highly Voted  2 years, 4 months ago

Correct answer - Premium and ZRS  
<https://docs.microsoft.com/en-us/azure/storage/files/storage-files-planning#storage-tiers>  
upvoted 51 times

✉  **Shadow983** 2 years, 3 months ago

Correct.  
Azure Files only support LRS and ZRS.  
upvoted 11 times

✉  **Shadow983** 2 years, 3 months ago

Standard support 4 types (LRS/ZRS/GRS/GZRS)  
Premium only support 2 types  
upvoted 17 times

✉  **dave22339** Highly Voted  8 months, 2 weeks ago

The only place I've ever seen premium performance describes as a storage tier is in this question. This question sucks. Going from the requirement I would choose premium but going by the words used in the question (and everywhere else) I would choose Hot. If this stupid question has dragged you down a google hole you're not alone.  
upvoted 10 times

✉  **sawanti** 8 months ago

Premium has the greatest I/Os. Premium storages can only offer LRS and ZRS, so the answer is not hard  
upvoted 2 times

✉  **Lazylinux** 4 days, 3 hours ago

Easy said NOT hard because you got access to ET, question NOT hard but remembering it is very very hard with so much to learn, this is AZ104 question. This is memory question, so unless you got magic memory recall ability otherwise Good luck!  
upvoted 1 times

✉  **xRiot007** 1 month, 1 week ago

The answer is not hard, but slightly confusing. A "potato-potato" kind of situation.  
upvoted 2 times

✉  **mmarkiew** 4 months, 2 weeks ago

Agree that the question should ask about performance rather than tier (these are two different concepts). In any case, tiering isn't supported for file shares so choosing Hot wouldn't make sense in this context.  
upvoted 1 times

✉  **cris\_exam** Most Recent  1 week, 6 days ago

<https://learn.microsoft.com/en-us/azure/storage/common/storage-redundancy#supported-azure-storage-services>

Premium  
ZRS  
upvoted 1 times

✉  **jcxxxxx2020** 3 months, 3 weeks ago

answer is correct.  
in my exam today  
upvoted 5 times

✉  **babakeyfgir** 4 months, 3 weeks ago

it was a exam Question  
upvoted 3 times

✉  **Bintokol** 9 months ago

This question shows that Microsoft is not testing for Design, but for admin. You have to remember there is no GRS for premium storage accounts!. Grrrr!!!  
upvoted 6 times

✉  **NotMeAnyWay** 1 year ago

1. Storage Tier: For transaction-intensive applications, it is recommended to use the "Premium" tier, which provides the highest performance and lowest latency.  
2. Redundancy: Zone Redundant Storage (ZRS) replicates data across multiple zones within a single region, providing high availability and resilience in case of a zone failure. It also offers low latency access to the file shares, which is essential for transaction-intensive applications. Premium Azure file shares only support LRS and ZRS.  
upvoted 7 times

✉  **zellck** 1 year, 1 month ago

1. Premium
2. ZRS

<https://learn.microsoft.com/en-us/azure/storage/common/storage-account-overview#types-of-storage-accounts>  
Premium performance storage accounts use solid-state drives (SSDs) for low latency and high throughput.

<https://learn.microsoft.com/en-us/azure/storage/common/storage-redundancy#zone-redundant-storage>

Zone-redundant storage (ZRS) replicates your storage account synchronously across three Azure availability zones in the primary region. Each availability zone is a separate physical location with independent power, cooling, and networking. ZRS offers durability for storage resources of at least 99.999999999% (12 9's) over a given year.

upvoted 2 times

✉ **totalz** 1 year, 2 months ago

Not a very good question, according to doc, some regions in standard tier has better egress speed than premium!!

upvoted 2 times

✉ **totalz** 1 year, 2 months ago

But then not all regions support ZRS for premium file shares!!

upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago

Box 1: Premium -

Premium: Premium file shares are backed by solid-state drives (SSDs) and provide consistent high performance and low latency, within single-digit milliseconds for most IO operations, for IO-intensive workloads.

Box 2: Zone-redundant storage (ZRS):

Premium Azure file shares only support LRS and ZRS.

Zone-redundant storage (ZRS): With ZRS, three copies of each file stored, however these copies are physically isolated in three distinct storage clusters in different Azure availability zones.

Thanks to all who have mentioned the exam dates

Answer is correct

upvoted 5 times

✉ **PankajKataria** 1 year, 3 months ago

Premium storage only supports LRS and ZRS

upvoted 1 times

✉ **AubinBakana** 1 year, 8 months ago

I would have gone for the Transaction Optimized & GRS to save cost simply because it is always smart to put cost in perspectives but on second thought, sometimes cost doesn't matter and Premium & ZRS seem to be a good answer here.

upvoted 2 times

✉ **randomGame** 1 year, 4 months ago

Yes, and "You need to recommend a solution to minimize latency when accessing the file shares".

That means Premium is needed.

upvoted 1 times

✉ **ajayasa** 1 year, 8 months ago

Correct Answer : Premium and ZRS

the key point in the question is low latency. premium storage supports low latency where as the transaction optimized provide consistent latency. hence tier is => Premium

Premium File Storage supports only 2 that is LRS and ZRS as we need the high resiliency

Answer is => ZRS.

see link below:

<https://azure.microsoft.com/en-in/pricing/details/storage/files/>

upvoted 2 times

✉ **Gor** 1 year, 10 months ago

Premium, ZRS.

upvoted 2 times

✉ **datafypk** 1 year, 11 months ago

was in exam 8 May 22

upvoted 7 times

✉ **Teringzooi** 1 year, 11 months ago

Correct answer - Premium and ZRS

<https://docs.microsoft.com/en-us/azure/storage/files/storage-files-planning#storage-tiers>

upvoted 1 times

✉ **esther823** 2 years ago

in my exam on 31 Mar 22

upvoted 4 times

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to deploy resources to host a stateless web app in an Azure subscription. The solution must meet the following requirements:

- Provide access to the full .NET framework.
- Provide redundancy if an Azure region fails.
- Grant administrators access to the operating system to install custom application dependencies.

Solution: You deploy an Azure virtual machine scale set that uses autoscaling.

Does this meet the goal?

A. Yes

B. No

**Correct Answer: B**

Instead, you should deploy two Azure virtual machines to two Azure regions, and you create a Traffic Manager profile.

Note: Azure Traffic Manager is a DNS-based traffic load balancer that enables you to distribute traffic optimally to services across global Azure regions, while providing high availability and responsiveness.

Reference:

<https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-overview>

*Community vote distribution*

B (100%)

✉  **Eltooth** Highly Voted 2 years, 4 months ago

Correct answer - B

upvoted 9 times

✉  **NotMeAnyWay** Highly Voted 1 year ago

**Selected Answer: B**

A virtual machine scale set with autoscaling can meet the requirement of providing access to the full .NET framework and granting administrators access to the operating system to install custom application dependencies. However, it may not be the best solution for providing redundancy if an Azure region fails.

To provide redundancy if an Azure region fails, it is recommended to deploy the stateless web app across multiple regions using Azure App Service. Azure App Service provides built-in redundancy and failover support across regions. Additionally, Azure App Service can also provide access to the full .NET framework and grant administrators access to the operating system.

Therefore, the recommended solution would be to deploy the stateless web app using Azure App Service to provide redundancy and meet all the specified requirements.

upvoted 8 times

✉  **allanon** Most Recent 4 months ago

**Selected Answer: B**

virtual machines in an Azure Virtual Machine Scale Set (VMSS) cluster cannot be in multiple regions

upvoted 2 times

✉  **jj22222** 1 year, 1 month ago

**Selected Answer: B**

no, use traffic mgr instead

upvoted 1 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

VMSS only supports deployment within single region.

upvoted 1 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

Traffic Manager is the correct option  
upvoted 1 times

✉ **PankajKataria** 1 year, 3 months ago  
B is the correct answer as VMSS supports only availability zone, it can not be used in regional failures.  
upvoted 3 times

✉ **Xinx** 1 year, 6 months ago  
Scale sets does not provide redundancy if an Azure region fails.  
upvoted 3 times

✉ **Gor** 1 year, 10 months ago

**Selected Answer: B**

Correct answer - B  
upvoted 1 times

✉ **datafypk** 1 year, 11 months ago  
was in exam 8 May 22  
upvoted 3 times

✉ **Teringzooi** 1 year, 11 months ago

**Selected Answer: B**

Correct answer - B  
upvoted 1 times

✉ **hertino** 2 years ago

**Selected Answer: B**

In my exam, 9 april 22, 817/1000, I chose this answer  
upvoted 3 times

✉ **esther823** 2 years ago  
in my exam on 31 Mar 22  
upvoted 2 times

✉ **ougullamaija** 2 years ago

**Selected Answer: B**

Correct. Autoscaling doesnt support redundancy.  
upvoted 3 times

✉ **Justin0020** 2 years, 1 month ago  
Was in my exam om March. 10  
upvoted 1 times

✉ **bananapeel** 2 years, 1 month ago

On 2/27/2022  
upvoted 2 times

✉ **HGD545** 2 years, 1 month ago  
On the AZ-305 2/22/22  
upvoted 2 times

**HOTSPOT -**

You need to recommend an Azure Storage account configuration for two applications named Application1 and Application2. The configuration must meet the following requirements:

- Storage for Application1 must provide the highest possible transaction rates and the lowest possible latency.
- Storage for Application2 must provide the lowest possible storage costs per GB.
- Storage for both applications must be available in an event of datacenter failure.
- Storage for both applications must be optimized for uploads and downloads.

What should you recommend? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Application1:

- BlobStorage with Standard performance, Hot access tier, and Read-access geo-redundant storage (RA-GRS) replication
- BlockBlobStorage with Premium performance and Zone-redundant storage (ZRS) replication
- General purpose v1 with Premium performance and Locally-redundant storage (LRS) replication
- General purpose v2 with Standard performance, Hot access tier, and Locally-redundant storage (LRS) replication

Application2:

- BlobStorage with Standard performance, Cool access tier, and Geo-redundant storage (GRS) replication
- BlockBlobStorage with Premium performance and Zone-redundant storage (ZRS) replication
- General purpose v1 with Standard performance and Read-access geo-redundant storage (RA-GRS) replication
- General purpose v2 with Standard performance, Cool access tier, and Read-access geo-redundant storage (RA-GRS) replication

Correct Answer:

**Answer Area**

Application1:

- BlobStorage with Standard performance, Hot access tier, and Read-access geo-redundant storage (RA-GRS) replication
- BlockBlobStorage with Premium performance and Zone-redundant storage (ZRS) replication
- General purpose v1 with Premium performance and Locally-redundant storage (LRS) replication
- General purpose v2 with Standard performance, Hot access tier, and Locally-redundant storage (LRS) replication

Application2:

- BlobStorage with Standard performance, Cool access tier, and Geo-redundant storage (GRS) replication
- BlockBlobStorage with Premium performance and Zone-redundant storage (ZRS) replication
- General purpose v1 with Standard performance and Read-access geo-redundant storage (RA-GRS) replication
- General purpose v2 with Standard performance, Cool access tier, and Read-access geo-redundant storage (RA-GRS) replication

Box 1: BlobStorage with Premium Performance,

Application1 requires high transaction rates and the lowest possible latency. We need to use Premium, not Standard.

## Box 2: General purpose v2 with Standard Performance,..

General Purpose v2 provides access to the latest Azure storage features, including Cool and Archive storage, with pricing optimized for the lowest GB storage prices. These accounts provide access to Block Blobs, Page Blobs, Files, and Queues. Recommended for most scenarios using Azure Storage.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-account-upgrade>

✉  **Snownoodles**  1 year, 7 months ago

Application 2: Blobstorage with standard performance VS General purpose V2 with standard performance - General purpose V2 is always recommended since Blobstorage with a legacy so the given answer is correct

upvoted 29 times

✉  **Garon** 1 year, 5 months ago

RA-GRS is more expensive than GRS.

upvoted 8 times

✉  **Garon** 1 year, 5 months ago

But App2 must be accessible, so unless regional failover occurs, you'll need RA access?

upvoted 1 times

✉  **betterthanlife** 11 months, 2 weeks ago

The blob option for App 2 also meets the following 2 requirements:

- optimized for uploads and downloads (blob is over GPv2)
- must be available in an event of datacenter failure (I'm going to assume "upload" would still be required in the event of failover, eliminating GPv2 with only RA-GRS)

upvoted 2 times

✉  **GarryK** 1 year, 2 months ago

Yes, but legacy storage account are no longer recommended, so you can't recommend these solutions even if it may cost less.

<https://docs.microsoft.com/en-us/azure/storage/common/storage-account-overview#legacy-storage-account-types>

upvoted 3 times

✉  **betterthanlife** 11 months, 2 weeks ago

Blob Storage is still available and supported and less expensive per GB than GPv2 (according to the pricing calculator).

"Legacy storage accounts are also supported. For more information, see Legacy storage account types."

<https://learn.microsoft.com/en-us/azure/storage/common/storage-account-overview>

<https://learn.microsoft.com/en-us/azure/storage/common/storage-redundancy#supported-storage-account-types>

"The following table describes the legacy storage account types. These account types aren't recommended by Microsoft, but may be used in certain scenarios:" (like because it's cheaper & offers GRS)

<https://learn.microsoft.com/en-us/azure/storage/common/storage-account-overview#legacy-storage-account-types>

upvoted 2 times

✉  **jrv116psu**  1 year, 7 months ago

Pretty sure it's app 1 block blob (answer as listed) but for App 2 I think it's A : because #1 there is no hot and cool blobs in V1. and there's not option to pick GRS/RA-GRS etc. (go look at azure pricing calculator.) ... so by having cool and GRS it IS v2 storage. and therefore GRS is cheaper than RA-GRS.. so it's A ... Blob with GRS.

upvoted 21 times

✉  **varinder82**  3 weeks, 3 days ago

Final Answer:

1. BlockBlobStorage with Premium performance and ZRS replica
2. BlobStorage with Standard Performance, Cool access tier and GRS

upvoted 2 times

✉  **[Removed]** 3 months ago

I used Azure Pricing calculator to have a look for box2.

Block Blob Storage, Blob Storage, Flat Namespace, GRS Redundancy, Cool Access Tier, 1,000 GB Capacity - Pay as you go

Monthly: \$66.50

Block Blob Storage, General Purpose V2, Flat Namespace, RA-GRS Redundancy, Cool Access Tier, 1,000 GB Capacity - Pay as you go

Monthly: \$75.60

There is not a huge difference but definitely BlobStorage is cheaper for Application2. Not sure what to make of it, but since it is still supported I would go with this option to save a few bucks.

upvoted 4 times

✉  **ziggy1117** 4 months ago

App1: BlockBlobStorage with Premium performance and ZRS replica

App2: BlobStorage with Standard Performance, Cool access tier and GRS - is the correct answer, GRS is cheaper than RA-GRS. I also checked the Azure Pricing Calculator and RA-GRS for GPurposeV2 is indeed more expensive

upvoted 3 times

✉ **MichaelMelb** 6 months, 2 weeks ago

App1:  
BlockBlobStorage with Premium performance and ZRS replica

App2:  
BlobStorage with Standard Performance, Cool access tier and GRS - is the correct answer,  
GRS is cheaper than RA-GRS  
upvoted 5 times

✉ **Leocan** 7 months, 1 week ago

The given answers are correct.  
- Storage for both applications must be available in an event of datacenter failure.  
upvoted 1 times

✉ **Vladobate** 7 months, 2 weeks ago

Storage for Application2 must provide the lowest possible storage costs per GB - how we accomplish this with cool access tier?  
upvoted 1 times

✉ **firedog2023** 10 months ago

I think D is correct for App2. 'BlobStorage' doesn't exist as an option, it's general purpose v2 as a BLOB. Also, RA-GRS does allow Write but only on failover. The purpose of RA is that you can also READ the secondary while the primary is still active. If there is a failover, it just becomes the writeable storage account as per normal GRS functionality. The READ is helpful if you are testing an app and you want to check it will connect to the secondary even though it's in READ only mode. So think of it as everything GRS does but with a READ also for that specific scenario.

upvoted 3 times

✉ **sawanti** 8 months ago

RA-GRS is much more expensive than GRS as you also want to read that data. Storage should be as cheap as possible. BlobStorage is a legacy type, but Microsoft allows legacy datatypes for scenarios where it can be more beneficial, hence A is correct.  
upvoted 2 times

✉ **sw1000** 10 months, 2 weeks ago

App 1:  
BlockBlobStorage with Premium performance and zone redundant storage (ZRS) replication

Storage for Application1 must provide the highest possible transaction rates and the lowest possible latency. - Yes  
Storage for both applications must be available in an event of datacenter failure. - Yes  
Storage for both applications must be optimized for uploads and downloads. - Yes

App2:

BlobStorage with Standard Performance, cool access tier and GRS replication

Fulfils the requirements?

Storage for Application2 must provide the lowest possible storage costs per GB. - Yes

Storage for both applications must be available in an event of datacenter failure. - Yes

Storage for both applications must be optimized for uploads and downloads. - Yes

upvoted 12 times

✉ **Vladobate** 7 months, 2 weeks ago

Storage for Application2 must provide the lowest possible storage costs per GB - how we accomplish this with cool access tier?  
upvoted 1 times

✉ **Elecktrus** 6 months, 4 weeks ago

Cool storage is less expensive than premium.  
We are talking about storage cost, not access cost  
upvoted 2 times

✉ **Darkeh** 8 months ago

AGREED!

upvoted 1 times

✉ **SD\_Coordinator** 1 year, 1 month ago

I recommend the following Azure Storage account configurations for Application1 and Application2:

Application1: "BlockBlobStorage with Premium performance and Zone-redundant storage (ZRS) replication." This configuration offers the highest possible transaction rates and the lowest possible latency due to its Premium performance tier. ZRS replication ensures availability in the event of a datacenter failure.

Application2: "General purpose v2 with Standard performance, Hot access tier, and Read-access geo-redundant storage replication." This configuration provides lower storage costs per GB due to its Standard performance tier and Hot access tier. Read-access geo-redundant storage replication ensures data availability in the event of a datacenter failure and allows for optimized uploads and downloads.

upvoted 2 times

✉ **SD\_Coordinator** 1 year, 1 month ago

I meant cool access tier.\*

upvoted 2 times

□  **betterthanlife** 11 months, 1 week ago

Not at all optimized for uploads if the target is read-only.  
upvoted 1 times

□  **zellck** 1 year, 1 month ago

1. BlockBlobStorage with Premium performance and ZRS replication  
2. GPv2 with Standard performance, Cool access tier, and RA-GRS replication

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-block-blob-premium>

Premium block blob storage accounts make data available via high-performance hardware. Data is stored on solid-state drives (SSDs) which are optimized for low latency. SSDs provide higher throughput compared to traditional hard drives. File transfer is much faster because data is stored on instantly accessible memory chips. All parts of a drive accessible at once. By contrast, the performance of a hard disk drive (HDD) depends on the proximity of data to the read/write heads.

upvoted 7 times

□  **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/storage/common/storage-redundancy#supported-storage-account-types>  
BlobStorage is legacy and not recommended.

upvoted 3 times

□  **betterthanlife** 11 months, 1 week ago

The question asks nothing about what MS recommends to make you do what they want you to do so they can consolidate control... Blob storage is still a service offering & is still supported.  
"The following table describes the legacy storage account types. These account types aren't recommended by Microsoft, but may be used in certain scenarios:" (like because it's cheaper & offers GRS)  
<https://learn.microsoft.com/en-us/azure/storage/common/storage-account-overview#legacy-storage-account-types>  
upvoted 1 times

□  **sG9** 1 year, 1 month ago

gents, for app2 it requires capabilities for UPLOAD and DOWNLOAD. RA-GRS will not suffice here as it is READ ONLY (cannot UPLOAD). answer is A in my opinion.  
upvoted 4 times

□  **zellck** 1 year, 1 month ago

For RA-GRS, you can of course still read and write to primary region. Read-only applies only to secondary region.  
upvoted 1 times

□  **betterthanlife** 11 months, 1 week ago

Yes, & if there is a fail-over you do not meet the requirement "Storage for both applications must be optimized for uploads and downloads"  
upvoted 2 times

□  **Putra19** 1 year, 2 months ago

answer is correct. General Purpose v2 storage is designed to be a more cost-effective alternative to Blob storage for use cases that do not require the high-performance, low-latency access of Blob storage.  
upvoted 1 times

□  **VBK8579** 1 year, 2 months ago

Application1:  
BlockBlobStorage with Premium performance and Zone-redundant storage (ZRS) replication

Application2:  
General purpose v2 with Standard performance, Cool access tier, and Read-access geo-redundant storage (RA-GRS) replication  
upvoted 8 times

□  **FabrytDev** 1 year, 3 months ago

I would say the answer is correct. First one is obvious and explained by others. As for Application2 it is specifically said that cost has to be lowest "per GB", not lowest in general. So even tho RA-GRS is more expensive than GRS, general purpose V2 still provides better price per gigabyte as said in documentation.

<https://learn.microsoft.com/en-us/azure/storage/common/storage-account-upgrade?tabs=azure-portal>

upvoted 2 times

□  **[Removed]** 1 year, 2 months ago

The Azure storage type that provides the lowest cost per GB is Azure Blob Storage  
upvoted 2 times

□  **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/storage/common/storage-redundancy#supported-storage-account-types>  
BlobStorage is legacy and not recommended.  
upvoted 1 times

□  **betterthanlife** 11 months, 1 week ago

Thumbs down... still an Azure offering, supported, & let's not drink the coolaid.  
upvoted 2 times

□  **gramotei** 1 year, 3 months ago

This is very strange because BOTH uploads and downloads will be only possible with ZRS. if it would be downloads only we could use RA-GRS, GZRS would work but it's not present as an option. maybe typo in question. I would go with Premium ZRS because with one option it 's cheapest upvoted 1 times

 **UWSFish** 2 weeks, 1 day ago

Bingo, must support uploads and downloads AND be available during a datacenter failure which RA can not do.  
upvoted 1 times

**HOTSPOT -**

You plan to develop a new app that will store business critical data. The app must meet the following requirements:

- Prevent new data from being modified for one year.
- Maximize data resiliency.
- Minimize read latency.

What storage solution should you recommend for the app? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Storage Account type:

Premium block blobs
Standard general-purpose v1
Standard general-purpose v2

Redundancy:

Zone-redundant storage (ZRS)
Locally-redundant storage (LRS)

Correct Answer:

**Answer Area**

Storage Account type:

Premium block blobs
Standard general-purpose v1
Standard general-purpose v2

Redundancy:

Zone-redundant storage (ZRS)
Locally-redundant storage (LRS)

Box 1: Standard general-purpose v2

Standard general-purpose v2 supports immutable storage.

In general Standard general-purpose v2 is the preferred Microsoft recommendation.

Box 2: Zone-redundant storage (ZRS)

ZRS is more resilient compared to LRS.

Note: RA-GRS is even more resilient, but it is not an option here.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-immutable-storage>

✉  mse89  1 year, 7 months ago

To minimize read latency premium block blobs is the right answer, the immutable storage is also supported on premium tier.  
<https://docs.microsoft.com/en-us/azure/storage/blobs/immutable-storage-overview#supported-account-configurations>

upvoted 111 times

✉  ServerBrain 1 year, 3 months ago

The buzz words in this scenario are maximum and minimum, so I'm thinking minimum cost, ----->>> Standard v2..  
upvoted 1 times

✉  morito 10 months, 1 week ago

True, there are maximum and minimum requirements, but neither mention cost?

upvoted 5 times

✉  sawanti 8 months ago

Bro, can you read?

□ Prevent new data from being modified for one year. (Both Standard + Premium)

- ⇒ Maximize data resiliency. (ZRS)
- ⇒ Minimize read latency. (Premium)

Hence - Premium. There isn't ANYTHING related with keyword "cost". Why do you make it up?

upvoted 16 times

✉ **idoraemon999** 8 months, 2 weeks ago

Premium Block is not good for "data", is more suitable for media (image, video)

upvoted 1 times

✉ **santi1975** Highly Voted 1 year, 7 months ago

Agreed, no cost limits are mentioned. Correct Answer: Premium + ZRS

upvoted 55 times

✉ **ServerBrain** 1 year, 3 months ago

Even if there are no cost limits mentioned, why recommend an higher cost option when you can do it for less??? Given answers are correct..

upvoted 1 times

✉ **FabritDev** 1 year, 3 months ago

Because we have to minimize latency and Premium is better in that regard.

upvoted 6 times

✉ **xRiot007** 1 month ago

"Even if there are no cost limits mentioned, why recommend an higher cost option when you can do it for less???" - Premium has lower latency.

upvoted 1 times

✉ **Ivanvazovv** 1 year, 2 months ago

Because one of the requirements is to minimize read latency which requires premium tier.

upvoted 11 times

✉ **Lazylinux** Most Recent 4 days, 1 hour ago

As some others indicated

premium block blobs - High performance (Low latency) and WORM policy applies to it

ZRS offers data resiliency

further info found here

<https://learn.microsoft.com/en-us/azure/virtual-machines/premium-storage-performance>

<https://learn.microsoft.com/en-us/azure/storage/blobs/immutable-storage-overview>

upvoted 1 times

✉ **MichaelMelb** 2 weeks ago

premium block blobs + ZRS seems to be the correct answer

"premium block blobs" meets "minimize latency" better than General V2

upvoted 2 times

✉ **varinder82** 3 weeks, 3 days ago

Final Answer:

1. Premium

2. ZRS

upvoted 3 times

✉ **TJ001** 2 months, 1 week ago

Premium blockblobs „timebased retention policies are supported <https://learn.microsoft.com/en-us/azure/storage/blobs/immutable-storage-overview#supported-account-configurations>

latency is less for premium

cost is not a factor considered in the question

upvoted 1 times

✉ **basak** 6 months, 2 weeks ago

Premium + ZRS

upvoted 5 times

✉ **AntonR** 7 months, 2 weeks ago

off topic: but why is it, that almost all answers on this page are wrong? Why do I always have to check comments first

upvoted 5 times

✉ **AdventureChick** 7 months ago

This is true for the three -900 level exams, as well. A LOT of wrong answers. At least the -900 level ExamTopics don't have as many duplicate questions.

upvoted 1 times

✉ **morito** 10 months, 2 weeks ago

Premium Block Blob and ZRS. Use this link <https://learn.microsoft.com/en-us/azure/storage/blobs/immutable-storage-overview#supported-account-configurations> as a reference.

upvoted 1 times

NotMeAnyWay 1 year ago

Storage Account Type: Premium Block Blobs provide high-performance, low-latency storage for unstructured data such as images, videos, and documents. However, it does not provide a built-in feature to prevent data modification. Standard General Purpose v1 or v2 can be used with the help of additional features such as Azure Blob Versioning to meet the requirement of preventing new data from being modified for one year. Since the requirement is to minimize read latency, I would recommend using the Standard General Purpose v2 storage account type which offers a higher level of performance and scalability.

Redundancy: To maximize data resiliency, I would recommend using Zone-Redundant Storage (ZRS) replication. This replicates data across multiple zones within a single region, providing high availability and resiliency in case of a zone failure.

Therefore, the recommended storage solution for the given scenario would be to use Standard General Purpose v2 storage account type with ZRS redundancy and additional features such as Azure Blob Versioning to prevent new data from being modified for one year while minimizing read latency.

upvoted 5 times

C\_M\_M 11 months, 3 weeks ago

Blob storage offers data lock irrespective of which account- premium or V2. So I don't see how this V2 immutability means much here. You can apply readONLY lock on the containers for both account types.

Besides immutability (time-based retention and legal hold) are supported in V2 & premium blob - <https://learn.microsoft.com/en-us/azure/storage/blobs/immutable-storage-overview>

So latency should be the main deciding factor here.

upvoted 3 times

jj2222 1 year, 1 month ago

Box 1: Premium Block blobs

Box 2: ZRS

upvoted 2 times

RamChagol 1 year, 1 month ago

Correct Answer is Premium + ZRS. Premium supports immutable policy

upvoted 4 times

Rams\_84z06n 1 year, 1 month ago

Topic 2 Q21 - The answer should be premium block blobs, container access policy. (data access charges - not storage cost- must be minimized) - agree?

upvoted 2 times

zellck 1 year, 1 month ago

1. Premium block blobs

2. ZRS

<https://learn.microsoft.com/en-us/azure/storage/blobs/immutable-storage-overview#supported-account-configurations>

<https://learn.microsoft.com/en-us/azure/storage/common/storage-redundancy#supported-storage-account-types>

ZRS

- Premium block blobs

<https://learn.microsoft.com/en-us/azure/storage/common/storage-redundancy#zone-redundant-storage>

Zone-redundant storage (ZRS) replicates your storage account synchronously across three Azure availability zones in the primary region. Each availability zone is a separate physical location with independent power, cooling, and networking. ZRS offers durability for storage resources of at least 99.999999999% (12 9's) over a given year.

upvoted 1 times

VBK8579 1 year, 2 months ago

Storage Account type: Premium block blobs

Redundancy: Zone-redundant storage (ZRS)

upvoted 5 times

OPT\_001122 1 year, 2 months ago

1. premium block blobs

2. ZRS

upvoted 4 times

mercuryit 1 year, 3 months ago

First is Premium Block blobs, it is not write to minimize costs like in question 10

upvoted 1 times

You plan to deploy 10 applications to Azure. The applications will be deployed to two Azure Kubernetes Service (AKS) clusters. Each cluster will be deployed to a separate Azure region.

The application deployment must meet the following requirements:

- Ensure that the applications remain available if a single AKS cluster fails.
- Ensure that the connection traffic over the internet is encrypted by using SSL without having to configure SSL on each container.

Which service should you include in the recommendation?

- A. Azure Front Door
- B. Azure Traffic Manager
- C. AKS ingress controller
- D. Azure Load Balancer

**Correct Answer: A**

Azure Front Door supports SSL.

Azure Front Door, which focuses on global load-balancing and site acceleration, and Azure CDN Standard, which offers static content caching and acceleration.

The new Azure Front Door brings together security with CDN technology for a cloud-based CDN with threat protection and additional capabilities.

Reference:

<https://docs.microsoft.com/en-us/azure/frontdoor/front-door-overview>

*Community vote distribution*

A (92%) 6%

✉  **Gowind2** Highly Voted 1 year, 7 months ago

**Selected Answer: A**

Correct answer A

<https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/load-balancing-overview>

Front Door is an application delivery network that provides global load balancing and site acceleration service for web applications. It offers Layer 7 capabilities for your application like SSL offload, path-based routing, fast failover, caching, etc. to improve performance and high-availability of your applications.

Traffic Manager does not provide SSL Offloading.

And the other options are not global options (multi-region)

upvoted 28 times

✉  **betterthanlife** 11 months, 2 weeks ago

Agreed, & in fact when you look at AKS baseline for multiregion clusters you'll see Azure Front Door is the, well, um, front door.

<https://learn.microsoft.com/en-us/azure/architecture/reference-architectures/containers/aks-multi-region/aks-multi-cluster>

upvoted 4 times

✉  **taer** Highly Voted 1 year, 7 months ago

**Selected Answer: A**

Correct answer A

upvoted 5 times

✉  **Lazylinux** Most Recent 4 days ago

**Selected Answer: A**

AZ FD supports both HTTP and HTTPS and global

Traffic Manager is Global but it is DNS based and doesn't encrypt traffic

other two are NOT regional more like local i.e. per regions (can be across region but you need multiple)

upvoted 1 times

✉  **Som\_triv** 6 months, 3 weeks ago

Correct answer A

<https://learn.microsoft.com/en-us/azure/architecture/reference-architectures/containers/aks-multi-region/aks-multi-cluster>

AKS Ingress controller - It is a component of the AKS cluster and not a service to handle traffic between 2 or more AKS clusters. An Ingress controller abstracts away the complexity of Kubernetes application traffic routing and provides a bridge between Kubernetes services and external ones.

upvoted 1 times

✉  **GS300** 11 months, 3 weeks ago

A is correct, see blueprint:

<https://learn.microsoft.com/en-us/azure/architecture/reference-architectures/containers/aks-multi-region/aks-multi-cluster>

upvoted 1 times

✉ **sherwindaniel** 11 months, 4 weeks ago

An AKS Ingress controller is a Kubernetes resource that allows the management of external access to the services in an AKS cluster. It provides traffic routing and load balancing for inbound traffic to the applications running in the cluster.

By using an AKS Ingress controller, you can ensure that the applications remain available if a single AKS cluster fails. The controller can route traffic to the remaining available AKS cluster(s), ensuring that the application remains available to users.

Additionally, an AKS Ingress controller supports SSL/TLS encryption of internet traffic, which ensures that the connection traffic over the internet is encrypted by using SSL without having to configure SSL on each container.

upvoted 1 times

✉ **Lazylinux** 4 days ago

Yes correct the above but you missing one thing and that is it is NOT global i.e. different regions, it refers to Single AKS cluster failure failover within the same region

upvoted 1 times

✉ **sherwindaniel** 11 months, 4 weeks ago

Therefore, an AKS Ingress controller would be a suitable service to include in the recommendation to meet the requirements of ensuring high availability of the applications and encrypted internet traffic. Azure Front Door and Azure Traffic Manager are also services that can be used for traffic routing, but they do not provide SSL encryption natively. Azure Load Balancer can provide traffic routing and load balancing for inbound traffic, but it does not support SSL encryption natively.

upvoted 1 times

✉ **NotMeAnyWay** 1 year ago

**Selected Answer: C**

Azure Front Door is also a viable option for providing traffic routing, load balancing, and failover across multiple regions. It can provide SSL termination and caching for faster performance.

However, compared to the AKS ingress controller, Azure Front Door is a higher-level service that operates at the HTTP/HTTPS layer and is optimized for HTTP traffic. It is typically used for web applications that require advanced routing, traffic management, and SSL offloading.

On the other hand, the AKS ingress controller is a Kubernetes-native solution that operates at the layer 7 (HTTP) and layer 4 (TCP) level, and can provide more granular control over traffic routing and application-level routing rules.

Therefore, the choice between Azure Front Door and AKS ingress controller ultimately depends on the specific requirements and characteristics of the applications being deployed. For applications running on Kubernetes, using the AKS ingress controller is often the most straightforward and cost-effective option.

upvoted 3 times

✉ **NotMeAnyWay** 9 months ago

Further Supporting information: A. Azure Front Door.

Azure Front Door provides both global load balancing and site acceleration, which would help keep the applications available if a single AKS cluster fails by routing traffic to the other region.

In addition, Azure Front Door provides SSL termination at the edge node, closest to the user. This ensures that the connection traffic over the internet is encrypted using SSL, without having to configure SSL on each container.

The other options do not meet all the requirements:

B. Azure Traffic Manager operates at the DNS level and wouldn't directly handle SSL termination.

C. An AKS ingress controller could manage internal Kubernetes networking, but it doesn't handle global load balancing across different Azure regions.

D. Azure Load Balancer operates at the transport layer (Layer 4) and would require manual SSL configuration on each container for encryption.

upvoted 1 times

✉ **malcubierre** 1 year ago

**Selected Answer: A**

Azure Traffic Manager is at DNS level so you have to configure SSL on every container.... -> Azure Front Door is the choice

upvoted 2 times

✉ **jj22222** 1 year, 1 month ago

**Selected Answer: A**

azure front door

upvoted 1 times

✉ **zellck** 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/architecture/guide/technology-choices/load-balancing-overview#azure-load-balancing-services>  
Front Door is an application delivery network that provides global load balancing and site acceleration service for web applications. It offers Layer 4 capabilities for your application like SSL offload, path-based routing, fast failover, caching, etc. to improve performance and high-availability of your applications.

upvoted 2 times

✉ **totalz** 1 year, 1 month ago

I was surprised to find out that Traffic Manager doesn't support https. Can someone provide some good example of its usage?

upvoted 1 times

✉ **totalz** 1 year, 1 month ago

Please delete the this one and above, that statement is incorrect.

upvoted 2 times

✉ **dagomo** 1 year, 2 months ago

**Selected Answer: A**

<https://github.com/phillipgibson/Cloud-Azure-AKS-Using-AFD-with-AKS#using-azure-front-door-service-afd-with-azure-kubernetes-service-aks-walkthrough>

upvoted 2 times

✉ **VBK8579** 1 year, 2 months ago

**Selected Answer: A**

A. Azure Front Door

upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: A**

A. Azure Front Door

upvoted 1 times

✉ **Galron** 1 year, 5 months ago

AKS Ingress Controller is part of App GW which is not Global.

upvoted 1 times

✉ **simonseztech** 1 year, 5 months ago

**Selected Answer: A**

Front Door support SSL offloading.

upvoted 1 times

✉ **Xinx** 1 year, 6 months ago

AKS ingress controller seems like not support multi region

upvoted 2 times

✉ **theboywonder** 9 months, 3 weeks ago

ingress controller is for each cluster only, if you have 2 clusters in different region, then you support different regions, however the answer here seems to be front door, because we don't want to set this for each container

upvoted 1 times

**HOTSPOT -**

You have an on-premises file server that stores 2 TB of data files.

You plan to move the data files to Azure Blob Storage in the West Europe Azure region.

You need to recommend a storage account type to store the data files and a replication solution for the storage account. The solution must meet the following requirements:

- Be available if a single Azure datacenter fails.
- Support storage tiers.
- Minimize cost.

What should you recommend? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Storage Account type:

Premium block blobs
Standard general-purpose v1
Standard general-purpose v2

Redundancy:

Geo-redundant storage (GRS)
Zone-redundant storage (ZRS)
Locally-redundant storage (LRS)
Read-access geo-redundant storage (RA-GRS)

Correct Answer:

**Answer Area**

Storage Account type:

Premium block blobs
Standard general-purpose v1
Standard general-purpose v2

Redundancy:

Geo-redundant storage (GRS)
Zone-redundant storage (ZRS)
Locally-redundant storage (LRS)
Read-access geo-redundant storage (RA-GRS)

Box 1: Standard general-purpose v2

Standard general-purpose v2 meets the requirements and minimizes the costs.

Box 2: Zone-redundant storage (ZRS)

ZRS protects against a Datacenter failure, while minimizing the costs.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy>

  **KarthikSiva3535**  1 year, 6 months ago

v2+ ZRS

upvoted 23 times

  **Intecs**  1 year, 6 months ago

Guys, there are more datacenters in one Zone, Locally redundant means that there are more rooms with servers in datacenter. Zone redundant means that there are more datacenters (buildings) within one city/street -> ZR is enough.

upvoted 15 times

  **[Removed]**  3 months ago

Agree with v2 + ZRS

upvoted 3 times

✉  **daniloaclima** 9 months, 2 weeks ago

Standard v2+ ZRS (FROM: Brazil) ;-)

upvoted 3 times

✉  **AHUI** 10 months, 3 weeks ago

Ans: GPV2 and ZRS

Premium Block Blob does not offer storage tier, always hot

upvoted 2 times

✉  **zellck** 1 year, 1 month ago

1. Standard GPv2

2. ZRS

<https://learn.microsoft.com/en-us/azure/storage/common/storage-redundancy#zone-redundant-storage>

Zone-redundant storage (ZRS) replicates your storage account synchronously across three Azure availability zones in the primary region. Each availability zone is a separate physical location with independent power, cooling, and networking. ZRS offers durability for storage resources of at least 99.999999999% (12 9's) over a given year.

With ZRS, your data is still accessible for both read and write operations even if a zone becomes unavailable. If a zone becomes unavailable, Azure undertakes networking updates, such as DNS repointing. These updates may affect your application if you access data before the updates have completed. When designing applications for ZRS, follow practices for transient fault handling, including implementing retry policies with exponential back-off.

upvoted 6 times

✉  **A\_GEE** 1 year, 4 months ago

Answers are correct. Gv2 + ZRS

upvoted 5 times

✉  **tiru** 1 year, 6 months ago

zone redundant storage doesn't help if single Azure datacenter fails it should be geo redundant storage

upvoted 3 times

✉  **Pamban** 1 year, 6 months ago

it does.. in ZRS, your data will be replicated across multiple availability zones and your data will be available if a datacenter fails see:

<https://learn.microsoft.com/en-us/azure/storage/common/storage-redundancy>

upvoted 8 times

✉  **most\_lenyora** 1 year, 7 months ago

Correct!

upvoted 5 times

**HOTSPOT -**

You have an Azure web app named App1 and an Azure key vault named KV1.

App1 stores database connection strings in KV1.

App1 performs the following types of requests to KV1:

- Get
- List
- Wrap
- Delete

Unwrap -

- 
- Backup
- Decrypt
- Encrypt

You are evaluating the continuity of service for App1.

You need to identify the following if the Azure region that hosts KV1 becomes unavailable:

- To where will KV1 fail over?
- During the failover, which request type will be unavailable?

What should you identify? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

To where will KV1 fail over?

A server in the same availability set
A server in the same fault domain
A server in the paired region
A virtual machine in a scale set

During the failover, which request type will be unavailable?

Get
List
Wrap
Delete
Unwrap
Backup
Decrypt
Encrypt

Correct Answer:

## Answer Area

To where will KV1 fail over?

A server in the same availability set
A server in the same fault domain
A server in the paired region
A virtual machine in a scale set

During the failover, which request type will be unavailable?

Get
List
Wrap
Delete
Unwrap
Backup
Decrypt
Encrypt

Box 1: A server in the paired region

The contents of your key vault are replicated within the region and to a secondary region at least 150 miles away, but within the same geography to maintain high durability of your keys and secrets.

Regions are paired for cross-region replication based on proximity and other factors.

Box 2: Delete -

During failover, your key vault is in read-only mode. Requests that are supported in this mode are:

List certificates -

Get certificates -

List secrets -

Get secrets -

List keys -

Get (properties of) keys -

Encrypt -

Decrypt -

Wrap -

Unwrap -

Verify -

Sign -

Backup -

Reference:

<https://docs.microsoft.com/en-us/azure/key-vault/general/disaster-recovery-guidance>

  Gowind2 1 year, 7 months ago

Correct.

<https://docs.microsoft.com/en-us/azure/key-vault/general/disaster-recovery-guidance>

In the rare event that an entire Azure region is unavailable, the requests that you make of Azure Key Vault in that region are automatically routed (failed over) to a secondary region except in the case of the Brazil South and Qatar Central region.

During failover, your key vault is in read-only mode. Requests that are supported in this mode are:

List certificates  
Get certificates  
List secrets  
Get secrets  
List keys  
Get (properties of) keys  
Encrypt  
Decrypt  
Wrap  
Unwrap  
Verify  
Sign  
Backup

upvoted 29 times

✉️ **Darkx** Highly Voted 1 year, 6 months ago

appeared on 11th Oct 2022

upvoted 14 times

✉️ **MiniLa92** Most Recent 2 months, 2 weeks ago

Got this ques in my exam on 29th Jan 2024 and scored 950. I chose given answer.

upvoted 3 times

✉️ **yonie** 11 months, 3 weeks ago

Correct

The contents of your key vault are replicated within the region and to a secondary region at least 150 miles away

During failover, your key vault is in read-only mode

<https://learn.microsoft.com/en-us/azure/key-vault/general/disaster-recovery-guidance>

upvoted 2 times

✉️ **jj22222** 1 year, 1 month ago

1. kv - failover to server in paired region
2. during failover, delete is unavailable

upvoted 2 times

✉️ **zellck** 1 year, 1 month ago

1. Server in paired region
2. Delete

<https://learn.microsoft.com/en-us/azure/key-vault/general/disaster-recovery-guidance>

The contents of your key vault are replicated within the region and to a secondary region at least 150 miles away, but within the same geography to maintain high durability of your keys and secrets.

<https://learn.microsoft.com/en-us/azure/key-vault/general/disaster-recovery-guidance#failover>  
During failover, your key vault is in read-only mode.

During failover, you won't be able to make changes to key vault properties. You won't be able to change access policy or firewall configurations and settings.

After a failover is failed back, all request types (including read and write requests) are available.

upvoted 7 times

✉️ **zellck** 1 year, 1 month ago

Got this in Feb 2023 exam.  
upvoted 8 times

✉️ **VBK8579** 1 year, 2 months ago

Answer:

A server in the paired region

Delete

upvoted 1 times

✉️ **Born\_Again** 1 year, 4 months ago

During failover, your key vault is in read-only mode. Requests that are supported in this mode are:

List certificates  
Get certificates  
List secrets  
Get secrets  
List keys  
Get (properties of) keys  
Encrypt  
Decrypt  
Wrap  
Unwrap  
Verify

Sign  
Backup

upvoted 2 times

✉  **most\_lenyora** 1 year, 7 months ago

Correct!

upvoted 2 times

**DRAG DROP -**

Your company identifies the following business continuity and disaster recovery objectives for virtual machines that host sales, finance, and reporting applications in the company's on-premises data center:

- The sales application must be able to fail over to a second on-premises data center.
- The reporting application must be able to recover point-in-time data at a daily granularity. The RTO is eight hours.
- The finance application requires that data be retained for seven years. In the event of a disaster, the application must be able to run from Azure. The recovery time objective (RTO) is 10 minutes.

You need to recommend which services meet the business continuity and disaster recovery objectives. The solution must minimize costs.

What should you recommend for each application? To answer, drag the appropriate services to the correct applications. Each service may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

**Services** Azure Backup only Azure Site Recovery and Azure Backup Azure Site Recovery only**Answer Area**

Sales:  Service or Services

Finance:  Service or Services

Reporting:  Service or Services

**Correct Answer:****Services** Azure Backup only Azure Site Recovery and Azure Backup Azure Site Recovery only**Answer Area**

Sales:  Azure Site Recovery only

Finance:  Azure Site Recovery and Azure Backup

Reporting:  Azure Backup only

Box 1: Azure Site Recovery -

**Azure Site Recovery -**

Coordinates virtual-machine and physical-server replication, failover, and fallback.

DR solutions have low Recovery point objectives; DR copy can be behind by a few seconds/minutes.

DR needs only operational recovery data, which can take hours to a day. Using DR data for long-term retention is not recommended because of the fine-grained data capture.

Disaster recovery solutions have smaller Recovery time objectives because they are more in sync with the source.

Remote monitor the health of machines and create customizable recovery plans.

Box 2: Azure Site Recovery and Azure Backup

Backup ensures that your data is safe and recoverable while Site Recovery keeps your workloads available when/if an outage occurs.

Box 3: Azure Backup only -

**Azure Backup -**

Backs up data on-premises and in the cloud

Have wide variability in their acceptable Recovery point objective. VM backups usually one day while database backups as low as 15 minutes.

Backup data is typically retained for 30 days or less. From a compliance view, data may need to be saved for years. Backup data is ideal for archiving in such instances.

Because of a larger Recovery point objective, the amount of data a backup solution needs to process is usually much higher, which leads to

a longer Recovery time objective.

Reference:

<https://lighthousemsp.com/whats-the-difference-between-azure-backup-and-azure-site-recovery/>

✉  **Snownoodles**  1 year, 7 months ago

The given answer is correct.

They put Finance and Reporting in reversed order in question, they may confuse people like me during exam  
upvoted 66 times

✉  **airmancompsci** 1 year, 4 months ago

Took the AZ-305 on 12/7 and passed with a 935 only using this question bank (I have the Contributor access). I did not use AZ-304 or any other question bank. This question was on my exam and the two are reversed on the exam as well! This warning literally saved me on this.  
upvoted 38 times

✉  **KrisDeb** 1 year, 3 months ago

Thanks for this, I knew something's wrong with my answer...  
upvoted 4 times

✉  **elmugrat** 1 year, 6 months ago

Ty for mentioning it  
upvoted 4 times

✉  **Xinx** 1 year, 6 months ago

You saved me. I spent long time to understand the answer.  
upvoted 4 times

✉  **Dudulle** 1 year, 5 months ago

Yeah, I fell for it as well ! How freaking shitty those exams questions from MS can be, really, FFS !  
upvoted 4 times

✉  **jhargett1**  1 year, 4 months ago

Easy way to remember this:

RTO - backup  
Failover - recovery  
upvoted 50 times

✉  **zellck**  1 year, 1 month ago

Sales: ASR only  
Finance: ASR and Azure Backup  
Reporting: Azure Backup only

<https://learn.microsoft.com/en-us/azure/site-recovery/site-recovery-overview#what-does-site-recovery-provide>  
On-premises VM replication

- You can replicate on-premises VMs and physical servers to Azure, or to a secondary on-premises datacenter. Replication to Azure eliminates the cost and complexity of maintaining a secondary datacenter.

<https://learn.microsoft.com/en-us/azure/backup/about-azure-vm-restore#concepts>  
Recovery Point (also known as Restore Point): A recovery point is a copy of the original data that's being backed up.  
upvoted 4 times

✉  **zellck** 1 year, 1 month ago

Got this in Feb 2023 exam.  
upvoted 3 times

✉  **ckyap** 1 year, 4 months ago

It came out in my exam today 1st Dec 2022, answer provided should be correct  
upvoted 5 times

✉  **Gowind2** 1 year, 7 months ago

Correct.  
Azure Backup delivers these key benefits:  
Offload on-premises backup: Azure Backup offers a simple solution for backing up your on-premises resources to the cloud. Get short and long-term backup without the need to deploy complex on-premises backup solutions.  
<https://docs.microsoft.com/en-us/azure/backup/backup-overview>

As an organization, you need to adopt a business continuity and disaster recovery (BCDR) strategy that keeps your data safe, and your apps and workloads online, when planned and unplanned outages occur.  
<https://docs.microsoft.com/en-us/azure/site-recovery/site-recovery-overview>  
upvoted 4 times

✉  **most\_lenyora** 1 year, 7 months ago

Correct!  
upvoted 2 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Managed Instance Business Critical
- B. Azure SQL Database Premium
- C. Azure SQL Database Basic
- D. Azure SQL Managed Instance General Purpose

**Correct Answer: D**

General Purpose service tier provides zone redundant availability.

There are two high availability architectural models:

- \* Standard availability model that is based on a separation of compute and storage. It relies on high availability and reliability of the remote storage tier. This architecture targets budget-oriented business applications that can tolerate some performance degradation during maintenance activities.
- \* Premium availability model that is based on a cluster of database engine processes. It relies on the fact that there is always a quorum of available database engine nodes. This architecture targets mission-critical applications with high IO performance, high transaction rate and guarantees minimal performance impact to your workload during maintenance activities.

Note: Zone-redundant configuration for the general purpose service tier is offered for both serverless and provisioned compute. This configuration utilizes Azure

Availability Zones allow to replicate databases across multiple physical locations within an Azure region. By selecting zone-redundancy, you can make your new and existing serverless and provisioned general-purpose single databases and elastic pools resilient to a much larger set of failures, including catastrophic datacenter outages, without any changes of the application logic.

Incorrect:

Not A: Azure SQL Managed Instance Business Critical is more expensive.

Not B: Premium is more expensive.

Not C: Azure SQL Database Basic, and General purpose provide only locally redundant availability.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla>

*Community vote distribution*

B (96%)	2%
---------	----

✉  **ckyap** Highly Voted 1 year, 4 months ago

It came out in the exam today at 1st Dec22, I selected B, should be correct  
upvoted 29 times

✉  **Gowind2** Highly Voted 1 year, 7 months ago

**Selected Answer: B**

<https://docs.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>  
Zone-redundant configuration is not available in SQL Managed Instance. In SQL Database this feature is only available when the Gen5 hardware is selected.

To prevent Data Loss, Premium/Business Critical is required:

The primary node constantly pushes changes to the secondary nodes in order and ensures that the data is persisted to at least one secondary replica before committing each transaction. This process guarantees that if the primary node crashes for any reason, there is always a fully synchronized node to fail over to.

upvoted 17 times

✉  **mufflon** 1 year, 6 months ago

Yes, of the selectable alternatives, it can only be premium  
upvoted 1 times

✉  **randomGame** 1 year, 4 months ago

Today (20th nov. 2022), ZRS is in preview with SQL MI.

"This feature is currently in preview for SQL Managed Instance, and only available on the Business Critical service tier. In SQL Database, when using the Business Critical tier, zone-redundant configuration is only available when the Gen5 hardware is selected."

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#premium-and-business-critical-service-tier-zone-redundant-availability>

upvoted 5 times

✉ **Lazylinux** Most Recent 3 days, 23 hours ago

I would go for Azure SQL Database Premium (B) based on below

Zone-redundant availability is available to databases in the Premium, Business Critical, General Purpose and Hyperscale service tiers, and not the Basic and Standard service tiers of the DTU-based purchasing model. Each service tier implements zone-redundant availability differently.

This brings B and D in competition, however cost minimized

B is winner based on this and you can sun cost calculator

<https://learn.microsoft.com/en-us/answers/questions/1057631/azure-sql-db-vs-azure-sql-managed-instance-cost>

upvoted 1 times

✉ **Kaps19** 1 week, 4 days ago

Answer is D: Zone-redundant configuration is in public preview for the General Purpose service tier and generally available for the Business Critical service tier.

upvoted 1 times

✉ **Markoduk** 3 weeks, 2 days ago

**Selected Answer: D**

<https://learn.microsoft.com/en-us/azure/azure-sql/managed-instance/high-availability-sla?view=azuresql-mi&preserve-view=true>

<https://learn.microsoft.com/en-us/azure/azure-sql/managed-instance/high-availability-sla?view=azuresql-mi&preserve-view=true#supported-regions-for-business-critical-instances>

Supported regions for Business Critical instances

Zone redundancy for Business Critical SQL Managed Instance is supported in the following regions:

D is correct

upvoted 1 times

✉ **ahmedkmj** 4 weeks, 1 day ago

Not sure why its not D, I can see that SQL MI is supporting ZRS

<https://learn.microsoft.com/en-us/azure/azure-sql/managed-instance/high-availability-sla?view=azuresql>

upvoted 1 times

✉ **Joonzz** 3 weeks, 2 days ago

perhaps of this > <https://azure.microsoft.com/en-us/updates/public-preview-azure-sql-updates-for-midmarch-2024/>. I would say MI General Purpose - not sure about min cost

upvoted 1 times

✉ **kingfighters** 2 months, 2 weeks ago

when I see this: Costs must be minimized, the first thing is remove D. Azure SQL Managed Instance General Purpose out of my choice..

upvoted 2 times

✉ **David\_Webb** 2 months, 3 weeks ago

**Selected Answer: A**

A. Azure SQL Managed Instance Business Critical

There are zone redundant features on Azure SQL Managed Instance. To enable Zone redundant computing, the selected backup storage redundancy must be ZRS or GZRS. With the right configuration, you can have zone redundant on SQL Managed Instance. As of today, Zone redundancy for the General Purpose service tier is currently in preview. Thus, I would pick A as the correct answer.

<https://learn.microsoft.com/en-us/azure/azure-sql/managed-instance/high-availability-sla?view=azuresql>

upvoted 1 times

✉ **David\_Webb** 2 months, 3 weeks ago

Sorry, the answer should be B and must be SQL Database Premium. Since one of the requirements is to minimize the cost and SQL Database Premium is cheaper than Azure SQL Managed Instance Business Critical.

upvoted 1 times

✉ **BShelat** 4 months ago

"B" should be the answer as ZRS configuration is still in public preview stage for Azure SQL Managed instance General Purpose.

upvoted 1 times

✉ **mmarkiew** 4 months, 2 weeks ago

The answer is B.

Azure SQL Database: Zone-redundant availability is available to databases in the General Purpose, Premium, Business Critical and Hyperscale service tiers of the vCore purchasing model, and not the Basic and Standard service tiers of the DTU-based purchasing model.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#zone-redundant-availability>

Azure SQL Managed Instance: Zone-redundant configuration is in public preview for the General Purpose service tier.

<https://learn.microsoft.com/en-us/azure/azure-sql/managed-instance/high-availability-sla?view=azuresql#supported-regions-for-general-purpose-instances>

upvoted 1 times

✉ **mark\_af** 5 months ago

**Selected Answer: B**

Its B, check this source:

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

A/D - SQL MI doesnt provide zone redundancy

C - Basic doesnt provide zore redundancy

upvoted 3 times

✉️  **mmarkiew** 4 months, 2 weeks ago

Agree that the answer is B, but to clarify, SQL MI does in fact support zone redundancy. However, this feature is in preview for the General Purpose service tier as of Nov 2023.

Source:

<https://learn.microsoft.com/en-us/azure/azure-sql/managed-instance/high-availability-sla?view=azuresql#supported-regions-for-general-purpose-instances>

upvoted 1 times

✉️  **christhai** 5 months, 1 week ago

B IS CORRECT

upvoted 1 times

✉️  **ArunS005** 6 months, 1 week ago

**Selected Answer: B**

The correct answer is B "Azure SQL Database Premium".

upvoted 2 times

✉️  **ntma3b** 6 months, 2 weeks ago

B is the correct answer.

Zone-redundant is currently in preview for SQL Managed Instance, and is only available for the Business Critical service tier.

D - SQL Managed Instance General Purpose does not support Zone-redundant as of now. So it is out of the question.

upvoted 1 times

✉️  **Leocan** 7 months, 1 week ago

**Selected Answer: B**

B is the correct answer.

upvoted 1 times

✉️  **NotMeAnyWay** 1 year ago

**Selected Answer: B**

The best option would be B.

\*\*Azure SQL Database Premium\*\*. It provides high availability and failover capabilities, including the ability to remain available in the event of a zone outage, and supports failover between replicas without any data loss. Additionally, it provides a good balance of availability and cost, making it the most cost-effective option among the choices that still meets the requirements for high availability and failover.

upvoted 6 times

✉️  **zellck** 1 year, 1 month ago

Same as Question 14.

<https://www.examtopics.com/discussions/microsoft/view/80378-exam-az-305-topic-3-question-14-discussion>

upvoted 3 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Managed Instance Business Critical
- B. Azure SQL Database Premium
- C. Azure SQL Database Basic
- D. Azure SQL Database Hyperscale

**Correct Answer: B**

Azure SQL Database Premium meets the requirements and is the least expensive.

Note: There are two high availability architectural models:

- \* Standard availability model that is based on a separation of compute and storage. It relies on high availability and reliability of the remote storage tier. This architecture targets budget-oriented business applications that can tolerate some performance degradation during maintenance activities.
- \* Premium availability model that is based on a cluster of database engine processes. It relies on the fact that there is always a quorum of available database engine nodes. This architecture targets mission-critical applications with high IO performance, high transaction rate and guarantees minimal performance impact to your workload during maintenance activities.

Note: Zone-redundant configuration for the general purpose service tier is offered for both serverless and provisioned compute. This configuration utilizes Azure

Availability Zones  $\approx$  replicate databases across multiple physical locations within an Azure region. By selecting zone-redundancy, you can make your new and existing serverless and provisioned general-purpose single databases and elastic pools resilient to a much larger set of failures, including catastrophic datacenter outages, without any changes of the application logic.

Incorrect:

Not A: Azure SQL Managed Instance Business Critical is more expensive.

Not C: Azure SQL Database Basic, and General purpose provide only locally redundant availability.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla>

*Community vote distribution*

B (92%)

8%

✉  **Snownoodles**  1 year, 7 months ago

duplicate with Question 13.

The given answer is correct

upvoted 11 times

✉  **Elton\_Bicalho** 1 year, 6 months ago

It is not duplicated. The answer options are different(trick). Pay attention to the COST.

upvoted 4 times

✉  **mdmahanti** 1 year, 6 months ago

Even the COST aspect is duplicated.

upvoted 3 times

✉  **Dudulle** 1 year, 5 months ago

Yep, entirely same question and entirely different answer. Indeed, B is the correct one (for both, obviously). Would suggest this site to fix this ...

upvoted 2 times

✉  **dubuser**  1 year, 2 months ago

Appeared in todays exam (29/01/23)

But Premium was not in choices had Business Critical instead for Azure SQL and Azure MI

I answered Azure MI Business Critical assuming Failover meant Auto-Failover groups

Scored 903

upvoted 7 times

✉  **EXzw** 1 year ago

I think should choose Business Critical for Azure SQL, the cheapest Azure SQL BC less than 1K USD for 2vCore less than 2K USD for 4vCore and for MI BC 4vCore Cost about 2.1K USD (please correct me if i'm wrong)

upvoted 1 times

✉  **Giovanotto** Most Recent ⓘ 2 weeks, 6 days ago

**Selected Answer: C**

You can activate geo-replication on another zone even with basic tier.

So I guess is basic. Maybe in the post was different

upvoted 1 times

✉  **JoShizo** 1 month, 2 weeks ago

**Selected Answer: B**

Duplicate question but this time the suggested answer is correct. B.

upvoted 1 times

✉  **kingfighters** 1 month, 3 weeks ago

why some ppl say this question is duplicated with question 13?? question 13 correct solution is D: Azure SQL Managed Instance General Purpose, which is not existed in this question 14.

upvoted 2 times

✉  **ArunS005** 6 months, 1 week ago

**Selected Answer: B**

Duplicate to previous question. The answer is "Azure SQL Database Premium".

upvoted 1 times

✉  **theboywonder** 9 months, 3 weeks ago

duplicate, B is correct fo sho

upvoted 1 times

✉  **jj22222** 1 year, 1 month ago

this is duplicate with right answer

upvoted 1 times

✉  **zellick** 1 year, 1 month ago

Same as Question 16.

<https://www.examtopics.com/discussions/microsoft/view/79423-exam-az-305-topic-2-question-16-discussion>

upvoted 1 times

✉  **zellick** 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/sql-database-paas-overview?view=azuresql#service-tiers>

The Premium service tier is designed for OLTP applications with high transaction rates and low latency I/O requirements. It offers the highest resilience to failures by using several isolated replicas.

upvoted 1 times

✉  **VBK8579** 1 year, 2 months ago

**Selected Answer: B**

The best option would be to use Azure SQL Database Premium as it provides failover between replicas of the database with no data loss and also supports zone redundancy to ensure availability in the event of a zone outage. Additionally, Azure SQL Database Premium is more cost-effective compared to the higher-tier options such as Azure SQL Managed Instance Business Critical.

If Premium isn't given option in exam then A

upvoted 2 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

B. Azure SQL Database Premium

upvoted 1 times

✉  **Gowind2** 1 year, 7 months ago

**Selected Answer: B**

<https://docs.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

Zone-redundant configuration is not available in SQL Managed Instance. In SQL Database this feature is only available when the Gen5 hardware is selected.

To prevent Data Loss, Premium/Business Critical is required:

The primary node constantly pushes changes to the secondary nodes in order and ensures that the data is persisted to at least one secondary replica before committing each transaction. This process guarantees that if the primary node crashes for any reason, there is always a fully synchronized node to fail over to

upvoted 2 times

✉  **Joalmici** 1 year, 7 months ago

**Selected Answer: B**

The B is the correct.

upvoted 3 times

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to deploy resources to host a stateless web app in an Azure subscription. The solution must meet the following requirements:

- Provide access to the full .NET framework.
- Provide redundancy if an Azure region fails.
- Grant administrators access to the operating system to install custom application dependencies.

Solution: You deploy a web app in an Isolated App Service plan.

Does this meet the goal?

A. Yes

B. No

**Correct Answer: B**

Instead: You deploy two Azure virtual machines to two Azure regions, and you create an Azure Traffic Manager profile.

Note: Azure Traffic Manager is a DNS-based traffic load balancer that enables you to distribute traffic optimally to services across global Azure regions, while providing high availability and responsiveness.

Reference:

<https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-overview>

*Community vote distribution*

B (100%)

✉  **zellck** Highly Voted  1 year, 1 month ago

**Selected Answer: B**

B is the answer.

App Service has not admin access to OS.

<https://learn.microsoft.com/en-us/azure/app-service/operating-system-functionality>

Linux apps in App Service run in their own containers. You have root access to the container but no access to the host operating system is allowed. Likewise, for apps running in Windows containers, you have administrative access to the container but no access to the host operating system.

upvoted 6 times

✉  **itvinoth83** Highly Voted  1 year, 4 months ago

On the AZ 305 exam, 28/11/22

upvoted 5 times

✉  **NotMeAnyWay** Most Recent  1 year ago

**Selected Answer: B**

B. No

While deploying a web app in an Isolated App Service plan provides access to the full .NET framework and grants administrators access to the operating system to install custom application dependencies, it does not inherently provide redundancy if an Azure region fails. To achieve redundancy, you would need to set up a multi-region deployment using Azure Traffic Manager or Azure Front Door, in addition to using the Isolated App Service plan.

upvoted 4 times

✉  **moshos** 1 year, 2 months ago

**Selected Answer: B**

Correct answer: B

upvoted 3 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

You deploy two Azure virtual machines to two Azure regions, and you create an Azure Traffic Manager profile.

upvoted 2 times

✉  **Gowind2** 1 year, 7 months ago

**Selected Answer: B**

Correct answer but wrong explanation. It would be possible to use app service plan instead of VMs but you would need 1 app service plan per region and a L7 load-balancer like Azure Front Door.

<https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/app-service-web-app/multi-region>

upvoted 1 times

✉️ **Snownoodles** 1 year, 7 months ago

I don't agree - You cannot grant administrative permission to underlying VMs in App Service, which is required by the question:  
<https://docs.microsoft.com/en-us/azure/app-service/operating-system-functionality>

So you have to user VMs to VMs for this case

upvoted 10 times

✉️ **GarryK** 1 year, 2 months ago

Where does it say that we are talking about the host (VM) operating system? Your link says that we can have root access to the OS of the container:

Linux apps in App Service run in their own containers. You have root access to the container but no access to the host operating system is allowed. Likewise, for apps running in Windows containers, you have administrative access to the container but no access to the host operating system.

upvoted 2 times

✉️ **most\_lenyora** 1 year, 7 months ago

**Selected Answer: B**

No is correct!

upvoted 1 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Database Serverless
- B. Azure SQL Database Business Critical
- C. Azure SQL Database Basic
- D. Azure SQL Database Standard

**Correct Answer: A**

Now your new and existing serverless Azure SQL Databases allow for zone redundant configuration. This feature utilizes Azure Availability Zones to replicate databases across multiple physical locations within an Azure region. By selecting zone redundancy, you can make your serverless databases resilient to a much larger set of failures, including catastrophic datacenter outages without any changes of the application logic.

The SQL Database serverless compute tier optimizes price-performance and simplifies performance management for single databases with intermittent, unpredictable usage by auto-scaling compute and billing for compute used per second.

Incorrect:

Not B: Azure SQL Database Business Critical is a more expensive solution.

Not C: Azure SQL Database Basic does not provide zone redundancy.

Not D: Azure SQL Database Standard is a more expensive solution.

Reference:

<https://azure.microsoft.com/en-us/updates/public-preview-zone-redundant-configuration-for-azure-sql-database-serverless-compute-tier/>

*Community vote distribution*

B (61%)

A (39%)

✉️  **marcelina50**  11 months, 1 week ago

**Selected Answer: B**

Where are you mlantonis

upvoted 91 times

✉️  **Snownoodles**  1 year, 7 months ago

Both AZ sql database standard and serverless(both are general purpose) support zone redundancy.  
It's hard to compare cost between AZ database standard and AZ database serverless without a usage patterns.

In general, we can say Az database serverless is cost-effective.

So the given answer might be correct.

upvoted 29 times

✉️  **leoletopic** 1 year, 4 months ago

"Auto-failover groups support geo-replication of all databases in the group to only one secondary server in a different region" ,So ,if you need only one secondary server to support failover, you must use Geo-Redundancy. not Zone Redundancy.

If you want in same regions ,you need more servers,which is not min cost

<https://learn.microsoft.com/en-us/azure/azure-sql/database/auto-failover-group-sql-db?view=azuresql&tabs=azure-powershell>

upvoted 1 times

✉️  **zellck** 1 year, 1 month ago

Azure SQL DB Standard tier only supports LRS.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#basic-standard-and-general-purpose-service-tier-locally-redundant-availability>

upvoted 2 times

✉️  **sunis1** 5 months, 4 weeks ago

While Azure SQL Database Serverless does offer cost savings, it may not meet your specific requirements for a few reasons:

Data Loss: Azure SQL Database Serverless does not guarantee that committed data is never lost due to failures. This could potentially lead to data loss during failover, which does not align with your requirement for failover between replicas of the database to occur without any data loss.

Availability during Zone Outages: While Azure SQL Database Serverless does provide automatic scaling and pausing/resuming of databases, it does not specifically guarantee availability in the event of a zone outage1.

upvoted 1 times

✉  **Lazylinux** [Most Recent] 2 days, 23 hours ago

**Selected Answer: B**

B is Honey  
availability = Three replicas, one read-scale replica, zone-redundant high availability (HA)  
upvoted 1 times

✉  **LGWJ12** 1 week, 6 days ago

**Selected Answer: B**

Azure SQL Database Business Critical is cheaper.  
upvoted 1 times

✉  **hanoki6540** 1 month, 2 weeks ago

its either A or B also serverless is a compute tier not performance tier both general purpose or hyperscale supports surverless deployments.  
upvoted 1 times

✉  **WeepingMaple** 1 month, 4 weeks ago

**Selected Answer: B**

Zone-redundant availability is available to databases in the General Purpose, Premium, Business Critical and Hyperscale service tiers of the vCore purchasing model, and not the Basic and Standard service tiers of the DTU-based purchasing model. Zone-redundant availability ensures Recovery Point Objective (RPO) which indicates the amount of data loss is zero.

Taken from: [https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#:~:text=ensures%20Recovery%20Point%20Objective%20\(RPO\)%20which%20indicates%20the%20amount,-is%20zero.](https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#:~:text=ensures%20Recovery%20Point%20Objective%20(RPO)%20which%20indicates%20the%20amount,-is%20zero.)

upvoted 2 times

✉  **[Removed]** 3 months ago

**Selected Answer: A**

Premium -> Serverless -> BC, that's the preferred order.  
upvoted 8 times

✉  **ziggy1117** 4 months ago

**Selected Answer: A**

Zone-redundant configuration for the General Purpose service tier is offered for both serverless and provisioned compute for databases in vCore purchasing model.

Serverless is assumed to be cheaper

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>  
upvoted 2 times

✉  **Rouix** 3 days, 22 hours ago

Agree. Go here with Serverless option.

Reference: <https://learn.microsoft.com/en-us/azure/azure-sql/database/serverless-tier-overview?view=azuresql&tabs=general-purpose#regions-supporting-80-maximum-vcores-with-availability-zones-for-general-purpose>

upvoted 1 times

✉  **Paul\_white** 4 months, 2 weeks ago

The best option for your requirements would be \*\*B. Azure SQL Database Business Critical\*\*.

This tier supports local redundancy within an Azure region and provides the highest resilience to failures, with multiple readable replicas, and failover with no data loss. It's designed for applications that require low-latency responses and high transaction rates, and it also provides the highest level of business continuity capabilities, which aligns with your requirement for the database to remain available in the event of a zone outage.

However, it's important to note that while the Business Critical tier provides the highest level of performance and availability, it also comes with higher costs compared to other tiers. Therefore, it's crucial to balance your specific needs and budget when making a decision.

upvoted 1 times

✉  **StixxNSnareS** 4 months, 3 weeks ago

**Selected Answer: B**

Azure SQL Database Business Critical is the only service tier that meets all the requirements. It provides high availability and performance by using local SSD storage and a cluster of database replicas. It supports zone redundancy, which means that the replicas are distributed across different availability zones within the same region. It also supports automatic failover with zero data loss guarantee. However, it is also the most expensive service tier among the options.

Azure SQL Database Serverless does not meet the requirement of zero data loss failover, as it uses the General Purpose service tier under the hood. It also does not support zone redundancy. It is a cost-effective option for intermittent and unpredictable workloads, as it scales compute resources based on usage and pauses the database when inactive.

upvoted 1 times

✉  **GeorgiAngelov** 5 months, 3 weeks ago

To design a highly available Azure SQL database that meets the requirements of failover without data loss, availability during zone outages, and cost minimization, you should choose option B: Azure SQL Database Business Critical.

Azure SQL Database Business Critical is designed for high availability and fault tolerance. It provides an SLA that ensures failover without data loss and remains available even in the event of a zone outage. This service tier is specifically designed for mission-critical workloads and offers replication of data across multiple availability zones.

Options A (Azure SQL Database Serverless), C (Azure SQL Database Basic), and D (Azure SQL Database Standard) do not offer the same level of high availability, failover guarantees, and zone-resilience as Azure SQL Database Business Critical. Therefore, option B is the best choice for meeting the given requirements.

upvoted 2 times

✉ **ArunS005** 6 months, 1 week ago

**Selected Answer: B**

To meet the requirements of high availability, failover without data loss, and availability in the event of a zone outage, you should choose the Azure SQL Database Business Critical deployment option.

So, the correct answer is:

B. Azure SQL Database Business Critical

upvoted 2 times

✉ **Elecktrus** 6 months, 2 weeks ago

**Selected Answer: A**

It's a bit old question, because now, both Serverless y Business Premium are valid, so i think that is a little better AZure Serverless

upvoted 2 times

✉ **sabin001** 6 months, 2 weeks ago

Business Critical tier is typically more expensive compared to the Serverless tier as Business Critical tier offers higher availability, faster recovery from failures, and guarantees a shorter RPO and RTO(5 and 30sec).

upvoted 2 times

✉ **Ellamas** 6 months, 3 weeks ago

**Selected Answer: A**

A is correct

upvoted 1 times

✉ **Elecktrus** 6 months, 3 weeks ago

**Selected Answer: A**

Azure Database Serverless.

This question appears a lot of time, with different options as answer.

Always the answers are (in this order):

1. Azure SQL Database Premium
2. Azure SQL Database Serverless
3. Azure SQL Database Business Critical

If there is only one of them, select it. If there are 2 of them, remember the order, and select the option in the order showed here

upvoted 15 times

✉ **ntma3b** 6 months, 2 weeks ago

Should the order be

1. Azure SQL Database Serverless
2. Azure SQL Database Premium
3. Azure SQL Database Business Critical

as SQL Database Serverless is part of general purpose, presumably cheaper than SQL Database Premium ?

upvoted 4 times

✉ **Leocan** 7 months, 1 week ago

**Selected Answer: A**

Answers by order.

1. Azure SQL Database Premium
2. Azure SQL Database Serverless
3. Azure SQL Database Business Critical

upvoted 5 times

**HOTSPOT**

You have an on-premises Microsoft SQL Server database named SQL1.

You plan to migrate SQL1 to Azure.

You need to recommend a hosting solution for SQL1. The solution must meet the following requirements:

- Support the deployment of multiple secondary, read-only replicas.
- Support automatic replication between primary and secondary replicas.
- Support failover between primary and secondary replicas within a 15-minute recovery time objective (RTO).

What should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Azure service or service tier:

Azure SQL Database
Azure SQL managed Instance
The Hyperscale service tier

Replication mechanism:

Active geo-replication
Auto-failover groups
Standard geo-replication

**Answer Area**

Azure service or service tier:

Azure SQL Database
Azure SQL managed Instance
The Hyperscale service tier

Correct Answer:

Replication mechanism:

Active geo-replication
Auto-failover groups
Standard geo-replication

  zellck Highly Voted  1 year, 1 month ago

1. Azure SQL DB
2. Active geo-replication

<https://learn.microsoft.com/en-us/azure/azure-sql/database/features-comparison?view=azuresql#resource-limits>

Azure SQL Database

-Read-only replicas

Read scale with 1-4 high availability replicas or 1-30 named replicas

0 - 4 geo-replicas

upvoted 53 times

✉ **yonie** 11 months, 3 weeks ago

This seems to be a tricky question:

Since choosing Azure SQL DB includes the General Purpose tier that doesn't have replicas, I would argue that we need to choose Hyperscale as the best answer.

Under Azure SQL DB we have three service tiers: General Purpose, Business Critical and Hyperscale.

\*Business Critical\* supports up to 3 replicas:

"Every database is a cluster of database nodes with one primary replica that is accessible for customer workloads, and three secondary replicas containing copies of data."

<https://learn.microsoft.com/en-us/azure/azure-sql/database/service-tiers-sql-database-vcore?view=azuresql#business-critical>

Hyperscale supports up to 4 replicas

<https://learn.microsoft.com/en-us/azure/azure-sql/database/service-tiers-sql-database-vcore?view=azuresql#hyperscale>

upvoted 5 times

✉ **bluedave** 8 months, 3 weeks ago

I think this a good point. Despite the article that zellck points out, GP uses shared premium storage for DR, not replicas.

upvoted 1 times

✉ **mtc9** 2 months ago

I'm pretty sure that BC supports 1 replica

upvoted 2 times

✉ **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/azure-sql/database/active-geo-replication-overview?view=azuresql>

Active geo-replication is a feature that lets you create a continuously synchronized readable secondary database for a primary database. The readable secondary database may be in the same Azure region as the primary, or, more commonly, in a different region. This kind of readable secondary database is also known as a geo-secondary or geo-replica.

Active geo-replication is designed as a business continuity solution that lets you perform quick disaster recovery of individual databases in case of a regional disaster or a large scale outage. Once geo-replication is set up, you can initiate a geo-failover to a geo-secondary in a different Azure region. The geo-failover is initiated programmatically by the application or manually by the user.

upvoted 2 times

✉ **zellck** 1 year, 1 month ago

To support 15 mins RTO, only manual failover can meet the requirements.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/business-continuity-high-availability-disaster-recover-hadr-overview?view=azuresql#recover-a-database-to-the-existing-server>

Manual database failover refers to failover of a single database to its geo-replicated secondary using the unplanned mode. See the table earlier in this article for details of the auto-failover RTO and RPO.

Manual database failover

- RTO - 30s

<https://learn.microsoft.com/en-us/azure/azure-sql/database/business-continuity-high-availability-disaster-recover-hadr-overview?view=azuresql#recover-a-database-to-the-existing-server>

upvoted 4 times

✉ **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/azure-sql/database/features-comparison?view=azuresql#platform-capabilities>

Azure SQL Database

Active geo-replication

- Yes - all service tiers.

upvoted 7 times

✉ **RajFamily25**  1 year, 3 months ago

Azure service or service tier "Azure SQL Managed Instance"

Replication mechanism should be "Auto failover groups"

Azure SQL Managed Instance is a fully managed, Azure-based version of SQL Server that can be used to host your on-premises SQL Server database in the cloud. It supports the deployment of multiple secondary, read-only replicas and can automatically replicate data between primary and secondary replicas. It also supports failover between primary and secondary replicas within a 15-minute RTO, which meets the requirement for the solution to have a recovery time objective of 15 minutes.

Auto failover groups is a feature of Azure SQL Managed Instance that allows you to automatically failover between primary and secondary replicas in the event of an outage or failure. It supports the deployment of multiple secondary, read-only replicas and can automatically replicate data between primary and secondary replicas. It also supports failover between primary and secondary replicas within a 15-minute RTO, which meets the requirement for the solution to have a recovery time objective of 15 minutes.

upvoted 52 times

✉ **saiyandjinn** 1 year, 2 months ago

read the docs, and I agree

upvoted 2 times

✉ **GarryK** 1 year, 2 months ago

Wrong. Azure MI only support 1 additional replicas:

<https://learn.microsoft.com/en-us/azure/azure-sql/database/service-tier-business-critical?view=azuresql>

1 built-in high availability replica is readable

0 - 1 geo-replicas using auto-failover groups

upvoted 3 times

✉ **moshos** 1 year, 2 months ago

So 1 built-in + 1 geo-replica = 2 replicas. This covers the multiple replicas requirement.

upvoted 2 times

✉ **66xxx66** 1 year, 2 months ago

condition says : Support the deployment of "multiple secondary, read-only" replicas, so we shouldn't count built-in replica

upvoted 2 times

✉ **betterthanlife** 11 months, 2 weeks ago

"Wrong".

SQL Managed Instance

Auto-failover groups

As part of High Availability architecture, each single database, elastic pool database, and \*\*managed instance\*\* in the Premium and Business Critical service tier is automatically provisioned with a primary read-write replica and \*\*one or more secondary read-only replicas\*\*.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/read-scale-out?view=azuresql>

upvoted 3 times

✉ **betterthanlife** 11 months, 2 weeks ago

Please stop up-voting this guy... he's just copy/pasting the incorrect explanation from other dumps.

upvoted 37 times

✉ **betterthanlife** 11 months, 2 weeks ago

It is well documented that the RTO for Auto Failover groups is 1 HOUR.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/business-continuity-high-availability-disaster-recover-hadr-overview?view=azuresql#sql-database-features-that-you-can-use-to-provide-business-continuity>

SQL Managed Instances do not support geo replication

<https://learn.microsoft.com/en-us/azure/azure-sql/database/business-continuity-high-availability-disaster-recover-hadr-overview?view=azuresql#compare-geo-replication-with-failover-groups>

Hyper-scale offers an RTO within 60 minutes (sometimes longer)

<https://learn.microsoft.com/en-us/azure/azure-sql/database/service-tier-hyperscale-frequently-asked-questions-faq?view=azuresql#what-is-the-recovery-point-objective--rpo--recovery-time-objective--rto--for-database-restore-in-hyperscale->

Thus... first response is: Azure SQL DB

upvoted 26 times

✉ **lukiduc9625** 1 month, 1 week ago

last link seems to me to be refer to backup operations , not for failover...

upvoted 1 times

✉ **betterthanlife** 11 months, 2 weeks ago

This article, although old old states, "Only one secondary database can be created in a Microsoft defined "DR paired" Azure region."  
<https://azure.microsoft.com/en-us/blog/azure-sql-database-standard-geo-replication/>

I also cannot find ANYTHING on Standard geo-replication within the past 3 years in a search, and thus...

Second response: Active Geo-replication as it supports automatic replication between primary and secondary replicaS.

There is no mention that failovers must be automatic, just have an RTO of 15 minutes, which if done manually the RTO is 30 seconds.  
<https://learn.microsoft.com/en-us/azure/azure-sql/database/business-continuity-high-availability-disaster-recover-hadr-overview?view=azuresql#sql-database-features-that-you-can-use-to-provide-business-continuity>

<https://learn.microsoft.com/en-us/azure/azure-sql/database/active-geo-replication-overview?view=azuresql>

upvoted 9 times

✉ **betterthanlife** 11 months, 2 weeks ago

Response 1: Azure SQL DB

Response 2: Active geo-replication

Standard geo-replication no longer exists anyway - [https://learn.microsoft.com/en-us/previous-versions/azure/dn758204\(v=azure.100\)?redirectionfrom=MSDN](https://learn.microsoft.com/en-us/previous-versions/azure/dn758204(v=azure.100)?redirectionfrom=MSDN)

upvoted 38 times

✉ **ksksilva2022** 7 months, 3 weeks ago

I also feel this is the correct answer based on my search. <https://learn.microsoft.com/en-us/azure/site-recovery/site-recovery-sql>

upvoted 2 times

✉ **PERCY23** 5 months ago

So what is the correct answer

upvoted 2 times

✉ **Lazylinux** Most Recent 2 days, 23 hours ago

I would say box 1 => Hyperscale as multiple read only replica as per below

Hyperscale (Highly scalable compute and Storage): The widest variety of workloads, including those workloads with highly scalable storage and read-scale requirements. Offers higher resilience to failures by allowing configuration of more than one high availability secondary replica. The Hyperscale service tier is suitable for all workload types. Its cloud native architecture provides independently scalable compute and storage to

support the widest variety of traditional and modern applications. Compute and storage resources in Hyperscale substantially exceed the resources available in the General Purpose and Business Critical tiers

Box 2 => Active Geo-Replication

upvoted 1 times

✉ **rishisoft1** 3 weeks ago

In the question, it's asking the service tier and also says multiple replica and read replica both. In option 1, only Hyperscale is the service tier. I am thinking, it should be Hyperscale as 1st option

upvoted 1 times

✉ **varinder82** 3 weeks, 1 day ago

Final Answer:

1. Hyperscale: For Multiple read only replicas

2. Active geo-replication

upvoted 2 times

✉ **hanoki6540** 1 month, 2 weeks ago

why do we need replication method here ? the question doesn't mention anything about multiple regions. all secondary replicas will be in sync automatically. also only hyperscale supports upto 4 read replicas Business critical and Premium only supports 1 read replica.

upvoted 1 times

✉ **hanoki6540** 1 month, 2 weeks ago

so im assuming when they mean read replica here its geo replicated db used as readonly, so answer would be sql db with active geo replication.

upvoted 1 times

✉ **AmpSMK2** 2 months, 1 week ago

Look at Q51 on Page 37 (Standard page settings) - It's a very similar question and the chosen answer is 'An Azure SQL Database single Database'. However, the main difference is that it's specifically calling out 'Multiple Regions'.

All this question states is for 'Primary and Secondary Replicas' and NOT Multiple Regions. That is why the chosen answer for this IS correct because Hyperscale only supports Primary and Secondary Replicas which is exactly what the question states as part of the requirement. This test is only testing on the parameters of the question itself, not what might be a better fit in a real-world/practical setting.

upvoted 4 times

✉ **mark\_af** 4 months, 3 weeks ago

Please see this video: <https://www.youtube.com/watch?app=desktop&v=-HTYxfXW3Fo>

John Savill explains clearly that:

- Failover groups = Only 1 replica in different region (SQL + SQL MI)
- Geo-replication = Up to 4 replicas (same region or not) (SQL MI is not supported)

Thus correct answer is:

- AZURE SQL DB
- Active geo-replication

upvoted 4 times

✉ **StixxNSnareS** 4 months, 3 weeks ago

Answer to the replication is Active Geo. The question states "Support the deployment of multiple secondary read only replicas"

"What is the difference between auto-failover groups and active geo-replication?

Auto-failover groups overview & best practices - Azure SQL ...

Auto-failover groups support geo-replication of all databases in the group to only one secondary logical server in a different region. If you need to create multiple Azure SQL Database geo-secondary replicas (in the same or different regions) for the same primary replica, use active geo-replication."

<https://learn.microsoft.com/en-us/azure/azure-sql/database/auto-failover-group-sql-db?view=azuresql#:~:text=Auto%2Dfailover%20groups%20support%20geo,%2C%20use%20active%20geo%2Dreplication.>

upvoted 1 times

✉ **mark\_af** 5 months, 2 weeks ago

1 - SQL DB

2 - Active geo-replication

SQL DB supports multiple geo-replicas. SQL MI only 1 geo-replica using auto-failover.

source: <https://learn.microsoft.com/en-us/azure/azure-sql/database/features-comparison?view=azuresql#resource-limits>

upvoted 1 times

✉ **starseed** 6 months, 2 weeks ago

Best answer:

Azure SQL DB and Active geo replication

upvoted 2 times

✉ **cryptotafkar** 6 months, 3 weeks ago

The correct answers are

The Hyperscale service tier -<https://learn.microsoft.com/en-us/azure/azure-sql/database/service-tier-hyperscale?view=azuresql>

and Active geo-replication - <https://learn.microsoft.com/en-us/azure/azure-sql/database/active-geo-replication-overview?view=azuresql>

upvoted 2 times

✉  **Raj70** 8 months ago

For Multiple read only replicas Hyperscale is the only answer

upvoted 4 times

✉  **RSDXB** 9 months, 3 weeks ago

Azure SQL Database and Active Geo Replication

<https://www.sqlshack.com/understanding-business-continuity-solutions-for-azure-sql-paas-services/>

upvoted 2 times

✉  **Tr619899** 10 months, 1 week ago

For this scenario, I would recommend using Azure SQL Managed Instance as the hosting solution for SQL1. Azure SQL Managed Instance is a fully managed SQL Server instance hosted in Azure that provides near 100% compatibility with on-premises SQL Server.

To meet the requirements for replication and failover, you can use Auto-failover groups. This feature enables you to manage replication and failover of multiple databases on a SQL Managed Instance. It supports automatic replication between primary and secondary replicas, and allows you to configure failover between primary and secondary replicas within a specified recovery time objective (RTO).

upvoted 1 times

✉  **Tr619899** 10 months, 2 weeks ago

According to context, the correct answer is Azure SQL Managed Instance with Auto-failover groups. This solution meets the requirements of supporting multiple secondary, read-only replicas, automatic replication between primary and secondary replicas, and failover between primary and secondary replicas within a 15-minute RTO.

upvoted 1 times

✉  **NotMeAnyWay** 1 year ago

1. Azure service or service tier? c. The Hyperscale service tier (of Azure SQL Database)

The Hyperscale service tier supports the deployment of multiple secondary, read-only replicas, automatic replication between primary and secondary replicas, and failover capabilities. It also allows you to scale out the read workload, which meets the requirements mentioned in the question.

2. Replication mechanism? a. Active geo-replication

Active geo-replication supports the creation of up to four readable secondary replicas within the same or different Azure regions. It provides automatic replication between primary and secondary replicas, and you can initiate failover manually when needed. The recovery time objective (RTO) for active geo-replication is less than 30 seconds, which meets the requirement of a 15-minute RTO.

upvoted 10 times

**HOTSPOT**

You have two on-premises Microsoft SQL Server 2017 instances that host an Always On availability group named AG1. AG1 contains a single database named DB1.

You have an Azure subscription that contains a virtual machine named VM1. VM1 runs Linux and contains a SQL Server 2019 instance.

You need to migrate DB1 to VM1. The solution must minimize downtime on DB1.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Prepare for the migration by:

- Adding a secondary replica to AG1
- Creating an Always On availability group on VM1
- Upgrading the on-premises SQL Server instances

Perform the migration by using:

- A distributed availability group
- Azure Migrate
- Log shipping

Prepare for the migration by:

- Adding a secondary replica to AG1
- Creating an Always On availability group on VM1
- Upgrading the on-premises SQL Server instances

**Correct Answer:**

Perform the migration by using:

- A distributed availability group
- Azure Migrate
- Log shipping

 **RajFamily25** Highly Voted 1 year, 3 months ago

First one should be A:

Prepare For the migration by:

- A. Adding a secondary replica to AG1

Reason:

Creating an Always On availability group on VM1 would not be necessary, as you already have an availability group (AG1) in place on your on-premises SQL Server instances.

By adding a secondary replica to AG1, you can provide a copy of DB1 that can be used for the migration. This will allow you to minimize downtime on DB1 by performing the migration on the secondary replica, while the primary replica remains available for use.

Perform the migration by using:

- B. Azure migrate

upvoted 44 times

 **betterthanlife** 11 months, 2 weeks ago

Please, stop voting this guy up, he's not thinking, he's just copy/pasting the explanation from another exam dump. In this case it is correct that option A is "Adding a secondary replica to AG1"... I know this because I researched it. But other questions that he posts (plagiarizes) in are WRONG responses.

upvoted 49 times

 **betterthanlife** 11 months, 2 weeks ago

This article clearly covers adding a Linux SQL server to an existing AonAG.

<https://learn.microsoft.com/en-us/sql/linux/sql-server-linux-availability-group-cross-platform?view=sql-server-ver16>

Furthermore, Azure Migrate does not allow targeting a Linux box in Azure IaaS, it only allows targeting Azure SQL or Azure Managed Instance.

<https://www.youtube.com/watch?v=QNmkaWi3Ltk>

Correct responses:

- Adding a secondary replica to AG1

- Log shipping

upvoted 9 times

 **betterthanlife** 11 months, 2 weeks ago

I was incorrect in my above response for option 2, how to migrate (Log shipping IS NOT correct) as when I was looking in the portal I only saw Azure SQL DB & MI.

This video clearly shows at 11:35 you can migrate to an Azure IaaS VM running SQL (evidentially one that is running Linux)

- Adding a secondary replica to AG1

- Azure Migrate

upvoted 23 times

 **theboywonder** 9 months, 3 weeks ago

ofc it's running "SQL server" on linux

upvoted 1 times

 **curtmcgirt** 1 year ago

does it matter that vm1 "runs linux and sql server 2019" but on-prem AG1 sql is 2017?

upvoted 2 times

 **willybsmith** 10 months, 2 weeks ago

Yep..one of the Microsoft pages notes "Only replicas that are on the same major build of SQL Server will be readable. See Rolling upgrade basics for more information." so maybe its update the older on prem version first?

upvoted 1 times

 **RandomNickname** 1 year, 3 months ago

Absolutely agree.

upvoted 3 times

 **RandomNickname** 1 year, 3 months ago

To confirm it should be;

Secondary replica

Azure Migrate

The given answer by exam topics is wrong.

upvoted 7 times

 **chessace2000** Highly Voted 1 year, 2 months ago

This should be

1. Creating an Always On availability group on VM1
2. Use distributed availability group

Reference: <https://learn.microsoft.com/en-us/azure/azure-sql/migration-guides/virtual-machines/sql-server-distributed-availability-group-migrate-ag?view=azuresql>

upvoted 28 times

 **DeBoer** 1 year, 1 month ago

the link you provided, together with the prereqs in <https://learn.microsoft.com/en-us/azure/azure-sql/migration-guides/virtual-machines/sql-server-distributed-availability-group-migrate-prerequisites?view=azuresql>, show that this makes the most sense. Same version of SQL is recommended - but not required in this scenario.

upvoted 4 times

 **steel72** 1 year ago

I think this is wrong, in the link you provide it states that Windows Server Failover Cluster is required. The target machine runs Linux.

upvoted 4 times

 **fishy\_resolver** 11 months, 1 week ago

The question seems to hint towards using distributed availability groups to do the migration. But for 1. I would rather say the secondary replica. There is already an availability group AG1 on VM1. And the steps in the link you provided requires you to add a target availability group.

upvoted 1 times

 **wooyourdaddy** 6 months, 3 weeks ago

This link also shows mixed OS Availability Groups and Distributed Availability Groups:

<https://learn.microsoft.com/en-us/sql/linux/sql-server-linux-availability-group-overview?view=sql-server-ver16#interoperability-with-windows-based-availability-groups-and-replicas>

upvoted 2 times

 **Lazylinux** Most Recent 2 days, 21 hours ago

I would go for

1. Creating an Always On availability group on VM1

2. Use distributed availability group that can be configured to include both Availability groups AG1 and the new one in Azure on Linux VM, thank you can perform the failover from there

Read this carefully

<https://learn.microsoft.com/en-us/sql/database-engine/availability-groups/windows/distributed-availability-groups?view=sql-server-ver15>

upvoted 1 times

✉ **177c705** 1 month, 2 weeks ago

box1 : Creating an Always On availability group on VM1 box2: Use Distributed availability group

upvoted 1 times

✉ **TonySuccess** 2 months, 1 week ago

Surely for question 1 you would add a Secondary Replica to an already existing Availability Group?

upvoted 1 times

✉ **Minila92** 2 months, 2 weeks ago

Got this ques in my exam on 29th Jan 2024 and scored 950. I chose

box1 : Creating an Always On availability group on VM1

box2: Use Distributed availability group

upvoted 6 times

✉ **[Removed]** 3 months ago

I would say Adding a secondary replica to AG1 and Azure Migrate.

Upgrading the on-premises SQL Server instances: This could introduce downtime on the on-premises instances and is not directly related to migrating to VM1, not necessary.

A distributed availability group: This is typically used for scenarios where you have availability groups spread across different geographical locations, and it is not necessary for a migration to a single VM.

Log shipping: Log shipping involves periodically copying and restoring database transaction logs and may introduce downtime during the cutover.  
upvoted 2 times

✉ **nchebbi** 4 months, 1 week ago

I think the answer should be either:

B & A: creating an always On availability group on VM1 and use a distributed availability group.

OR

C & B: Upgrade the On premises SQL server & Use Azure Migrate.

Those are the only valid options. Log shipping only supports Windows (ref1), From ref2: Azure Migrate only supports LIFT& SHIT it doesn't support upgrading versions "SQL server is to be moved as-is" (though C&B, but there will be a down time).

Using Distributed AG it's recommended to have same versions BUT you can use it to migrate to a higher version and SEED the data Manually (again down time).

I'm leaning more toward B&A.

upvoted 1 times

✉ **nchebbi** 4 months, 1 week ago

ref1: [https://learn.microsoft.com/en-us/azure/azure-sql/migration-guides/virtual-machines/sql-server-to-sql-on-azure-vm-migration-overview?view=azuresql#lift-and-shift:~:text=to%20Blob%20storage-,Log%20shipping,SQL%20Server%202012%20SP4%20\(Windows%20Only\),-Azure%20VM%20storage](https://learn.microsoft.com/en-us/azure/azure-sql/migration-guides/virtual-machines/sql-server-to-sql-on-azure-vm-migration-overview?view=azuresql#lift-and-shift:~:text=to%20Blob%20storage-,Log%20shipping,SQL%20Server%202012%20SP4%20(Windows%20Only),-Azure%20VM%20storage)

ref2:<https://learn.microsoft.com/en-us/azure/azure-sql/migration-guides/virtual-machines/sql-server-to-sql-on-azure-vm-migration-overview?view=azuresql#lift-and-shift>

upvoted 1 times

✉ **nchebbi** 4 months, 1 week ago

ref3: about distributed AG :"If you choose to upgrade during the migration process by using a higher version of SQL Server on the target, then you will need to manually seed your database rather than relying on autoseeding as is provided in this series of articles."

<https://learn.microsoft.com/en-us/azure/azure-sql/migration-guides/virtual-machines/sql-server-distributed-availability-group-migrate-prerequisites?view=azuresql>

upvoted 1 times

✉ **mmarkiew** 4 months, 2 weeks ago

I believe the answers are:

Creating an Always On availability group on VM1

A distributed availability group

If you review the following article, you'll see that Azure Migrate is used for lift-and-shift scenarios and moves SQL Server instances as-is to the target VMs without changes to the SQL Server version (which is required in this case).

<https://learn.microsoft.com/en-us/azure/azure-sql/migration-guides/virtual-machines/sql-server-to-sql-on-azure-vm-migration-overview?view=azuresql-vm>

In that same article, you'll see that distributed availability groups are recommended for migration scenarios where you need to minimize downtime and already have an availability group configured on-premises.

upvoted 1 times

✉ **mmarkiew** 4 months, 2 weeks ago

Part of the process of configuring a distributed availability group involves setting up an availability group on the target SQL Server VMs, as explained in the following article (under "Create target AG"):

<https://learn.microsoft.com/en-us/azure/azure-sql/migration-guides/virtual-machines/sql-server-distributed-availability-group-migrate-ag?view=azuresql>

Although it's recommended to use the same source and target versions of SQL Server for the migration, it's possible to migrate to a later version. This requires manually seeding the target DBs, but that shouldn't result in any downtime:  
<https://learn.microsoft.com/en-us/sql/database-engine/availability-groups/windows/distributed-availability-groups?view=sql-server-ver16#migrate-to-higher-sql-server-versions>

upvoted 2 times

✉ **ArunS005** 6 months, 1 week ago

The Correct Answer is

- A. Creating an Always-On Availability Group on VM1
- B. Azure Migrate.

For Option A: This step is essentially completed in the previous step when you joined VM1 to the existing AG1. You just need to ensure that the availability group is configured correctly on VM1.

upvoted 2 times

✉ **ntma3b** 6 months, 2 weeks ago

The given answer is correct.

It is unnecessary to create another replica, the database in the availability group already has replicas created by the availability group, called availability replicas.

upvoted 1 times

✉ **starseed** 6 months, 2 weeks ago

First one :A

Second One: B

<https://learn.microsoft.com/en-us/azure/azure-sql/migration-guides/virtual-machines/sql-server-availability-group-to-sql-on-azure-vm?view=azuresql>

upvoted 1 times

✉ **xitzee** 6 months, 3 weeks ago

Creating AG and using Distributed AG is wrong answer.

See this documentation:

<https://learn.microsoft.com/en-us/sql/database-engine/availability-groups/windows/distributed-availability-groups?view=sql-server-ver16#usage-scenarios>

Scroll to migration - it clearly says that if you are migrating to higher version of SQL Server you cant use auto seeding in distributed availability group. If you cant use auto seeing it means that you have to copy database to a second server manually (or using different tools).

upvoted 1 times

✉ **BigShot0** 7 months ago

1 - Create an Always On Availability Group

2 - Log Shipping - You are configuring the availability group to replicate the DB. You dont need Azure Migrate if you are using Availability Groups.

(Cross Platform AG - <https://learn.microsoft.com/en-us/sql/linux/sql-server-linux-availability-group-cross-platform?view=sql-server-ver16>)

upvoted 1 times

✉ **wissemm** 8 months, 2 weeks ago

I think you should create a secondary replica. In the link below, it clearly mention that you need to replicate before migrate :

<https://learn.microsoft.com/en-us/azure/azure-sql/migration-guides/virtual-machines/sql-server-availability-group-to-sql-on-azure-vm?view=azuresql-vm>

"\*\*\*\*\*Prepare Azure and source environment for migration.

Start replicating servers.

Monitor replication.

Run a full server migration.

Reconfigure Always On availability group"\*\*\*\*\*"

upvoted 1 times

✉ **wissemm** 8 months, 2 weeks ago

CORRECTION - a Create an AG on VM1 and b Distributed Group : "\*\*\*\*\*A distributed availability group is a special type of availability group that spans two separate availability groups. The availability groups that participate in a distributed availability group don't need to be in the same location and include cross-domain support.

This method minimizes downtime, use when you have an availability group configured on-premises."\*\*\*"

\*\*\*\*\*

<https://learn.microsoft.com/en-us/azure/azure-sql/migration-guides/virtual-machines/sql-server-to-sql-on-azure-vm-migration-overview?view=azuresql-vm>

upvoted 2 times

✉ **Tr619899** 10 months, 1 week ago

To prepare for the migration of DB1 to VM1, you should create an Always On availability group on VM1. This will allow you to replicate data from the on-premises SQL Server instances to the SQL Server instance on VM1.

To perform the migration with minimal downtime, you can use a distributed availability group. This feature allows you to create an availability group that spans multiple SQL Server instances, including instances that are hosted on different platforms or in different locations. By adding the

SQL Server instance on VM1 as a replica in the distributed availability group, you can replicate data from the on-premises SQL Server instances to VM1 and perform a controlled failover with minimal downtime.

upvoted 7 times

✉  **jwu2023** 9 months, 2 weeks ago

Azure migrate: "Existing SQL Server to be moved as-is to instance of SQL Server on an Azure VM". So I am not sure it works with different versions of servers.

Log shipping: minimum source version: SQL Server 2008 SP4 (Windows Only) and minimum target version: SQL Server 2008 SP4 (Windows Only). Does it mean it only works with Windows?

upvoted 1 times

✉  **jwu2023** 9 months, 2 weeks ago

Log Shipping does not have automatic failover , in this case when the failover needs, database administrator must perform manual failover immediately .

Because of Manual Failover, Downtime is more than synchronous mirroring.

upvoted 1 times

✉  **sjb666** 11 months, 2 weeks ago

Prepare : Secondary Replica

Perform: Log Shipping

upvoted 2 times

**HOTSPOT**

You are building an Azure web app that will store the Personally Identifiable Information (PII) of employees.

You need to recommend an Azure SQL Database solution for the web app. The solution must meet the following requirements:

- Maintain availability in the event of a single datacenter outage.
- Support the encryption of specific columns that contain PII.
- Automatically scale up during payroll operations.
- Minimize costs.

What should you include in the recommendations? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Service tier and computer tier:

Business Critical service tier and Serverless computer tier  
General Purpose service tier and Serverless computer tier  
Hyperscale service tier and Provisioned compute tier

Encryption method:

Always Encrypted  
Microsoft SQL Server and database encryption keys  
Transparent Data Encryption (TDE)

**Answer Area**

Service tier and computer tier:

Business Critical service tier and Serverless computer tier  
General Purpose service tier and Serverless computer tier  
Hyperscale service tier and Provisioned compute tier

Encryption method:

Always Encrypted  
Microsoft SQL Server and database encryption keys  
Transparent Data Encryption (TDE)

  **zellick** Highly Voted  1 year, 1 month ago

1. GP service tier and Serverless compute tier
2. Always Encrypted

<https://learn.microsoft.com/en-us/azure/azure-sql/database/sql-database-paas-overview?view=azuresql#service-tiers>  
The General Purpose service tier is designed for common workloads. It offers budget-oriented balanced compute and storage options.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/sql-database-paas-overview?view=azuresql#compute-tiers>  
Serverless compute tier: auto-scales compute resources based on workload activity and bills for the amount of compute used, per second. The serverless compute tier is generally available in the General Purpose service tier, and is currently in preview in the Hyperscale service tier.  
upvoted 36 times

  **zellick** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/sql/relational-databases/security/encryption/always-encrypted-database-engine?view=sql-server-ver16>  
Always Encrypted is a feature designed to protect sensitive data, such as credit card numbers or national identification numbers (for example, U.S. social security numbers), stored in Azure SQL Database, Azure SQL Managed Instance, and SQL Server databases. Always Encrypted allows clients to encrypt sensitive data inside client applications and never reveal the encryption keys to the Database Engine. This provides a separation between those who own the data and can view it, and those who manage the data but should have no access - on-premises database administrators, cloud database operators, or other high-privileged unauthorized users. As a result, Always Encrypted enables customers to confidently store their sensitive data in the cloud, and to reduce the likelihood of data theft by malicious insiders.

upvoted 3 times

NotMeAnyWay Highly Voted 1 year ago

1. Service tier and compute tier? b. General Purpose service tier and serverless compute tier

The General Purpose service tier with serverless compute tier provides a cost-effective solution that meets the requirements. General Purpose tier supports zone-redundant configurations, which can maintain availability in the event of a single datacenter outage. The serverless compute tier automatically scales up or down based on workload, which is ideal for handling the increased load during payroll operations.

2. Encryption method? a. Always Encrypted

Always Encrypted is the recommended encryption method for this scenario because it allows you to encrypt specific columns that contain PII. This ensures that sensitive data is encrypted both at rest and in transit, providing a higher level of security for PII. Transparent Data Encryption (TDE) encrypts the entire database at rest but does not provide column-level encryption, and Microsoft SQL Server and database encryption keys would involve additional manual configuration and management of keys.

upvoted 22 times

varinder82 Most Recent 3 weeks, 3 days ago

Final Answer

1. GP service tier and Serverless compute tier
2. Always Encrypted

upvoted 2 times

eduardobbs 1 month, 1 week ago

Got his on my exam on 06/Mar/24

upvoted 5 times

TomdeBom 1 month, 3 weeks ago

It is simple. The first option is wrong, because Business Critical with serverless compute tier is not supported! "The serverless compute tier is available in the General Purpose service tier and the Hyperscale service tier."

<https://learn.microsoft.com/en-us/azure/azure-sql/database/serverless-tier-overview?view=azuresql&tabs=general-purpose>

Thus, it must be General Purpose service tier.

upvoted 2 times

JimmyYop 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 6 times

YL123 2 months, 4 weeks ago

Answer should be correct.

It has to be BC service tier, because the requirement is

"Maintain availability in the event of a single datacenter outage."

GP service tier will have several minutes down time when there is an outage happened.

upvoted 2 times

TonySuccess 2 months, 2 weeks ago

My research is also pointing me in this direction, so I wonder if since the people who originally commented, something has changed.

upvoted 1 times

Risto83 3 months ago

Business critical is the one with seconday replicas

<https://learn.microsoft.com/en-us/azure/azure-sql/database/service-tiers-sql-database-vcore?view=azuresql>

upvoted 1 times

Som\_triv 6 months, 3 weeks ago

Serverless compute tier :

Service tier- General Purpose and Hyperscale (in Preview)

Ans :

1. GP with Serverless compute tier
2. Always Encrypted

upvoted 1 times

Tr619899 10 months, 1 week ago

For this scenario, I would recommend using the General Purpose service tier with the Serverless compute tier for the Azure SQL Database solution. This configuration provides cost-effective storage and compute resources that can automatically scale up during periods of high demand, such as during payroll operations.

To support the encryption of specific columns that contain PII, you can use the Always Encrypted feature. This feature allows you to encrypt sensitive data within client applications and never reveal the encryption keys to the database engine. This helps to ensure that sensitive data remains protected at all times, even if the database is compromised.

upvoted 4 times

Ivz 10 months, 3 weeks ago

As of 27-05-2023, I am trying to figure out if there is such a thing called Azure sql business critical, serverless tier. I don't see one. I have been searching, neither Premium has serverless tier, only general purpose do. So if anyone is aware of it, please share the link below the post. thx

upvoted 4 times

✉️  **nakacom** 10 months, 3 weeks ago

<https://learn.microsoft.com/en-us/azure/azure-arc/data/service-tiers>  
upvoted 2 times

✉️  **VBK8579** 1 year, 2 months ago

For the Service tier and computer tier, you should recommend "General Purpose service tier and Provisioned compute tier".

For the Encryption method, you should recommend "Always Encrypted".

upvoted 4 times

✉️  **jwjw** 1 year, 2 months ago

First box is "General Purpose":

Zone-redundant configuration for the General Purpose service tier is offered for both serverless and provisioned compute.

<https://learn.microsoft.com/en-GB/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

upvoted 2 times

✉️  **RandomNickname** 1 year, 2 months ago

General Purpose supports ZRS.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#general-purpose-service-tier-zone-redundant-availability>

Always encrypted for securing data in transit.

<https://azure.microsoft.com/en-us/blog/transparent-data-encryption-or-always-encrypted/>

upvoted 4 times

✉️  **maarten4119** 1 year, 2 months ago

Why business critical service tier and not general purpose?

upvoted 2 times

✉️  **rvnz45** 1 year, 2 months ago

it is still in preview and also need Gen5 hardware selected

upvoted 3 times

✉️  **janvandermerwer** 1 year, 2 months ago

Always Encrypted is a feature designed to protect sensitive data stored in specific database columns from access (for example, credit card numbers, national identification numbers, or data on a need to know basis). This includes database administrators or other privileged users who are authorized to access the database to perform management tasks, but have no business need to access the particular data in the encrypted columns. The data is always encrypted, which means the encrypted data is decrypted only for processing by client applications with access to the encryption key. The encryption key is never exposed to SQL Database or SQL Managed Instance and can be stored either in the Windows Certificate Store or in Azure Key Vault.

upvoted 10 times

✉️  **janvandermerwer** 1 year, 2 months ago

General/Standard serveless for db tier.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#general-purpose-service-tier-zone-redundant-availability>

<https://learn.microsoft.com/en-us/azure/azure-sql/database/serverless-tier-overview?view=azuresql>

upvoted 8 times

✉️  **zodata** 1 year, 2 months ago

Correct.

Always Encrypted is a feature designed to protect sensitive data stored in specific database columns from access (for example, credit card numbers, national identification numbers, or data on a need to know basis).

upvoted 1 times

You plan to deploy an Azure Database for MySQL flexible server named Server1 to the East US Azure region.

You need to implement a business continuity solution for Server1. The solution must minimize downtime in the event of a failover to a paired region.

What should you do?

- A. Create a read replica.
- B. Store the database files in Azure premium file shares.
- C. Implement Geo-redundant backup.
- D. Configure native MySQL replication.

**Correct Answer: C**

*Community vote distribution*

C (73%)

A (25%)

✉️  **Dumber** Highly Voted 9 months, 3 weeks ago

It tends to differ.. Answer A seems to be possible as well. It is faster than a restore.

<https://learn.microsoft.com/en-us/azure/mysql/flexible-server/concepts-read-replicas#cross-region-replication-in-geo-paired-region>

You can create a read replica in a different region from your source server. Cross-region replication can be helpful for scenarios like disaster recovery planning or bringing data closer to your users. Azure Database for MySQL Flexible Server allows you to provision read-replica in the Azure supported [geo-paired region]

upvoted 17 times

✉️  **hideo6963** 9 months, 2 weeks ago

Looks like this is the answer (A), not C. Create a read replica, then manually failover it in the case of disaster. The answer C is a Backup, restoring it will take much longer

upvoted 6 times

✉️  **wooyourdaddy** 6 months, 3 weeks ago

This answer seems to be supported by this link as well:

<https://learn.microsoft.com/en-us/azure/mysql/single-server/concepts-read-replicas#paired-regions>

which states:

If you're using cross-region replicas for disaster recovery planning, we recommend you create the replica in the paired region instead of one of the other regions. Paired regions avoid simultaneous updates and prioritize physical isolation and data residency.

upvoted 5 times

✉️  **nchebbi** 4 months, 1 week ago

The answer should be C: Geo-redundant backup:

Read replicas are not meant for business continuity, failing over is manual which doesn't meet the requirement of minimizing downtime. "There's no automated failover between source and replica servers."

Read replicas are meant for scaling of read intensive workloads and isn't designed to meet high availability needs of a server. Stopping the replication on read replica to bring it online in read write mode is the means by which this manual failover is performed."

<https://learn.microsoft.com/en-us/azure/mysql/flexible-server/concepts-read-replicas#failover>

upvoted 4 times

✉️  **NotMeAnyWay** Highly Voted 9 months ago

**Selected Answer: C**

C. Implement Geo-redundant backup.

The Geo-redundant backup (GRB) feature in Azure Database for MySQL allows automatic backups to be stored in a different geographic region (geography). In the event of a region-wide service disruption, you can restore the database from the geo-redundant backup, which helps minimize downtime. Other options do not provide business continuity in case of regional failures.

Option A, creating a read replica, primarily helps with read-heavy workloads and not for disaster recovery.

Option B, storing the database files in Azure premium file shares, might improve performance but does not specifically provide a disaster recovery solution.

Option D, configuring native MySQL replication, isn't supported directly within Azure Database for MySQL. Instead, you would use Azure's built-in business continuity features, such as Geo-redundant backup.

upvoted 13 times

✉️ **xitzee** 6 months, 3 weeks ago

Except you are wrong. It may help with ready-heavy workload but at the same time it is replica to which you are able to failover. Which definitely minimizes downtime in case of outage.

Read replicas ARE disaster recovery solutions

upvoted 2 times

✉️ **SDiwani** Most Recent 1 month, 3 weeks ago

**Selected Answer: C**

"While it's a rare event, if you want to recover from a region-level failure, you can perform database recovery by creating a new server using the latest geo-redundant backup available under the same subscription to get to the latest data. A new flexible server is deployed to the selected region. The time taken to restore depends on the previous backup and the number of transaction logs to recover. RPO in most cases would be <1 and RTO would vary."

Source: <https://learn.microsoft.com/en-us/azure/mysql/flexible-server/concepts-business-continuity>

upvoted 2 times

✉️ **Msaad7** 2 months, 1 week ago

**Selected Answer: D**

D. Configure native MySQL replication

upvoted 1 times

✉️ **rgnanav** 3 months, 1 week ago

**Selected Answer: C**

<https://learn.microsoft.com/en-us/azure/mysql/flexible-server/concepts-business-continuity>

While it's a rare event, if you want to recover from a region-level failure, you can perform database recovery by creating a new server using the latest geo-redundant backup available under the same subscription to get to the latest data. A new flexible server is deployed to the selected region. The time taken to restore depends on the previous backup and the number of transaction logs to recover. RPO in most cases would be <1 and RTO would vary.

upvoted 2 times

✉️ **nchebbi** 4 months, 1 week ago

**Selected Answer: C**

The answer should be C: Geo-redundant backup:

Read replica are not meant for business continuity, failing over is manual which doesn't meet the requirement of minimizing downtime.

"There's no automated failover between source and replica servers.

Read replicas is meant for scaling of read intensive workloads and isn't designed to meet high availability needs of a server. Stopping the replication on read replica to bring it online in read write mode is the means by which this manual failover is performed."

<https://learn.microsoft.com/en-us/azure/mysql/flexible-server/concepts-read-replicas#failover>

upvoted 1 times

✉️ **maxuermann** 5 months, 3 weeks ago

**Selected Answer: A**

Read only replica is supported on flexible server:

<https://learn.microsoft.com/en-us/azure/mysql/flexible-server/how-to-read-replicas-portal?source=recommendations>

Also: Azure Database for MySQL - Single Server is on the retirement path. We strongly recommend for you to upgrade to Azure Database for MySQL - Flexible Server.

<https://learn.microsoft.com/en-us/azure/mysql/single-server/concepts-read-replicas>

upvoted 2 times

✉️ **OrangeSG** 6 months ago

**Selected Answer: C**

Answer A is wrong because read replica is only applicable to "Azure Database for MySQL - Single Server", while the question said "You plan to deploy an Azure Database for MySQL flexible server"

Refer to Microsoft document:

Read replicas in Azure Database for MySQL

<https://learn.microsoft.com/en-us/azure/mysql/single-server/concepts-read-replicas>

upvoted 2 times

✉️ **argtoub** 3 months, 3 weeks ago

<https://learn.microsoft.com/en-us/azure/mysql/flexible-server/concepts-read-replicas>

upvoted 1 times

✉️ **ArunS005** 6 months, 1 week ago

**Selected Answer: C**

The correct answer is Option-C.

upvoted 1 times

✉️ **cloudexpert12221222** 6 months, 1 week ago

**Selected Answer: A**

As specified in the docs <https://learn.microsoft.com/en-us/azure/mysql/single-server/concepts-backup>, "performing restore (from a backup) creates a new server from the original server's backups and restores all databases in the server. Restore is currently NOT supported if the original

server is in stopped state."

I guess that then you should create a read replica and, if there is a failure in the origin zone, stop the replication and change the conn string from the apps to point to the new server.

upvoted 2 times

✉ **AdventureChick** 6 months, 3 weeks ago

**Selected Answer: A**

Read replica based on this page for MySQL business continuity:

<https://learn.microsoft.com/en-us/azure/mysql/single-server/concepts-business-continuity>

Geo-restore - creates a new server using backup data replicated from another region. The overall restore time depends on the DB size & logs.  
Restore is: a few minutes to a few hours.

Read replicas - T-logs from the primary are asynchronously streamed to the replica. For a Zone or Region failure, failing over to the replica = a shorter RTO and reduced data loss

upvoted 2 times

✉ **grf0** 6 months, 3 weeks ago

**Selected Answer: A**

Per docs:

With Geo-restore feature, a new server is created using the backup data that is replicated from another region. The overall time it takes to restore and recover depends on the size of the database and the amount of logs to recover. The overall time to establish the server varies from few minutes to few hours. With read replicas, transaction logs from the primary are asynchronously streamed to the replica. In the event of a primary database outage due to a zone-level or a region-level fault, failing over to the replica provides a shorter RTO and reduced data loss.

<https://learn.microsoft.com/en-us/azure/mysql/single-server/concepts-business-continuity>

upvoted 2 times

✉ **Som\_triv** 6 months, 3 weeks ago

By default, Azure Database for MySQL - Flexible Server doesn't move or store customer data out of the region it is deployed in. However, customers can optionally choose to enable geo-redundant backups or set up cross-region replication for storing data in another region.

upvoted 1 times

✉ **marcellov** 6 months, 3 weeks ago

**Selected Answer: A**

As we are talking about business continuity and failover, a read replica seems more appropriate.

"You can create a read replica in a different region from your source server. Cross-region replication can be helpful for scenarios like disaster recovery planning or bringing data closer to your users."

<https://learn.microsoft.com/en-us/azure/mysql/single-server/concepts-read-replicas#cross-region-replication>

upvoted 2 times

✉ **yonie** 11 months, 3 weeks ago

**Selected Answer: C**

The service backups can be configured as geo-redundant at create time.

<https://learn.microsoft.com/en-us/azure/mysql/flexible-server/concepts-business-continuity>

upvoted 3 times

✉ **C\_M\_M** 11 months, 3 weeks ago

**Selected Answer: C**

Correct

Azure MySQL server -flexible only has zonal redundancy by default. You must enable geo-redundancy by yourself if you plan to use it for pair-region disaster recovery

<https://learn.microsoft.com/en-us/azure/mysql/flexible-server/how-to-move-regions>

upvoted 2 times

✉ **C\_M\_M** 11 months, 3 weeks ago

Correct

Azure MySQL server -flexible only has zonal redundancy by default. You must enable geo-redundancy by yourself if you plan to use it for pair-region disaster recovery

<https://learn.microsoft.com/en-us/azure/mysql/flexible-server/how-to-move-regions>

upvoted 2 times

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Description
VNet1	Virtual Network	<i>None</i>
LB1	Public load balancer	Includes a backend pool name BP1
VMSS1	Azure Virtual Machine Scale Sets	Included in BP1 Connected to VNet1
NVA1	Network Virtual Appliance (NVA)	Connected to VNet1 Performs security filtering of traffic for VMSS1
NVA2	Network Virtual Appliance (NVA)	Connected to VNet1 Performs security filtering of traffic for VMSS1

You need to recommend a load balancing solution that will distribute incoming traffic for VMSS1 across NVA1 and NVA2. The solution must minimize administrative effort.

What should you include in the recommendation?

- A. Gateway Load Balancer
- B. Azure Front Door
- C. Azure Application Gateway
- D. Azure Traffic Manager

**Correct Answer: A**

*Community vote distribution*

A (100%)

✉  **daws08322** Highly Voted  6 months, 3 weeks ago

Gateway Load Balancer is a SKU of the Azure Load Balancer portfolio catered for high performance and high availability scenarios with third-party Network Virtual Appliances (NVAs). With the capabilities of Gateway Load Balancer, you can easily deploy, scale, and manage NVAs. Chaining a Gateway Load Balancer to your public endpoint only requires one selection.

upvoted 12 times

✉  **azim1** Most Recent  3 months, 3 weeks ago

**Selected Answer: A**

A. Gateway Load Balancer seems to be correct as it balances the load between two NVAs internally.

upvoted 3 times

✉  **thamaster** 5 months ago

**Selected Answer: A**

this question is about layer, we need layer 4, C is out  
So answer is A

upvoted 1 times

✉  **randy0077** 5 months, 2 weeks ago

I think c is correct answer.

upvoted 1 times

✉  **nrastogi** 5 months, 3 weeks ago

C. Azure Application Gateway

Azure Application Gateway is designed for web application load balancing and can distribute traffic to backend servers based on various routing rules, including round-robin, least-connections, and more. In your case, it would be suitable for load balancing incoming traffic across NVA1 and NVA2 in VMSS1. It's also designed to minimize administrative effort when load balancing web traffic to your backend resources.

upvoted 1 times

✉  **husam421** 6 months, 2 weeks ago

**Selected Answer: A**

<https://learn.microsoft.com/en-us/azure/load-balancer/gateway-overview>

upvoted 1 times

 **marcellov** 6 months, 3 weeks ago

**Selected Answer: A**

Gateway Load Balancer seems the best option.

"One of the main advantages of this NVA injection method is that Source Network Address Translation (SNAT) isn't required to guarantee traffic symmetry. Another benefit of this design option is that the same NVAs can be used to inspect traffic to/from different VNets, thus achieving multitenancy from the NVA perspective. No VNet peering is required between the NVA VNet and the workload VNet(s), and no User-Defined Routes are required in the workload VNet, which dramatically simplifies the configuration."

<https://learn.microsoft.com/en-us/azure/architecture/reference-architectures/dmz/nva-ha>

upvoted 2 times

**HOTSPOT**

You have the Azure subscriptions shown in the following table.

Name	Location	Azure AD tenant
Sub1	East US	contoso.onmicrosoft.com
Sub2	East US	contoso-recovery.onmicrosoft.com

Contoso.onmicrosoft.com contains a user named User1.

You need to deploy a solution to protect against ransomware attacks. The solution must meet the following requirements:

- Ensure that all the resources in Sub1 are backed up by using Azure Backup.
- Require that User1 first be assigned a role for Sub2 before the user can make major changes to the backup configuration.

What should you create in each subscription? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Sub1:

- A Recovery Services vault
- A Resource Guard
- An Azure Site Recovery job
- Microsoft Azure Backup Server (MABS)
- The Microsoft Azure Recovery Services (MARS) agent

Sub2:

- A Recovery Services vault
- A Resource Guard
- An Azure Site Recovery job
- Microsoft Azure Backup Server (MABS)
- The Microsoft Azure Recovery Services (MARS) agent

**Answer Area**

Sub1:

- A Recovery Services vault**
- A Resource Guard
- An Azure Site Recovery job
- Microsoft Azure Backup Server (MABS)
- The Microsoft Azure Recovery Services (MARS) agent

Correct Answer:

Sub2:

- A Recovery Services vault**
- A Resource Guard**
- An Azure Site Recovery job
- Microsoft Azure Backup Server (MABS)
- The Microsoft Azure Recovery Services (MARS) agent

  mykola\_yakovliev 6 months ago

As I don't suggest asking ChatGPT for the exam answers, I went to the documentation and read it from the first hand. The provided answers look correct

Source: <https://learn.microsoft.com/en-us/azure/backup/multi-user-authorization>

upvoted 15 times

✉️  **StixxNShares**  5 months, 1 week ago

Answers are correct per <https://learn.microsoft.com/en-us/azure/backup/multi-user-authorization-concept?tabs=recovery-services-vault>

upvoted 8 times

✉️  **Crossfader2208**  1 month, 1 week ago

given answer is correct

upvoted 2 times

✉️  **randy0077** 5 months, 2 weeks ago

why people using chatbots for answers. mostly wrong.

upvoted 3 times

✉️  **DTM23** 6 months, 1 week ago

Correct answers. Counter-checked with ChatGPT.

upvoted 6 times

**HOTSPOT**

You have 10 on-premises servers that run Windows Server.

You need to perform daily backups of the servers to a Recovery Services vault. The solution must meet the following requirements:

- Back up all the files and folders on the servers.
- Maintain three copies of the backups in Azure.
- Minimize costs.

What should you configure? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

On the servers:

The Azure Site Recovery Mobility service  
The Microsoft Azure Recovery Services (MARS) agent  
Volume Shadow Copy Service (VSS)

For the storage:

Geo-redundant storage (GRS)  
Locally-redundant storage (LRS)  
Zone-redundant storage (ZRS)

**Answer Area**

On the servers:

The Azure Site Recovery Mobility service  
**The Microsoft Azure Recovery Services (MARS) agent**  
Volume Shadow Copy Service (VSS)

For the storage:

Geo-redundant storage (GRS)  
**Locally-redundant storage (LRS)**  
Zone-redundant storage (ZRS)

  **OrangeSG** Highly Voted 6 months ago

Box 1: The Microsoft Azure Recovery Services (MARS) agent

The MARS agent is a free and easy-to-use agent that can be installed on Windows servers to back up files and folders to Azure.

Volume Shadow Copy Service (VSS) is a Windows service that provides a snapshot of the server's file system, which is used to create consistent backups. The VSS service is already installed and enabled on Windows Server by default, so it is not necessary to select it as a configuration option.

Box 2: Locally-redundant storage (LRS)

LRS is the most cost-effective storage option for Azure Backup. It replicates data three times within a single data center in the primary region, which provides sufficient durability for most workloads.

upvoted 14 times

  **RJalal** Highly Voted 6 months, 1 week ago

correct answer

upvoted 7 times

  **JoShizo** Most Recent 1 month, 2 weeks ago

On the servers: The Microsoft Azure Recovery Services (MARS) agent. Other options make no sense.

Fro the storage: Locally-redundant storage (LRS) meets the requirement.

upvoted 1 times

**HOTSPOT**

You plan to deploy a containerized web-app that will be hosted in five Azure Kubernetes Service (AKS) clusters. Each cluster will be hosted in a different Azure region.

You need to provide access to the app from the internet. The solution must meet the following requirements:

- Incoming HTTPS requests must be routed to the cluster that has the lowest network latency.
- HTTPS traffic to individual pods must be routed via an ingress controller.
- In the event of an AKS cluster outage, failover time must be minimized.

What should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

For global load balancing:

Azure Front Door  
Azure Traffic Manager  
Cross-region load balancing in Azure  
Standard Load Balancer

As the ingress controller:

Azure Application Gateway  
Azure Standard Load Balancer  
Basic Azure Load Balancer

**Answer Area**

For global load balancing:

Azure Front Door  
Azure Traffic Manager  
Cross-region load balancing in Azure  
Standard Load Balancer

As the ingress controller:

Azure Application Gateway  
Azure Standard Load Balancer  
Basic Azure Load Balancer

 **OrangeSG** Highly Voted 5 months, 2 weeks ago

Box 1: Azure Front Door

Both Azure Front Door and Traffic Manager are global load balancer. However, recommended traffic for Azure Front Door is HTTP(S), and recommended traffic for Traffic Manager is Non-HTTP(S).

<https://learn.microsoft.com/en-us/azure/architecture/guide/technology-choices/load-balancing-overview>

Box 2: Azure Application Gateway

The Application Gateway Ingress Controller (AGIC) is a Kubernetes application, which makes it possible for Azure Kubernetes Service (AKS) customers to leverage Azure's native Application Gateway L7 load-balancer to expose cloud software to the Internet.

AGIC helps eliminate the need to have another load balancer/public IP address in front of the AKS cluster and avoids multiple hops in your datapath before requests reach the AKS cluster.

<https://learn.microsoft.com/en-us/azure/application-gateway/ingress-controller-overview>

upvoted 17 times

 **razzil** Highly Voted 6 months ago

For global loadbalancing it should be Front Door.

A load balancer is not global

Traffic Manager is recommended for Non-HTTPS Traffic  
<https://learn.microsoft.com/en-us/azure/architecture/guide/technology-choices/load-balancing-overview>  
upvoted 9 times

✉️  **Minila92** Most Recent 2 months, 2 weeks ago

Got this ques in my exam on 29th Jan 2024 and scored 950. I chose given answers.  
upvoted 7 times

✉️  **Bubbles** 4 months, 3 weeks ago

Azure Front Door and Azure App Gateway  
<https://learn.microsoft.com/en-us/azure/architecture/reference-architectures/containers/aks-multi-region/aks-multi-cluster>  
upvoted 2 times

✉️  **BenyBoss** 5 months, 3 weeks ago

Both Traffic Manager and Front Door can do "performance-based" routing using probes, HTTP/S doesn't really come into this at all. However, since TM is DNS-based (which has caching) and AFD is per-request, AFD can fail over faster than TM can, at least in theory.

In practice it can take a while for the origin status change to get propagated to all the AFD edge nodes, so failover is non-deterministic in both cases. Nonetheless, I think they're looking for AFD here by qualifying "minimal failover time".

upvoted 1 times

✉️  **maxustermann** 5 months, 3 weeks ago

Also we are talking about multiple regions, so Azure Front Door is needed.  
upvoted 1 times

✉️  **M\_u\_t\_h\_u** 6 months ago

Service Global/Regional Recommended traffic  
Azure Front Door Global HTTP(S)

Answer is correct

upvoted 2 times

✉️  **Elecktrus** 6 months, 1 week ago

Answer is correct.  
For load balancing both are right, but only Front-Door can manage the network latency  
upvoted 1 times

✉️  **RJalal** 6 months, 1 week ago

1st answer is wrong.  
It should be Azure Traffic manager  
To provide access to your containerized web application hosted in five Azure Kubernetes Service (AKS) clusters across different Azure regions with global load balancing, you can use Azure Traffic Manager in combination with Azure Application Gateway and an Ingress Controller.  
upvoted 4 times

✉️  **williamjcg** 1 month ago

Stop upvoting this guy..

Recommended traffic for Azure Front Door is HTTP(S), and recommended traffic for Traffic Manager is Non-HTTP(S).  
upvoted 1 times

✉️  **Necron** 6 months, 1 week ago

Application Gateway can make routing decisions based on additional attributes of an HTTP request, for example URI path or host headers. Azure Application Gateway can do URL-based routing and more.  
<https://learn.microsoft.com/en-us/azure/application-gateway/overview>

Azure Front Door is Microsoft's modern cloud Content Delivery Network (CDN) that provides fast, reliable, and secure access between your users and your applications' static and dynamic web content across the globe

upvoted 2 times

**HOTSPOT**

You have an Azure subscription.

You create a storage account that will store documents.

You need to configure the storage account to meet the following requirements:

- Ensure that retention policies are standardized across the subscription.
- Ensure that data can be purged if the data is copied to an unauthorized location.

Which two settings should you enable? To answer, select the appropriate settings in the answer area.

NOTE: Each correct selection is worth one point.

**Recovery**

✓  Enable operational backup with Azure Backup

✓  Enable point-in-time restore for containers

✓  Enable soft delete for blobs

✓  Enable soft delete for containers

✓  Enable permanent delete for soft deleted items

**Tracking**

✓  Enable versioning for blobs

✓  Enable blob change feed

**Access control**

✓  Enable version-level immutability support

**Correct Answer:**

- ✓  Enable operational backup with Azure Backup
- ✓  Enable point-in-time restore for containers
- ✓  Enable soft delete for blobs
- ✓  Enable soft delete for containers
- ✓  Enable permanent delete for soft deleted items

**Tracking**

- ✓  Enable versioning for blobs
- ✓  Enable blob change feed

**Access control**

- ✓  Enable version-level immutability support

✉ **Joylee** Highly Voted 4 months ago

1, Enable operational backup with Azure Backup - can share same backup policy among multiple storage accounts

2, Enable permanent delete for soft deleted items - can delete blobs prematurely.

upvoted 19 times

✉ **ayadmaawla** 3 months, 1 week ago

I agree with you Joylee

Operational backup of blobs is a local backup solution that maintains data for a specified duration in the source storage account itself. This solution doesn't maintain an additional copy of data in the vault. This solution allows you to retain your data for restore for up to 360 days.

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-backup-configure-manage?tabs=operational-backup>

upvoted 3 times

✉ **MiniLa92** Highly Voted 2 months, 2 weeks ago

Got this ques in my exam on 29th Jan 2024 and scored 950. I chose "Enable operational backup with Azure Backup" and "Enable permanent delete for soft deleted items "

upvoted 16 times

✉ **varinder82** Most Recent 6 days, 9 hours ago

Final Answer:

1, Enable operational backup with Azure Backup  
2, Enable permanent delete for soft deleted items

upvoted 1 times

✉ **[Removed]** 3 months ago

I would go for Enable operational backup with Azure Backup to tick off the box ensuring that retention policies are standardised across subscriptions. There is no other box in the list that would do this.

For the second option in regard to ensuring data can be purged, I would go for Enable permanent delete for soft deleted items. Why? Because soft delete is enabled by default when you create containers. Assuming this was the case here, if you want to immediately delete something inside the container, you won't be able to without enabling this permanent delete for soft deleted items option. If you don't have this option and you delete something, it can be restored while it's in the soft-delete state (usually 7 days by default).

upvoted 4 times

✉ **Paul\_white** 4 months, 2 weeks ago

1. ENABLING VERSIONING FOR BLOBS

2. ENABLE PERMANENT DELETE FOR SOFT DELETED ITEMS

<https://freedumps.certqueen.com/microsoft-az-305-exam-updated-dumps/>

upvoted 3 times

✉  **fodocel235** 4 months, 2 weeks ago

1. Enable permanent delete for soft deleted items
2. Enable blob change feed

When creating the Storage Account (via the Portal) Enable soft delete for containers, Enable soft delete for blobs are enabled by default. So when you want to remove something (purge), you must permanent delete it otherwise it stays available for the days you configured in the soft deleted items.

You want to purge the data once it is copied to an unauthorized location. For that, you need the change feed.

upvoted 1 times

✉  **a03** 5 months ago

Second is definitely "blob change feed"...  
but first... how we can standardize policies across the subscription on storage account level?

upvoted 3 times

✉  **a03** 5 months ago

however, in any case, if we throw away Recovery options, we have in rest only "Enable versioning" and "Enable immutability"... and second requires first... so maybe "Enable versioning" is ok...

upvoted 2 times

✉  **OrangeSG** 5 months, 2 weeks ago

The two settings that you should enable to meet the requirements are:

- Versioning for blobs
- Blob change feed

Versioning for blobs allows you to keep multiple versions of a blob. This can be useful for recovering from accidental deletions or overwrites. You can configure versioning to retain a specific number of versions or to retain versions for a specific period of time.

Blob change feed provides a continuous feed of events that occur on blobs in a storage account. This feed can be used to track changes to blobs and to take action on those changes, such as purging data if it is copied to an unauthorized location.

upvoted 4 times

✉  **z** 5 months, 1 week ago

Why we need versioning if default behavior without it is equal to purge?

upvoted 1 times

✉  **vitodobra** 6 months ago

"Blob soft delete is enabled by default when you create a new storage account with the Azure portal. The setting to enable or disable blob soft delete when you create a new storage account is on the Data protection tab."

<https://learn.microsoft.com/en-us/azure/storage/blobs/soft-delete-blob-enable?tabs=azure-portal>

Blob versioning and soft delete

"Blob versioning and blob soft delete are part of the recommended data protection configuration for storage accounts."

<https://learn.microsoft.com/en-us/azure/storage/blobs/versioning-overview#enable-or-disable-blob-versioning>

upvoted 2 times

✉  **U4ea** 6 months ago

The only way to know if documents (blob files, not container like in the answer!) are copied to another location is via Blob Change Feed so this should be included in the answer I think.

Probably also soft delete for blobs for the retention options.

upvoted 3 times

✉  **z** 5 months, 1 week ago

Why do we need to know about the change if the change of the location itself will change applicable policies if they are location-related?

upvoted 1 times

✉  **RJalal** 6 months, 1 week ago

the answer should be:

- 1) enable soft delete for blobs
- 2) enable versioning for blobs

upvoted 16 times

**HOTSPOT**

You have an Azure subscription.

You are designing a solution for containerized apps. The solution must meet the following requirements:

- Automatically scale the apps by creating additional instances.
- Minimize administrative effort to maintain nodes and clusters.
- Ensure that containerized apps are highly available across multiple availability zones.
- Provide a central location for the lifecycle management and storage of container images.

What should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

To run the containerized apps:

Azure Container Apps
Azure Container Instances
Azure Container Registry
Azure Kubernetes Service (AKS)

For the lifecycle management and storage of container images:

Azure Container Apps
Azure Container Instances
Azure Container Registry
Azure Service Fabric

**Answer Area**

To run the containerized apps:

Azure Container Apps
Azure Container Instances
Azure Container Registry
Azure Kubernetes Service (AKS)

Correct Answer:

For the lifecycle management and storage of container images:

Azure Container Apps
Azure Container Instances
Azure Container Registry
Azure Service Fabric

✉  **TonySuccess** 2 months, 2 weeks ago

1. Azure Container Apps
  2. Azure Container Registry
- upvoted 1 times

✉  **MiniLa92** 2 months, 2 weeks ago

Got this ques in my exam on 29th Jan 2024 and scored 950. I chose given answers  
upvoted 3 times

✉  **Pear77** 3 months ago

AKS & ACR are the correct options  
upvoted 3 times

✉  **Pear77** 3 months ago

<https://learn.microsoft.com/en-us/azure/aks/intro-kubernetes>  
upvoted 1 times

✉️ [Removed] 3 months ago

Why not AKS instead of Container apps?

upvoted 1 times

✉️ ffd392f 2 months, 3 weeks ago

minimize administrative effort

upvoted 6 times

✉️ JimmyYop 3 months, 1 week ago

To Run Container Apps: Azure Container Instance (ACI)

<https://learn.microsoft.com/en-us/azure/container-instances/container-instances-quickstart-portal>

Lifecycle Management and Storage of Container Instances: Azure Container Registry

<https://azure.microsoft.com/en-us/products/container-registry>

upvoted 2 times

✉️ AmineD 3 months ago

In this scenario, we need automatic scaling which is not supported in Azure Container Instance (ACI)

Source: <https://learn.microsoft.com/en-us/azure/container-instances/container-instances-overview>

But it is a feature in Azure Container Apps (ACA) by setting scaling rules

Source: <https://learn.microsoft.com/en-us/azure/container-apps/overview#features>

Correct answer: To run Containerized apps => Azure Container Apps (ACA)

upvoted 7 times

✉️ JimmyYop 2 months, 4 weeks ago

Agree with you: Azure Container Apps is the right answer. (Found a community article showing Scaling Options)

<https://techcommunity.microsoft.com/t5/apps-on-azure-blog/scaling-options-in-azure-container-apps/ba-p/3878282#:~:text=Navigate%20to%20Container%20App%20%3E%20Scale,requests%20to%20your%20container%20app>.

upvoted 2 times

## DRAG DROP

You plan to use Azure Storage to store data assets.

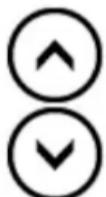
You need to identify the procedure to fail over a general-purpose v2 account as part of a disaster recovery plan. The solution must meet the following requirements:

- Apps must be able to access the storage account after a failover.
- You must be able to fail back the storage account to the original location.
- Downtime must be minimized.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

**Actions**

- After a failover, configure geo-redundant storage (GRS) replication for the storage account.
- Initiate a failover.
- Before a failover, configure zone-redundant storage (ZRS) replication for the storage account.
- Before a failover, configure geo-redundant storage (GRS) replication for the storage account.
- After a failover, configure zone-redundant storage (ZRS) replication for the storage account.

**Answer Area****Correct Answer:**

- Before a failover, configure geo-redundant storage (GRS) replication for the storage account.
- Initiate a failover.
- After a failover, configure geo-redundant storage (GRS) replication for the storage account.

✉ **idreamsurfer** 1 month, 4 weeks ago

Why GRS and not ZRS?

upvoted 4 times

✉ **baroner** 1 month, 3 weeks ago

Failover only supports GRS, GZRS, and RA-GZRS

Reference: <https://learn.microsoft.com/en-us/azure/storage/common/storage-disaster-recovery-guidance>

upvoted 8 times

✉ **JimmyYop** 3 months, 1 week ago

Answer is correct:

Prerequisites:

Before you can perform an account failover on your storage account, make sure that: Your storage account is configured for geo-replication (GRS, GZRS, RA-GRS or RA-GZRS). For more information about Azure Storage redundancy,

<https://learn.microsoft.com/en-us/azure/storage/common/storage-initiate-account-failover?tabs=azure-portal>

upvoted 4 times

✉ **kishoredeena** 3 months, 1 week ago

Given answer is correct

<https://learn.microsoft.com/en-us/azure/storage/common/storage-initiate-account-failover?tabs=azure-portal>

Verify Point 3 in the link

Verify that your storage account is configured for geo-redundant storage (GRS) or read-access geo-redundant storage (RA-GRS). If it's not, then select Configuration under Settings to update your account to be geo-redundant.

5th Point

Select Prepare for failover.

After the failover, your storage account type is automatically converted to locally redundant storage (LRS) in the new primary region. You can re-enable geo-redundant storage (GRS) or read-access geo-redundant storage (RA-GRS) for the account.

upvoted 2 times

## Topic 4 - Question Set 4

Question #1

Topic 4

You have an Azure subscription that contains a Basic Azure virtual WAN named VirtualWAN1 and the virtual hubs shown in the following table.

Name	Location
Hub1	US East
Hub2	US West

You have an ExpressRoute circuit in the US East Azure region.

You need to create an ExpressRoute association to VirtualWAN1.

What should you do first?

- A. Upgrade VirtualWAN1 to Standard.
- B. Create a gateway on Hub1.
- C. Enable the ExpressRoute premium add-on.
- D. Create a hub virtual network in US East.

### Correct Answer: A

A basic Azure virtual WAN does not support express route. You have to upgrade to standard.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-wan/virtual-wan-about>

*Community vote distribution*

A (100%)

✉️  **mmar123** Highly Voted 2 years, 2 months ago

There are two types of Virtual WANs. one is the BASIC and the second one is STANDARD. BASIC supports only SITE to SITE VPN. STANDARD supports below configs,

ExpressRoute  
User VPN (P2S)  
VPN (site-to-site)  
Inter-hub and VNet-to-VNet transiting through the virtual hub  
Azure Firewall  
NVA in a virtual WAN

NOTE: You can upgrade from Basic to Standard, but you cannot revert from Standard back to Basic.

upvoted 79 times

✉️  **Eltooth** Highly Voted 2 years, 4 months ago

**Selected Answer: A**

Correct answer - A.

<https://docs.microsoft.com/en-us/azure/virtual-wan/virtual-wan-about#basicstandard>

upvoted 18 times

✉️  **NotMeAnyWay** Most Recent 1 year ago

**Selected Answer: A**

A. Upgrade VirtualWAN1 to Standard.

To create an ExpressRoute association with VirtualWAN1, you need to upgrade VirtualWAN1 from the Basic tier to the Standard tier. ExpressRoute connectivity to a virtual WAN is only supported in the Standard tier of Azure Virtual WAN. Once you have upgraded VirtualWAN1 to the Standard tier, you can proceed with setting up the ExpressRoute association.

upvoted 3 times

✉️  **VBK8579** 1 year, 2 months ago

**Selected Answer: A**

Steps to perform in sequence

1. Upgrade VirtualWAN1 to Standard.
2. Create a virtual hub in the US East region and associate it with the ExpressRoute circuit.
3. Associate the virtual hub with VirtualWAN1.

upvoted 4 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: A**

A. Upgrade VirtualWAN1 to Standard  
upvoted 1 times

✉ **egdeeptha** 1 year, 4 months ago

**Selected Answer: A**

<https://learn.microsoft.com/en-us/azure/virtual-wan/virtual-wan-expressroute-portal>

Type: Basic or Standard. Select Standard. If you select Basic, understand that Basic virtual WANs can only contain Basic hubs. Basic hubs can only be used for site-to-site connections.

upvoted 2 times

✉ **al608** 1 year, 9 months ago

did my Exam today. This was on there.  
upvoted 3 times

✉ **mitsuichiu** 1 year, 10 months ago

Correct answer - A.  
upvoted 1 times

✉ **Gor** 1 year, 10 months ago

**Selected Answer: A**

Correct Answer - A  
<https://docs.microsoft.com/en-us/azure/virtual-wan/virtual-wan-about#basicstandard>  
upvoted 1 times

✉ **Teringzooi** 1 year, 11 months ago

**Selected Answer: A**

Answer is A  
<https://docs.microsoft.com/en-us/azure/virtual-wan/virtual-wan-about#basicstandard>  
upvoted 1 times

✉ **Contactfornitish** 2 years ago

Came in exam today 04/04/2022  
upvoted 3 times

✉ **Insanewhip** 2 years, 1 month ago

Appeared on my exam today, March 10th, 2022. I selected A.  
upvoted 4 times

✉ **jinger** 2 years, 1 month ago

Answer A is correct  
upvoted 1 times

✉ **Nansman** 2 years, 1 month ago

Answer A is correct.  
upvoted 2 times

✉ **[Removed]** 2 years, 3 months ago

**Selected Answer: A**

A is correct  
upvoted 4 times

You have an Azure subscription that contains a storage account.

An application sometimes writes duplicate files to the storage account.

You have a PowerShell script that identifies and deletes duplicate files in the storage account. Currently, the script is run manually after approval from the operations manager.

You need to recommend a serverless solution that performs the following actions:

- Runs the script once an hour to identify whether duplicate files exist
- Sends an email notification to the operations manager requesting approval to delete the duplicate files
- Processes an email response from the operations manager specifying whether the deletion was approved
- Runs the script if the deletion was approved

What should you include in the recommendation?

- A. Azure Logic Apps and Azure Event Grid
- B. Azure Logic Apps and Azure Functions
- C. Azure Pipelines and Azure Service Fabric
- D. Azure Functions and Azure Batch

**Correct Answer: B**

You can schedule a powershell script with Azure Logic Apps.

When you want to run code that performs a specific job in your logic apps, you can create your own function by using Azure Functions. This service helps you create Node.js, C#, and F# functions so you don't have to build a complete app or infrastructure to run code. You can also call logic apps from inside Azure functions.

Reference:

<https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-azure-functions>

*Community vote distribution*

B (100%)

 **Eltooth**  2 years, 3 months ago

**Selected Answer: B**

Correct answer - B

upvoted 27 times

 **itvinoth83**  1 year, 4 months ago

On the AZ 305 exam, 28/11/22

upvoted 11 times

 **Panpoo**  5 months ago

**Selected Answer: B**

Answer is B. Azure Logic Apps and Azure Functions

upvoted 2 times

 **NotMeAnyWay** 1 year ago

**Selected Answer: B**

B. Azure Logic Apps and Azure Functions

Azure Logic Apps is a serverless solution that enables you to create and run workflows that integrate with various services and systems. You can use Azure Logic Apps to create a workflow that runs the PowerShell script once an hour using a time-based trigger, sends an email notification to the operations manager for approval, and processes the email response.

Azure Functions is a serverless compute service that allows you to run event-driven code without having to manage infrastructure explicitly. You can use Azure Functions to host the PowerShell script, which can be triggered by the Logic App when the operations manager approves the deletion.

Combining Azure Logic Apps and Azure Functions will provide the necessary components to meet the requirements of the scenario.

upvoted 6 times

 **VBK8579** 1 year, 2 months ago

**Selected Answer: B**

Azure Logic Apps can be used to schedule the script to run once an hour, send an email notification to the operations manager requesting approval to delete the duplicate files, and process the email response from the operations manager specifying whether the deletion was approved

Azure Functions can be used to run the script that identifies and deletes the duplicate files, based on the response received from the operations

manager. This way, the solution can be triggered only when the operations manager approves the deletion, providing an additional layer of control and security.

upvoted 2 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

B. Azure Logic Apps and Azure Functions  
- do not get confused with azure batch  
upvoted 1 times

✉ **Gor** 1 year, 10 months ago

**Selected Answer: B**

B is correct.  
<https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-azure-functions>  
upvoted 3 times

✉ **dasEnder** 1 year, 11 months ago

**Selected Answer: B**

I would like to add: as far as I know Logic Apps do not support PowerShell (the answer explanation says otherwise). Azure Pipelines is for CI (devOps). And batch is for HPC workloads. So B is the only viable option.  
upvoted 5 times

✉ **datafypk** 1 year, 11 months ago

was in exam 8 May 22  
upvoted 4 times

✉ **Teringzooi** 1 year, 11 months ago

**Selected Answer: B**

B is correct.  
<https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-azure-functions>  
upvoted 1 times

✉ **akkrishna22** 2 years ago

correct answer B - on exam 03-31-2022  
upvoted 4 times

✉ **piyipo3349** 2 years ago

**Selected Answer: B**

Correct answer - B  
upvoted 1 times

✉ **cega** 2 years, 1 month ago

Correct answer  
upvoted 1 times

✉ **Makinto** 2 years, 1 month ago

**Selected Answer: B**

Correct answer - B  
upvoted 1 times

Your company has the infrastructure shown in the following table.

Location	Resource
Azure	<ul style="list-style-type: none"> <li>• Azure subscription named Subscription1</li> <li>• 20 Azure web apps</li> </ul>
On-premises datacenter	<ul style="list-style-type: none"> <li>• Active Directory domain</li> <li>• Server running Azure AD Connect</li> <li>• Linux computer named Server1</li> </ul>

The on-premises Active Directory domain syncs with Azure Active Directory (Azure AD).

Server1 runs an application named App1 that uses LDAP queries to verify user identities in the on-premises Active Directory domain.

You plan to migrate Server1 to a virtual machine in Subscription1.

A company security policy states that the virtual machines and services deployed to Subscription1 must be prevented from accessing the on-premises network.

You need to recommend a solution to ensure that App1 continues to function after the migration. The solution must meet the security policy.

What should you include in the recommendation?

- A. Azure AD Application Proxy
- B. the Active Directory Domain Services role on a virtual machine
- C. an Azure VPN gateway
- D. Azure AD Domain Services (Azure AD DS)

**Correct Answer: D**

Azure Active Directory Domain Services (Azure AD DS) provides managed domain services such as domain join, group policy, lightweight directory access protocol (LDAP), and Kerberos/NTLM authentication.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory-domain-services/overview>

*Community vote distribution*

D (96%) 4%

✉  **bkrich**  2 years, 4 months ago

**Selected Answer: D**

D seems to be correct. You can use Azure AD DS and sync identities needed from Azure AD to Azure AD DS to use legacy protocols like LDAP, Kerberos and NTLM

upvoted 29 times

✉  **Eltooth**  2 years, 4 months ago

**Selected Answer: D**

AD DS in azure on a VM would be easiest option however policy restricts access.

Correct answer - D

upvoted 10 times

✉  **FrancisFerreira** 2 years ago

If you have AD DS in an Azure VM, you wouldn't need to access the internal network as the on-prem AD DS is already synced to Azure AD.

Why would you do that tho? It's one extra VM to maintain, coz Server1 is a Linux VM that can't host AD DS, so you would need an extra Win VM just for that.

upvoted 7 times

✉  **betterthanlife**  11 months, 2 weeks ago

D is correct, App Proxy would not work & both the VPN gateway or DC in Azure IaaS would violate the requirement that virtual machines and services deployed to Subscription1 must be prevented from accessing the on-premises network.

upvoted 2 times

✉  **NotMeAnyWay** 1 year ago

**Selected Answer: D**

D. Azure AD Domain Services (Azure AD DS)

Azure AD Domain Services (Azure AD DS) provides managed domain services such as domain join, group policy, LDAP, and Kerberos/NTLM authentication. It integrates with your existing Azure AD tenant, allowing you to continue using LDAP queries to verify user identities after migrating Server1 to a virtual machine in Subscription1.

By using Azure AD DS, you can ensure that App1 continues to function after migration while adhering to the company security policy that prevent virtual machines and services deployed to Subscription1 from accessing the on-premises network.

upvoted 5 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: D**

D. Azure AD Domain Services (Azure AD DS)

upvoted 1 times

✉ **Gowind2** 1 year, 7 months ago

**Selected Answer: D**

Example here: <https://docs.microsoft.com/en-us/azure/active-directory-domain-services/scenarios#azure-ad-ds-for-hybrid-organizations>

Azure AD Already exists and is synced with on premises AD.

upvoted 3 times

✉ **lemoniazure** 1 year, 8 months ago

D,

Reason:

An Azure AD DS managed domain lets you run legacy applications in the cloud that can't use modern authentication methods, or where you don't want directory lookups to always go back to an on-premises AD DS environment. You can lift and shift those legacy applications from your on-premises environment into a managed domain, without needing to manage the AD DS environment in the cloud.

Azure AD DS integrates with your existing Azure AD tenant. This integration lets users sign in to services and applications connected to the managed domain using their existing credentials. You can also use existing groups and user accounts to secure access to resources. These features provide a smoother lift-and-shift of on-premises resources to Azure.

upvoted 4 times

✉ **shaojunni** 1 year, 8 months ago

D is correct. B is incorrect, since AAD is already in place and synced with AD on-premise.

upvoted 1 times

✉ **AubinBakana** 1 year, 8 months ago

**Selected Answer: D**

This is the best answer. Azure AD DS was designed exactly for this type of scenario.

upvoted 1 times

✉ **codingdown** 1 year, 9 months ago

**Selected Answer: A**

Application Proxy is a feature of Azure AD that enables users to access on-premises web applications from a remote client.

upvoted 1 times

✉ **AubinBakana** 1 year, 8 months ago

Yes, but we are not talking about users here. This is an application feature. App Proxy is a jump box that allows users to connect to services on-prem without poking a hole in the Firewall. Totally different situation here.

upvoted 3 times

✉ **codingdown** 1 year, 9 months ago

**Selected Answer: A**

Application Proxy is a feature of Azure AD that enables users to access on-premises web applications from a remote client.

upvoted 1 times

✉ **rishisoft1** 2 weeks, 4 days ago

Application proxy helps to sync on-premise and Azure AD, actual authentication occurs through ADDS

upvoted 1 times

✉ **tunmise\_ay** 1 year, 10 months ago

was in exam 1 June 2022

upvoted 6 times

✉ **al608** 1 year, 10 months ago

did any other questions from this come. I am doing my exam on the 22nd

upvoted 1 times

✉ **Gor** 1 year, 10 months ago

**Selected Answer: D**

Correct answer - D

<https://docs.microsoft.com/en-us/azure/active-directory-domain-services/faqs#can-i-add-domain-controllers-to-an-azure-ad-domain-services-managed-domain>

upvoted 2 times

✉️  **winframe** 1 year, 10 months ago

App1 requires to use LDAP queries to verify identities. I suppose the App will not modify (question doesn't refer to any changes in the App), no LDAP in AZ AD, so the only possibility is deploy an AD DS in Azure. VPN is in place. B seems to be correct, a Domain Controller in Azure  
upvoted 2 times

✉️  **datafypk** 1 year, 11 months ago

was in exam 8 May 22  
upvoted 5 times

✉️  **Teringzooi** 1 year, 11 months ago

**Selected Answer: D**  
Correct answer - D  
<https://docs.microsoft.com/en-us/azure/active-directory-domain-services/faqs#can-i-add-domain-controllers-to-an-azure-ad-domain-services-managed-domain->  
upvoted 1 times

✉️  **esther823** 2 years ago

in my exam on 31 Mar 22  
upvoted 3 times

You need to design a solution that will execute custom C# code in response to an event routed to Azure Event Grid. The solution must meet the following requirements:

- ☞ The executed code must be able to access the private IP address of a Microsoft SQL Server instance that runs on an Azure virtual machine.
- ☞ Costs must be minimized.

What should you include in the solution?

- A. Azure Logic Apps in the Consumption plan
- B. Azure Functions in the Premium plan
- C. Azure Functions in the Consumption plan
- D. Azure Logic Apps in the integrated service environment

**Correct Answer: B**

Virtual connectivity is included in the Premium plan.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-functions/functions-scale#hosting-plans-comparison>

*Community vote distribution*

B (99%)

✉  **Eltooth** Highly Voted 2 years, 4 months ago

**Selected Answer: B**

Correct answer - B

Consumption plan cannot access Virtual Network Integration features.

Virtual network integration allows your function app to access resources inside a virtual network.

<https://docs.microsoft.com/en-us/azure/azure-functions/functions-scale#networking-features>  
upvoted 54 times

✉  **sairaj9396** 1 year, 10 months ago

Correct!

upvoted 2 times

✉  **RKMCT** Highly Voted 2 years, 2 months ago

B is correct Answer.

Premium Plan get virtual network connectivity.

<https://docs.microsoft.com/en-us/azure/azure-functions/functions-scale>

upvoted 10 times

✉  **Sangam04** Most Recent 7 months ago

**Selected Answer: B**

B. Azure Functions in the Premium plan

is correct answer.

upvoted 2 times

✉  **NotMeAnyWay** 1 year ago

**Selected Answer: B**

B. Azure Functions in the Premium plan

Azure Functions in the Premium plan is the best solution to meet the requirements. With the Premium plan, you can execute custom C# code in response to an event routed to Azure Event Grid. Additionally, the Premium plan allows you to access resources in a virtual network, such as the private IP address of a SQL Server instance running on an Azure virtual machine.

Azure Functions in the Consumption plan does not support virtual network integration, which is necessary for accessing the private IP address of the SQL Server instance. Azure Logic Apps in both the Consumption plan and the integrated service environment are not ideal for executing custom C# code and may not be as cost-effective as Azure Functions in the Premium plan.

upvoted 7 times

✉  **VBK8579** 1 year, 2 months ago

**Selected Answer: B**

Access to Private IP: Azure Functions in the Premium plan supports accessing resources within a virtual network, which includes accessing the private IP address of a Microsoft SQL Server instance running on an Azure virtual machine. Azure Functions in the Consumption plan do not support this.

upvoted 1 times

OPT\_001122 1 year, 2 months ago

**Selected Answer: B**

B. Azure Functions in the Premium plan  
upvoted 1 times

mtc9 1 year, 5 months ago

Correct answer: B  
Logic App will not run your custom code, so function.  
Consumption plan doesn't support vnet integration, you need premium or application plan. Application plan is not enlisted in the answers, so Functions Premium.  
upvoted 3 times

Gowind2 1 year, 7 months ago

**Selected Answer: B**

Implementation example here: <https://docs.microsoft.com/en-us/azure/azure-functions/functions-create-vnet>  
upvoted 1 times

kaushik 1 year, 7 months ago

was in my exam 31-08-2022  
upvoted 4 times

AubinBakana 1 year, 8 months ago

**Selected Answer: B**

A premium Function App can access VM features such private IPs, not basic. Logic App is not an option, you can't write code directly to Logic App.  
upvoted 1 times

Razvan123 1 year, 8 months ago

You can use a Private Link to access the DB. So Consumption plan also works.  
upvoted 1 times

Atanu 1 year, 9 months ago

This question has been taken from AZ-304, Option C is correct  
upvoted 1 times

mtc9 1 year, 9 months ago

You don;t need premium plan, you can also use app service plan to integrate with vnet, but this option was not enlisted in possible anwers, so premium plan is the only viable anwer here. Login apps are not implemented by C# code.  
upvoted 1 times

SilverFox22 1 year, 9 months ago

**Selected Answer: B**

A Consumption plan cannot access Virtual Network Integration features (like accessing the Private IP address).  
upvoted 2 times

bellorg 1 year, 9 months ago

B is correct  
upvoted 2 times

thatsme2121 1 year, 9 months ago

**Selected Answer: B**

Premium - You require features that aren't available on the Consumption plan, such as virtual network connectivity.  
upvoted 2 times

al608 1 year, 9 months ago

did my Exam today. This was on there.  
upvoted 2 times

You have an on-premises network and an Azure subscription. The on-premises network has several branch offices.

A branch office in Toronto contains a virtual machine named VM1 that is configured as a file server. Users access the shared files on VM1 from all the offices.

You need to recommend a solution to ensure that the users can access the shared files as quickly as possible if the Toronto branch office is inaccessible.

What should you include in the recommendation?

- A. a Recovery Services vault and Windows Server Backup
- B. Azure blob containers and Azure File Sync
- C. a Recovery Services vault and Azure Backup
- D. an Azure file share and Azure File Sync

**Correct Answer: D**

Use Azure File Sync to centralize your organization's file shares in Azure Files, while keeping the flexibility, performance, and compatibility of an on-premises file server. Azure File Sync transforms Windows Server into a quick cache of your Azure file share.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide>

*Community vote distribution*

D (100%)

✉  **bkrich**  2 years, 4 months ago

**Selected Answer: D**

They say "quickly as possible" so an Azure Fileshare with Azure FileSync running looks to be the quickest option to get things accessible again.  
upvoted 25 times

✉  **Eltooth**  2 years, 4 months ago

**Selected Answer: D**

Azure file share and sync offers "offline" access if primary server is unavailable as copy is help in cloud endpoint.  
upvoted 9 times

✉  **Eltooth** 2 years, 4 months ago

With almost immediate content upload data is sync'd from server endpoint almost immediately ensuring near-live copy (<60 seconds).  
upvoted 3 times

✉  **JoShizo**  1 month, 1 week ago

**Selected Answer: D**

D for sure.  
upvoted 1 times

✉  **NotMeAnyWay** 1 year ago

**Selected Answer: D**

D. an Azure file share and Azure File Sync

Azure File Sync enables you to centralize your organization's file shares in Azure Files while maintaining local access to the data. In this scenario, you can use Azure File Sync to synchronize the shared files on VM1 to an Azure file share. This ensures that the latest versions of the files are available in Azure.

In case the Toronto branch office becomes inaccessible, users can access the shared files directly from the Azure file share. This allows them to access the files as quickly as possible without relying on the availability of the Toronto branch office.

upvoted 6 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: D**

D. an Azure file share and Azure File Sync  
upvoted 1 times

✉  **Dinima** 1 year, 6 months ago

Selected Answer: D  
upvoted 1 times

✉  **CloudJordao** 1 year, 7 months ago

**Selected Answer: D**

correct

upvoted 1 times

✉ **AubinBakana** 1 year, 8 months ago

**Selected Answer: D**

This one would be a bonus if it came

upvoted 1 times

✉ **Gor** 1 year, 10 months ago

**Selected Answer: D**

Correct Answer - D.

<https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide>

upvoted 1 times

✉ **datafypk** 1 year, 11 months ago

was in exam 8 May 22

upvoted 4 times

✉ **Teringzooi** 1 year, 11 months ago

**Selected Answer: D**

Correct answer: D

Azure file share and Azure filesync.

upvoted 1 times

✉ **g6singh** 2 years ago

"Azure file share and sync offers "offline" access if primary server is unavailable as copy is help in cloud endpoint. " Does Azure File Share with Sync offers both read write operations or just a read only copy, in case primary server is unavailable ?

upvoted 2 times

✉ **esther823** 2 years ago

in my exam on 31 Mar 22

upvoted 3 times

✉ **HGD545** 2 years, 1 month ago

On the AZ-305 2/22/22

upvoted 4 times

✉ **makovec25** 2 years, 1 month ago

**Selected Answer: D**

D for sure

upvoted 2 times

✉ **jeremykebir** 2 years, 3 months ago

**Selected Answer: D**

D is good

upvoted 3 times

**HOTSPOT -**

You have an Azure subscription named Subscription1 that is linked to a hybrid Azure Active Directory (Azure AD) tenant.

You have an on-premises datacenter that does NOT have a VPN connection to Subscription1. The datacenter contains a computer named Server1 that has

Microsoft SQL Server 2016 installed. Server is prevented from accessing the internet.

An Azure logic app resource named LogicApp1 requires write access to a database on Server1.

You need to recommend a solution to provide LogicApp1 with the ability to access Server1.

What should you recommend deploying on-premises and in Azure? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

On-premises:

A Web Application Proxy for Windows Server
An Azure AD Application Proxy connector
An On-premises data gateway
Hybrid Connection Manager

Azure:

A connection gateway resource
An Azure Application Gateway
An Azure Event Grid domain
An enterprise application

**Answer Area**

On-premises:

A Web Application Proxy for Windows Server
An Azure AD Application Proxy connector
An On-premises data gateway
Hybrid Connection Manager

Correct Answer:

Azure:

A connection gateway resource
An Azure Application Gateway
An Azure Event Grid domain
An enterprise application

Box 1: An on-premises data gateway

For logic apps in global, multi-tenant Azure that connect to on-premises SQL Server, you need to have the on-premises data gateway installed on a local computer and a data gateway resource that's already created in Azure.

Box 2: A connection gateway resource

Reference:

<https://docs.microsoft.com/en-us/azure/connectors/connectors-create-api-sqlazure>

✉️  **SilverFox22**  2 years, 3 months ago

The chosen answer is correct. <https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-gateway-connection>  
upvoted 45 times

✉️  **FrancisFerreira**  2 years ago

Okay, got this wrong. Thought the solution was to build around AD Application Proxy.  
Mainly coz I couldn't wrap my head around the fact that Server1 has no internet connectivity.

Well, turns out we don't need to install the On-Prem Data Gateway on the same computer as our data source. So yeah, we could install it on any other machine (that's not a domain controller) that has access to internet and is on the same network as Server1.

<https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-gateway-install#prerequisites>

The highlighted answers are correct.

upvoted 21 times

✉ **ssgg100** 1 year, 3 months ago

It has no VPN connection, not Internet.

upvoted 1 times

✉ **PN117** 1 year, 2 months ago

"Server is prevented from accessing the internet."

upvoted 2 times

✉ **ronin201** Most Recent 10 months, 1 week ago

How on-prem GW connect to azure if no Internet on the server1? wrong description

upvoted 2 times

✉ **Afz** 6 months, 3 weeks ago

The server might not direct internet but on-premises data gateway can be installed in another instance which has internet and that can also connect to Server 1

upvoted 2 times

✉ **funlove15** 1 year ago

correct

upvoted 1 times

✉ **NotMeAnyWay** 1 year ago

1. On-premises? c. an on-premises data gateway

An on-premises data gateway allows you to securely access on-premises data and resources from Azure Logic Apps. In this scenario, deploying an on-premises data gateway on Server1 or another server in the datacenter will enable LogicApp1 to access the SQL Server 2016 database on Server1.

2. Azure? a. A connection gateway resource

In Azure, you should deploy a connection gateway resource. This gateway resource will communicate with the on-premises data gateway to provide LogicApp1 with the ability to access the SQL Server 2016 database on Server1 securely.

upvoted 11 times

✉ **omerc061** 1 year, 2 months ago

Correct Answer;

Look architecture

<https://www.biinsight.com/wp-content/uploads/2018/03/On-prem-Data-Gateway-for-Azure-AS-How-it-works-Demo.png>

upvoted 7 times

✉ **OPT\_001122** 1 year, 2 months ago

Box 1: An on-premises data gateway

Box 2: A connection gateway resource

upvoted 3 times

✉ **bd1234** 1 year ago

I mean OPT answer is right.

Create a new resource group or select an existing one where you want to deploy the Logic App.

Create a new Logic App resource in the selected resource group.

In the Logic App Designer, add a new trigger for the Logic App, such as the Recurrence trigger or any other trigger that suits your needs.

Add a new action to the Logic App and select the SQL Server connector.

Configure the SQL Server connector to connect to the SQL Server instance running on Server1 through the On-premises data gateway.

Define the action to be taken on the database once the connection is established. In this case, it could be writing data to the SQL Server database.

Save and test the Logic App to ensure that it is working correctly.

upvoted 1 times

✉ **bd1234** 1 year ago

please delete above

upvoted 1 times

✉ **orionduo** 1 year, 2 months ago

The answer is right

Before you can connect to on-premises data sources from Azure Logic Apps, download and install the on-premises data gateway on a local computer. The gateway works as a bridge that provides quick data transfer and encryption between data sources on premises and your logic apps. The on-premises data gateway depends on Azure Service Bus Messaging for cloud connectivity and establishes the corresponding outbound connections to the gateway's associated Azure region.

<https://learn.microsoft.com/en-us/azure/logic-apps/logic-apps-gateway-connection>

<https://learn.microsoft.com/en-us/azure/logic-apps/logic-apps-gateway-install>

<https://learn.microsoft.com/en-us/azure/connectors/connectors-create-api-sqlazure?tabs=consumption>

upvoted 1 times

✉️ **bd1234** 1 year ago

I hope everyone pay attention on this correct answer:

Create a new resource group or select an existing one where you want to deploy the Logic App.

Create a new Logic App resource in the selected resource group.

In the Logic App Designer, add a new trigger for the Logic App, such as the Recurrence trigger or any other trigger that suits your needs.

Add a new action to the Logic App and select the SQL Server connector.

Configure the SQL Server connector to connect to the SQL Server instance running on Server1 through the On-premises data gateway.

Define the action to be taken on the database once the connection is established. In this case, it could be writing data to the SQL Server database.

Save and test the Logic App to ensure that it is working correctly.

upvoted 1 times

✉️ **bd1234** 1 year ago

please delete above

upvoted 1 times

✉️ **itvinoth83** 1 year, 4 months ago

On the AZ 305 exam, 28/11/22

upvoted 7 times

✉️ **AubinBakana** 1 year, 8 months ago

Same solution applies for access to on-prem from the following Resources:

Power Automate,

- Power BI,

- Power Apps,

- Azure Analysis Services.

upvoted 2 times

✉️ **tictaclu** 1 year, 9 months ago

After you install the on-premises data gateway on a local computer and before you can access data sources on premises from your logic apps, you have to create a gateway resource in Azure for your gateway installation. You can then select this gateway resource in the triggers and actions that you want to use for the on-premises connectors available in Azure Logic Apps.

Azure VPN gateway is used to connect only to IAAS such as VM, VMSS which has Private IP address from On-Prem to Azure. The communication is over IKE protocol. You need a Gateway in Azure as well as a VPN device in On-Prem to connect using this mode.

Using On-Prem Data Gateway you can communicate to Azure SAAS and PAAS services over HTTP/HTTPS. You only need Gateway at On-Premises, no gateway is required in Azure end.

upvoted 5 times

✉️ **tunmise\_ay** 1 year, 10 months ago

was in exam 1 June 2022

upvoted 6 times

✉️ **Gor** 1 year, 10 months ago

On-Premises: On-Premises Data Gateway

Azure: Connection Gateway Resource

<https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-gateway-connection>

<https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-gateway-install#prerequisites>

upvoted 2 times

✉️ **Teringzooi** 1 year, 11 months ago

Correct!

<https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-gateway-connection>

<https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-gateway-install#prerequisites>

upvoted 1 times

✉️ **Contactfornitish** 2 years ago

Came in exam today 4/4/2022

upvoted 5 times

✉️ **akkrishna22** 2 years ago

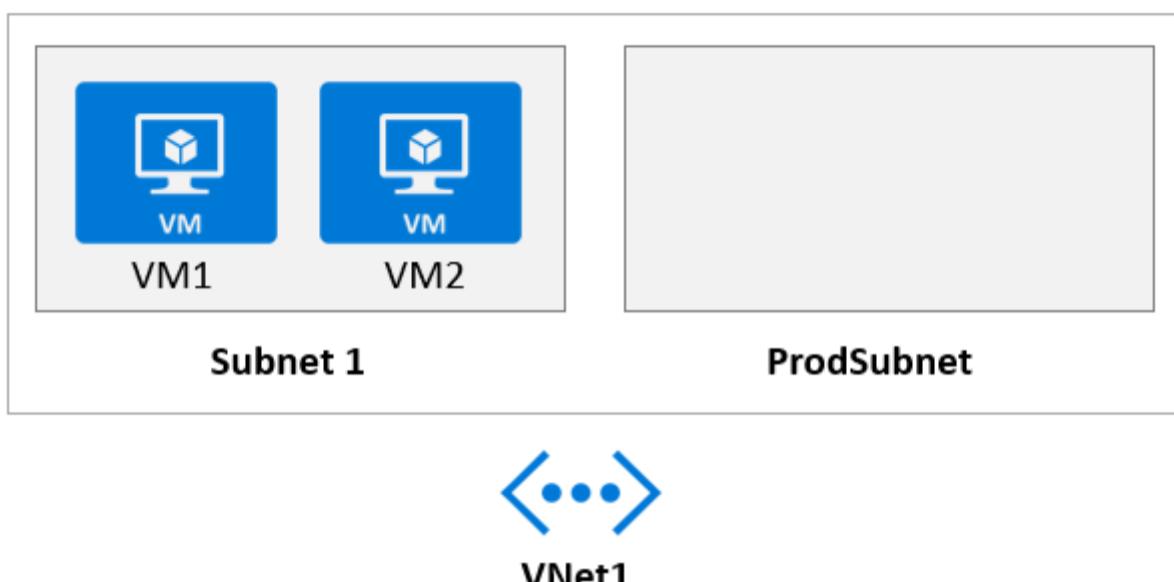
on exam 03-31-2022

upvoted 4 times

**HOTSPOT -**

Your company develops a web service that is deployed to an Azure virtual machine named VM1. The web service allows an API to access real-time data from VM1.

The current virtual machine deployment is shown in the Deployment exhibit.



The chief technology officer (CTO) sends you the following email message: "Our developers have deployed the web service to a virtual machine named VM1.

Testing has shown that the API is accessible from VM1 and VM2. Our partners must be able to connect to the API over the Internet. Partners will use this data in applications that they develop."

You deploy an Azure API Management (APIM) service. The relevant API Management configuration is shown in the API exhibit.

<b>Virtual network</b>	<b>Off</b>	<b>External</b>	<b>Internal</b>	
<b>Location</b>	<b>Virtual network</b>			<b>Subnet</b>
West Europe	VNet1			ProdSubnet

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

<b>Statements</b>	<b>Yes</b>	<b>No</b>
The API is available to partners over the internet.	<input type="radio"/>	<input type="radio"/>
The APIM instance can access real-time data from VM1.	<input type="radio"/>	<input type="radio"/>
A VPN gateway is required for partner access.	<input type="radio"/>	<input type="radio"/>

**Answer Area**

<b>Statements</b>	<b>Yes</b>	<b>No</b>
Correct Answer: The API is available to partners over the internet.	<input checked="" type="radio"/>	<input type="radio"/>
The APIM instance can access real-time data from VM1.	<input checked="" type="radio"/>	<input type="radio"/>
A VPN gateway is required for partner access.	<input type="radio"/>	<input checked="" type="radio"/>

Reference:

<https://docs.microsoft.com/en-us/azure/api-management/api-management-using-with-vnet>

✉  **orionduo**  1 year, 2 months ago

The answer is right.

Yes - Because we are using an APIM, deployed to a VNET but configured to be "External"

Yes - Because the APIM is deployed in the same vNET as VM1 just in a different subnet. Communication between subnets are enabled by default and there is no mention of otherwise.

No - VPN required because the APIM is accessible from the internet by virtue of it being configured as "External"

upvoted 36 times

✉  **AKYK**  2 years, 2 months ago

Correct answers!

upvoted 25 times

✉  **KAG22**  3 weeks, 4 days ago

Got this one on an exam in March 2024, so still used

upvoted 3 times

✉  **funlove15** 1 year ago

Correct

upvoted 2 times

✉  **rehanalam** 1 year, 2 months ago

looks like are are no . subnet is mandatory to add a vent , it can only connect to the subnet mentioned under vent.. not the all subnet.

upvoted 4 times

✉  **Q12346** 1 year, 2 months ago

shown on 1/14/2023

upvoted 9 times

✉  **JulienYork** 1 year, 4 months ago

yes as it seems

upvoted 1 times

✉  **itvinoth83** 1 year, 4 months ago

On the AZ 305 exam, 28/11/22

upvoted 6 times

✉  **mohamed1999** 1 year, 5 months ago

The reason it is Yes, Yes, No is because when you deploy the APIM it is accessible from the internet and due to no mention of modifications on the NSG we can assume that traffic in the Vnet can move freely.

upvoted 3 times

✉  **AubinBakana** 1 year, 8 months ago

Basically, you deploy the APIM in ProdSubnet. It's a little guessing game at this stage as they do not say anything about the virtual network(VNET1 or NSG. Because the API on VM1 is accessible over the internet, it is assumed that you can connect VNET1 from the internet. ProdSubnet is in VNET1, default security rules imply they can communicate freely.

Answer is correct but this was not designed as a gift. It's a tough one.

upvoted 1 times

✉  **JaQua** 1 year, 10 months ago

Correct answer. See <https://docs.microsoft.com/en-us/azure/api-management/virtual-network-concepts?tabs=stv2>

upvoted 1 times

✉  **Gor** 1 year, 10 months ago

Answers are correct.

upvoted 1 times

✉  **dasEnder** 1 year, 11 months ago

When you think they are making a question about Azure API Management and results is a question about default VNet and NSG networking rules. dang!

upvoted 2 times

✉  **akkrishna22** 2 years ago

was there in the exam on 03-31-2022

upvoted 5 times

✉  **Justin0020** 2 years, 1 month ago

Was in my exam om March. 10

upvoted 4 times

✉  **hamid28** 2 years, 3 months ago

correct answer

upvoted 5 times

✉  **frenchy237** 2 years, 3 months ago

Why is the first part yes? They selected Prod Subnet not Subnet 1. This part confuses me  
upvoted 10 times

✉ **SilverFox22** 2 years, 3 months ago

From the graphic in <https://docs.microsoft.com/en-us/azure/api-management/api-management-using-with-vnet>, the APIM uses a subnet, but makes resources on the whole VNet available.

upvoted 4 times

✉ **FrancisFerreira** 2 years ago

Since they didn't say anything about it, we gotta assume default access between subnets is in place, which means resources in ProdSubnet can access resources in Subnet1 and vice-versa. And that is why the answer is Yes. It would be No only if the subnets were segregated (via NSGs, for instance).

upvoted 12 times

**DRAG DROP -**

Your company has an existing web app that runs on Azure virtual machines.

You need to ensure that the app is protected from SQL injection attempts and uses a layer-7 load balancer. The solution must minimize disruptions to the code of the app.

What should you recommend? To answer, drag the appropriate services to the correct targets. Each service may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

**Services**

Web Application Firewall (WAF)

Azure Application Gateway

Azure Load Balancer

Azure Traffic Manager

SSL offloading

URL-based content routing

**Answer Area**

Azure service:

Service

Feature:

Service

**Correct Answer:****Services**

Web Application Firewall (WAF)

Azure Application Gateway

Azure Load Balancer

Azure Traffic Manager

SSL offloading

URL-based content routing

**Answer Area**

Azure service:

Azure Application Gateway

Feature:

Web Application Firewall (WAF)

**Box 1: Azure Application Gateway**

The Azure Application Gateway Web Application Firewall (WAF) provides protection for web applications. These protections are provided by the Open Web

Application Security Project (OWASP) Core Rule Set (CRS).

**Box 2: Web Application Firewall (WAF)**

Reference:

<https://docs.microsoft.com/en-us/azure/web-application-firewall/ag/application-gateway-customize-waf-rules-portal>

✉  **Eltooth**  2 years, 4 months ago

Correct answer - App Gateway and WAF.

WAF v2 has latest OWASP rules (3.2) in preview and requires App Gateway with required /24 subnet to deploy.

upvoted 28 times

✉  **Davin0406**  1 year, 6 months ago

Azure Application Gateway and WAF appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.

upvoted 21 times

✉  **azkumar305** Most Recent ⓘ 1 year ago

Got this on 14-Apr-2023

upvoted 11 times

✉  **casmo** 1 year, 5 months ago

Correct Answer

upvoted 2 times

✉  **Darkx** 1 year, 6 months ago

appeared on 11th Oct 2022

upvoted 5 times

✉  **kaushik** 1 year, 7 months ago

was in my exam 31-08- 2022

upvoted 6 times

✉  **Haripr** 1 year, 9 months ago

was in my exam 29 June 2022

upvoted 5 times

✉  **al608** 1 year, 9 months ago

did my Exam today. This was on there.

upvoted 2 times

✉  **Gor** 1 year, 10 months ago

App Gateway and WAF.

<https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/load-balancing-overview>

upvoted 1 times

✉  **Teringzooi** 1 year, 11 months ago

Correct answer: Application Gateway and WAF

WAF v2 has latest OWASP rules (3.2) in preview and requires App Gateway with required /24 subnet to deploy.

upvoted 2 times

✉  **Justin0020** 2 years, 1 month ago

Was in my exam om March. 10

upvoted 6 times

✉  **jkklim** 2 years, 2 months ago

<https://docs.microsoft.com/en-us/azure/application-gateway/overview>

correct answer

upvoted 6 times

✉  **jkklim** 2 years, 2 months ago

<https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/load-balancing-overview>

Above URL will shows azure application gateway vs azure traffic manager (both are layer 7).

But application gateway is the anwser for IaaS INFRASTRUTURE (AZURE VM)

upvoted 5 times

✉  **jkklim** 2 years, 2 months ago

always remember that application gateway can contains WAF, the rest cannot

upvoted 4 times

✉  **FrancisFerreira** 2 years ago

Traffic Manager is \*not\* Layer 7. It is DNS-based.

upvoted 4 times

✉  **FabioVi** 1 year, 11 months ago

I think that DNS layer is indeed layer 7...

upvoted 7 times

✉  **AdventureChick** 6 months, 4 weeks ago

Yes, Traffic Manager is DNS - Layer 7 based. Google "what layer is Azure Traffic Manager". The Google results show (in something like 48 point font) that Traffic Manager is Layer-7.

upvoted 1 times

✉  **ConanBarb** 6 months, 4 weeks ago

sorry no, not L7

DNS-based means it does not know anything about url:s etc, ie not L7

see here

"it load balances only at the domain level"

<https://learn.microsoft.com/en-us/azure/architecture/guide/technology-choices/load-balancing-overview>

upvoted 2 times

You are designing a microservices architecture that will be hosted in an Azure Kubernetes Service (AKS) cluster. Apps that will consume the microservices will be hosted on Azure virtual machines. The virtual machines and the AKS cluster will reside on the same virtual network.

You need to design a solution to expose the microservices to the consumer apps. The solution must meet the following requirements:

- ☞ Ingress access to the microservices must be restricted to a single private IP address and protected by using mutual TLS authentication.
- ☞ The number of incoming microservice calls must be rate-limited.
- ☞ Costs must be minimized.

What should you include in the solution?

- A. Azure App Gateway with Azure Web Application Firewall (WAF)
- B. Azure API Management Standard tier with a service endpoint
- C. Azure Front Door with Azure Web Application Firewall (WAF)
- D. Azure API Management Premium tier with virtual network connection

**Correct Answer: D**

One option is to deploy APIM (API Management) inside the cluster VNet.

The AKS cluster and the applications that consume the microservices might reside within the same VNet, hence there is no reason to expose the cluster publicly as all API traffic will remain within the VNet. For these scenarios, you can deploy API Management into the cluster VNet. API Management Premium tier supports

VNet deployment.

Reference:

<https://docs.microsoft.com/en-us/azure/api-management/api-management-kubernetes>

*Community vote distribution*

D (93%)

7%

✉  **Greysi**  2 years, 3 months ago

**Selected Answer: D**

D is correct answer!  
upvoted 15 times

✉  **malcubierre**  1 year ago

**Selected Answer: D**

A: No rate limited  
B: Does not have Private Endpoint integration  
C: Does not make sense, and does not rate limited  
D: OK, rate limited + PE integration  
upvoted 11 times

✉  **photon99**  1 month, 2 weeks ago

I think the answer should be Azure App Gateway with Azure Web Application Firewall (WAF).  
Beacuse the API managemnt is Charged HOURLY basis. App Gw supports rate limiting: <https://learn.microsoft.com/en-us/azure/web-application-firewall/ag/rate-limiting-overview>  
upvoted 1 times

✉  **bazylson** 1 month, 1 week ago

API Management also supports rate-limiting: <https://learn.microsoft.com/en-us/azure/api-management/rate-limit-policy>  
upvoted 1 times

✉  **Tr619899** 10 months, 2 weeks ago

The best option to meet the requirements you mentioned would be to use Azure API Management with a virtual network connection. This can be achieved with the Premium tier of Azure API Management. This will allow you to restrict ingress access to a single private IP address and protect it using mutual TLS authentication. Additionally, Azure API Management provides rate limiting capabilities and can be deployed within a virtual network to minimize costs. So, the correct answer is  
D. Azure API Management Premium tier with virtual network connection.  
upvoted 5 times

✉  **NotMeAnyWay** 1 year ago

**Selected Answer: D**

D. Azure API Management Premium tier with a virtual network connection

Azure API Management Premium tier supports virtual network integration, which allows you to restrict ingress access to the microservices to a

single private IP address within the virtual network. This tier also supports mutual TLS authentication, rate-limiting policies, and provides a solution for exposing the microservices to the consumer apps while minimizing costs.

upvoted 10 times

✉  **JohnPhan** 1 year ago

**Selected Answer: D**

D is correct answer!

upvoted 1 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: D**

D. Azure API Management Premium tier with virtual network connection

upvoted 1 times

✉  **orionduo** 1 year, 2 months ago

**Selected Answer: D**

One option is to deploy APIM (API Management) inside the cluster VNet.

The AKS cluster and the applications that consume the microservices might reside within the same VNet, hence there is no reason to expose the cluster publicly as all API traffic will remain within the VNet. For these scenarios, you can deploy API Management into the cluster VNet. API Management Premium tier supports VNet deployment.

upvoted 1 times

✉  **VBK8579** 1 year, 2 months ago

**Selected Answer: D**

Option D, Azure API Management Premium tier with virtual network connection, can meet the requirements mentioned in the question. Azure API Management service can be deployed in a virtual network and access to the microservices can be restricted to a single private IP address by using a virtual network connection. Azure API Management also supports mutual TLS authentication and rate limiting.

upvoted 1 times

✉  **rjcverar** 1 year, 4 months ago

**Selected Answer: D**

D Indeed. =) Happy test everyone

upvoted 3 times

✉  **GarryK** 1 year, 7 months ago

**Selected Answer: D**

<https://docs.microsoft.com/en-us/azure/api-management/virtual-network-concepts?tabs=stv2>

Vnet = Dev or Premium or Private Endpoint. Service Endpoint is not available

upvoted 9 times

✉  **Snownoodles** 1 year, 7 months ago

**Selected Answer: B**

Private service endpoint support is available in the Premium, Standard, Basic, and Developer tiers of API Management.

<https://docs.microsoft.com/en-us/azure/api-management/private-endpoint>

upvoted 1 times

✉  **Snownoodles** 1 year, 7 months ago

Sorry, correct answer is D, since B is talking about service endpoint.

upvoted 3 times

✉  **AubinBakana** 1 year, 8 months ago

Thank you. I would have got this wrong on the exam, hands down. Not any more!

upvoted 1 times

✉  **al608** 1 year, 9 months ago

did my Exam today. This was on there.

upvoted 5 times

✉  **Gor** 1 year, 10 months ago

**Selected Answer: D**

Correct answer: D

<https://docs.microsoft.com/en-us/azure/api-management/api-management-kubernetes#option-3-deploy-apim-inside-the-cluster-vnet>

upvoted 2 times

✉  **Teringzooi** 1 year, 11 months ago

**Selected Answer: D**

Correct answer: D

<https://docs.microsoft.com/en-us/azure/api-management/api-management-kubernetes#option-3-deploy-apim-inside-the-cluster-vnet>

upvoted 2 times

✉  **Rajesh123** 1 year, 12 months ago

**Selected Answer: D**

Rate limit is supported in Premium

upvoted 4 times

You have a .NET web service named Service1 that performs the following tasks:

- Reads and writes temporary files to the local file system.
- Writes to the Application event log.

You need to recommend a solution to host Service1 in Azure. The solution must meet the following requirements:

- Minimize maintenance overhead.
- Minimize costs.

What should you include in the recommendation?

- A. an Azure App Service web app
- B. an Azure virtual machine scale set
- C. an App Service Environment (ASE)
- D. an Azure Functions app

**Correct Answer: A**

Azure Web App meets the requirements and is less expensive compared to VM scale sets.

Reference:

<https://docs.microsoft.com/en-us/azure/app-service/troubleshoot-diagnostic-logs>

*Community vote distribution*

A (88%) 12%

✉  **techrat** Highly Voted 11 months, 2 weeks ago

Passed exam with 979 today, this question was on the exam. I am 1000% confident A is correct.  
upvoted 17 times

✉  **Balaji\_c\_s** Highly Voted 1 year, 7 months ago

**Selected Answer: A**  
A is correct  
upvoted 15 times

✉  **NotMeAnyWay** Most Recent 1 year ago

**Selected Answer: A**  
A. an Azure App Service web app

Azure App Service is a fully managed platform for building, deploying, and scaling web apps. By hosting Service1 as an Azure App Service web app, you can minimize maintenance overhead, as the platform takes care of the underlying infrastructure, patching, and scaling. Azure App Service also offers a cost-effective solution that can be scaled up or out as needed to meet the demands of your application.

While Azure Functions, virtual machine scale sets, and App Service Environments can also host web services, they may not provide the same balance of minimal maintenance overhead and cost-effectiveness as Azure App Service web apps do in this scenario.  
upvoted 8 times

✉  **malcubierre** 1 year ago

Azure Functions seem to access to local temporary files and can write to event log... why is not the correct option?  
upvoted 4 times

✉  **sawanti** 8 months ago

How Azure Function is a web service? Azure Function is a serverless FaaS, not Web Service as Azure Web Apps  
upvoted 1 times

✉  **orionduo** 1 year, 2 months ago

**Selected Answer: A**  
Azure provides built-in diagnostics to assist with debugging an App Service app.  
There are three main types of files that an Azure Web App can deal with  
① Persisted files  
② Temporary files  
③ Machine level read-only files

Logs messages generated by your application code. The messages can be generated by the web framework you choose, or from your application code directly using the standard logging pattern of your language. Each message is assigned one of the following categories: Critical, Error, Warning, Info, Debug, and Trace. You can select how verbose you want the logging to be by setting the severity level when you enable application logging.

upvoted 3 times

✉  **moshos** 1 year, 2 months ago

**Selected Answer: A**

Correct answer: A  
upvoted 1 times

✉ **VBK8579** 1 year, 2 months ago

**Selected Answer: A**

A. an Azure App Service web app would be the best solution as it provides low maintenance overhead and cost-effectiveness while being able to host .NET web services. Additionally, Azure App Service provides easy integration with other Azure services, and it supports the reading and writing of files to the local file system. The Application event log can also be written to using Azure Diagnostic Logs, which can be configured within the Azure App Service.

upvoted 2 times

✉ **VBK8579** 1 year, 2 months ago

A. an Azure App Service web app  
upvoted 1 times

✉ **509325\_5153** 1 year, 4 months ago

How come a function app isn't a good answer here?  
upvoted 2 times

✉ **Ivanwu** 1 year, 4 months ago

a .NET web service ?  
upvoted 3 times

✉ **Galron** 1 year, 5 months ago

**Selected Answer: A**

Web App can write Application Event logs, you enable this in the Monitoring section of the Web App.  
upvoted 4 times

✉ **sKaiNL** 1 year, 6 months ago

**Selected Answer: A**

A should be ok  
upvoted 3 times

✉ **GarryK** 1 year, 7 months ago

**Selected Answer: B**

Answer is B.  
App service has local disk to write temp files. For more persistent files, mount shares:  
<https://docs.microsoft.com/en-us/azure/app-service/operating-system-functionality>  
<https://docs.microsoft.com/en-us/azure/app-service/configure-connect-to-azure-storage?tabs=portal&pivots=container-linux>  
App Service can write to application logging windows:  
<https://docs.microsoft.com/en-us/azure/app-service/troubleshoot-diagnostic-logs>

it was never said that the app wanted to write logs into a filesystem.  
upvoted 2 times

✉ **GarryK** 1 year, 7 months ago

Sorry A  
upvoted 3 times

✉ **One111** 1 year, 7 months ago

@Mderators, please fit answer for this one. Web App can't write to Windows OS Application event log. In addition if question is not about Application event log, but about Application log it is still invalid, because of limited up to 12 hours enabled time.  
upvoted 1 times

✉ **bootless** 1 year, 7 months ago

**Selected Answer: B**

Answer cannot be correct because with a web app this feature will only be on for 12 hours. After this time it will be disabled and has to be enabled again. So you have to use VMs  
upvoted 3 times

✉ **bootless** 1 year, 7 months ago

Source: <https://docs.microsoft.com/en-us/azure/app-service/troubleshoot-diagnostic-logs#enable-application-logging-windows>  
Quote: "The Filesystem option is for temporary debugging purposes, and turns itself off in 12 hours. The Blob option is for long-term logging, and needs a blob storage container to write logs to."  
upvoted 1 times

hello, i think answer is A because is asking for Application event log and not for filesystem log. Also app service minimize the costs.

upvoted 3 times

✉ **mse89** 1 year, 7 months ago

You're Right, to analyze the application log we have to choose Application Logging (Filesystem) or Application Logging (Blob).  
But to minimize the maintenance and the costs i think A is still the correct answer.

upvoted 3 times

You have the Azure resources shown in the following table.

Name	Type	Location
US-Central-Firewall-policy	Azure Firewall policy	Central US
US-East-Firewall-policy	Azure Firewall policy	East US
EU-Firewall-policy	Azure Firewall policy	West Europe
USEastfirewall	Azure Firewall	Central US
USWestfirewall	Azure Firewall	East US
EUFirewall	Azure Firewall	West Europe

You need to deploy a new Azure Firewall policy that will contain mandatory rules for all Azure Firewall deployments. The new policy will be configured as a parent policy for the existing policies.

What is the minimum number of additional Azure Firewall policies you should create?

- A. 0
- B. 1
- C. 2
- D. 3

**Correct Answer: D**

Firewall policies work across regions and subscriptions.

Place all your global configurations in the parent policy.

The parent policy is required to be in the same region as the child policy.

Each of the three regions must have a new parent policy.

Reference:

<https://docs.microsoft.com/en-us/azure/firewall-manager/overview>

*Community vote distribution*

D (79%)

B (21%)

✉️  **Greysi**  2 years, 3 months ago

**Selected Answer: D**

Parent policy must be in the same region as child policy!

You get this information when creating a Firewall Policy. Parent Policy drop down list only shows policies in the same region.

Existing Firewall Policies are located in different regions. To link them to a new parent policy, each region must have a new parent policy => 3 new policies.

upvoted 48 times

✉️  **SilverFox22** 2 years, 3 months ago

It states in the question "The new policy will be configured as a parent policy for the existing policies." So then just 1 policy, that will be inherit by the existing child policies.

upvoted 3 times

✉️  **FrancisFerreira** 2 years ago

"Parent policy must be in the same region as child policy. Firewall policy can be associated with Firewalls across regions regardless of where they are stored."

That's from Azure Portal, showed for the field "Parent Policy" when creating a new policy or editing an existing one. We can't associate existing child policies to the new parent policy if their are not in the same region.

Since our existing child policies are in 3 different regions, we would need 3 different parent policies.

upvoted 9 times

✉️  **LillyLiver** 1 year, 9 months ago

Confirmed. Parent policy must be in the same region according to my work tenant.

upvoted 1 times

✉️  **sapien45** 1 year, 10 months ago

You are the GOAT

upvoted 1 times

✉  **One11** 1 year, 7 months ago

You will get 3 objects which you will need to maintain separately.  
upvoted 3 times

✉  **blacknurse** 2 years, 3 months ago

I am in agreement with your answer. If you look at <https://blog.cloud63.fr/azure-firewall/> then your premise is correct.  
upvoted 3 times

✉  **Som\_triv** 6 months, 3 weeks ago

Answer seems to be D, bcoz of a known issue.  
Azure Firewall Policies can be used across regions. For example, you can create a policy in West US, and use it in East US.  
But below is listed as known issue : Base policies must be in same region as local policy. <https://learn.microsoft.com/en-us/azure/firewall-manager/overview#region-availability>  
upvoted 1 times

✉  **Redimido**  2 years, 1 month ago

**Selected Answer: D**

Tested in Portal.

1. Created 1 named "Parent" policy in West Europe

Created 1 named "Child" policy - in West US - unable to set "Parent" as parent policy.

Changed region to West Europe, could directly chose "Parent" as parent.

2. Created second policy named "Parent2" in West US.

Went to the "Child" policy, still located in West Europe.

Tried to choose Parent policy from the menu. The only parent that showed up was "Parent" also located in West Europe.

Conclusion: You can't set a Parent Policy from different region to a child in a given region.

Therefore we need 3 different region policies to be set as parents if we do not change the child's regions.

upvoted 27 times

✉  **codingdown** 1 year, 8 months ago

Parent policy must be in the same region as child policy but firewall policy can be associated with firewalls across regions.

upvoted 4 times

✉  **BShelat**  4 months ago

Should not the answer be "0" ? If we update existing firewall policies with global configurations in all three regions then there may not be any need to have parent policy in any region.

upvoted 1 times

✉  **Ale1973** 7 months, 2 weeks ago

**Selected Answer: B**

Sorry but there isn't a strict requirement for the parent policy to be in the same region as the child policies. The parent policy and child policies can be associated with Azure Firewall instances in different regions. This is one of the benefits of Azure Firewall Manager—it allows you to manage firewall policies across regions from a centralized location.

upvoted 1 times

✉  **rishisoft1** 2 weeks, 4 days ago

Hierarchical policies

New policies can be created from scratch or inherited from existing policies. Inheritance allows DevOps to create local firewall policies on top of organization mandated base policy.

Policies created with non-empty parent policies inherit all rule collections from the parent policy. The parent policy and the child policy must be in the same region. A firewall policy can be associated with firewalls across regions regardless where they're stored.

<https://learn.microsoft.com/en-us/azure/firewall-manager/policy-overview>

upvoted 1 times

✉  **Trillionairejeffe** 9 months, 3 weeks ago

Hierarchical policies

New policies can be created from scratch or inherited from existing policies. Inheritance allows DevOps to create local firewall policies on top of organization mandated base policy.

Policies created with non-empty parent policies inherit all rule collections from the parent policy. The parent policy and the child policy must be in the same region. A firewall policy can be associated with firewalls across regions regardless where they are stored:

<https://learn.microsoft.com/en-us/azure/firewall-manager/policy-overview#hierarchical-policies>

upvoted 2 times

✉  **Trillionairejeffe** 9 months, 3 weeks ago

Answer is : B

upvoted 2 times

✉  **bd1234** 1 year, 1 month ago

B:

Firewall Policy is the recommended method to configure your Azure Firewall. It's a global resource that can be used across multiple Azure Firewall instances in Secured Virtual Hubs and Hub Virtual Networks. Policies work across regions and subscriptions.

upvoted 1 times

✉  **bd1234** 1 year, 1 month ago

Should be B.

As the global parent policy, all else Hierarchical policies should call local policies, different than we call child of global.

upvoted 1 times

✉  **Anzus** 1 year, 2 months ago

**Selected Answer: B**

The question states:

You need to deploy a new Azure Firewall policy that will contain mandatory rules for all Azure Firewall deployments. The new policy will be configured as a parent policy for the existing policies.

It also states that the policies are already created. If you need one for all of them, you only need to create 1, the "Firewall Policy" that is a global resource. Since this works as hub and spoke, you only need one to centrally manage the 3 policies that exist already.

upvoted 3 times

✉  **AzureMasterChamp** 1 year ago

It seems you are right! <https://learn.microsoft.com/en-us/azure/firewall-manager/rule-hierarchy>

upvoted 1 times

✉  **VBK8579** 1 year, 2 months ago

**Selected Answer: D**

o have the existing policies linked to a new parent policy, each region must have a separate parent policy. Therefore, a minimum of 3 additional Azure Firewall policies would need to be created. The answer is D.

upvoted 1 times

✉  **VBK8579** 1 year, 2 months ago

To have the existing policies linked to a new parent policy, each region must have a separate parent policy. Therefore, a minimum of 3 additional Azure Firewall policies would need to be created. The answer is D.

upvoted 1 times

✉  **ServerBrain** 1 year, 3 months ago

**Selected Answer: D**

The question says:

"The new policy will be configured as a parent policy for the existing policies."

So for you to have parent policy, have to deploy 3 policies for the child policies that are in the three regions..

upvoted 1 times

✉  **pabloartgal** 1 year, 5 months ago

By searching for a little bit more information I think the correct answer is B.1

You have two kind of hierarchical policies on Azure Firewall Manager; local policies and global policies.

The key is you can use Azure Firewall Manager to centrally manage Azure Firewall policies across multiple secured virtual hubs. For example, your global admin can author global firewall policies to enforce organization wide firewall policy across teams. Locally authored firewall policies allow a DevOps self-service model for better agility.

At the end of the document, you will be able to find some of the actual limitations with this kind of policy hierarchy:

Base policies must be in same region as local policy. Create all your local policies in the same region as the base policy. You can still apply a policy that was created in one region on a secured hub from another region.

upvoted 1 times

✉  **8eebs** 1 year, 8 months ago

There was a lot of debate in the comments so thought i'd test this out.

I created a Firewall Policy within West Europe.

When i created a secondary policy as a child it would ONLY allow me to select first policy if the region was the same. I tested with both Standard and Premium Policies.

upvoted 5 times

✉  **shaojunni** 1 year, 8 months ago

Answer is B, 1 parent policy. The new policy can contain one of existing policy as child policy, then include all the firewall rules from other 2 policies.

What is the point to create 3 parent polices which only contains corresponding child policy?

upvoted 1 times

✉  **AubinBakana** 1 year, 8 months ago

**Selected Answer: B**

It is clear here that people are not familiar with Firewall Manager. Th answer is correct

upvoted 2 times

✉  **codingdown** 1 year, 8 months ago

**Selected Answer: B**

Parent policy must be in the same region as child policy but firewall policy can be associated with firewalls across regions.

upvoted 3 times

✉  **JayBee65** 1 year, 8 months ago

So you must have 3 policies, because currently there are 3 policies, each in different regions, so you need to create 3 parent policies, so D not B

upvoted 1 times

 **SilverFox22** 1 year, 9 months ago

**Selected Answer: D**

A Parent policy must be in the same region as child policy.

upvoted 3 times

 **codingdown** 1 year, 8 months ago

Parent policy must be in the same region as child policy but firewall policy can be associated with firewalls across regions.

upvoted 1 times

 **JayBee65** 1 year, 8 months ago

So you must have 3 policies, because currently there are 3 policies, each in different regions, so you need to create 3 parent policies, so D no B

upvoted 2 times

 **bellorg** 1 year, 9 months ago

Correct answer is 3, azure policy need to be Premium and in the same region

upvoted 1 times

Your company has an app named App1 that uses data from the on-premises Microsoft SQL Server databases shown in the following table.

NAME	SIZE
DB1	400 GB
DB2	250 GB
DB3	300 GB
DB4	50 GB

App1 and the data are used on the first day of the month only. The data is not expected to grow more than 3 percent each year.

The company is rewriting App1 as an Azure web app and plans to migrate all the data to Azure.

You need to migrate the data to Azure SQL Database and ensure that the database is only available on the first day of each month.

Which service tier should you use?

- A. vCore-based General Purpose
- B. DTU-based Standard
- C. vCore-based Business Critical
- D. DTU-based Basic

#### Correct Answer: A

Note: App1 and the data are used on the first day of the month only. See Serverless compute tier below.

The vCore based purchasing model.

The term vCore refers to the Virtual Core. In this purchasing model of Azure SQL Database, you can choose from the provisioned compute tier and serverless compute tier.

\* Provisioned compute tier: You choose the exact compute resources for the workload.

\* Serverless compute tier: Azure automatically pauses and resumes the database based on workload activity in the serverless tier. During the pause period, Azure does not charge you for the compute resources.

Reference:

<https://www.sqlshack.com/dtu-and-vcore-based-models-for-azure-sql-databases/>

#### Community vote distribution

A (91%)

9%

✉  **GarryK** Highly Voted 1 year, 7 months ago

#### Selected Answer: A

Correct. Use the serverless model in vcore

<https://docs.microsoft.com/en-us/azure/azure-sql/database/service-tiers-sql-database-vcore?view=azuresql>

While the provisioned compute tier provides a specific amount of compute resources that are continuously provisioned independent of workload activity, the serverless compute tier auto-scales compute resources based on workload activity.

While the provisioned compute tier bills for the amount of compute provisioned at a fixed price per hour, the serverless compute tier bills for the amount of compute used, per second.

upvoted 14 times

✉  **Mahdib** Most Recent 1 week, 4 days ago

The serverless is the best option here.

What I don't get is how you prevent the users to use the database in the other days of the month, because of this statement "is only available on the first day" emphasizing on "only".

upvoted 1 times

✉  **learn254** 11 months ago

#### Selected Answer: D

I think the answers changed based on the answers I see now

Based on the given scenario, where the database is only used on the first day of each month and the data is not expected to grow more than 3 percent each year, the most cost-effective option would be to choose the DTU-based Basic service tier.

The DTU-based Basic service tier is suitable for small databases with light workloads and provides a low-cost option. Since the data size is relatively small (DB1 - 400GB, DB2 - 250GB, DB3 - 300GB, DB4 - 50GB), the Basic tier should be sufficient to handle the workload on the first day of each month.

The vCore-based General Purpose and Business Critical service tiers are more suitable for larger databases or databases with higher performance

requirements. They offer more scalability, higher performance, and additional features but come at a higher cost.

Given the provided requirements and data sizes, the DTU-based Basic service tier is the most appropriate and cost-effective option for migrating the data to Azure SQL Database for the given scenario.

upvoted 2 times

✉ **bazylson** 1 month, 1 week ago

Serverless is not possible with DTU: <https://learn.microsoft.com/en-us/azure/azure-sql/database/serverless-tier-overview?view=azuresql&tabs=general-purpose>

upvoted 1 times

✉ **hidefo6963** 9 months, 2 weeks ago

I checked that alternative, but Basic tier is wrong, it supports 2Gb per DB only.

Up to 1Tb per DB is available for Standard tier, but only starting from S3: 100 DTUs.

And according to the pricing calculator, running 4 DBs on that tier for a month is way more expensive than Serverless.

upvoted 3 times

✉ **EXzw** 1 year ago

i want to ask a question , if DB size is less than 100GB, will DTU based standard be a better choice?

upvoted 1 times

✉ **GS300** 11 months, 3 weeks ago

I agree, why not use DTU for this scenario?

upvoted 1 times

✉ **cblpgcj** 11 months ago

I've heard Microsoft are moving away from DTU based to vCore based as a recommendation.

upvoted 2 times

✉ **VBK8579** 1 year, 2 months ago

**Selected Answer: A**

A. vCore-based General Purpose is the recommended service tier for this scenario. This tier provides the ability to control compute resources through vCores and can be scaled up and down as needed. The ability to only make the database available on the first day of each month can be achieved through the use of Azure Database for SQL's built-in pause/resume functionality. This would allow you to pause the database when it's not needed, reducing costs, and then resume it when it's needed again.

upvoted 3 times

✉ **ROLLINGROCKS** 1 year, 7 months ago

One (dumb) question, fellas...

Im wondering, whenever you choose serverless for a case like this... what happens with the data? Like I understand you pay for the compute resources whenever you use them but what about the storage?

upvoted 4 times

✉ **ROLLINGROCKS** 1 year, 7 months ago

I mean, does the data persist?

upvoted 1 times

✉ **Moumita** 1 year, 7 months ago

Yes, You still pay for the storage while saving billing on compute.

upvoted 8 times

✉ **Snownoodles** 1 year, 7 months ago

**Selected Answer: A**

The given answer is correct: serverless model in vcore general purpose

upvoted 3 times

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping. You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Service Fabric
- B. Azure Data Lake
- C. Azure Service Bus
- D. Azure Traffic Manager

**Correct Answer: C**

Asynchronous messaging options in Azure include Azure Service Bus, Event Grid, and Event Hubs.

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/messaging>

*Community vote distribution*

C (100%)

✉  **jkklim** Highly Voted 2 years, 2 months ago

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview>

ANSWER IS C

upvoted 9 times

✉  **Eltooth** Highly Voted 2 years, 4 months ago

**Selected Answer: C**

Answer is correct.

<https://www.examtopics.com/discussions/microsoft/view/19509-exam-az-301-topic-3-question-1-discussion/>

upvoted 8 times

✉  **omerc061** Most Recent 1 year, 2 months ago

C

Let me explain

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview#:~:text=Data%20is%20transferred,Avro%2C%20Plain%20Text>

upvoted 1 times

✉  **VBK8579** 1 year, 2 months ago

**Selected Answer: C**

C. Azure Service Bus

upvoted 1 times

✉  **GarryK** 1 year, 7 months ago

**Selected Answer: C**

Correct. Its the only service in the list which provides messaging.

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview>

Azure Service Bus is a fully managed enterprise message broker with message queues and publish-subscribe topics (in a namespace).

upvoted 4 times

✉  **Gor** 1 year, 10 months ago

**Selected Answer: C**

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview>

upvoted 1 times

✉  **ashxos** 1 year, 10 months ago

**Selected Answer: C**

A message broker provides temporal decoupling. The producer and consumer don't have to run concurrently. A producer can send a message to the message broker regardless of the availability of the consumer. Conversely, the consumer isn't restricted by the producer's availability.

upvoted 3 times

✉  **Teringzooi** 1 year, 11 months ago

**Selected Answer: C**

Correct answer: C

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview>

upvoted 1 times

 **Contactfornitish** 2 years ago

Came in exam today. 4/4/2022 .. Async was stuck in mind about Bus

upvoted 6 times

Your company has 300 virtual machines hosted in a VMware environment. The virtual machines vary in size and have various utilization levels.

You plan to move all the virtual machines to Azure.

You need to recommend how many and what size Azure virtual machines will be required to move the current workloads to Azure. The solution must minimize administrative effort.

What should you use to make the recommendation?

- A. Azure Pricing calculator
- B. Azure Advisor
- C. Azure Migrate
- D. Azure Cost Management

**Correct Answer: C**

Azure Migrate provides a centralized hub to assess and migrate on-premises servers, infrastructure, applications, and data to Azure. It provides the following:

Unified migration platform: A single portal to start, run, and track your migration to Azure. Range of tools: A range of tools for assessment and migration.

Reference:

<https://docs.microsoft.com/en-us/azure/migrate/migrate-services-overview>

*Community vote distribution*

C (100%)

✉️  **Eltooth** Highly Voted  2 years, 4 months ago

**Selected Answer: C**

Correct answer - C.

Azure migrate

upvoted 12 times

✉️  **HGD545** Highly Voted  2 years, 1 month ago

On the AZ-305 2/22/22

upvoted 10 times

✉️  **JoShizo** Most Recent  1 month, 1 week ago

**Selected Answer: C**

C - Azure Migrate > Discovery and Assessment Tool.

upvoted 1 times

✉️  **azkumar305** 1 year ago

Got this on 14-Apr-2023

upvoted 7 times

✉️  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: C**

C. Azure Migrate

upvoted 3 times

✉️  **VBK8579** 1 year, 2 months ago

**Selected Answer: C**

The best solution to make the recommendation would be to use Azure Migrate. Azure Migrate provides centralized assessment and migration to Azure. It helps you to determine the best Azure resource configuration for your workloads, and provides detailed migration guidance, including sizing and performance recommendations, as well as step-by-step instructions for migrating the virtual machines to Azure. Azure Migrate automates many of the migration steps and provides a single place to manage the entire migration, helping to minimize administrative effort.

upvoted 3 times

✉️  **Velidot100** 1 year, 7 months ago

On the exam - 12. Sept 22

upvoted 1 times

✉️  **GarryK** 1 year, 7 months ago

**Selected Answer: C**

Correct

Azure Migrate: Discovery and assessment tool

The Azure Migrate: Discovery and assessment tool discovers and assesses on-premises VMware VMs, Hyper-V VMs, and physical servers for migration to Azure.

Here's what the tool does:

Azure readiness: Assesses whether on-premises servers, SQL Servers and web apps are ready for migration to Azure.

Azure sizing: Estimates the size of Azure VMs/Azure SQL configuration/number of Azure VMware Solution nodes after migration.

Azure cost estimation: Estimates costs for running on-premises servers in Azure.

Dependency analysis: Identifies cross-server dependencies and optimization strategies for moving interdependent servers to Azure. Learn more about Discovery and assessment with dependency analysis.

<https://docs.microsoft.com/en-us/azure/migrate/migrate-services-overview>

upvoted 7 times

✉  **Gor** 1 year, 10 months ago

**Selected Answer: C**

Correct answer - C.

Azure migrate

upvoted 1 times

✉  **datafypk** 1 year, 11 months ago

was in exam 8 May 22

upvoted 2 times

✉  **esther823** 2 years ago

in my exam on 31 Mar 22

upvoted 3 times

✉  **default\_wizard** 2 years, 4 months ago

correct answer given

upvoted 5 times

You plan to provision a High Performance Computing (HPC) cluster in Azure that will use a third-party scheduler.

You need to recommend a solution to provision and manage the HPC cluster node.

What should you include in the recommendation?

- A. Azure Automation
- B. Azure CycleCloud
- C. Azure Purview
- D. Azure Lighthouse

**Correct Answer: B**

You can dynamically provision Azure HPC clusters with Azure CycleCloud.

Azure CycleCloud is the simplest way to manage HPC workloads.

Note: Azure CycleCloud is an enterprise-friendly tool for orchestrating and managing High Performance Computing (HPC) environments on Azure. With

CycleCloud, users can provision infrastructure for HPC systems, deploy familiar HPC schedulers, and automatically scale the infrastructure to run jobs efficiently at any scale. Through CycleCloud, users can create different types of file systems and mount them to the compute cluster nodes to support HPC workloads.

Reference:

<https://docs.microsoft.com/en-us/azure/cyclecloud/overview>

*Community vote distribution*

B (100%)

Eltooth [Highly Voted] 2 years, 4 months ago

**Selected Answer: B**

Answer appears to be correct - Cyclecloud.

upvoted 14 times

HGD545 [Highly Voted] 2 years, 1 month ago

On the AZ-305 2/22/22

upvoted 11 times

leirbag [Most Recent] 2 weeks, 3 days ago

im dying.

upvoted 2 times

NotMeAnyWay 1 year ago

**Selected Answer: B**

Azure CycleCloud is a tool designed to manage and orchestrate HPC workloads in Azure. It simplifies the creation, management, and scaling of HP clusters while supporting various third-party schedulers. This makes it an ideal solution for provisioning and managing an HPC cluster with a third-party scheduler in Azure.

upvoted 7 times

VBK8579 1 year, 2 months ago

**Selected Answer: B**

B. Azure CycleCloud

upvoted 1 times

GarryK 1 year, 7 months ago

**Selected Answer: B**

<https://docs.microsoft.com/en-us/azure/architecture/topics/high-performance-computing>

Azure CycleCloud

Azure CycleCloud Provides the simplest way to manage HPC workloads using any scheduler (like Slurm, Grid Engine, HPC Pack, HTCondor, LSF, PBS Pro, or Symphony), on Azure

CycleCloud allows you to:

Deploy full clusters and other resources, including scheduler, compute VMs, storage, networking, and cache  
Orchestrate job, data, and cloud workflows

Give admins full control over which users can run jobs, as well as where and at what cost

Customize and optimize clusters through advanced policy and governance features, including cost controls, Active Directory integration, monitoring, and reporting

Use your current job scheduler and applications without modification  
Take advantage of built-in autoscaling and battle-tested reference architectures for a wide range of HPC workloads and industries  
upvoted 2 times

✉  **Gor** 1 year, 10 months ago

**Selected Answer: B**

For HPC.  
upvoted 1 times

✉  **datafypk** 1 year, 11 months ago

was in exam 8 May 22  
upvoted 2 times

✉  **esther823** 2 years ago

in my exam on 31 Mar 22  
upvoted 2 times

✉  **Redimido** 2 years, 1 month ago

**Selected Answer: B**

The only HPC cluster management solution here.  
upvoted 6 times

**HOTSPOT -**

You are designing an Azure App Service web app.

You plan to deploy the web app to the North Europe Azure region and the West Europe Azure region.

You need to recommend a solution for the web app. The solution must meet the following requirements:

- Users must always access the web app from the North Europe region, unless the region fails.
- The web app must be available to users if an Azure region is unavailable.
- Deployment costs must be minimized.

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Request routing method:

A Traffic Manager profile
Azure Application Gateway
Azure Load Balancer

Request routing configuration:

Cookie-based session affinity
Performance traffic routing
Priority traffic routing
Weighted traffic routing

**Answer Area**

Request routing method:

A Traffic Manager profile
Azure Application Gateway
Azure Load Balancer

Correct Answer:

Request routing configuration:

Cookie-based session affinity
Performance traffic routing
Priority traffic routing
Weighted traffic routing

Box 1: A Traffic Manager profile

To support load balancing across the regions we need a Traffic Manager.

Box 2: Priority traffic routing -

Priority traffic-routing method.

Often an organization wants to provide reliability for their services. To do so, they deploy one or more backup services in case their primary goes down. The

'Priority' traffic-routing method allows Azure customers to easily implement this failover pattern.

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/app-service-web-app/multi-region>

<https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-routing-methods>

✉  **it4s2** [ Highly Voted  ] 2 years, 3 months ago

Correct - Traffic manager as global solution with priority routing  
upvoted 31 times

✉  **ServerBrain** 1 year, 3 months ago

Yeah, Traffic Manager uses DNS to direct client requests..

upvoted 3 times

✉  **Eltooth** Highly Voted 2 years, 4 months ago

Answer is correct - Traffic manager and priority based routing.

<https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-routing-methods>

upvoted 16 times

✉  **Zein135** Most Recent 1 week, 6 days ago

isn't Traffic Manager a non-http load balancer !

I think it should be Front Door however it's not in the options.

upvoted 1 times

✉  **josebernabeo** 1 month, 3 weeks ago

The traffic manager is for Non-HTTPS. I believe the solution is not completely good.

upvoted 1 times

✉  **NotMeAnyWay** 1 year ago

Correct:

1. Request routing method: a. a Traffic Manager Profile

To meet the requirements of directing users to the North Europe region and providing high availability, you should use Azure Traffic Manager. Traffic Manager is a DNS-based traffic load balancer that allows you to distribute traffic optimally to services across global Azure regions while providing high availability.

2. Request routing configuration: c. Priority Traffic Routing

To ensure that users access the web app from the North Europe region unless it fails, use priority traffic routing. With priority routing, you can assign a priority value to each endpoint, and Traffic Manager routes the traffic to the endpoint with the highest priority available. In this case, assign a higher priority to the North Europe region, and a lower priority to the West Europe region. This will ensure that users are directed to the North Europe region as long as it is available, and to the West Europe region in case of a failure.

upvoted 9 times

✉  **GarryK** 1 year, 7 months ago

Correct

<https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-routing-methods>

Priority: Select Priority routing when you want to have a primary service endpoint for all traffic. You can provide multiple backup endpoints in case the primary or one of the backup endpoints is unavailable.

upvoted 3 times

✉  **Gor** 1 year, 10 months ago

Answer is correct.

Azure Traffic manager as global solution with priority routing.

<https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-routing-methods>

upvoted 1 times

✉  **cheese929** 1 year, 10 months ago

Agree with the answer. Only Traffic Manager supports multi-region routing. And priority routing to route traffic to Western Europe first.

upvoted 5 times

✉  **Teringzooi** 1 year, 11 months ago

Correct answer!

<https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-routing-methods>

upvoted 1 times

✉  **esther823** 2 years ago

in my exam on 31 Mar 22

upvoted 4 times

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Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You plan to deploy multiple instances of an Azure web app across several Azure regions.

You need to design an access solution for the app. The solution must meet the following replication requirements:

- Support rate limiting.
- Balance requests between all instances.
- Ensure that users can access the app in the event of a regional outage.

Solution: You use Azure Traffic Manager to provide access to the app.

Does this meet the goal?

A. Yes

B. No

#### Correct Answer: B

Azure Traffic Manager is a DNS-based traffic load balancer. This service allows you to distribute traffic to your public facing applications across the global Azure regions. Traffic Manager also provides your public endpoints with high availability and quick responsiveness. It does not provide rate limiting.

Note: Azure Front Door would meet the requirements. The Azure Web Application Firewall (WAF) rate limit rule for Azure Front Door controls the number of requests allowed from clients during a one-minute duration.

Reference:

<https://docs.microsoft.com/en-us/azure/app-service/web-sites-traffic-manager> <https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-overview> <https://docs.microsoft.com/en-us/azure/web-application-firewall/afds/waf-front-door-rate-limit-powershell>

*Community vote distribution*

B (100%)

✉  **GarryK** Highly Voted 1 year, 7 months ago

**Selected Answer: B**

Correct. Azure Traffic Manager does not have rate limit. Use Azure Front Door with WAF

<https://docs.microsoft.com/en-us/azure/web-application-firewall/afds/waf-front-door-rate-limit-configure?pivot=portal>  
upvoted 14 times

✉  **NotMeAnyWay** Most Recent 1 year ago

**Selected Answer: B**

To achieve rate limiting along with load balancing and high availability, you should use Azure Front Door with the Web Application Firewall (WAF).

Azure Front Door is a global, scalable entry-point that uses the Microsoft global edge network to create fast, secure, and widely scalable web applications. It provides load balancing and failover across multiple regions.

By enabling the WAF on Azure Front Door, you can configure custom rate limiting rules to protect your web app from excessive traffic and potential attacks.

So, using Azure Front Door with WAF will meet the requirements of supporting rate limiting, balancing requests between instances, and ensuring app accessibility during regional outages.

upvoted 4 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

rate limit -> Azure Front Door with WAF

upvoted 2 times

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- Support rate limiting.
- Balance requests between all instances.
- Ensure that users can access the app in the event of a regional outage.

Solution: You use Azure Load Balancer to provide access to the app.

Does this meet the goal?

A. Yes

B. No

#### Correct Answer: B

Azure Application Gateway and Azure Load Balancer do not support rate or connection limits.

Note: Azure Front Door would meet the requirements. The Azure Web Application Firewall (WAF) rate limit rule for Azure Front Door controls the number of requests allowed from clients during a one-minute duration.

Reference:

<https://www.nginx.com/blog/nginx-plus-and-azure-load-balancers-on-microsoft-azure/> <https://docs.microsoft.com/en-us/azure/web-application-firewall/afds/waf-front-door-rate-limit-powershell>

*Community vote distribution*

B (100%)

  **GarryK** Highly Voted 1 year, 7 months ago

#### Selected Answer: B

Explanation is wrong. Azure Application Gateway and Azure Load Balancer load balance within a region (no support for regional outage). See Regional vs Global

<https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/load-balancing-overview>  
upvoted 6 times

  **GarryK** 1 year, 7 months ago

So they cant be used to support a failover in case a region fails  
upvoted 2 times

  **azkumar305** Most Recent 1 year ago

Got this on 14-Apr-2023  
upvoted 3 times

  **NotMeAnyWay** 1 year ago

#### Selected Answer: B

Azure Load Balancer is a regional Layer 4 load balancer that can distribute network traffic within a single region. While it can balance requests between instances within that region, it cannot distribute traffic across multiple regions.

Additionally, Azure Load Balancer does not have built-in rate limiting functionality.

For your requirements, you should consider using Azure Front Door with Web Application Firewall (WAF). Azure Front Door is a global load balancer that can distribute traffic optimally to services across multiple regions, ensuring high availability in the event of a regional outage. By enabling WAF, you can configure custom rate limiting rules to control incoming traffic to your web app.

upvoted 3 times

  **ServerBrain** 1 year, 3 months ago

#### Selected Answer: B

So there you have it:

Azure Application Gateway, Azure Load Balancer and Azure Traffic Manage do not provide rate limiting.

Only Azure Web Application Firewall (WAF) rate limit rule for Azure Front Door does !!  
upvoted 1 times

 **Snownoodles** 1 year, 5 months ago

**Selected Answer: B**

The correct option should be Azure Front Door+WAF

upvoted 3 times

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

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Does this meet the goal?

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B. No

#### Correct Answer: B

Azure Application Gateway and Azure Load Balancer do not support rate or connection limits.

Note: Azure Front Door would meet the requirements. The Azure Web Application Firewall (WAF) rate limit rule for Azure Front Door controls the number of requests allowed from clients during a one-minute duration.

Reference:

<https://www.nginx.com/blog/nginx-plus-and-azure-load-balancers-on-microsoft-azure/> <https://docs.microsoft.com/en-us/azure/web-application-firewall/afds/waf-front-door-rate-limit-powershell>

*Community vote distribution*

B (100%)

 **NotMeAnyWay** Highly Voted 1 year ago

**Selected Answer: B**

No, this solution does not meet the goal.

Azure Application Gateway is a Layer 7 load balancer that provides features like SSL termination, cookie-based session affinity, and URL-based routing. However, it operates within a single region and cannot distribute traffic across multiple regions.

To meet the requirements of supporting rate limiting, balancing requests between instances across multiple regions, and ensuring app accessibility during regional outages, you should use Azure Front Door with Web Application Firewall (WAF). Azure Front Door is a global load balancer that can distribute traffic optimally to services across multiple regions, ensuring high availability in the event of a regional outage. By enabling WAF, you can configure custom rate limiting rules to control incoming traffic to your web app.

upvoted 7 times

 **MilePetroza** Highly Voted 1 year, 3 months ago

Azure front door + AWF.

upvoted 5 times

 **\_fvt** Most Recent 1 year, 1 month ago

**Selected Answer: B**

B - No : App Gateway is not multi-regional, listeners and backend pools must belong to the same region.

upvoted 2 times

 **avocadoraptor** 1 year, 2 months ago

**Selected Answer: B**

No - B

upvoted 1 times

 **VBK8579** 1 year, 2 months ago

B - No

upvoted 1 times

**HOTSPOT -**

Your company has two on-premises sites in New York and Los Angeles and Azure virtual networks in the East US Azure region and the West US Azure region.

Each on-premises site has ExpressRoute Global Reach circuits to both regions.

You need to recommend a solution that meets the following requirements:

- Outbound traffic to the internet from workloads hosted on the virtual networks must be routed through the closest available on-premises site.

- If an on-premises site fails, traffic from the workloads on the virtual networks to the internet must reroute automatically to the other site.

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Routing from the virtual networks to the on-premises locations must be configured by using:

Azure default routes
Border Gateway Protocol (BGP)
User-defined routes

The automatic routing configuration following a failover must be handled by using:

Border Gateway Protocol (BGP)
Hot Standby Routing Protocol (HSRP)
Virtual Router Redundancy Protocol (VRRP)

Correct Answer:

**Answer Area**

Routing from the virtual networks to the on-premises locations must be configured by using:

Azure default routes
Border Gateway Protocol (BGP)
User-defined routes

The automatic routing configuration following a failover must be handled by using:

Border Gateway Protocol (BGP)
Hot Standby Routing Protocol (HSRP)
Virtual Router Redundancy Protocol (VRRP)

Box 1: Border Gateway Protocol (BGP)

An on-premises network gateway can exchange routes with an Azure virtual network gateway using the border gateway protocol (BGP).

Using BGP with an Azure virtual network gateway is dependent on the type you selected when you created the gateway. If the type you selected were:

ExpressRoute: You must use BGP to advertise on-premises routes to the Microsoft Edge router. You cannot create user-defined routes to force traffic to the

ExpressRoute virtual network gateway if you deploy a virtual network gateway deployed as type: ExpressRoute. You can use user-defined routes for forcing traffic from the Express Route to, for example, a Network Virtual Appliance.

Box 2: Border Gateway Protocol (BGP)

Incorrect:

Microsoft does not support HSRP or VRRP for high availability configurations.

Reference:

<https://docs.microsoft.com/ja-jp/azure/expressroute/designing-for-disaster-recovery-with-expressroute-privatepeering>

<https://docs.microsoft.com/en-us/azure/expressroute/expressroute-routing>

 **GarryK** Highly Voted 1 year, 7 months ago

Correct.

Layer 3 connectivity

Microsoft uses BGP, an industry standard dynamic routing protocol, to exchange routes between your on-premises network, your instances in

Azure, and Microsoft public addresses. We establish multiple BGP sessions with your network for different traffic profiles. More details can be found in the ExpressRoute circuit and routing domains article.  
<https://docs.microsoft.com/en-us/azure/expressroute/expressroute-introduction>

upvoted 16 times

✉️ **Galon** 1 year, 5 months ago

<https://learn.microsoft.com/en-us/azure/virtual-network/virtual-networks-udr-overview> Virtual network gateway Prefixes advertised from on-premises via BGP or configured in the local network gateway Virtual network gateway All

upvoted 1 times

✉️ **NotMeAnyWay** [Highly Voted] 1 year ago

1. Routing from the virtual networks to the on-premises location must be configured by using: b. Border Gateway Protocol (BGP)  
To configure routing between the Azure virtual networks and the on-premises locations, you should use Border Gateway Protocol (BGP). BGP is a dynamic routing protocol that enables automatic route updates between ExpressRoute circuits and the on-premises sites.

2. The automatic routing configuration following a failover must be handled by using: a. Border Gateway Protocol (BGP)  
BGP can also handle automatic routing configuration in the event of a failover. It can dynamically detect when a site fails and automatically reroute traffic to the other available site. This ensures that traffic from the workloads on the virtual networks to the internet is rerouted to the other on-premises site if one site fails.

upvoted 9 times

✉️ **SDiwan** [Most Recent] 1 month, 3 weeks ago

The way to remember is if routing involving multiple networks, then BGP . Routing within a n/w => User defined routing

upvoted 4 times

✉️ **AzureSucksButILikelt** 4 months, 4 weeks ago

Puzzled why you'd want to route your internet bound traffic, from the cloud, via your on-prem, given that it could hop out to the internet directly from data centre. I suppose you might be tracking/logging some aspect of the outbound traffic on-prem for some reason, but the actual use case seems unlikely.

upvoted 2 times

✉️ **randy0077** 5 months, 2 weeks ago

this question should be in CCNA exam not here.

upvoted 8 times

✉️ **King\_Laps** 12 months ago

The given answer is correct. Its BGP for both

upvoted 4 times

✉️ **NinjaDog00** 1 year ago

Lol why is networking question here

upvoted 4 times

✉️ **VBK8579** 1 year, 2 months ago

Routing from the virtual networks to the on-premises locations must be configured by using: b. Border Gateway Protocol (BGP)

The automatic routing configuration following a failover must be handled by using: a. Border Gateway Protocol (BGP)

upvoted 2 times

✉️ **Ghoshy** 1 year, 3 months ago

Exam Question 12/28/2022.

upvoted 5 times

✉️ **stxc** 1 year, 4 months ago

for the 1st question, I think it should be "User Defined"

If multiple routes contain the same address prefix, Azure selects the route type, based on the following priority:

- 1- User-defined route
- 2- BGP route
- 3- System route

<https://learn.microsoft.com/en-us/azure/virtual-network/virtual-networks-udr-overview>

upvoted 4 times

✉️ **Snownoodles** 1 year, 5 months ago

The given answer is correct.

The first question can also be implemented by UDR in a simple environment as given.

But in practice, with the consideration of scalability, BGP should be the first choice.

upvoted 6 times

✉️ **Neo2c** 1 year, 7 months ago

I think it's User-defined route and BGP

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-udr-overview#how-azure-selects-a-route>

upvoted 2 times

✉️ **ServerBrain** 1 year, 3 months ago

No.. As said, "You cannot create user-defined routes to force traffic to the ExpressRoute virtual network gateway if you deploy a virtual network gateway deployed as type: ExpressRoute."

upvoted 1 times

✉ **GarryK** 1 year, 7 months ago

No. User-Defined route is like static routing so yes it will override BGP for internet but would not fail over so you will lose connectivity to Internet at least. So your 0.0.0.0/0 must also be announced via BGP and will override the default routes per your link.

upvoted 8 times

✉ **GarryK** 1 year, 7 months ago

To say it otherwise, if you decide to use user defined routing for the first part, then even if you use BGP for the second part, it would not work as user defined routing would override whatever you announce via BGP so your solution would not meet both requirements

upvoted 6 times

**HOTSPOT -**

You are designing an application that will use Azure Linux virtual machines to analyze video files. The files will be uploaded from corporate offices that connect to Azure by using ExpressRoute.

You plan to provision an Azure Storage account to host the files.

You need to ensure that the storage account meets the following requirements:

- Supports video files of up to 7 TB
- Provides the highest availability possible
- Ensures that storage is optimized for the large video files
- Ensures that files from the on-premises network are uploaded by using ExpressRoute

How should you configure the storage account? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Storage account type:

Premium files shares
Premium page blobs
Standard general-purpose v2

Data redundancy:

Zone-redundant storage (ZRS)
Locally-redundant storage (LRS)
Geo-redundant storage (GRS)

Networking:

Azure Route Server
A private endpoint
A service endpoint

**Answer Area**

Storage account type:

Premium files shares
Premium page blobs
Standard general-purpose v2

Data redundancy:

Zone-redundant storage (ZRS)
Locally-redundant storage (LRS)
Geo-redundant storage (GRS)

Networking:

Azure Route Server
A private endpoint
A service endpoint

Correct Answer:

Box 1: Premium page blobs -

The maximum size for a page blob is 8 TiB.

Incorrect:

Not Premium file shares:

Max file size for Standard and Premium file shares are 4 TB.

Box 2: Geo-redundant storage (GRS)

GRS provides additional redundancy for data storage compared to LRS or ZRS.

Box 3: A private endpoint -

Azure Private Link allows you to securely link Azure PaaS services to your virtual network using private endpoints. For many services, you just set up an endpoint per resource. This means you can connect your on-premises or multi-cloud servers with Azure Arc and send all traffic over an Azure ExpressRoute or site-to-site

VPN connection instead of using public networks.

Reference:

<https://docs.microsoft.com/en-us/rest/api/storageservices/understanding-block-blobs--append-blobs--and-page-blobs>

<https://docs.microsoft.com/en-us/azure/storage/files/storage-files-scale-targets> <https://docs.microsoft.com/en-us/azure/azure-arc/servers/private-link-security>

✉  **ezfix**  1 year, 6 months ago

A lot of buzzwords in the question... Video files = block blobs... decision is whether premium block blob or general purpose v2. No premium block blob was mentioned so it has to be general purpose v2. Next is highest availability possible, and general purpose v2 supports LRS, ZRS, and GRS... so go with GRS. The expressroute connects directly to the Azure network, bypassing the internet. So private endpoint.

upvoted 96 times

✉  **ziggy1117** 4 months ago

General purpose v2 is NOT Correct as the single file limit is only 4TB

<https://learn.microsoft.com/en-us/azure/storage/files/storage-files-scale-targets#file-scale-targets>

So the answers are:

A. Premium Page Blobs are up to 8TB in size.

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-pageblob-overview>

B. ZRS. This is the highest redundancy of premium page blobs

<https://learn.microsoft.com/en-us/azure/storage/common/storage-account-overview#types-of-storage-accounts>

C. Private Endpoint

upvoted 8 times

✉  **Muffay** 3 months ago

The 4 TB limit is for file shares, not for blobs.

> Block blobs can store up to about 190.7 TiB.

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blobs-introduction#blobs>

upvoted 1 times

✉  **JaffaDaffa** 1 year, 6 months ago

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-pageblob-overview?tabs=dotnet>

Page blobs support video files.

upvoted 5 times

✉  **vali6969** 9 months, 2 weeks ago

page blobs are optimized for small files and high IOPS transactions (even if it supports files up to 8To) Moreover the max availability is LRS max. So for the same , let's choose GPv2 (with blob storage not mentioned) and GRS

upvoted 2 times

✉  **JaffaDaffa** 1 year, 6 months ago

<https://learn.microsoft.com/en-us/rest/api/storageservices/understanding-block-blobs--append-blobs--and-page-blobs>

upvoted 2 times

✉  **Balaji\_c\_s**  1 year, 7 months ago

Its Premium Page Blobs + LRS (its the only supported redundancy for PPB) + Private Endpoint

Why Premium Page Blobs :

If you have a PaaS service for shared media access for collaborative video editing applications, page blobs enable fast access to random locations in the media

<https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-pageblob-overview?tabs=dotnet#sample-use-cases>

upvoted 35 times

✉  **sKaiNL** 1 year, 6 months ago

The explanation says Premium Page Blobs is correct. But Premium File Shares is selected in the answer area. Please correct one of them.

upvoted 13 times

✉  **ckyap** 1 year, 5 months ago

Not sure if Page block is a good option here, because it is optimized for OS disk/Database.

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-pageblob-overview?tabs=dotnet#sample-use-cases#:~:text=Page%20blobs%20are%20a%20collection%20of%20512%2Dbyte%20pages%2C%20which%20provide%20the%20ability%20to%20read/write%20arbitrary%20ranges%20of%20bytes.%20Hence%2C%20page%20blobs%20are%20ideal%20for%20storing%20index%2Dbased%20and%20sparse%20data%20structures%20like%20OS%20and%20data%20disks%20for%20Virtual%20Machines%20and%20Databases.>

upvoted 3 times

✉  **sondrex** 1 year, 5 months ago

your answer is not correct because LRS not support ( Provides the highest availability possible) Correct answer general v2-GRS-PE

upvoted 11 times

✉  **pkkalra** 1 year, 2 months ago

you have to choose the right storage (page blob) and then choose highest available redundancy. No point in storing blobs which VMs can't load to analyse (it should be able to read blob in chunks to analyse the video which is the requirement here).

upvoted 2 times

✉  **LGWJ12** Most Recent 1 week, 4 days ago

Storage account type:

- Premium page blobs. This type supports large file sizes and is optimized for large video files

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blobs-introduction>

Data redundancy:

- Geo-redundant storage (GRS). This option provides the highest availability possible by replicating data to a secondary region.

<https://learn.microsoft.com/en-us/azure/storage/common/storage-redundancy>

Networking:

- A private endpoint. This ensures the files from the on-premises network are uploaded using ExpressRoute, providing a secure and direct connection to the storage account.

<https://learn.microsoft.com/en-us/azure/private-link/private-endpoint-overview>

upvoted 1 times

✉  **rishisoft1** 2 weeks, 4 days ago

Premium file share limit - 100 TB (<https://learn.microsoft.com/en-us/azure/storage/files/storage-files-scale-targets>)

ZRS is supported for premium Azure file shares through the FileStorage storage account kind.

private endpoint through Express Route

upvoted 1 times

✉  **varinder82** 2 weeks, 6 days ago

Final Answer:

1. Premium File Share

2. ZRS

3. Private Link

upvoted 2 times

✉  **prshntdxt7** 3 weeks ago

Page Blobs, LRS, Private endpoint.

these are correct options.

upvoted 1 times

\*edit: Page Blobs support upto 8TB, and also support both LRS and ZRS.

hence, answer should be 'Premium Page Blobs', 'ZRS': since it's an option but more expensive than LRS, but there's no requirement given for 'cost' minimization in the question and hence going with ZRS.

Also you need 'Private Endpoint' connectivity here.

ANSWER: Premium Page Blobs, ZRS, Private Endpoint.

refer: <https://azure.microsoft.com/en-us/pricing/details/storage/page-blobs/>

upvoted 1 times

✉  **Fidel\_104** 1 month ago

Got this on today's exam (March of 2024).

I selected gp v2/GRS/private endpoint for this question, and passed the exam with 870.

Honestly though, even after going through the docs and the discussion, I still don't know the answer for sure... and I guess now I will also never know. Still, I believe I might be able to lead a happy life.

upvoted 5 times

✉  **177c705** 1 month, 2 weeks ago

Elecktrus knows it:

Elecktrus 5 months, 1 week ago

I don't understand all the confusion that is being created with the answers to this question.

It's very simple, you just have to see the requirements that Microsoft asks for in the correct order:

1- Provides the highest availability possible --> GRS.

Ok, now, what kind of storage support GRS? --> Premium Files, no; Premium Page, no; Standard V2 Gen, yes --> Standard V2 Gen support V2 Gen files up to 7 TB? --> yes

Ensures that storage is optimized for the large video files --> yes

Well, it is clear then:

Box1 = Standard V2 Gen

Box1 = GRS

Box3 = Private Endpoint (because we must use Express Route)

upvoted 4 times

✉  **Risto83** 1 month, 3 weeks ago

Premium page blobs (supports video and file size up to 8TB)

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-pageblob-overview>

ZSR

<https://azure.microsoft.com/en-us/pricing/details/storage/page-blobs/>

Private endpoint

upvoted 2 times

✉  **romm333** 3 months, 3 weeks ago

Premium Page Blobs Support LRS and ZRS, how come it can be GRS?

upvoted 1 times

✉ **Jinder** 3 months, 3 weeks ago

Copy pasting from ziggy117, which is correct answer.

General purpose v2 is NOT Correct as the single file limit is only 4TB

<https://learn.microsoft.com/en-us/azure/storage/files/storage-files-scale-targets#file-scale-targets>

So the answers are:

A. Premium Page Blobs are up to 8TB in size.

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-pageblob-overview>

B. ZRS. This is the highest redundancy of premium page blobs

<https://learn.microsoft.com/en-us/azure/storage/common/storage-account-overview#types-of-storage-accounts>

C. Private Endpoint

A : Premium Page Blobs - supports upto 8 TB size

B: ZRS - This is the highest redundancy of premium page blobs

C: PE - expressroute connects directly to the Azure network, bypassing the internet

upvoted 6 times

✉ **BShelat** 4 months ago

Ans: Premium Page Blobs, ZRS, A private End Point. Premium file shares does not support more than 4 TB, Premium Page Blobs supports LRS and ZRS but not GRS. so highest HA is ZRS. Connection is by ExpressRoute and hence private end point.

upvoted 2 times

✉ **oktober\_23** 5 months, 2 weeks ago

Premium Page Blobs - optimized for large files esp video streaming

ZRS (the possible highest

Private Endpoint

upvoted 8 times

✉ **sumaju** 5 months, 3 weeks ago

1. Premium Page Blob - Max 8TB file support

2. ZRS - Page Blob support LRS and ZRS

3. Private Endpoint - Connection through ExpressRoute means private connection without using internet.

upvoted 1 times

✉ **malcubierre** 6 months, 1 week ago

1 Premium Azure Page blobs: <https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-pageblob-overview>, max size 8TB, "Another example would be if you have a PaaS service for shared media access for collaborative video editing applications", 2 - Zone redundant is the max availability with premium

upvoted 1 times

✉ **cryptotafkar** 6 months, 3 weeks ago

If you are looking to store large video files of up to 7 TB and ensure the highest availability, you should choose the Standard General-Purpose v2 storage account type. This type of storage account provides a balance between performance, availability, and cost and is suitable for general-purpose storage needs, including large object storage like video files.

upvoted 4 times

✉ **cryptotafkar** 6 months, 3 weeks ago

If you want to choose the option that provides the highest availability possible for Azure Storage, you should opt for Zoned Redundant Storage (ZRS). ZRS replicates your data across multiple availability zones within a region, ensuring high availability and durability

upvoted 2 times

✉ **cryptotafkar** 6 months, 3 weeks ago

and Private endpoint, for networking.

upvoted 1 times

✉ **cryptotafkar** 6 months, 3 weeks ago

maybe GRS is the better choice, as it is the highest possible :-) .. so ignore ZRS

upvoted 2 times

✉ **Elecktrus** 6 months, 3 weeks ago

I don't understand all the confusion that is being created with the answers to this question.

It's very simple, you just have to see the requirements that Microsoft asks for in the correct order:

1- Provides the highest availability possible --> GRS.

Ok, now, what kind of storage support GRS? --> Premium Files, no; Premium Page, no; Standard V2 Gen, yes --> Standard V2 Gen support V2 Gen files up to 7 TB? --> yes

Ensures that storage is optimized for the large video files --> yes

Well, it is clear then:

Box1 = Standard V2 Gen

Box1 = GRS

Box3 = Private Endpoint (because we must use Express Route)

upvoted 20 times

✉ **trferreiraBR** 3 months, 3 weeks ago

<https://learn.microsoft.com/en-us/azure/storage/common/storage-redundancy#supported-storage-account-types>

upvoted 1 times

**HOTSPOT -**

A company plans to implement an HTTP-based API to support a web app. The web app allows customers to check the status of their orders.

The API must meet the following requirements:

- Implement Azure Functions.
- Provide public read-only operations.
- Prevent write operations.

You need to recommend which HTTP methods and authorization level to configure.

What should you recommend? To answer, configure the appropriate options in the dialog box in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

HTTP methods:

API methods
GET only
GET and POST only
GET, POST, and OPTIONS only

Authorization level:

Function
Anonymous
Admin

**Answer Area**

HTTP methods:

API methods
GET only
GET and POST only
GET, POST, and OPTIONS only

Authorization level:

Function
Anonymous
Admin

Box 1: GET only -

Get for read-only-

Box 2: Anonymous -

Anonymous for public operations.

 **Davin0406** Highly Voted 1 year, 6 months ago

Get only and Anonymous. appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.

upvoted 46 times

 **dewiser** Highly Voted 1 year, 4 months ago

GET, Anonymous

upvoted 8 times

 **eduardobbs** Most Recent 1 month, 1 week ago

Got this on my exam on 06/03/2024

upvoted 2 times

 **Tobistr** 4 months, 1 week ago

I am working with Azure Functions and if you choose "Function" as Authorization Level, you can still access it from public, but you need to add the function specific access code. E.g. <https://yourapi.com/functionXY/?code=abc123> ... So this could also be an option

upvoted 1 times

 **lombri** 11 months, 2 weeks ago

For the given requirements, I would recommend the following HTTP methods and authorization level to configure:

## HTTP Methods: GET

Since the API only needs to provide public read-only operations, the GET method would be sufficient to retrieve data.

Authorization Level: Anonymous

Since the API needs to be publicly accessible for read-only operations, an anonymous authorization level should be used to allow unrestricted access without requiring any authentication or authorization.

upvoted 5 times

✉️ **King\_Laps** 11 months, 4 weeks ago

The correct answer should be GET HTTP method for public read-only operations and configure authorization level as Anonymous..

upvoted 1 times

✉️ **NotMeAnyWay** 1 year ago

Correct!

1. HTTP methods: b. GET only

As the API needs to provide public read-only operations and prevent write operations, you should use only the GET method. The GET method is used to retrieve data and is considered read-only, which meets the requirements.

2. Authorization level: b. Anonymous

To allow public read-only access without requiring any authentication or authorization, you should set the authorization level to Anonymous. This will enable any user to access the API without providing a key, allowing them to check the status of their orders as required.

upvoted 5 times

✉️ **VBK8579** 1 year, 2 months ago

GET HTTP method for public read-only operations and configure authorization level as Anonymous.

upvoted 3 times

✉️ **tfulanchan** 1 year, 2 months ago

The web app allows customers to check the status of their orders.

Level value Description

anonymous No API key is required.

function A function-specific API key is required. This is the default value when a level isn't specifically set.

admin The master key is required.

<https://learn.microsoft.com/en-us/azure/azure-functions/functions-bindings-http-webhook-trigger?tabs=in-process%2Cfunctionsv2&pivots=programming-language-csharp#http-auth>

Customers may not have API key. Anonymous.

upvoted 2 times

✉️ **Darkx** 1 year, 6 months ago

appeared on 11th Oct 2022

upvoted 3 times

✉️ **Velidot100** 1 year, 7 months ago

Got this on my exam - 12. September 2022

upvoted 2 times

✉️ **jellybiscuit** 1 year, 6 months ago

Really? This seems way outside the scope of the test.

upvoted 1 times

✉️ **SilverFox22** 1 year, 3 months ago

Questions like this I am really glad for ExamTopics. None of the materials I have reviewed, from several sources, have mentioned anything like this.

upvoted 2 times

✉️ **Jeffab** 1 year, 6 months ago

That was my thought too! I have read all the Learn material for 305 and would love to know where this is covered in objectives?

upvoted 2 times

✉️ **Dudulle** 1 year, 5 months ago

Not the first question, by far, not at all covered in the courses ... It is generic HTML knowledge, but yeah, like other questions, a bit abusive to find it here !

upvoted 2 times

✉️ **GarryK** 1 year, 7 months ago

Correct

Http Method: [https://www.w3schools.com/tags/ref\\_httpmethods.asp](https://www.w3schools.com/tags/ref_httpmethods.asp)

Anonymous (for public access)

upvoted 2 times

You have an Azure subscription.

You need to recommend a solution to provide developers with the ability to provision Azure virtual machines. The solution must meet the following requirements:

- ☞ Only allow the creation of the virtual machines in specific regions.
- ☞ Only allow the creation of specific sizes of virtual machines.

What should you include in the recommendation?

- A. Azure Resource Manager (ARM) templates
- B. Azure Policy
- C. Conditional Access policies
- D. role-based access control (RBAC)

**Correct Answer: B**

Azure Policies allows you to specify allowed locations, and allowed VM SKUs.

Reference:

<https://docs.microsoft.com/en-us/azure/governance/policy/tutorials/create-and-manage>

*Community vote distribution*

B (100%)

✉  **bootless** Highly Voted 1 year, 7 months ago

**Selected Answer: B**

Correct answer  
upvoted 11 times

✉  **GarryK** Highly Voted 1 year, 7 months ago

**Selected Answer: B**

Correct  
<https://docs.microsoft.com/en-us/azure/governance/policy/samples/built-in-policies>  
Allowed virtual machine size SKUs This policy enables you to specify a set of virtual machine size SKUs that your organization can deploy.  
Allowed locations This policy enables you to restrict the locations your organization can specify when deploying resources. Use to enforce your geo-compliance requirements. Excludes resource groups, Microsoft.AzureActiveDirectory/b2cDirectories, and resources that use the 'global' region  
upvoted 9 times

✉  **JoShizo** Most Recent 1 month, 1 week ago

**Selected Answer: B**

B - Azure Policy  
upvoted 1 times

✉  **King\_Laps** 11 months, 4 weeks ago

The given answer is correct  
upvoted 1 times

✉  **NotMeAnyWay** 1 year ago

**Selected Answer: B**

B. Azure Policy

Azure Policy is a service that helps you create, assign, and manage policies to enforce different rules and effects over your resources. By using Azure Policy, you can ensure that your resources stay compliant with your corporate standards.

In this scenario, you can create and assign policies to restrict the creation of virtual machines to specific regions and sizes, which meets both requirements.

upvoted 1 times

✉  **VBK8579** 1 year, 2 months ago

**Selected Answer: B**

B. Azure Policy  
upvoted 2 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

B. Azure Policy

upvoted 1 times

 **AF2000** 1 year, 3 months ago

**Selected Answer: B**

Correct

upvoted 1 times

**DRAG DROP -**

You have an on-premises network that uses an IP address space of 172.16.0.0/16.

You plan to deploy 30 virtual machines to a new Azure subscription.

You identify the following technical requirements:

- All Azure virtual machines must be placed on the same subnet named Subnet1.
- All the Azure virtual machines must be able to communicate with all on-premises servers.
- The servers must be able to communicate between the on-premises network and Azure by using a site-to-site VPN.

You need to recommend a subnet design that meets the technical requirements.

What should you include in the recommendation? To answer, drag the appropriate network addresses to the correct subnets. Each network address may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

<b>Network Addresses</b>	<b>Answer Area</b>
172.16.0.0/16	
172.16.1.0/27	
192.168.0.0/24	
192.168.1.0/27	

Subnet1:

Gateway subnet:

Correct Answer:

<b>Network Addresses</b>	<b>Answer Area</b>
172.16.0.0/16	
172.16.1.0/27	
192.168.0.0/24	
192.168.1.0/27	

Subnet1:

Gateway subnet:

✉ **Davin0406** Highly Voted 1 year, 6 months ago

Correct. appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.  
upvoted 34 times

✉ **weiofu** Highly Voted 11 months, 2 weeks ago

1. Cannot overlap -> 172.16.0.0/16 is out  
 2. 30 machines -> 192.168.1.0/27 is 32 IPs, but Azure always uses 5 for itself, so would be too small for the machine subnet  
 => process of elimination leads to Subnet1 = 192.168.0.0/24, Gateway Subnet = 192.168.1.0/27  
upvoted 24 times

✉ **JoShizo** Most Recent 1 month, 1 week ago

Subnet1: 192.168.0.0/24  
 Gateway subnet: 192.168.1.0/27  
upvoted 1 times

✉ **spotted** 4 months ago

Just so you know, the formula to apply, which you can search also on Wikipedia is  $2^n - 2$ .

$$n = 32 - 16 \text{ (for example)} = 16$$

$$2^{16} - 2 = 65536 - 2 = 65534$$

However, besides the broadcast address and the id address of the subnet (e.g. 172.16.0.0), Azure uses 3 additional IPs for itself, hence we have to subtract 5.

So the formula becomes:

$$n = 32 - 16 \text{ (for example)} = 16$$

$$2^{16} - 5 = 65536 - 5 = 65531$$

This helps you to calculate it during the exam rather than learning it by heart as the numbers could change any time but the formula and the reserved ips stay the same.

upvoted 3 times

✉️ **King\_Laps** 11 months, 4 weeks ago

Subnet1: 192.168.0.0/24  
Gateway Subnet: 192.168.1.0/27  
upvoted 1 times

✉️ **azkumar305** 1 year ago

I got this on 14-Apr-2023  
upvoted 5 times

✉️ **NotMeAnyWay** 1 year ago

Subnet1: 192.168.0.0/24  
  
Gateway Subnet: 192.168.1.0/27

Using the 192.168.0.0/24 address for Subnet1 in Azure allows you to deploy the 30 virtual machines without overlapping with your on-premises IP address space (172.16.0.0/16).

For the Gateway Subnet, using 192.168.1.0/27 is correct because it ensures that the Gateway Subnet is separate from the Azure VMs subnet (Subnet1) and also does not overlap with the on-premises IP address space. By keeping the Gateway Subnet distinct from both the Azure VMs subnet and the on-premises IP address space, you can avoid any potential routing issues and ensure proper communication between the on-premises network and Azure through a site-to-site VPN.

upvoted 7 times

✉️ **NianSpannie98** 1 year, 2 months ago

This is Correct. On Prem and Vnet IP Addresses can not overlap for site to site or point to site connections. on prem is currently 172.16.0.0/16, so 172.16.x.x/16 and up is not available for Vnet. So subnet is 192.168.0.0/24

Microsoft also recommends Gateway to be /27. So 192.168.1.0/27 is correct  
upvoted 6 times

✉️ **VBK8579** 1 year, 2 months ago

For the Azure virtual machines to communicate with the on-premises network and meet the technical requirements, the subnet design should be as follows:

Network address for Subnet1: 192.168.0.0/24 or 192.168.1.0/27

Network address for Gateway subnet: 192.168.0.0/27 or 192.168.1.0/28

It's important to note that using private IP addresses that are not reserved for private networks (such as 172.16.0.0/16) is not recommended in a production environment as it may cause IP address conflicts.

upvoted 3 times

✉️ **OPT\_001122** 1 year, 2 months ago

Given answer is correct,  
Thanks all who have mentioned the exam dates  
upvoted 1 times

✉️ **rocroberto** 1 year, 4 months ago

I would think that another reason why the 172.X.X.X are not usable is because those are Non Routable IP Addresses (they cannot be used except by Azure systems)  
upvoted 1 times

✉️ **Guest** 1 year, 4 months ago

192.168.x.x is not routable either so that would make no difference  
172.16.x.x is also a private range  
See <https://www.okta.com/identity-101/understanding-private-ip-ranges/>  
But you can't have overlapping IP ranges, so that's why 172.16.x.x can't be used in Azure for this case  
Gateway subnet must be /27 or larger  
30 machines + reserved ip's requires at least a /26, so their answer is correct  
upvoted 5 times

✉️ **Darkx** 1 year, 6 months ago

appeared on 11th Oct 2022  
upvoted 3 times

✉️ **GarryK** 1 year, 7 months ago

Correct:  
<https://docs.microsoft.com/en-us/azure/vpn-gateway/tutorial-site-to-site-portal?source=recommendations>

Create a virtual network  
Create a VPN gateway  
Create a local network gateway  
Create a VPN connection  
Verify the connection

Connect to a virtual machine

None of the subnets of your on-premises network can overlap with the virtual network subnets that you want to connect to.

upvoted 12 times

✉️ **yonie** 11 months, 3 weeks ago

Thanks!

upvoted 1 times

You have data files in Azure Blob Storage.  
You plan to transform the files and move them to Azure Data Lake Storage.  
You need to transform the data by using mapping data flow.  
Which service should you use?

- A. Azure Databricks
- B. Azure Storage Sync
- C. Azure Data Factory
- D. Azure Data Box Gateway

**Correct Answer: C**

You can copy and transform data in Azure Data Lake Storage Gen2 using Azure Data Factory or Azure Synapse Analytics.

Reference:

<https://docs.microsoft.com/en-us/azure/data-factory/connector-azure-data-lake-storage>

*Community vote distribution*

C (100%)

✉️  **Davin0406** Highly Voted  1 year, 6 months ago

**Selected Answer: C**

appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.  
upvoted 14 times

✉️  **GarryK** Highly Voted  1 year, 7 months ago

**Selected Answer: C**

Correct

<https://docs.microsoft.com/en-us/azure/data-factory/concepts-data-flow-overview>

What are mapping data flows?

Mapping data flows are visually designed data transformations in Azure Data Factory. Data flows allow data engineers to develop data transformation logic without writing code. The resulting data flows are executed as activities within Azure Data Factory pipelines that use scaled-out Apache Spark clusters. Data flow activities can be operationalized using existing Azure Data Factory scheduling, control, flow, and monitoring capabilities.

upvoted 11 times

✉️  **jellybiscuit** 1 year, 6 months ago

Correct. Both Databricks and Data Factory can move the data.

The key point here is the "mapping data flow" which is the GUI that only Data Factory provides.

upvoted 3 times

✉️  **mtc9** 1 year, 5 months ago

Synapse also provides that but was not a choice

upvoted 4 times

✉️  **lombri** Most Recent  11 months, 2 weeks ago

**Selected Answer: C**

Azure Data Factory is a cloud-based data integration service that allows you to create, schedule, and manage data pipelines that can move and transform data across different sources and destinations, including Azure Blob Storage and Azure Data Lake Storage.

Azure Databricks is a cloud-based analytics platform that allows you to process large amounts of data using Apache Spark. It can also be used for data transformation and ETL, but it requires more technical expertise and development effort than using Azure Data Factory mapping data flows.

Azure Storage Sync is a service that allows you to sync on-premises file servers with Azure file shares, but it does not support data transformation.

Azure Data Box Gateway is a hardware device that allows you to transfer large amounts of data to Azure, but it does not support data transformation using mapping data flow.

upvoted 3 times

✉️  **NotMeAnyWay** 1 year ago

**Selected Answer: C**

C. Azure Data Factory

Azure Data Factory is the appropriate service to use for transforming data using mapping data flow. Mapping data flow is a feature in Azure Data Factory that allows you to visually design, build, and manage data transformation processes without writing any code. You can use mapping data flow in Azure Data Factory to transform the data files in Azure Blob Storage and move them to Azure Data Lake Storage as per your requirements.

upvoted 5 times

✉️  **VBK8579** 1 year, 2 months ago

**Selected Answer: C**

C. Azure Data Factory

upvoted 3 times

✉️  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: C**

For mapping

C. Azure Data Factory

upvoted 2 times

You have an Azure subscription.

You need to deploy an Azure Kubernetes Service (AKS) solution that will use Windows Server 2019 nodes. The solution must meet the following requirements:

- Minimize the time it takes to provision compute resources during scale-out operations.
- Support autoscaling of Windows Server containers.

Which scaling option should you recommend?

- A. Kubernetes version 1.20.2 or newer
- B. Virtual nodes with Virtual Kubelet ACI
- C. cluster autoscaler
- D. horizontal pod autoscaler

**Correct Answer: C**

Deployments can scale across AKS with no delay as cluster autoscaler deploys new nodes in your AKS cluster.

Note: AKS clusters can scale in one of two ways:

\* The cluster autoscaler watches for pods that can't be scheduled on nodes because of resource constraints. The cluster then automatically increases the number of nodes.

\* The horizontal pod autoscaler uses the Metrics Server in a Kubernetes cluster to monitor the resource demand of pods. If an application needs more resources, the number of pods is automatically increased to meet the demand.

Incorrect:

Not D: If your application needs to rapidly scale, the horizontal pod autoscaler may schedule more pods than can be provided by the existing compute resources in the node pool. If configured, this scenario would then trigger the cluster autoscaler to deploy additional nodes in the node pool, but it may take a few minutes for those nodes to successfully provision and allow the Kubernetes scheduler to run pods on them.

Reference:

<https://docs.microsoft.com/en-us/azure/aks/cluster-autoscaler>

*Community vote distribution*

C (82%) Other

✉  **GarryK** Highly Voted 1 year, 7 months ago

**Selected Answer: C**

Correct.

Cluster autoscaler help provision new nodes (compute resources)

Cluster autoscaler works on top of horizontal pod autoscaler.

Azure AKS support windows <https://docs.microsoft.com/en-us/azure/aks/learn/quick-windows-container-deploy-cli>  
upvoted 23 times

✉  **GarryK** 1 year, 2 months ago

To those answering B. The solution must use Windows Server 2019 nodes.

You need to deploy an Azure Kubernetes Service (AKS) solution that will use Windows Server 2019 nodes.

Virtual nodes only support Linux nodes.

<https://learn.microsoft.com/en-us/azure/aks/virtual-nodes>

Virtual nodes are only supported with Linux pods and nodes.

It can of course host linux or windows containers, but that's not the requirement.

upvoted 15 times

✉  **Snownoodles** Highly Voted 1 year, 5 months ago

**Selected Answer: C**

The correct answer is C. AKS doesn't support Windows 2019 virtual node so far, you have to "manually install the open source Virtual Kubelet ACI provider to schedule Windows Server containers to ACI"

Since the ask is "Minimize the time it takes to provision compute resources during scale-out operations", so the correct answer should be C  
upvoted 11 times

✉  **ntma3b** Most Recent 6 months, 2 weeks ago

The answer is correct.

<https://learn.microsoft.com/en-us/azure/aks/cluster-autoscaler>

upvoted 1 times

✉  **cryptotafkar** 6 months, 3 weeks ago

Cluster Autoscaler dynamically adjusts the number of nodes in the AKS cluster based on the resource requirements of the workloads running in the cluster. When new pods are scheduled, and there are insufficient resources available, Cluster Autoscaler will automatically provision additional nodes to meet the demand. Conversely, if nodes are underutilized, it can scale down the cluster to save costs.

upvoted 1 times

✉️ **Leocan** 7 months, 1 week ago

**Selected Answer: C**

C is the best answer.

upvoted 2 times

✉️ **Tr619899** 10 months, 2 weeks ago

The correct answer is C. cluster autoscaler.

The cluster autoscaler automatically adjusts the number of nodes in an Azure Kubernetes Service (AKS) cluster when there are not enough resources to schedule pods or when nodes are underutilized and their pods can be rescheduled onto other nodes in the cluster. This helps to minimize the time it takes to provision compute resources during scale-out operations and supports autoscaling of Windows Server containers.

upvoted 1 times

✉️ **NotMeAnyWay** 1 year ago

**Selected Answer: C**

C. cluster autoscaler

Cluster autoscaler automatically adjusts the size of the AKS cluster by adding or removing nodes based on the resource demands of your workloads. It helps to ensure that you have enough capacity to run your applications while minimizing costs. While it may not minimize provisioning time to the same extent as virtual nodes, it does support autoscaling for Windows Server containers.

upvoted 4 times

✉️ **Eusouzati** 1 year, 1 month ago

**Selected Answer: D**

Horizontal Pod Autoscaler (HPA) with custom metrics: HPA automatically scales the number of pods in a deployment based on CPU utilization or other metrics. To support autoscaling of Windows Server containers, you can use HPA with custom metrics to scale based on the memory or CPU usage of the containers running on Windows Server nodes. By scaling based on custom metrics, you can ensure that the scale-out operation is efficient and minimizes the time it takes to provision compute resources.

Note that the AKS cluster should be configured to use Windows Server 2019 nodes by specifying the appropriate node image in the AKS node pool configuration.

upvoted 1 times

✉️ **VBK8579** 1 year, 2 months ago

**Selected Answer: C**

C. Cluster Autoscaler

upvoted 1 times

✉️ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: C**

C. cluster autoscaler

upvoted 1 times

✉️ **hyur** 1 year, 2 months ago

B. Virtual nodes with Virtual Kubelet ACI

Virtual nodes with Virtual Kubelet ACI (Azure Container Instances) can minimize the time it takes to provision compute resources during scale-out operations, and support autoscaling of Windows Server containers. This is because Virtual Kubelet allows you to use Azure Container Instances (ACI) as a virtual node in your AKS cluster, allowing you to scale out your cluster with ACI resources as needed. This can be a good option as it allows you to take advantage of the fast provisioning and scalability of ACI while still using AKS to manage your containers.

upvoted 2 times

✉️ **hyur** 1 year, 2 months ago

Not C. cluster autoscaler: can also be used to support autoscaling of nodes within an AKS cluster, but it does not specifically support Windows Server containers and it doesn't minimize the time it takes to provision compute resources during scale-out operations as much as Virtual node with Virtual Kubelet ACI. Cluster Autoscaler is a Kubernetes controller that automatically adjusts the number of nodes in your cluster based on the resource usage of pods. It does this by checking the resource utilization of pods and adding or removing nodes as necessary to ensure that all pods have sufficient resources. While this can help you automatically scale your cluster, it doesn't provide the same level of fast provisioning and scalability as using Virtual Kubelet with ACI.

Source ChatGPT

upvoted 1 times

✉️ **VBK8579** 1 year, 2 months ago

Cluster autoscaler

upvoted 1 times

✉️ **PankajKataria** 1 year, 3 months ago

**Selected Answer: C**

Cluster autoscaler help provision new node

upvoted 1 times

✉️ A\_GEE 1 year, 4 months ago

**Selected Answer: C**

This is Windows - using autoscaler

For Linux - using virtual node

upvoted 7 times

✉️ pkkalra 1 year, 4 months ago

**Selected Answer: B**

Answer is B as we need to reduce time in provisioning the resources during scale out.

<https://learn.microsoft.com/en-us/azure/aks/concepts-scale#burst-to-azure-container-instances>

upvoted 1 times

✉️ sexyt 1 year, 3 months ago

B would be correct if the requirement was scaling horizontally not out, therefore it's C as proven in your own link.

upvoted 1 times

✉️ darren888 1 year, 5 months ago

**Selected Answer: C**

Virtual nodes are only supported with Linux pods and nodes.

upvoted 2 times

✉️ Tanminator 1 year, 5 months ago

**Selected Answer: C**

The answer is C.

The incorrect answer is B. Virtual nodes are only supported with Linux pods and nodes <https://learn.microsoft.com/en-us/azure/aks/virtual-nodes>.

upvoted 4 times

**HOTSPOT -**

Your on-premises network contains a file server named Server1 that stores 500 GB of data.

You need to use Azure Data Factory to copy the data from Server1 to Azure Storage.

You add a new data factory.

What should you do next? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

From Server1:

- Install an Azure File Sync agent.
- Install a self-hosted integration runtime.
- Install the File Server Resource Manager role service.

From the data factory:

- Create a pipeline.
- Create an Azure Import/Export job.
- Provision an Azure-SQL Server Integration Services (SSIS) integration runtime.

Correct Answer:

**Answer Area**

From Server1:

- Install an Azure File Sync agent.
- Install a self-hosted integration runtime.
- Install the File Server Resource Manager role service.

From the data factory:

- Create a pipeline.
- Create an Azure Import/Export job.
- Provision an Azure-SQL Server Integration Services (SSIS) integration runtime.

Box 1: Install a self-hosted integration runtime.

If your data store is located inside an on-premises network, an Azure virtual network, or Amazon Virtual Private Cloud, you need to configure a self-hosted integration runtime to connect to it.

The Integration Runtime to be used to connect to the data store. You can use Azure Integration Runtime or Self-hosted Integration Runtime (if your data store is located in private network). If not specified, it uses the default Azure Integration Runtime.

Box 2: Create a pipeline.

You perform the Copy activity with a pipeline.

Reference:

<https://docs.microsoft.com/en-us/azure/data-factory/connector-file-system>

 **jellybiscuit** Highly Voted 1 year, 6 months ago

Correct

<https://learn.microsoft.com/en-us/azure/data-factory/connector-file-system?tabs=data-factory>

upvoted 18 times

 **NotMeAnyWay** Highly Voted 1 year ago

Correct.

o copy the data from Server1 to Azure Storage using Azure Data Factory, you should do the following next:

1. From Server1: b. Install a self-hosted integration runtime

A self-hosted integration runtime needs to be installed on Server1 to enable secure communication between the on-premises network and Azure Data Factory. This runtime allows Data Factory to access and copy data from the on-premises file server to Azure Storage.

2. From the data factory: a. Create a pipeline

In the Azure Data Factory, create a pipeline that specifies the source (on-premises file server) and destination (Azure Storage). The pipeline will use the self-hosted integration runtime to establish a connection to the on-premises file server and transfer the data to Azure Storage.

upvoted 6 times

 **OPT\_001122** Most Recent 1 year, 2 months ago

Box 1: Install a self-hosted integration runtime.

Box 2: Create a pipeline.

upvoted 4 times

✉️ **FabryDev** 1 year, 2 months ago

As described in link below, you have to install self hosted integration runtime on the Server and create a Pipeline in Data Factory.

<https://www.sqlshack.com/copy-data-from-on-premises-data-store-to-an-azure-data-store-using-azure-data-factory/>

upvoted 1 times

✉️ **GarryK** 1 year, 7 months ago

<https://docs.microsoft.com/en-us/azure/data-factory/data-migration-guidance-hdfs-azure-storage>

ou must install the Data Factory self-hosted integration runtime on a Windows VM in your Azure virtual network.

<https://docs.microsoft.com/en-us/azure/data-factory/concepts-pipelines-activities?tabs=data-factory>

A Data Factory or Synapse Workspace can have one or more pipelines. A pipeline is a logical grouping of activities that together perform a task. For example, a pipeline could contain a set of activities that ingest and clean log data, and then kick off a mapping data flow to analyze the log data.

upvoted 6 times

You have an Azure subscription.

You need to recommend an Azure Kubernetes Service (AKS) solution that will use Linux nodes. The solution must meet the following requirements:

- Minimize the time it takes to provision compute resources during scale-out operations.
- Support autoscaling of Linux containers.
- Minimize administrative effort.

Which scaling option should you recommend?

- A. horizontal pod autoscaler
- B. cluster autoscaler
- C. virtual nodes
- D. Virtual Kubelet

**Correct Answer: C**

To rapidly scale application workloads in an AKS cluster, you can use virtual nodes. With virtual nodes, you have quick provisioning of pods, and only pay per second for their execution time. You don't need to wait for Kubernetes cluster autoscaler to deploy VM compute nodes to run the additional pods. Virtual nodes are only supported with Linux pods and nodes.

Reference:

<https://docs.microsoft.com/en-us/azure/aks/virtual-nodes>

*Community vote distribution*

C (96%) 4%

✉️  OPT\_001122  1 year, 2 months ago

**Selected Answer: C**

cluster autoscaler for windows  
Virtual Nodes for Linux  
upvoted 51 times

✉️  TinoTen 7 months, 2 weeks ago

Thank you OPT\_001122 Sensei  
upvoted 2 times

✉️  NotMeAnyWay  1 year ago

**Selected Answer: C**

C. virtual nodes

To meet the requirements of minimizing the time it takes to provision compute resources during scale-out operations, supporting autoscaling of Linux containers, and minimizing administrative effort, you should recommend virtual nodes for the Azure Kubernetes Service (AKS) solution with Linux nodes.

Virtual nodes allow you to scale your AKS cluster quickly by offloading the additional compute resources to Azure Container Instances (ACI). This reduces the time it takes to provision resources during scale-out operations, as the resources can be provisioned instantly without having to wait for a new node to be created. Additionally, virtual nodes support autoscaling of Linux containers and require minimal administrative effort compared to other scaling options.

upvoted 4 times

✉️  VBK8579 1 year, 2 months ago

**Selected Answer: C**

To minimize the time it takes to provision compute resources during scale-out operations in an AKS cluster with Linux nodes, the recommended scaling option would be Virtual Nodes. Virtual Nodes allow the AKS cluster to use Azure Container Instances (ACI) as worker nodes, which can be quickly and easily provisioned, enabling faster scaling compared to traditional AKS worker nodes.

upvoted 1 times

✉️  OPT\_001122 1 year, 2 months ago

**Selected Answer: C**

To rapidly scale application workloads in an AKS cluster, you can use virtual nodes.  
upvoted 2 times

✉️  [Removed] 1 year, 3 months ago

**Selected Answer: C**

Virtual Nodes

upvoted 1 times

✉️  **simonseztech** 1 year, 5 months ago

**Selected Answer: C**

<https://learn.microsoft.com/en-us/azure/aks/virtual-nodes>

The virtual nodes add-on for AKS, is based on the open source project Virtual Kubelet.

So if you need to scale out faster than AKS let you, you need to burst to ACI.

upvoted 1 times

✉️  **jellybiscuit** 1 year, 6 months ago

**Selected Answer: C**

C - because "virtual node" is the name of the Microsoft "product".

In short, it connects kubernetes management to ACI containers.

That said... it uses Virtual Kubelet technology, and probably horizontal pod autoscaler to scale.

upvoted 3 times

✉️  **S\_883** 1 year, 6 months ago

**Selected Answer: C**

<https://docs.microsoft.com/en-us/azure/aks/virtual-nodes>

it should be C then?

upvoted 3 times

✉️  **scottims** 1 year, 7 months ago

I believe Kay000001 meant C, virtual nodes

To rapidly scale application workloads in an AKS cluster, you can use virtual nodes. With virtual nodes, you have quick provisioning of pods, and only pay per second for their execution time. You don't need to wait for Kubernetes cluster autoscaler to deploy VM compute nodes to run the additional pods. Virtual nodes are only supported with Linux pods and nodes.

upvoted 4 times

✉️  **kay000001** 1 year, 7 months ago

**Selected Answer: B**

B.

<https://docs.microsoft.com/en-us/azure/aks/virtual-nodes>

upvoted 3 times

You are designing an order processing system in Azure that will contain the Azure resources shown in the following table.

Name	Type	Purpose
App1	App Service web app	Processes customer orders
Function1	Function	Checks product availability at vendor 1
Function2	Function	Checks product availability at vendor 2
storage1	Storage account	Stores order processing logs

The order processing system will have the following transaction flow:

- A customer will place an order by using App1.
- When the order is received, App1 will generate a message to check for product availability at vendor 1 and vendor 2.
- An integration component will process the message, and then trigger either Function1 or Function2 depending on the type of order.
- Once a vendor confirms the product availability, a status message for App1 will be generated by Function1 or Function2.
- All the steps of the transaction will be logged to storage1.

Which type of resource should you recommend for the integration component?

- A. an Azure Service Bus queue
- B. an Azure Data Factory pipeline
- C. an Azure Event Grid domain
- D. an Azure Event Hubs capture

**Correct Answer: B**

Azure Data Factory is the platform is the cloud-based ETL and data integration service that allows you to create data-driven workflows for orchestrating data movement and transforming data at scale. Using Azure Data Factory, you can create and schedule data-driven workflows (called pipelines) that can ingest data from disparate data stores.

Data Factory contains a series of interconnected systems that provide a complete end-to-end platform for data engineers.

Reference:

<https://docs.microsoft.com/en-us/azure/data-factory/introduction>

*Community vote distribution*

B (55%)

A (42%)

✉  **Samko635**  1 year, 6 months ago

**Selected Answer: B**

The given answer is correct.

ADF pipeline can process the message and trigger the appropriate condition. On ADF, you can add a diagnostic setting to send logs to a storage account.

Other possible options would be Event grid subscription & Service bus topic.

Service bus TOPIC can be used with filtering rules on each subscription but not queue.

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/service-bus-topics-subscriptions#rules-and-actions>

upvoted 38 times

✉  **Snownoodles**  1 year, 7 months ago

**Selected Answer: A**

Option A looks correct to me: an Azure Service Bus queue

ADF pipeline is for data ETL/movement only

upvoted 32 times

✉  **Snownoodles** 1 year, 5 months ago

Sorry, after reading the following link, I think the correct answer should be B

Please note the question is asking to implement "An integration component will process the message". Service Bus definitely is unable to process the message, it's just a message queue.

ADF has a "control activity" which is like IF---Then flow

<https://learn.microsoft.com/en-us/azure/data-factory/control-flow-if-condition-activity>

upvoted 36 times

✉  **BlackJackVII**  3 weeks ago

The answer should be C

<https://learn.microsoft.com/en-us/azure/event-grid/overview#receive-events-from-your-applications>

upvoted 1 times

✉  **rishisoft1** 4 weeks ago

The question is just asking about Integration component, so ADF is integration that calls function1 & 2.  
upvoted 1 times

✉  **Frank\_2022** 1 month ago

**Selected Answer: A**

Azure Service Bus Queue is specifically designed for asynchronous communication and queuing messages.on the other hand, are better suited for orchestration tasks involving data movement and transformation at scale. They are not designed for real-time message processing like the one required in this scenario.

upvoted 1 times

✉  **Sriramps** 2 months, 2 weeks ago

Azure service bus queue - decoupling components  
Azure data factory pipeline - integrating components....  
So answer is B  
upvoted 3 times

✉  **azim1** 3 months, 3 weeks ago

**Selected Answer: A**

Both service bus and adf pipeline can be used, however, service bus seems to be more optimized for this workflow.  
upvoted 1 times

✉  **PMPft17** 4 months, 3 weeks ago

key word was integration service.  
upvoted 1 times

✉  **xRiot007** 1 month, 3 weeks ago

Anything can be an integration service, so I wouldn't say it's a keyword  
upvoted 1 times

✉  **husam421** 6 months, 2 weeks ago

**Selected Answer: B**

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/service-bus-queues-topics-subscriptions#rules-and-actions>  
upvoted 1 times

✉  **joesatriani** 6 months, 3 weeks ago

**Selected Answer: B**

B is right answer.  
upvoted 1 times

✉  **Red0101** 7 months ago

**Selected Answer: C**

Cannot be service bus queue since it is required to trigger a function based on the message generated. Azure service bus topics would make sense  
Event grid offers pub/sub with the domains.  
ADF it's a mystery for me  
upvoted 1 times

✉  **jojorabbit2021** 8 months ago

**Selected Answer: B**

B is correct  
upvoted 1 times

✉  **Raj70** 8 months ago

I believe it is Event Grid because it matches all criteria and is simple that ADF for this scenario  
upvoted 1 times

✉  **lombri** 11 months, 2 weeks ago

**Selected Answer: A**

A. An Azure Service Bus queue is the recommended resource for the integration component in this transaction flow. An Azure Service Bus queue provides reliable message delivery between different parts of a distributed system. In this transaction flow, the integration component can use an Azure Service Bus queue to receive messages from App1 and trigger either Function1 or Function2 depending on the type of order. Once a vendor confirms the product availability, a status message can be generated and sent to App1 via the same queue. Additionally, all the steps of the transaction can be logged to storage1 using a separate process.  
upvoted 3 times

✉  **NotMeAnyWay** 1 year ago

**Selected Answer: A**

A. an Azure Service Bus queue

In this scenario, the integration component should be an Azure Service Bus queue. Service Bus queues are a suitable choice for processing messages between App1 and the Azure Functions (Function1 and Function2) in a reliable and efficient manner. They enable communication in a decoupled manner, allowing for better scalability and resilience. Additionally, Service Bus queues support message ordering, duplicate detection, and can handle multiple consumers, making it a good fit for the described order processing system.

Azure Data Factory is primarily designed for data integration, orchestration, and movement scenarios, such as ETL (Extract, Transform, Load) processes, rather than for real-time message processing and triggering functions based on message content.

upvoted 4 times

✉  **sieira** 7 months, 3 weeks ago

Azure Data Factory is used to orchestrate and coordinate activities, including invoking functions based on conditions and the workflow described needs to decide which function to invoke based on the type of order so adf is a better solution. The answer is b

upvoted 1 times

✉  **memo454** 7 months, 2 weeks ago

To add: An e-commerce site can use Azure Service Bus to process an order, Azure Event Hubs to capture site telemetry, and Azure Event Grid to respond to events like an item being shipped. Thus, Azure Data Factory is the best solution to coordinate all the requested activities.

upvoted 2 times

✉  **AzureMasterChamp** 1 year ago

We need pub-sub here, I think correct answer should be Azure Event Grid Domain.  
Azure service Bus Queue will not help, for pub-sub we need Azure Service Bus Topic.

upvoted 2 times

✉  **oblivew** 8 months, 3 weeks ago

One Event Grid domain can contain 2 topics, and so have separate bindings to Function1 and Function2, so maybe

upvoted 1 times

✉  **AzureMasterChamp** 1 year ago

<https://learn.microsoft.com/en-us/azure/event-grid/event-domains>

upvoted 1 times

✉  **steel72** 1 year ago

**Selected Answer: B**

Correct answer is "Azure Data Factory".  
Service Bus Queues do not support one-to-many, only Service Bus Topics do.

upvoted 4 times

✉  **trferreiraBR** 3 months, 3 weeks ago

You're wrong. <https://learn.microsoft.com/en-us/azure/azure-functions/functions-bindings-service-bus?tabs=isolated-process%2Cextensionv5%2Cextensionv3&pivots=programming-language-csharp>

upvoted 1 times

You have 100 Microsoft SQL Server Integration Services (SSIS) packages that are configured to use 10 on-premises SQL Server databases as their destinations.

You plan to migrate the 10 on-premises databases to Azure SQL Database.

You need to recommend a solution to create Azure-SQL Server Integration Services (SSIS) packages. The solution must ensure that the packages can target the

SQL Database instances as their destinations.

What should you include in the recommendation?

- A. Data Migration Assistant (DMA)
- B. Azure Data Factory
- C. Azure Data Catalog
- D. SQL Server Migration Assistant (SSMA)

**Correct Answer: B**

Migrate on-premises SSIS workloads to SSIS using ADF (Azure Data Factory).

When you migrate your database workloads from SQL Server on premises to Azure database services, namely Azure SQL Database or Azure SQL Managed

Instance, your ETL workloads on SQL Server Integration Services (SSIS) as one of the primary value-added services will need to be migrated as well.

Azure-SSIS Integration Runtime (IR) in Azure Data Factory (ADF) supports running SSIS packages. Once Azure-SSIS IR is provisioned, you can then use familiar tools, such as SQL Server Data Tools (SSDT)/SQL Server Management Studio (SSMS), and command-line utilities, such as dtinstall/dtutil/dtexec, to deploy and run your packages in Azure.

Reference:

<https://docs.microsoft.com/en-us/azure/data-factory/scenario-ssis-migration-overview>

*Community vote distribution*

B (100%)

✉️  **NotMeAnyWay** Highly Voted  1 year ago

**Selected Answer: B**

Correct:

B. Azure Data Factory

You should include Azure Data Factory in the recommendation to create Azure-SQL Server Integration Services (SSIS) packages. Azure Data Factory supports running SSIS packages in the cloud using Azure-SSIS Integration Runtime, which allows you to target Azure SQL Database instances as the destinations for your SSIS packages. This enables you to continue using your existing SSIS packages while migrating your on-premises databases to Azure SQL Database.

upvoted 10 times

✉️  **GarryK** Highly Voted  1 year, 7 months ago

**Selected Answer: B**

<https://docs.microsoft.com/en-us/azure/data-factory/tutorial-deploy-ssis-packages-azure>  
upvoted 6 times

✉️  **VBK8579** Most Recent  1 year, 2 months ago

**Selected Answer: B**

Azure Data Factory provides a cloud-based platform for the orchestration and management of data transformation and movement. Azure Data Factory supports connecting to and migrating data from on-premises databases, including SQL Server, to Azure SQL Database. Azure Data Factory also supports integrating with SSIS packages, making it possible to continue using your existing SSIS packages while utilizing Azure SQL Database as the target database.

upvoted 4 times

✉️  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

B. Azure Data Factory  
upvoted 1 times

✉️  **Snownoodles** 1 year, 6 months ago

I wonder if there is a typo in this question:  
"You need to recommend a solution to CREATE Azure-SQL Server Integration Services (SSIS) packages"

Should "CREATE" be "REPLACE"?

upvoted 2 times

✉  **sKaiNL** 1 year, 6 months ago

Apparently yes

upvoted 2 times

✉  **kay00001** 1 year, 7 months ago

**Selected Answer: B**

B.

<https://docs.microsoft.com/en-us/azure/data-factory/how-to-migrate-ssis-job-ssms>

upvoted 4 times

You have an Azure virtual machine named VM1 that runs Windows Server 2019 and contains 500 GB of data files.

You are designing a solution that will use Azure Data Factory to transform the data files, and then load the files to Azure Data Lake Storage.

What should you deploy on VM1 to support the design?

- A. the On-premises data gateway
- B. the Azure Pipelines agent
- C. the self-hosted integration runtime
- D. the Azure File Sync agent

**Correct Answer: C**

The integration runtime (IR) is the compute infrastructure that Azure Data Factory and Synapse pipelines use to provide data-integration capabilities across different network environments.

A self-hosted integration runtime can run copy activities between a cloud data store and a data store in a private network. It also can dispatch transform activities against compute resources in an on-premises network or an Azure virtual network. The installation of a self-hosted integration runtime needs an on-premises machine or a virtual machine inside a private network.

Reference:

<https://docs.microsoft.com/en-us/azure/data-factory/create-self-hosted-integration-runtime>

*Community vote distribution*

C (100%)

✉️  **GarryK** Highly Voted 1 year, 7 months ago

**Selected Answer: C**

<https://docs.microsoft.com/en-us/azure/data-factory/concepts-integration-runtime>

The Integration Runtime (IR) is the compute infrastructure used by Azure Data Factory and Azure Synapse pipelines to provide the following data integration capabilities across different network environments:

Data Flow: Execute a Data Flow in a managed Azure compute environment.

Data movement: Copy data across data stores in a public or private networks (for both on-premises or virtual private networks). The service provides support for built-in connectors, format conversion, column mapping, and performant and scalable data transfer.

Activity dispatch: Dispatch and monitor transformation activities running on a variety of compute services such as Azure Databricks, Azure HDInsight, ML Studio (classic), Azure SQL Database, SQL Server, and more.

SSIS package execution: Natively execute SQL Server Integration Services (SSIS) packages in a managed Azure compute environment.

upvoted 9 times

✉️  **NotMeAnyWay** Highly Voted 9 months, 2 weeks ago

**Selected Answer: C**

The correct answer is C. Self-hosted Integration Runtime.

The Self-hosted Integration Runtime is a component of Azure Data Factory (ADF) that allows ADF to access and transfer data securely from private networks, such as the network VM1 resides on. This service is needed when you have data stores and computes that are situated behind a corporate firewall or are otherwise not publicly accessible.

upvoted 8 times

✉️  **JimmyYop** Most Recent 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 2 times

✉️  **VBK8579** 1 year, 2 months ago

**Selected Answer: C**

According to the Microsoft documentation, a self-hosted integration runtime is used to move data between on-premises data sources and Azure data stores. In this case, VM1 running Windows Server 2019 could host the self-hosted integration runtime, allowing data files to be transformed and loaded to Azure Data Lake Storage through Azure Data Factory.

upvoted 3 times

✉️  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: C**

C. the self-hosted integration runtime

upvoted 1 times

✉️  **kay000001** 1 year, 7 months ago

**Selected Answer: C**

C.

<https://docs.microsoft.com/en-us/azure/data-factory/connector-file-system>

upvoted 8 times

You have an Azure Active Directory (Azure AD) tenant that syncs with an on-premises Active Directory domain.

Your company has a line-of-business (LOB) application that was developed internally.

You need to implement SAML single sign-on (SSO) and enforce multi-factor authentication (MFA) when users attempt to access the application from an unknown location.

Which two features should you include in the solution? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Azure AD Privileged Identity Management (PIM)
- B. Azure Application Gateway
- C. Azure AD enterprise applications
- D. Azure AD Identity Protection
- E. Conditional Access policies

**Correct Answer: DE**

D: The signals generated by and fed to Identity Protection, can be further fed into tools like Conditional Access to make access decisions, or fed back to a security information and event management (SIEM) tool for further investigation based on your organization's enforced policies.

Note: Identity Protection is a tool that allows organizations to accomplish three key tasks:

Automate the detection and remediation of identity-based risks.

Investigate risks using data in the portal.

Export risk detection data to your SIEM.

E: The location condition can be used in a Conditional Access policy.

Conditional Access policies are at their most basic an if-then statement combining signals, to make decisions, and enforce organization policies. One of those signals that can be incorporated into the decision-making process is location.

Organizations can use this location for common tasks like:

\* Requiring multi-factor authentication for users accessing a service when they're off the corporate network.

\* Blocking access for users accessing a service from specific countries or regions.

The location is determined by the public IP address a client provides to Azure Active Directory or GPS coordinates provided by the Microsoft Authenticator app.

Conditional Access policies by default apply to all IPv4 and IPv6 addresses.

Incorrect:

Not A: Privileged Identity Management (PIM) is a service in Azure Active Directory (Azure AD) that enables you to manage, control, and monitor access to important resources in your organization. These resources include resources in Azure AD, Azure, and other Microsoft Online Services such as Microsoft 365 or

Microsoft Intune.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/identity-protection/overview-identity-protection> <https://docs.microsoft.com/en-us/azure/active-directory/conditional-access/location-condition>

*Community vote distribution*

CE (100%)

✉️  **bootless**  1 year, 7 months ago

**Selected Answer: CE**

Given answer is WRONG.

Correct ist Azure AD enterprise applications and Conditional Access

Enterprise App for SSO

Conditional Access for MFA

upvoted 82 times

✉️  **icklenutter** 1 year, 7 months ago

Agree, Should be CE

upvoted 13 times

✉️  **ServerBrain** 1 year, 3 months ago

I can't agree with you more..

upvoted 4 times

✉  **DeeSeeEss**  1 year, 2 months ago

Moderator, it's been 5 months with the incorrect answer and reasoning posted. Can we please get this updated for ease of use? The correct answer is obviously C,E.

upvoted 17 times

✉  **ahmedkmj**  4 weeks ago

**Selected Answer: CE**

10000% CE

upvoted 2 times

✉  **dejedi** 1 month ago

**Selected Answer: CE**

I Agree with C / E

upvoted 1 times

✉  **SDiwan** 1 month, 3 weeks ago

**Selected Answer: CE**

Create an enterprise app in Azure AD for SSO

Conditional access for MFA

upvoted 1 times

✉  **Som\_triv** 6 months, 3 weeks ago

Enforce multi-factor authentication (MFA) - This can be done either by using the Identity Protection - using signed-in risk action or using the Conditional Access Policy (CAP). The only difference is that CAP needs to be applied per application and Identity Protection is for the overall user login to any of your Enterprise applications.

As the problem in hand talk about a specific Application, CAP may be more appropriate answer.

C and E are correct.

upvoted 2 times

✉  **daniloaclima** 9 months, 2 weeks ago

**Selected Answer: CE**

"C" and "E" is correct!

upvoted 1 times

✉  **NotMeAnyWay** 1 year ago

**Selected Answer: CE**

C. Azure AD enterprise applications

E. Conditional Access policies

C. Azure AD enterprise applications: You need to configure the LOB application as an enterprise application in Azure AD. This will allow you to configure SAML-based SSO for the application, enabling users to sign in using their Azure AD credentials.

E. Conditional Access policies: You can create a Conditional Access policy in Azure AD to enforce MFA when users attempt to access the application from an unknown location. Conditional Access policies allow you to set specific conditions, such as location or device state, and apply security requirements, like MFA, when those conditions are met.

upvoted 4 times

✉  **JohnPhan** 1 year ago

**Selected Answer: CE**

Answer : C&E

upvoted 1 times

✉  **curtmcgirt** 1 year ago

**Selected Answer: CE**

Enterprise App for SSO

Conditional Access for MFA

upvoted 1 times

✉  **omerc061** 1 year, 1 month ago

**Selected Answer: CE**

Answer so clearly > Azure AD enterprise app - CAP

upvoted 1 times

✉  **VBK8579** 1 year, 2 months ago

**Selected Answer: CE**

C. Azure AD enterprise applications

E. Conditional Access policies

upvoted 1 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: CE**

C and E

upvoted 1 times

✉️  **OPT\_001122** 1 year, 2 months ago

Remember the key words LOB SSO MFA

upvoted 1 times

✉️  **albertoramos** 1 year, 2 months ago

**Selected Answer: CE**

Given answer is WRONG.

upvoted 1 times

✉️  **Visakhjs** 1 year, 2 months ago

**Selected Answer: CE**

Answer : C&E

upvoted 1 times

✉️  **ganetflix333** 1 year, 3 months ago

Should be C&E. MFA wont work without condition access policy

upvoted 1 times

✉️  **rehanalam** 1 year, 3 months ago

I think CDE:

Enterprise App: For SSO

Conditional Access for MFA and Identity protection for unknown Location (Sing-in Risk)

upvoted 1 times

✉️  **FabrytDev** 1 year, 2 months ago

You have to pick two, not three.

upvoted 2 times

You plan to automate the deployment of resources to Azure subscriptions.

What is a difference between using Azure Blueprints and Azure Resource Manager (ARM) templates?

- A. ARM templates remain connected to the deployed resources.
- B. Only blueprints can contain policy definitions.
- C. Only ARM templates can contain policy definitions.
- D. Blueprints remain connected to the deployed resources.

**Correct Answer: D**

With Azure Blueprints, the relationship between the blueprint definition (what should be deployed) and the blueprint assignment (what was deployed) is preserved.

This connection supports improved tracking and auditing of deployments.

Incorrect:

Not A: An ARM template is a document that doesn't exist natively in Azure - each is stored either locally or in source control or in Templates (preview). The template gets used for deployments of one or more Azure resources, but once those resources deploy there's no active connection or relationship to the template.

Not C: Blueprints are a declarative way to orchestrate the deployment of various resource templates and other artifacts such as:

Role Assignments -

Policy Assignments -

Azure Resource Manager templates (ARM templates)

Resource Groups -

Reference:

<https://docs.microsoft.com/en-us/azure/governance/blueprints/overview#how-its-different-from-resource-manager-templates>

*Community vote distribution*

D (100%)

✉️  **Davin0406**  1 year, 6 months ago

**Selected Answer: D**

appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.  
upvoted 16 times

✉️  **Teab91**  1 year, 6 months ago

Answer is D

The Blueprint preserves the relationship between the deployed application and blueprint components. Whereas in the case of the ARM template, there remains no active relationship between your deployed application and template. This connection helps in tracking and auditing the resource:  
upvoted 9 times

✉️  **KrisDeb**  7 months, 3 weeks ago

On July 11, 2026, Blueprints (Preview) will be deprecated. Migrate your existing blueprint definitions and assignments to Template Specs and Deployment Stacks. Blueprint artifacts are to be converted to ARM JSON templates or Bicep files used to define deployment stacks. To learn how to author an artifact as an ARM resource, see:

Policy  
RBAC  
Deployments  
upvoted 1 times

✉️  **yonie** 11 months, 3 weeks ago

**Selected Answer: D**

Correct

Answer is D

upvoted 2 times

✉️  **azkumar305** 1 year ago

Got it on 14-APR-2023

upvoted 2 times

👤 NotMeAnyWay 1 year ago

Selected Answer: D

D. Blueprints remain connected to the deployed resources.

The main difference between using Azure Blueprints and Azure Resource Manager (ARM) templates is that Azure Blueprints remain connected to the deployed resources, enabling you to track and audit the compliance of those resources with the original blueprint definition. Azure Blueprints allow you to manage and monitor the deployed resources over time, whereas ARM templates are a one-time deployment tool that does not maintain a connection to the resources after deployment.

upvoted 3 times

👤 OPT\_001122 1 year, 2 months ago

Thanks to all who have mentioned the examdates

upvoted 3 times

👤 OPT\_001122 1 year, 2 months ago

Selected Answer: D

D. Blueprints remain connected to the deployed resources.

upvoted 1 times

👤 janvandermerwer 1 year, 2 months ago

Selected Answer: D

D makes the most sense.

upvoted 1 times

👤 Q12346 1 year, 2 months ago

shown on 1/14/23

upvoted 4 times

👤 ExamTopicsTST 1 year, 6 months ago

Selected Answer: D

<https://learn.microsoft.com/en-us/azure/governance/blueprints/overview#how-its-different-from-arm-templates>

upvoted 6 times

**HOTSPOT -**

You have the resources shown in the following table.

Name	Type	Resource group
VM1	Azure virtual machine	RG1
VM2	On-premises virtual machine	Not applicable

You create a new resource group in Azure named RG2.

You need to move the virtual machines to RG2.

What should you use to move each virtual machine? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

VM1

Azure Arc
Azure Lighthouse
Azure Migrate
Azure Resource Mover
The Data Migration Assistant (DMA)

VM2

Azure Arc
Azure Lighthouse
Azure Migrate
Azure Resource Mover
The Data Migration Assistant (DMA)

**Answer Area**

VM1

Azure Arc
Azure Lighthouse
Azure Migrate
Azure Resource Mover
The Data Migration Assistant (DMA)

Correct Answer:

VM2

Azure Arc
Azure Lighthouse
Azure Migrate
Azure Resource Mover
The Data Migration Assistant (DMA)

Box 1: Azure Resource Mover -

To move Azure VMs to another region, Microsoft now recommends using Azure Resource Mover.

Incorrect:

Not Azure Migrate: We are not migrating, only moving a VM between resource groups.

#### Box 2: Azure Migrate -

Azure Migrate provides a centralized hub to assess and migrate on-premises servers, infrastructure, applications, and data to Azure. Azure migrate includes Azure Migrate Server Migration: Migrate VMware VMs, Hyper-V VMs, physical servers, other virtualized servers, and public cloud VMs to Azure.

Incorrect:

Not Arc: Azure Migrate is adequate. No need to use Azure Arc.

Not Data Migration Assistant: Data Migration Assistant is a stand-alone tool to assess SQL Servers.

It is used to assess SQL Server databases for migration to Azure SQL Database, Azure SQL Managed Instance, or Azure VMs running SQL Server.

Not Lighthouse: Azure Lighthouse enables multi-tenant management with scalability, higher automation, and enhanced governance across resources.

With Azure Lighthouse, service providers can deliver managed services using comprehensive and robust tooling built into the Azure platform. Customers maintain control over who has access to their tenant, which resources they can access, and what actions can be taken.

Reference:

<https://docs.microsoft.com/en-us/azure/resource-mover/overview> <https://docs.microsoft.com/en-us/azure/migrate/migrate-services-overview> <https://docs.microsoft.com/en-us/azure/site-recovery/azure-to-azure-tutorial-migrate>

✉️  **juanvepe** Highly Voted 1 year, 5 months ago

BOX one Correct. Azure Resource Mover, for moving resources between subscriptions, regions, resource groups.

BOX Two: Correct Azure migrate for moving the resource on-premises to a resource group.

upvoted 34 times

✉️  **kay000001** Highly Voted 1 year, 7 months ago

Given answer is correct.

VM1 - Azure Resource Mover.

VM2 - Azure Migrate.

upvoted 13 times

✉️  **Citizen** Most Recent 7 months, 4 weeks ago

Azure Resource Mover, for moving resources between subscriptions, regions, resource groups.

Azure migrate for moving the resource on-premises to a resource group. Arc does move stuff

upvoted 2 times

✉️  **King\_Laps** 11 months, 4 weeks ago

VM1 - Azure Resource Mover.

VM2 - Azure Migrate.

upvoted 1 times

✉️  **SedateBloggs** 1 year ago

Azure Resource Mover and box 2 is Azure Arc. When you generate the script in the Azure Portal to add a onpremises server to Azure, the script allows you to configure the subscription, Resource Group and region where the server is going to be added

upvoted 2 times

✉️  **GuyForget** 10 months, 2 weeks ago

Azure Arc is not used for moving a VM into Azure, it allows you to manage a VM that's outside of Azure (On-Prem, AWS, GCP, etc...), as if it were an Azure VM. The VM still resides outside of Azure though.

upvoted 1 times

✉️  **OPT\_001122** 1 year, 2 months ago

Box 1: Azure Resource Mover

Box 2: Azure Migrate

upvoted 1 times

✉️  **RandomNickname** 1 year, 3 months ago

Given answer is correct

upvoted 1 times

✉️  **Wolp** 1 year, 4 months ago

1: Azure resource Mover

2: Azure ARC: you just need to move it to a resource group, you are not requested to migrate the vm

upvoted 3 times

✉️  **SilverFox22** 1 year, 3 months ago

Azure ARC is for projecting an on-premise VM to Azure, managing it, but it does not actually move it. To move it you would use Azure Migrate.  
<https://learn.microsoft.com/en-us/azure/azure-arc/overview>

upvoted 3 times

✉️ 🚩 **RandomNickname** 1 year, 4 months ago

Given answer appears correct since the question does imply move rather than manage.

Question states:

"You need to move the virtual machines to RG2."

upvoted 2 times

✉️ 🚩 **Dudulle** 1 year, 4 months ago

VM1 = Azure Resource Mover

VM2 = Azure ARC

Explanation: the hint is VM2 being on-prem, has N/A as RG. to put it in an RG as was requested, you definitely need ARC.

It is never requested to migrate VM2 to Azure ! Just move the resource to the RG ...

upvoted 3 times

✉️ 🚩 **rishisoft1** 2 weeks, 4 days ago

<https://learn.microsoft.com/en-us/azure/azure-arc/servers/scenario-migrate-to-azure>

This article is intended to help you plan and successfully migrate your on-premises server or virtual machine managed by Azure Arc-enabled servers to Azure. By following these steps, you are able to transition management from Azure Arc-enabled servers based on the supported VM extensions installed and Azure services based on its Arc server resource identity.

Azure Arc enabled server only moves through Arc. And for that need to install Azure Arc-enabled servers supported VM extensions.

So, Azure Migrate is the right choice

upvoted 1 times

✉️ 🚩 **jellybiscuit** 1 year, 6 months ago

I agree that Resource Mover and Migrate is the "microsoft answer"

And it's BullShit.

In a production environment, when have you ever been able to move a VM with this tool?

The only time you're ever going to get it to work is in some test sub with one VM on the vnet.

I wish they would stop acting like this is realistically possible.

upvoted 4 times

✉️ 🚩 **jellybiscuit** 1 year, 6 months ago

Resource Mover is the tool that doesn't work for VMs if that wasn't clear.

upvoted 2 times

✉️ 🚩 **Elton\_Bicalho** 1 year, 6 months ago

They didn't ask to move VM2 from on-premises to Azure VM.

They just asked to move VM2 to Resource group.

Azure Arc provides a centralized, unified way to manage entire environment together by projecting your existing non-Azure and/or on-premises resources into Azure Resource Manager. Azure Arc simplifies governance and management by delivering a consistent multi-cloud and on-premises management platform.

VM2 = Azure Arc

<https://learn.microsoft.com/en-us/azure/azure-arc/overview>

upvoted 4 times

✉️ 🚩 **Learner2022** 6 months, 2 weeks ago

But they did say to create a RG2 in Azure, which makes moving VM2 to RG2 moving to Azure?

upvoted 1 times

✉️ 🚩 **Elton\_Bicalho** 1 year, 6 months ago

<https://techcommunity.microsoft.com/t5/itops-talk-blog/how-to-add-a-server-to-azure-arc/ba-p/1139049>

upvoted 2 times

✉️ 🚩 **scottims** 1 year, 6 months ago

Agree with Elton as it does not state to move the server into Azure but rather into an Azure Resource Group. This is from Elton's provided link.

"To onboard a server which can run Linux or Windows, physical or virtual, and can run on-premises or at another service provider, you open Azure Arc in the Azure Portal. There you can select manage servers."

upvoted 1 times

You plan to deploy an Azure App Service web app that will have multiple instances across multiple Azure regions.

You need to recommend a load balancing service for the planned deployment. The solution must meet the following requirements:

- Maintain access to the app in the event of a regional outage.
- Support Azure Web Application Firewall (WAF).
- Support cookie-based affinity.
- Support URL routing.

What should you include in the recommendation?

- A. Azure Front Door
- B. Azure Traffic Manager
- C. Azure Application Gateway
- D. Azure Load Balancer

**Correct Answer: A**

Azure Front Door works across regions and support URL routing (HTTP(S)).

Note: HTTP(S) load-balancing services are Layer 7 load balancers that only accept HTTP(S) traffic. They are intended for web applications or other HTTP(S) endpoints. They include features such as SSL offload, web application firewall, path-based load balancing, and session affinity.

Service	Global/regional	Recommended traffic
Azure Front Door	Global	HTTP(S)
Traffic Manager	Global	non-HTTP(S)
Application Gateway	Regional	HTTP(S)
Azure Load Balancer	Regional	non-HTTP(S)

Incorrect:

Application Gateway and Azure Load Balancer only work within one single region.

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/load-balancing-overview>

*Community vote distribution*

A (94%) 6%

✉  **kay000001**  1 year, 7 months ago

**Selected Answer: A**

- A.  
Azure Front Door = Supports URL routing.  
upvoted 18 times

✉  **NotMeAnyWay**  1 year ago

**Selected Answer: A**

- A. Azure Front Door

Azure Front Door is the recommended load balancing service for the planned deployment as it meets all the specified requirements:

- ✓ Maintains access to the app in the event of a regional outage, as it is a global load balancer with instant failover capabilities.
  - ✓ Supports Azure Web Application Firewall (WAF) integration for security.
  - ✓ Supports cookie-based affinity for session stickiness.
  - ✓ Supports URL routing for directing traffic to different backend pools based on URL patterns.
- upvoted 5 times

✉  **rex303**  1 year ago

**Selected Answer: A**

Azure front door.

While both azure application gateway and azure front door hit most of the requirements, the key requirement is the cross-region support.

Azure Application Gateway is a regional service that distributes traffic within a region, while Azure Front Door is a global service that distributes traffic across regions.

<https://learn.microsoft.com/en-us/azure/frontdoor/standard-premium/faq#what-is-the-difference-between-azure-front-door-and-azure-application-gateway>

upvoted 1 times

✉ **zellck** 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/frontdoor/routing-methods#affinity>

Session affinity can be enabled at the origin group level in Azure Front Door Standard and Premium tier and front end host level in Azure Front Door (classic) for each of your configured domains (or subdomains). Once enabled, Azure Front Door adds a cookie to the user's session. The cookies are called ASLBSA and ASLBSACORS. Cookie-based session affinity allows Front Door to identify different users even if behind the same IP address, which in turn allows a more even distribution of traffic between your different origins.

upvoted 3 times

✉ **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/web-application-firewall/afds/afds-overview>

Azure Web Application Firewall (WAF) on Azure Front Door provides centralized protection for your web applications. WAF defends your web services against common exploits and vulnerabilities. It keeps your service highly available for your users and helps you meet compliance requirements.

WAF on Front Door is a global and centralized solution. It's deployed on Azure network edge locations around the globe. WAF enabled web applications inspect every incoming request delivered by Front Door at the network edge.

WAF prevents malicious attacks close to the attack sources, before they enter your virtual network. You get global protection at scale without sacrificing performance. A WAF policy easily links to any Front Door profile in your subscription. New rules can be deployed within minutes, so you can respond quickly to changing threat patterns.

upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: A**

A. Azure Front Door

upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago

A. Azure Front Door

upvoted 1 times

✉ **testtaker13** 1 year, 2 months ago

**Selected Answer: A**

Given answer is correct. Global service with WAF.

upvoted 1 times

✉ **tfulanchan** 1 year, 2 months ago

WAF is a feature of Azure Front Door

upvoted 1 times

✉ **RandomNickname** 1 year, 4 months ago

**Selected Answer: A**

As per article provided in answer section, given answer is correct

upvoted 3 times

✉ **LaithTech** 1 year, 6 months ago

**Selected Answer: A**

URL Routing is supported by AFD

upvoted 1 times

✉ **mufflon** 1 year, 7 months ago

**Selected Answer: B**

I believe that the correct answer is B.

Traffic Manager.

It supports Multi-region load balancing, WAF, Cookie-based session affinity and URL path

<https://docs.microsoft.com/en-us/azure/architecture/high-availability/reference-architecture-traffic-manager-application-gateway>

upvoted 2 times

✉ **rumno** 1 month, 1 week ago

Stop upvoting this. Traffic Manager relies on Application Gateway in this architecture.

Application Gateway - While Traffic Manager provides DNS-based regional load balancing, Application Gateway gives you many of the same capabilities as Azure Front Door but at the regional level such as:

Web Application Firewall (WAF)

Transport Layer Security (TLS) termination  
Path-based routing  
Cookie-based session affinity  
upvoted 1 times

✉ **ServerBrain** 1 year, 3 months ago  
Traffic manager does not support WAF  
upvoted 2 times

✉ **Wolviet7** 1 year, 6 months ago  
Traffic Manager is a DNS resolver ... used with Application Gateway may cover session affinity but on its own only Front Door meets the requirements.  
upvoted 5 times

✉ **scottims** 1 year, 7 months ago  
Answer is correct, I was leaning towards C however AAG is regional and doesn't support path based routing

Front Door is an application delivery network that provides global load balancing and site acceleration service for web applications. It offers Layer 7 capabilities for your application like SSL offload, path-based routing, fast failover, caching, etc. to improve performance and high-availability of your applications.  
upvoted 3 times

✉ **heero** 1 year, 7 months ago  
I think the right answer is : C. Azure Application Gateway  
upvoted 1 times

✉ **ajayasa** 1 year, 3 months ago  
Azure Application Gateway is regional service and hence answer should be AFD  
upvoted 1 times

**HOTSPOT -**

You have the Azure resources shown in the following table.

Name	Type	Description
VNET1	Virtual network	Connected to an on-premises network by using ExpressRoute
VM1	Virtual machine	Configured as a DNS server
SQLDB1	Azure SQL Database	Single instance
PE1	Private endpoint	Provides connectivity to SQLDB1
contoso.com	Private DNS zone	Linked to VNET1 and contains an A record for PE1
contoso.com	Public DNS zone	Contains a C NAME record for SQLDB1

You need to design a solution that provides on-premises network connectivity to SQLDB1 through PE1.

How should you configure name resolution? To answer select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

## Azure configuration

- Configure VM1 to forward contoso.com to the public DNS zone
- Configure VM1 to forward contoso.com to the Azure-provided DNS at 168.63.129.16
- In VNet1, configure a custom DNS server set to the Azure provided DNS at 168.63.129.16

## On-premises DNS configuration

- Forward contoso.com to VM1
- Forward contoso.com to the public DNS zone
- Forward contoso.com to the Azure-provisioned DNS at 168.63.129.16

**Correct Answer:****Answer Area**

## Azure configuration

- Configure VM1 to forward contoso.com to the public DNS zone
- Configure VM1 to forward contoso.com to the Azure-provided DNS at 168.63.129.16
- In VNet1, configure a custom DNS server set to the Azure provided DNS at 168.63.129.16

## On-premises DNS configuration

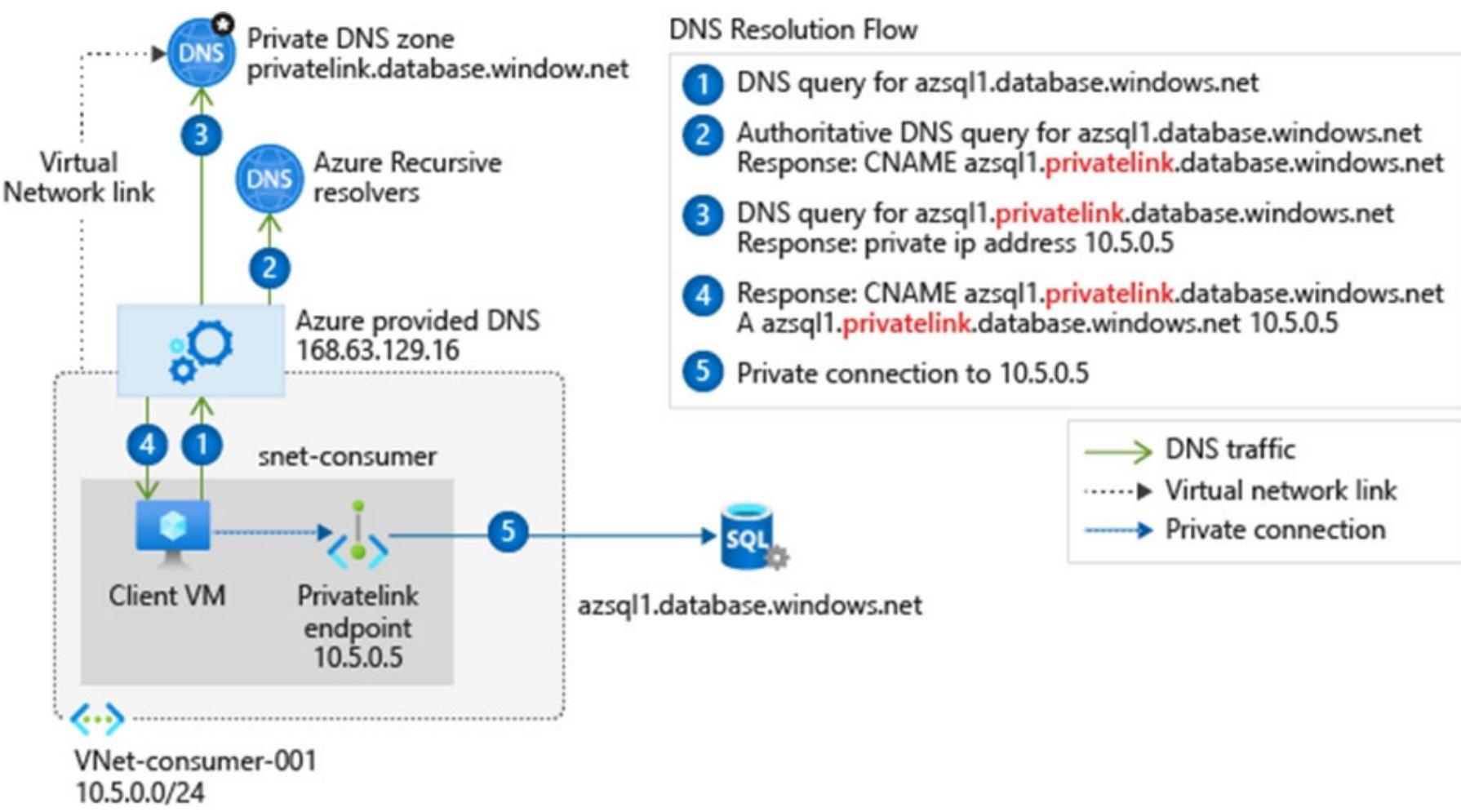
- Forward contoso.com to VM1
- Forward contoso.com to the public DNS zone
- Forward contoso.com to the Azure-provisioned DNS at 168.63.129.16

Box 1: In VNet1, configure a custom DNS server set to the Azure provided DNS at 168.63.129.16

Virtual network workloads without custom DNS server.

This configuration is appropriate for virtual network workloads without a custom DNS server. In this scenario, the client queries for the private endpoint IP address to the Azure-provided DNS service 168.63.129.16. Azure DNS will be responsible for DNS resolution of the private DNS zones.

The following screenshot illustrates the DNS resolution sequence from virtual network workloads using the private DNS zone:



Box 2: Forward contoso.com to VM1

Forward to the DNS server VM1.

Note: You can use the following options to configure your DNS settings for private endpoints:

- \* Use the host file (only recommended for testing). You can use the host file on a virtual machine to override the DNS.
- \* Use a private DNS zone. You can use private DNS zones to override the DNS resolution for a private endpoint. A private DNS zone can be linked to your virtual network to resolve specific domains.
- \* Use your DNS forwarder (optional). You can use your DNS forwarder to override the DNS resolution for a private link resource. Create a DNS forwarding rule to use a private DNS zone on your DNS server hosted in a virtual network.

Reference:

<https://docs.microsoft.com/en-us/azure/private-link/private-endpoint-dns>

Babonamaki Highly Voted 1 year, 7 months ago

Box 1 is wrong, VNET default configuration is to use azure DNS.

The correct answer for box 1 should be "configure vm1 to forward contoso.com to the azure provided dns at 168.63.129.16" to convert VM1 to a DNS forwarder.

upvoted 90 times

steel72 1 year ago

Agreed, I have a production deployment configured like this.

upvoted 6 times

[Removed] Highly Voted 1 year, 4 months ago

For anyone else struggling, I found this helpful:

<https://learn.microsoft.com/en-us/azure/architecture/example-scenario/networking/azure-dns-private-resolver>

upvoted 21 times

Cg007 Most Recent 1 week ago

Azure configuration:

In VNet1, configure a custom DNS server set to the Azure provided DNS at 168.63.129.16: This configuration ensures that all the resources within VNet1, which includes VM1 (configured as a DNS server) and PE1 (Private Endpoint), can resolve names using the Azure-provided DNS which has knowledge of the private endpoints.

On-premises DNS configuration:

Forward contoso.com to VM1: Since VM1 is configured as a DNS server and it is within VNet1 that has a private DNS zone for contoso.com, forwarding DNS requests for contoso.com to VM1 will allow on-premises systems to resolve the names to the private IP addresses provided by PE1 for SQLDB1. This assumes that VM1 has the necessary DNS forwarders or conditional forwarders set up to resolve queries for contoso.com using the private DNS zone information.

upvoted 1 times

177c705 1 month, 2 weeks ago

1. configure vm1 to forward contoso.com to the azure provided dns at 168.63.129.16
2. Forward contoso.com to VM1

upvoted 1 times

Risto83 1 month, 3 weeks ago

nothing in the question says that VM1 is connected to VNET1  
upvoted 1 times

✉ **din4venti** 9 months, 3 weeks ago

Azure configuration:  
In VNet1, configure a custom DNS server set to Azure provided DNS at 168.63.129.16  
On-premises DNS configuration:  
Forward contoso.com to VM1

Here's the flow

1. on-premise client machine queries for SQLDB1
2. on-premise DNS forward to VM1
3. VM1 query for SQLDB1 to public DNS
4. VM1 receives CNAME for SQLDB1
5. VM1 query for CNAME of SQLDB1, which resided on Private DNS zone  
(In order to query Private DNS zone, you need to forward to Azure provided internal DNS)
6. VM1 receives A record from Private DNS zone
7. VM1 returns to on-premise client

<https://learn.microsoft.com/en-us/azure/architecture/example-scenario/networking/azure-dns-private-resolver#use-a-dns-forwarder-vm>  
upvoted 7 times

✉ **VBK8579** 1 year, 2 months ago

Azure configuration:  
c. In VNet1, configure a custom DNS server set to the Azure provided DNS at 168.63.129.16

On-premises DNS configuration:  
a. Forward contoso.com to VM1  
upvoted 2 times

✉ **OPT\_001122** 1 year, 2 months ago

1. configure vm1 to forward contoso.com to the azure provided dns at 168.63.129.16
  2. Forward contoso.com to VM1
- upvoted 13 times

✉ **vicks1x** 1 year, 4 months ago

Carefully look at the Green arrows in the diagram.  
Its "configure vm1 to forward contoso.com to the azure provided dns at 168.63.129.16"  
upvoted 2 times

✉ **MountainW** 1 year, 6 months ago

Babonamaki is right. The correct answer for box 1 should be "configure vm1 to forward contoso.com to the azure provided dns at 168.63.129.16" to convert VM1 to a DNS forwarder.  
That's what I am using in our production environment!  
upvoted 8 times

✉ **scottims** 1 year, 6 months ago

I think it should be  
configure VM1 to forward Contoso.com to Public DNS as that is where the CNAME record exists  
on premises should forward to VM1 since VM1 has the A record for PE1  
upvoted 2 times

✉ **scottims** 1 year, 6 months ago

Update after looking at the table again, the public DNS zone is in Azure so VM1 should forward to the Azure-provided DNS  
upvoted 2 times

✉ **Paimon** 1 year, 5 months ago

Public DNS does not come into play because of the private endpoint.  
upvoted 1 times

✉ **codefries** 1 year, 6 months ago

Coz they did NOT say VM1(DNS) is in VNET1  
upvoted 1 times

✉ **Guest** 1 year, 3 months ago

That does not really matter. A DNS server uses its internal forwarders, not the network settings to resolve DNS queries  
upvoted 1 times

✉ **examerr** 1 year, 6 months ago

Interestingly done this config at work and we use the AFWs as a DNS proxies and conditionally forward DNS requests from on-prem for stuff like Keyvault and Servicebus to the AFWs which then return the privatelink addresses.  
upvoted 2 times

✉ **mufflon** 1 year, 6 months ago

"For on-premises workloads to resolve the FQDN of a private endpoint, use a DNS forwarder to resolve the Azure service public DNS zone in Azure. So configure VM1 to forward contoso.com to the public DNS zone should be first selection ?

"The following scenario is for an on-premises network that has a DNS forwarder in Azure. This forwarder resolves DNS queries via a server-level forwarder to the Azure provided DNS 168.63.129.16" so forward contoso.com to the Azure provisioned DNS at 168.63.129.16 should be second answer ?

<https://learn.microsoft.com/en-us/azure/private-link/private-endpoint-dns#on-premises-workloads-using-a-dns-forwarder>  
upvoted 4 times

✉ **baptista** 1 year, 6 months ago

whats the correct answer moderator?

upvoted 3 times

✉ **Snownoodles** 1 year, 6 months ago

168.63.129.16 is a virtual IP of DNS server within for a vnet.

The following link explains the DNS forwarder solution very clearly:

<https://learn.microsoft.com/en-us/azure/virtual-network/virtual-networks-name-resolution-for-vms-and-role-instances#name-resolution-that-uses-your-own-dns-server>

Please note the forwarder solution might be replaced by Azure DNS private Resolver which is in preview now.

upvoted 2 times

✉ **Xinx** 1 year, 6 months ago

Question 1, why not configure VM1 to forward contoso.com to the public dns zone

upvoted 2 times

✉ **Snownoodles** 1 year, 5 months ago

Because the question asks to "You need to design a solution that provides on-premises network connectivity to SQLDB1 through PE1". PE1 is resolved by private DNS, not public DNS

upvoted 1 times

✉ **Paimon** 1 year, 5 months ago

This ^ ^ ^ ^ ^ ^ ^ ^

upvoted 1 times

You are designing a microservices architecture that will support a web application.

The solution must meet the following requirements:

□ Deploy the solution on-premises and to Azure.

Support low-latency and hyper-scale operations.

□ Allow independent upgrades to each microservice.

□ Set policies for performing automatic repairs to the microservices.

You need to recommend a technology.

What should you recommend?

A. Azure Container Instance

B. Azure Logic App

C. Azure Service Fabric

D. Azure virtual machine scale set

**Correct Answer: C**

Azure Service Fabric enables you to create Service Fabric clusters on premises or in other clouds.

Azure Service Fabric is low-latency and scales up to thousands of machines.

Reference:

<https://azure.microsoft.com/en-us/services/service-fabric/>

*Community vote distribution*

C (100%)

✉  **NotMeAnyWay** Highly Voted 1 year ago

**Selected Answer: C**

C. Azure Service Fabric

Azure Service Fabric is the recommended technology for the microservices architecture you are designing, as it meets all the specified requirements:

- ✓ Supports deployment both on-premises and to Azure, providing a consistent platform for managing and deploying microservices.
- ✓ Enables low-latency and hyper-scale operations, as it is designed for building scalable and reliable applications.
- ✓ Allows independent upgrades to each microservice, as it supports versioning and rolling upgrades.
- ✓ Provides built-in health monitoring and automatic repairs for the microservices with configurable policies.

upvoted 15 times

✉  **zellck** Highly Voted 1 year, 1 month ago

**Selected Answer: C**

C is the answer.

<https://learn.microsoft.com/en-us/azure/service-fabric/service-fabric-overview#any-os-any-cloud>

You can create clusters for Service Fabric in many environments, including Azure or on premises, on Windows Server or Linux. You can even create clusters on other public clouds. The development environment in the Service Fabric SDK is identical to the production environment, with no emulators involved. In other words, what runs on your local development cluster is what deploys to your clusters in other environments.

upvoted 7 times

✉  **aksuxin** Most Recent 9 months, 1 week ago

who will use Azure Service Fabric since AKS is here?

upvoted 3 times

✉  **rex303** 1 year ago

**Selected Answer: C**

C. Azure Service Fabric.

As this is the only option that has on-premise deployment options.

upvoted 1 times

✉  **VBK8579** 1 year, 2 months ago

**Selected Answer: C**

C. Azure Service Fabric

upvoted 1 times

✉️ OPT\_001122 1 year, 2 months ago

**Selected Answer: C**

C. Azure Service Fabric

upvoted 1 times

✉️ Snownoodles 1 year, 5 months ago

**Selected Answer: C**

Azure service Fabric

upvoted 3 times

✉️ GarryK 1 year, 6 months ago

**Selected Answer: C**

<https://learn.microsoft.com/en-us/azure/service-fabric/service-fabric-overview>

Azure Service Fabric is a distributed systems platform that makes it easy to package, deploy, and manage scalable and reliable microservices and containers.

upvoted 5 times

✉️ kay00001 1 year, 7 months ago

**Selected Answer: C**

C. is correct.

upvoted 3 times

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You plan to deploy multiple instances of an Azure web app across several Azure regions.

You need to design an access solution for the app. The solution must meet the following replication requirements:

- Support rate limiting.
- Balance requests between all instances.
- Ensure that users can access the app in the event of a regional outage.

Solution: You use Azure Front Door to provide access to the app.

Does this meet the goal?

A. Yes

B. No

**Correct Answer: A**

Azure Front Door meets the requirements. The Azure Web Application Firewall (WAF) rate limit rule for Azure Front Door controls the number of requests allowed from clients during a one-minute duration.

Reference:

<https://www.nginx.com/blog/nginx-plus-and-azure-load-balancers-on-microsoft-azure/> <https://docs.microsoft.com/en-us/azure/web-application-firewall/afds/waf-front-door-rate-limit-powershell>

*Community vote distribution*

A (100%)

 **Snownoodles** Highly Voted 1 year, 7 months ago

Azure front door + WAF  
upvoted 14 times

 **JimmyYop** Most Recent 2 months, 3 weeks ago

appeared in Exam 01/2024  
upvoted 2 times

 **NotMeAnyWay** 1 year ago

**Selected Answer: A**

Yes, using Azure Front Door to provide access to the app meets the goal. Azure Front Door is a global, scalable entry-point that uses the Microsoft global edge network to create fast, secure, and widely distributed web applications. It supports the following requirements:

Rate limiting: Azure Front Door, when combined with Azure Web Application Firewall (WAF), supports rate limiting to protect your web application from malicious attacks or excessive request rates.

Load balancing: Azure Front Door provides global load balancing to distribute incoming traffic across multiple instances of your web app, improving availability and responsiveness.

Regional outage resilience: In the event of a regional outage, Azure Front Door can automatically route users to the closest available instance of your web app, ensuring continued access.

upvoted 4 times

 **[Removed]** 1 year, 1 month ago

**Selected Answer: A**

A is correct  
upvoted 1 times

 **zellck** 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/frontdoor/front-door-overview>

Azure Front Door is Microsoft's modern cloud Content Delivery Network (CDN) that provides fast, reliable, and secure access between your users and your applications' static and dynamic web content across the globe. Azure Front Door delivers your content using the Microsoft's global edge network with hundreds of global and local points of presence (PoPs) distributed around the world close to both your enterprise and consumer end users.

upvoted 1 times

 **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/web-application-firewall/afds/waf-front-door-rate-limit>

Rate limiting enables you to detect and block abnormally high levels of traffic from any socket IP address. The socket IP address is the address of the client that initiated the TCP connection to Front Door. Typically, the socket IP address is the IP address of the user, but it might also be the IP address of a proxy server or another device that sits between the user and Front Door. By using the web application firewall (WAF) with Azure Front Door, you can mitigate some types of denial of service attacks. Rate limiting also protects you against clients that have accidentally been misconfigured to send large volumes of requests in a short time period.

Rate limits are applied at the socket IP address level. If you have multiple clients accessing your Front Door from different socket IP addresses, they'll each have their own rate limits applied. The socket IP address is the source IP address WAF sees. If your user is behind a proxy, socket IP address is often the proxy server address.

upvoted 1 times

 **Alessandro365** 1 year, 1 month ago

**Selected Answer: A**

Front door

upvoted 2 times

 **VBK8579** 1 year, 2 months ago

**Selected Answer: A**

A. Yes. Azure Front Door supports rate limiting and request load balancing between instances of an Azure web app across multiple regions. Additionally, it can provide failover capabilities in the event of a regional outage, ensuring users can continue to access the app.

upvoted 2 times

 **OPT\_001122** 1 year, 2 months ago

**Selected Answer: A**

The Azure Web Application Firewall (WAF) rate limit rule for Azure Front Door controls the number of requests allowed from clients during a one-minute duration.

upvoted 2 times

 **janvandermerwer** 1 year, 2 months ago

**Selected Answer: A**

<https://learn.microsoft.com/en-us/azure/web-application-firewall/afds/waf-front-door-rate-limit>

What is the difference between Azure Front Door and Azure Application Gateway?

While both Front Door and Application Gateway are layer 7 (HTTP/HTTPS) load balancers, the primary difference is that Front Door is a non-regional service whereas Application Gateway is a regional service. While Front Door can load balance between your different scale units/clusters/stamp units across regions, Application Gateway allows you to load balance between your VMs/containers etc. that is within the scale unit.

upvoted 1 times

 **RouterWifi443** 1 year, 2 months ago

**Selected Answer: A**

A is correct

upvoted 1 times

 **mVic** 1 year, 3 months ago

**Selected Answer: A**

A is correct

upvoted 1 times

 **Born\_Again** 1 year, 4 months ago

**Selected Answer: A**

100% AZ Front Door w/ WAF

upvoted 1 times

 **az4o2n** 1 year, 4 months ago

Agreed

upvoted 3 times

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

- A. Azure Activity Log
- B. Azure Arc
- C. Azure Analysis Services
- D. Azure Monitor action groups

**Correct Answer: A**

Activity logs are kept for 90 days. You can query for any range of dates, as long as the starting date isn't more than 90 days in the past.

Through activity logs, you can determine:

- ☞ what operations were taken on the resources in your subscription
- ☞ who started the operation
- when the operation occurred
- 
- ☞ the status of the operation
- ☞ the values of other properties that might help you research the operation

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/view-activity-logs>

*Community vote distribution*

A (100%)

✉️  **Davin0406** Highly Voted  1 year, 6 months ago

**Selected Answer: A**

appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.  
upvoted 5 times

✉️  **daniloaclima** Highly Voted  9 months, 2 weeks ago

**Selected Answer: A**

Pergunta repetida, resposta repetida. Alternativa "A" é a correta (FROM: Brazil).  
upvoted 5 times

✉️  **NotMeAnyWay** Most Recent  1 year ago

**Selected Answer: A**

A. Azure Activity Log

Azure Activity Log provides insight into the operations performed on resources in your Azure subscription. It can help you determine the 'who, what, when, and where' of any write operations (PUT, POST, DELETE) on your resources. By monitoring and analyzing the activity logs, you can generate a monthly report of all new Azure Resource Manager (ARM) resource deployments in your Azure subscription. Additionally, you can export the logs to a storage account, Event Hubs, or Azure Monitor logs for further processing or analysis.  
upvoted 4 times

✉️  **zellck** 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/azure-monitor/essentials/activity-log?tabs=powershell>

The Azure Monitor activity log is a platform log in Azure that provides insight into subscription-level events. The activity log includes information like when a resource is modified or a virtual machine is started.  
upvoted 3 times

✉️  **VBK8579** 1 year, 2 months ago

**Selected Answer: A**

A. Azure Activity Log

upvoted 1 times

✉️  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: A**

A. Azure Activity Log

upvoted 1 times

✉ **ryuta** 1 year, 3 months ago

Same with topic1 - question 13

upvoted 2 times

✉ **lmy** 1 year, 4 months ago

same question in topic 1

upvoted 2 times

✉ **Born\_Again** 1 year, 4 months ago

**Selected Answer: A**

A is the Answer

upvoted 1 times

✉ **haazybanj** 1 year, 5 months ago

**Selected Answer: A**

Answer is A

upvoted 1 times

✉ **Darkx** 1 year, 6 months ago

appeared on 11th Oct 2022

upvoted 3 times

✉ **GarryK** 1 year, 6 months ago

**Selected Answer: A**

The Azure Monitor activity log is a platform log in Azure that provides insight into subscription-level events. The activity log includes information like when a resource is modified or a virtual machine is started.

<https://learn.microsoft.com/en-us/azure/azure-monitor/essentials/activity-log?tabs=powershell>

upvoted 3 times

✉ **ServerBrain** 1 year, 3 months ago

Required is monthly report not a monthly log.

upvoted 1 times

You have an Azure subscription.

You need to recommend a solution to provide developers with the ability to provision Azure virtual machines. The solution must meet the following requirements:

- Only allow the creation of the virtual machines in specific regions.
- Only allow the creation of specific sizes of virtual machines.

What should you include in the recommendation?

- A. Attribute-based access control (ABAC)
- B. Azure Policy
- C. Conditional Access policies
- D. role-based access control (RBAC)

**Correct Answer: B**

Azure Policies allows you to specify allowed locations, and allowed VM SKUs.

Reference:

<https://docs.microsoft.com/en-us/azure/governance/policy/tutorials/create-and-manage>

*Community vote distribution*

B (100%)

✉  **jellybiscuit** Highly Voted 1 year, 6 months ago

**Selected Answer: B**

correct - duplicate question  
upvoted 9 times

✉  **Davin0406** Highly Voted 1 year, 6 months ago

**Selected Answer: B**

appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.  
upvoted 5 times

✉  **JimmyYop** Most Recent 2 months, 3 weeks ago

appeared in Exam 01/2024  
upvoted 2 times

✉  **NotMeAnyWay** 1 year ago

**Selected Answer: B**

B. Azure Policy

Azure Policy is the right choice to address these requirements. Azure Policy allows you to create custom policies that define rules and effects for resource management in Azure. In this case, you can create policies that restrict the creation of virtual machines to specific regions and specific sizes. By assigning these policies to your subscription, you can ensure that developers can only provision Azure virtual machines in the allowed regions and with the allowed sizes.

upvoted 4 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/cloud-adoption-framework/manage/azure-server-management/common-policies#restrict-resource-regions>

Regulatory and policy compliance often depends on control of the physical location where resources are deployed. You can use a built-in policy to allow users to create resources only in certain allowed Azure regions.

<https://learn.microsoft.com/en-us/azure/virtual-machines/policy-reference>

Allowed virtual machine size SKUs

- This policy enables you to specify a set of virtual machine size SKUs that your organization can deploy.

upvoted 3 times

✉  **VBK8579** 1 year, 2 months ago

**Selected Answer: B**

B. Azure Policy

upvoted 1 times

✉️ OPT\_001122 1 year, 2 months ago

**Selected Answer: B**

B. Azure Policy  
upvoted 1 times

✉️ ryuta 1 year, 3 months ago

Same with topic4 - question 23  
upvoted 3 times

✉️ haazybanj 1 year, 5 months ago

**Selected Answer: B**

B Azure Policy  
upvoted 1 times

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping. You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Notification Hubs
- B. Azure Data Lake
- C. Azure Service Bus
- D. Azure Blob Storage

**Correct Answer: C**

Asynchronous messaging options.

There are different types of messages and the entities that participate in a messaging infrastructure. Based on the requirements of each message type, Microsoft recommends Azure messaging services. The options include Azure Service Bus, Event Grid, and Event Hubs.

Azure Service Bus queues are well suited for transferring commands from producers to consumers.

Data is transferred between different applications and services using messages. A message is a container decorated with metadata, and contains data. The data can be any kind of information, including structured data encoded with the common formats such as the following ones: JSON, XML, Apache Avro, Plain Text.

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/messaging> <https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview>

*Community vote distribution*

C (100%)

✉️  **Davin0406** Highly Voted  1 year, 6 months ago

**Selected Answer: C**

Duplicate with Q82.

upvoted 5 times

✉️  **Darkx** Highly Voted  1 year, 6 months ago

appeared on 11th Oct 2022

upvoted 5 times

✉️  **NotMeAnyWay** Most Recent  9 months, 2 weeks ago

**Selected Answer: C**

The correct answer is C. Azure Service Bus.

Azure Service Bus is a fully managed enterprise integration message broker. It can be used to enable communication between different services using messages, including XML messages. It supports asynchronous operations and decouples services, which makes it ideal for communication between the different components mentioned in the scenario. The other options aren't suitable for this kind of service-to-service messaging.

upvoted 4 times

✉️  **zellck** 1 year, 1 month ago

Same as Question 82.

<https://www.examtopics.com/discussions/microsoft/view/99749-exam-az-305-topic-4-question-82-discussion>

upvoted 4 times

✉️  **zellck** 1 year, 1 month ago

**Selected Answer: C**

C is the answer.

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview>

Azure Service Bus is a fully managed enterprise message broker with message queues and publish-subscribe topics (in a namespace). Service Bus is used to decouple applications and services from each other, providing the following benefits:

- Load-balancing work across competing workers
- Safely routing and transferring data and control across service and application boundaries
- Coordinating transactional work that requires a high-degree of reliability

upvoted 3 times

✉️  **VBK8579** 1 year, 2 months ago

**Selected Answer: C**

C. Azure Service Bus  
upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: C**

C. Azure Service Bus  
upvoted 1 times

✉ **ryuta** 1 year, 3 months ago

Same with topic4 - question 13  
upvoted 3 times

✉ **haazybanj** 1 year, 5 months ago

**Selected Answer: C**

C.. Azure service Bus  
upvoted 2 times

✉ **juanvepe** 1 year, 5 months ago

Data is transferred between different applications and services using messages. A message is a container decorated with metadata, and contains data. The data can be any kind of information, including structured data encoded with the common formats such as the following ones: JSON, XML, Apache Avro, Plain Text.

upvoted 2 times

✉ **juanvepe** 1 year, 5 months ago

C is Correct: <https://learn.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview>  
upvoted 1 times

✉ **kay00001** 1 year, 7 months ago

**Selected Answer: C**

... The data can be any kind of information, including structured data encoded with the common formats such as the following ones: JSON, XML, Apache Avro, Plain Text.

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview>

upvoted 3 times

You have 100 devices that write performance data to Azure Blob Storage.  
You plan to store and analyze the performance data in an Azure SQL database.  
You need to recommend a solution to continually copy the performance data to the Azure SQL database.  
What should you include in the recommendation?

- A. Azure Data Factory
- B. Data Migration Assistant (DMA)
- C. Azure Data Box
- D. Azure Database Migration Service

**Correct Answer: A***Community vote distribution*

A (100%)

✉  **kay00001**  1 year, 7 months ago

A. Azure Data Factory - is correct.  
upvoted 10 times

✉  **NotMeAnyWay**  9 months, 2 weeks ago

**Selected Answer: A**

The correct answer is A. Azure Data Factory.

Azure Data Factory is a cloud-based data integration service that allows you to create, schedule, and manage data pipelines. It can be used to continually copy data from various sources, including Azure Blob Storage, to multiple destinations such as an Azure SQL Database. The other options aren't suitable for continual data copying in the scenario described.

upvoted 8 times

✉  **ssmit**  9 months ago

Ok, so "continually" is not the same as "real-time" here. That is what confused me.  
upvoted 1 times

✉  **King\_Laps** 11 months, 4 weeks ago

The correct answer is Azure Data Factory  
upvoted 1 times

✉  **zellick** 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/data-factory/introduction>

Big data requires a service that can orchestrate and operationalize processes to refine these enormous stores of raw data into actionable business insights. Azure Data Factory is a managed cloud service that's built for these complex hybrid extract-transform-load (ETL), extract-load-transform (ELT), and data integration projects.

upvoted 2 times

✉  **np2021** 1 year, 1 month ago

AZ Functions could also do this as I understand it, if this came up as an option on a future question?  
upvoted 1 times

✉  **xRiot007** 1 month, 3 weeks ago

Yes, Functions can also do this entire process.  
upvoted 1 times

✉  **VBK8579** 1 year, 2 months ago

**Selected Answer: A**

Azure Data Factory is a cloud-based data integration service that allows you to move, store, and transform data between different sources and sinks. It provides a scalable and flexible solution to copy large amounts of data between Azure Blob Storage and Azure SQL Database in a reliable and repeatable manner, making it an appropriate recommendation for continuously copying performance data to the Azure SQL database.

upvoted 2 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: A**

A. Azure Data Factory

upvoted 1 times

✉️ **RouterWifi443** 1 year, 3 months ago

**Selected Answer: A**

A is correct

upvoted 1 times

✉️ **mVic** 1 year, 3 months ago

**Selected Answer: A**

ADF - correct

upvoted 1 times

✉️ **haazybanj** 1 year, 5 months ago

**Selected Answer: A**

A is correct

upvoted 2 times

✉️ **PXAbstraction** 1 year, 5 months ago

**Selected Answer: A**

Correct answer is A.

upvoted 2 times

✉️ **juanvepe** 1 year, 5 months ago

A is correct: Azure Data Factory is the platform that solves such data scenarios. It is the cloud-based ETL and data integration service that allows you to create data-driven workflows for orchestrating data movement and transforming data at scale. Using Azure Data Factory, you can create and schedule data-driven workflows (called pipelines) that can ingest data from disparate data stores. You can build complex ETL processes that transform data visually with data flows or by using compute services such as Azure HDInsight Hadoop, Azure Databricks, and Azure SQL Database.

<https://learn.microsoft.com/en-us/azure/data-factory/introduction>

upvoted 2 times

✉️ **Jeffab** 1 year, 6 months ago

A. Azure Data Factory - using Data Factory pipelines. Data Factory pipelines can copy data from Azure Blob Storage to an Azure SQL Database. The configuration pattern applies to copying from a file-based data store to a relational data store.

<https://learn.microsoft.com/en-us/azure/data-factory/tutorial-copy-data-dot-net>

upvoted 4 times

You need to recommend a storage solution for the records of a mission critical application. The solution must provide a Service Level Agreement (SLA) for the latency of write operations and the throughput.

What should you include in the recommendation?

- A. Azure Data Lake Storage Gen2
- B. Azure Blob Storage
- C. Azure SQL
- D. Azure Cosmos DB

**Correct Answer: D**

Azure Cosmos DB is Microsoft's fast NoSQL database with open APIs for any scale. It offers turnkey global distribution across any number of Azure regions by transparently scaling and replicating your data wherever your users are. The service offers comprehensive 99.99% SLAs which covers the guarantees for throughput, consistency, availability and latency for the Azure Cosmos DB Database Accounts scoped to a single Azure region configured with any of the five

Consistency Levels or Database Accounts spanning multiple Azure regions, configured with any of the four relaxed Consistency Levels.

Azure Cosmos DB allows configuring multiple Azure regions as writable endpoints for a Database Account. In this configuration, Azure Cosmos DB offers 99.999% SLA for both read and write availability.

Reference:

[https://azure.microsoft.com/en-us/support/legal/sla/cosmos-db/v1\\_3/](https://azure.microsoft.com/en-us/support/legal/sla/cosmos-db/v1_3/)

*Community vote distribution*

D (100%)

✉️  **Davin0406** Highly Voted 1 year, 6 months ago

**Selected Answer: D**

appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.  
upvoted 19 times

✉️  **OPT\_001122** 1 year, 2 months ago

Thanks for mentioning the date  
upvoted 2 times

✉️  **NotMeAnyWay** Highly Voted 9 months, 2 weeks ago

**Selected Answer: D**

The correct answer is D. Azure Cosmos DB.

Azure Cosmos DB is a globally distributed, multi-model database service. It provides comprehensive service level agreements (SLAs) covering throughput, latency, availability, and consistency. The other options do not provide an SLA for both latency and throughput.

upvoted 7 times

✉️  **JimmyYop** Most Recent 2 months, 3 weeks ago

appeared in Exam 01/2024  
upvoted 3 times

✉️  **BShelat** 4 months ago

Should not it be worded as "Database Solution" instead of "Storage solution" for the records of a mission critical application ? "Storage Solution" misleads one to think about storage tiers.

upvoted 3 times

✉️  **azkumar305** 1 year ago

Got this on 14-Apr-2023  
upvoted 5 times

✉️  **zellck** 1 year, 1 month ago

**Selected Answer: D**

D is the answer.

<https://learn.microsoft.com/en-us/azure/cosmos-db/introduction#guaranteed-speed-at-any-scale>

Gain unparalleled SLA-backed speed and throughput, fast global access, and instant elasticity.

- Real-time access with fast read and write latencies globally, and throughput and consistency all backed by SLAs

- Multi-region writes and data distribution to any Azure region with just a button.

- Independently and elastically scale storage and throughput across any Azure region – even during unpredictable traffic bursts – for unlimited scale worldwide.

upvoted 3 times

✉ **VBK8579** 1 year, 2 months ago

**Selected Answer: D**

zure Cosmos DB provides a comprehensive SLA for write latency and throughput. Additionally, it is a highly scalable and globally distributed database designed for mission critical applications. It provides low-latency, highly available, and scalable access to data. Cosmos DB also supports multiple data models, including document, key-value, graph, and column-family data models, which can be used to store structured and unstructured data.

upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: D**

D. Azure Cosmos DB

upvoted 1 times

✉ **haazybanj** 1 year, 5 months ago

**Selected Answer: D**

D is correct

upvoted 1 times

✉ **PXAbstraction** 1 year, 5 months ago

**Selected Answer: D**

D is correct. Cosmos includes the SLA guarantees.

upvoted 1 times

✉ **juanvepe** 1 year, 5 months ago

D. Is correct:

Guaranteed speed at any scale

Gain unparalleled SLA-backed speed and throughput, fast global access, and instant elasticity.

Real-time access with fast read and write latencies globally, and throughput and consistency all backed by SLAs

Multi-region writes and data distribution to any Azure region with the just a button.

Independently and elastically scale storage and throughput across any Azure region – even during unpredictable traffic bursts – for unlimited scale worldwide.

<https://learn.microsoft.com/en-us/azure/cosmos-db/introduction>

upvoted 2 times

✉ **jellybiscuit** 1 year, 6 months ago

**Selected Answer: D**

The SLA terms are the only thing that make it Cosmos over SQL.

upvoted 1 times

✉ **kay000001** 1 year, 7 months ago

**Selected Answer: D**

D. Azure Cosmos DB

- Mission Critical
- Low latency
- High throughput

<https://docs.microsoft.com/en-us/azure/cosmos-db/introduction>

upvoted 3 times

You are planning a storage solution. The solution must meet the following requirements:

- Support at least 500 requests per second.
- Support a large image, video, and audio streams.

Which type of Azure Storage account should you provision?

- A. standard general-purpose v2
- B. premium block blobs
- C. premium page blobs
- D. premium file shares

**Correct Answer: B**

Use Azure Blobs if you want your application to support streaming and random access scenarios.

It's ideal for applications that require high transaction rates or consistent low-latency storage.

Incorrect:

Not A: Standard storage accounts has a default maximum request rate per storage account 20,000 requests per second<sup>1</sup>, but is not optimized for video and audio streams.

Not C: Page blobs is best suited for random reads and random writes.

Not D: FileStorage storage accounts (premium) has a maximum concurrent request rate of 100,000 IOPS.

Maximum file size is 4 TB, but is not optimized for video and audio streams.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-introduction> <https://docs.microsoft.com/en-us/azure/storage/files/storage-files-scale-targets>

*Community vote distribution*

B (58%)

A (42%)

✉  **JaQua** Highly Voted  1 year, 6 months ago

premium block blobs is indeed correct

- supports hundreds of thousands of requests per second  
- video "streaming" requires lots of small data packets to be sent in a short time interval (and thus requires high transaction rates & consistent low latency)

upvoted 71 times

✉  **OPT\_001122** 1 year, 2 months ago

This should be highly selected however not because even though it is upvoted 32 times it was not with voting comments i.e Selected Answer : B  
upvoted 5 times

✉  **Davin0406** Highly Voted  1 year, 6 months ago

**Selected Answer: A**

appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.  
upvoted 30 times

✉  **Felix\_G** 7 months ago

if you picked up B, your score would be around 960  
upvoted 21 times

✉  **LGWJ12** Most Recent  1 week, 3 days ago

**Selected Answer: B**

B. premium block blobs

Premium block blobs are optimized for high-performance scenarios and can support high request rates. They are suitable for storing large objects such as images, videos, and audio streams. Premium block blobs offer low-latency access to data and are designed for scenarios that require high throughput and fast access times.

Standard general-purpose v2 storage accounts could potentially meet the request rate requirement, but they may not provide the optimal performance for large image, video, and audio streams.

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-block-blob-premium>

upvoted 1 times

✉  **peter\_1** 2 weeks, 5 days ago

**Selected Answer: B**

I think B is correct. From MS: A single blob supports up to 500 requests per second. If you have multiple clients that need to read the same blob and you might exceed this limit, then consider using a block blob storage account. A block blob storage account provides a higher request rate, or I/O operations per second (IOPS).

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-performance-checklist>

In the question is condition: At least 500 request

Block blob, not normal blob is supported in premium.

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blobs-introduction>

upvoted 1 times

✉ **rumino** 3 weeks, 2 days ago

**Selected Answer: B**

A single blob supports up to 500 requests per second. If you have multiple clients that need to read the same blob and you might exceed this limit then consider using a block blob storage account. A block blob storage account provides a higher request rate, or I/O operations per second (IOPS).

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-performance-checklist#bandwidth-and-operations-per-blob>

upvoted 1 times

✉ **chair123** 1 month ago

so what the heck i should choose if both answers meet the requirements?

upvoted 1 times

✉ **chair123** 1 month ago

I will go with B as it's more dedicated for blobs and not general purpose.

upvoted 1 times

✉ **hanoki6540** 1 month, 2 weeks ago

**Selected Answer: A**

Default maximum request rate per storage account 20,000 requests per second2

<https://learn.microsoft.com/en-us/azure/storage/common/scalability-targets-standard-account?toc=%2Fazur...%2Fstorage%2Fblobs%2Ftoc.json&bc=%2Fazur...%2Fstorage%2Fblobs%2Fbreadcrumb%2Ftoc.json#scale-targets-for-standard-storage-accounts>

even if the question doesn't say anything about cost if a cheaper solution meets all the requirement its implicit that you should not recommend a costlier solution. also there is no mention of latency so idk why people think its permium block blob.

upvoted 1 times

✉ **SDiwan** 1 month, 3 weeks ago

**Selected Answer: B**

It is B

upvoted 1 times

✉ **JimmyYop** 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 2 times

✉ **Paul\_white** 4 months, 2 weeks ago

For your requirements, you should provision a \*\*standard general-purpose v2 (Option A)\*\* Azure Storage account.

Here's why:

- Standard general-purpose v2 accounts deliver the lowest per-gigabyte capacity prices for Azure Storage, as well as industry-competitive transaction prices.
- They provide all the latest features and support all storage services like Blob, File, Queue, and Table storage.
- They can handle large amounts of data and are designed to provide secure and highly available storage for your applications.
- They also support large streams of image, video, and audio content, which is one of your requirements.

Please note that while the other options (B, C, and D) are also valid Azure resources, they might not be the best fit for this specific scenario based on the information provided. For example, premium block blobs, premium page blobs, and premium file shares are more suited for scenarios requiring high transaction rates or lower storage latency.

upvoted 1 times

✉ **ec2user** 5 months, 3 weeks ago

A single blob supports up to 500 requests per second. If you have multiple clients that need to read the same blob and you might exceed this limit then consider using a block blob storage account. A block blob storage account provides a higher request rate, or I/O operations per second (IOPS).

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-performance-checklist#bandwidth-and-operations-per-blob>

upvoted 5 times

✉ **joesatriani** 6 months, 3 weeks ago

**Selected Answer: B**

B is right.

upvoted 3 times

✉ **kenneth12** 7 months ago

**Selected Answer: B**

B. Premium Block blob

upvoted 3 times

✉ **Red0101** 7 months ago

**Selected Answer: B**

Nothing said about minimizing the solution's cost.  
Premium block blob it's optimized for that

upvoted 3 times

✉ **Leocan** 7 months, 1 week ago

**Selected Answer: A**

I choose A.

upvoted 2 times

✉ **kenneth12** 7 months, 2 weeks ago

**Selected Answer: B**

Based on the requirements of supporting at least 500 requests per second and handling large image, video, and audio streams, the most suitable Azure Storage account type would be:

B. premium block blobs

Premium block blobs are designed to handle high-performance scenarios with high throughput and low latency. They are well-suited for scenarios that involve large files such as images, videos, and audio streams. The premium performance tier is optimized for workloads that require consistent and low-latency performance.

Option A (standard general-purpose v2) and Option D (premium file shares) might not provide the necessary performance and throughput required for large image, video, and audio streams at 500 requests per second.

Option C (premium page blobs) is designed for virtual machine disks and might not be the best fit for handling large multimedia files and the specified performance requirements.

So, the correct answer is B. premium block blobs.

upvoted 8 times

✉ **Gbala** 7 months, 3 weeks ago

**Selected Answer: B**

To meet the requirements of supporting at least 500 requests per second and handling large image, video, and audio streams, you should provision an Azure Premium Block Blob Storage account.

Azure Premium Block Blob Storage is specifically designed for handling high-throughput scenarios, including serving large files such as images, videos, and audio streams. It provides a combination of high performance and scalability to support demanding workloads. This storage type is well-suited for scenarios where you need to accommodate a significant number of requests and deliver large media files efficiently.

upvoted 4 times

You need to recommend a data storage solution that meets the following requirements:

- Ensures that applications can access the data by using a REST connection
- Hosts 20 independent tables of varying sizes and usage patterns
- Automatically replicates the data to a second Azure region
- Minimizes costs

What should you recommend?

- A. an Azure SQL Database elastic pool that uses active geo-replication
- B. tables in an Azure Storage account that use geo-redundant storage (GRS)
- C. tables in an Azure Storage account that use read-access geo-redundant storage (RA-GRS)
- D. an Azure SQL database that uses active geo-replication

**Correct Answer: B**

The Table service offers structured storage in the form of tables. The Table service API is a REST API for working with tables and the data that they contain.

Geo-redundant storage (GRS) has a lower cost than read-access geo-redundant storage (RA-GRS).

Reference:

<https://docs.microsoft.com/en-us/rest/api/storageservices/table-service-rest-api> <https://docs.microsoft.com/en-us/azure/storage/common/geo-redundant-design>

*Community vote distribution*

B (95%) 5%

✉  **dubuser** Highly Voted 1 year, 2 months ago

Got this question in todays exam (29/01/23)

Answered B

Scored 903

upvoted 15 times

✉  **OPT\_001122** 1 year, 2 months ago

Thanks for the date

upvoted 2 times

✉  **Davin0406** Highly Voted 1 year, 6 months ago

**Selected Answer: B**

appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.

upvoted 15 times

✉  **Jacky\_exam** 1 year, 1 month ago

no need for AZ-304 dump ?

upvoted 2 times

✉  **JimmyYop** Most Recent 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 2 times

✉  **hantolini** 8 months ago

**Selected Answer: B**

No need mentioned for Read Access on remote replica.

upvoted 2 times

✉  **NotMeAnyWay** 9 months, 2 weeks ago

**Selected Answer: B**

The correct answer is B. Tables in an Azure Storage account that use Geo-redundant storage (GRS).

Azure Table Storage offers NoSQL capabilities and provides a key-attribute store with a schema-less design. This makes it a good fit for hosting independent tables of varying sizes and usage patterns. Table Storage data is accessible via REST APIs, and GRS automatically replicates your data to a secondary region to protect against regional outages. As per the cost minimization requirement, GRS is cheaper than RA-GRS, and Azure Table Storage is generally more cost-effective than Azure SQL Database options.

upvoted 4 times

✉  **alexander\_panfilenok** 10 months ago

I don't know why table storage is considered as correct. It does not provide flexibility of "usage pattern". There is only a primary key (partition key and row key).

upvoted 2 times

✉  **Sanjeevsn** 11 months ago

**Selected Answer: C**

C. Tables in an Azure Storage account that use read-access geo-redundant storage (RA-GRS).

Explanation:

Azure Storage tables provide REST-based access to data, which meets the requirement of accessing the data using a REST connection.

Azure Storage tables can accommodate multiple tables of varying sizes and usage patterns.

Read-access geo-redundant storage (RA-GRS) ensures automatic replication of data to a second Azure region, providing data redundancy and disaster recovery capabilities.

Azure Storage tables are typically more cost-effective compared to Azure SQL Database, making it a suitable choice for minimizing costs.

Option B (Tables in an Azure Storage account that use geo-redundant storage) is not the optimal choice as it does not provide read-access to the replicated data in the second Azure region, which is a requirement in this scenario.

upvoted 2 times

✉  **morito** 10 months, 1 week ago

Read Access to the replica is not a requirement! Quite the opposite is the case. It asks for a backup, but with minimized costs, therefore RA-GRS does not meet the scope of the requirement.

upvoted 1 times

✉  **NotMeAnyWay** 9 months, 2 weeks ago

RA-GRS is also more expensive than GRS.

upvoted 1 times

✉  **techrat** 11 months, 2 weeks ago

**Selected Answer: B**

Passed exam today with 979, all questions were in this dump. My answer to this question on the exam was B

upvoted 5 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/storage/tables/table-storage-overview>

Azure Table storage is a service that stores non-relational structured data (also known as structured NoSQL data) in the cloud, providing a key/attribute store with a schemaless design. Because Table storage is schemaless, it's easy to adapt your data as the needs of your application evolve. Access to Table storage data is fast and cost-effective for many types of applications, and is typically lower in cost than traditional SQL for similar volumes of data.

<https://learn.microsoft.com/en-us/azure/storage/common/storage-redundancy#geo-redundant-storage>

Geo-redundant storage (GRS) copies your data synchronously three times within a single physical location in the primary region using LRS. It then copies your data asynchronously to a single physical location in a secondary region that is hundreds of miles away from the primary region. GRS offers durability for storage resources of at least 99.999999999999% (16 9's) over a given year.

upvoted 4 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

B. tables in an Azure Storage account that use geo-redundant storage (GRS)

upvoted 1 times

✉  **Born\_Again** 1 year, 4 months ago

**Selected Answer: B**

: minimize cost GRS!

upvoted 1 times

✉  **DikSoft** 1 year, 6 months ago

"20 independent tables of varying sizes and usage patterns" - why is it not an elastic pool ?

upvoted 2 times

✉  **Jeffab** 1 year, 6 months ago

I'm a novice in this space, but as I understand, Elastic pools are used for SQL database. Azure Tables refer to NoSQL or structured, non-relational data. This may explain it <https://learn.microsoft.com/en-us/azure/storage/tables/table-storage-overview>

upvoted 2 times

✉  **Snownoodles** 1 year, 5 months ago

SQL DB(include elastic pool) doesn't support REST

upvoted 4 times

✉  **tfulanchan** 1 year, 2 months ago

Confused here. <https://learn.microsoft.com/en-us/rest/api/sql/>

upvoted 1 times

✉️ **jellybiscuit** 1 year, 6 months ago

**Selected Answer: B**

B - tables in an Azure Storage account that use geo-redundant storage (GRS)

GRS - read from the secondary only in the event of a failover  
is cheaper than

RA GRS - read from the secondary at all times

<https://azure.microsoft.com/en-us/pricing/details/storage/tables/#pricing>

upvoted 7 times

✉️ **kay00001** 1 year, 7 months ago

**Selected Answer: B**

B. tables in an Azure Storage account that use geo-redundant storage (GRS) - is correct.

\*\*Automatically replicates the data to a second Azure region - both GRS and RA-GRS do this, but GRS costs LESS than RA-GRS.

upvoted 3 times

**HOTSPOT -**

You are designing a software as a service (SaaS) application that will enable Azure Active Directory (Azure AD) users to create and publish online surveys. The

SaaS application will have a front-end web app and a back-end web API. The web app will rely on the web API to handle updates to customer surveys.

You need to design an authorization flow for the SaaS application. The solution must meet the following requirements:

To access the back-end web API, the web app must authenticate by using OAuth 2 bearer tokens.

The web app must authenticate by using the identities of individual users.

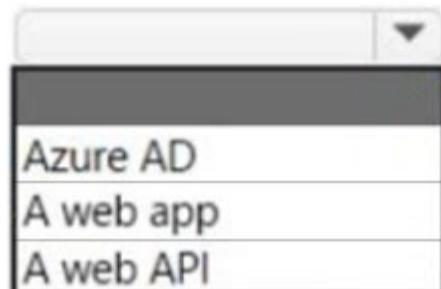
What should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

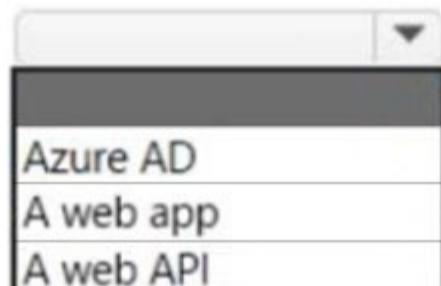
Hot Area:

**Answer Area**

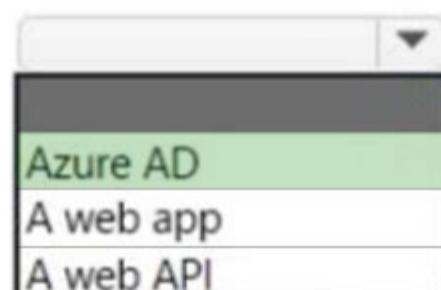
The access tokens will be generated by:



Authorization decisions will be performed by:

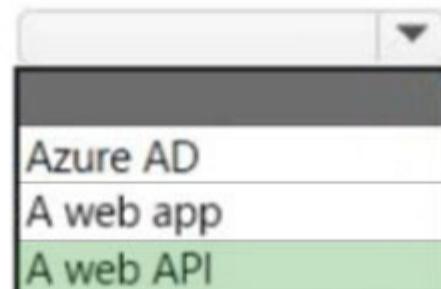
**Answer Area**

The access tokens will be generated by:



Correct Answer:

Authorization decisions will be performed by:



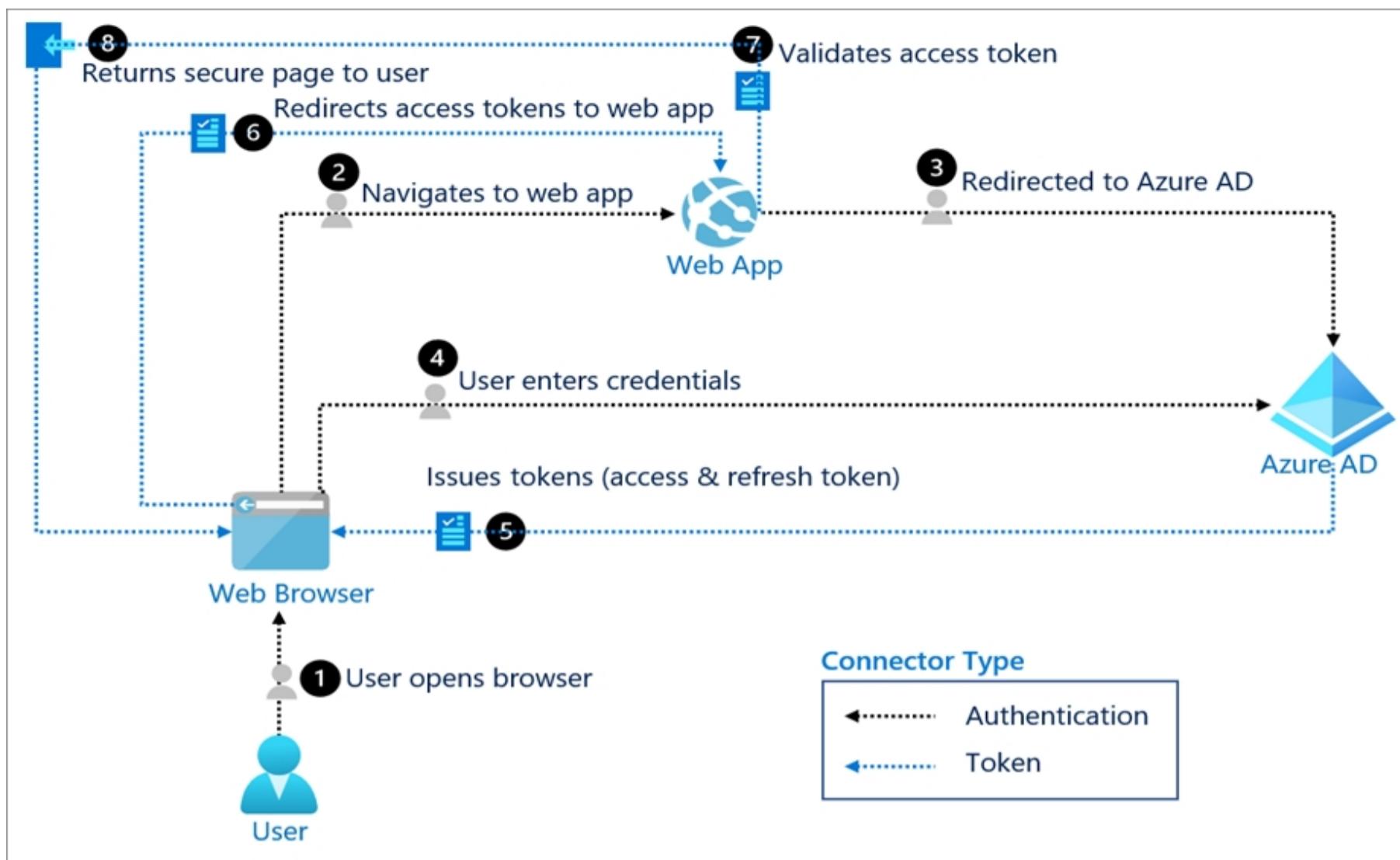
Box 1: Azure AD -

The Azure AD server issues tokens (access & refresh token). See step 5 below in graphic.

OAuth 2.0 authentication with Azure Active Directory.

The OAuth 2.0 is the industry protocol for authorization. It allows a user to grant limited access to its protected resources. Designed to work specifically with

Hypertext Transfer Protocol (HTTP), OAuth separates the role of the client from the resource owner. The client requests access to the resources controlled by the resource owner and hosted by the resource server (here the Azure AD server). The resource server issues access tokens with the approval of the resource owner. The client uses the access tokens to access the protected resources hosted by the resource server.



#### Box 2: A web API -

Delegated access is used.

The bearer token sent to the web API contains the user identity.

The web API makes authorization decisions based on the user identity.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/auth-oauth2> <https://docs.microsoft.com/ib-lu/azure/architecture/multitenant-identity/web-api>

✉️ **Davin0406** Highly Voted 1 year, 6 months ago

Azure AD and A web API. appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.

upvoted 54 times

✉️ **AzureJobsTillRetire** 1 year, 3 months ago

Thanks Davin0406 for your kindness

upvoted 12 times

✉️ **Mwavy** 1 year, 6 months ago

What's the reason for coming back to go through the dump when you have already passed the exam?

upvoted 23 times

✉️ **mrjeet** 1 year, 1 month ago

Perhaps be more grateful rather than asking dumb questions

upvoted 23 times

✉️ **ExamTaker1995** 1 year, 4 months ago

Why do i keep seeing comments like this? Davin is doing us all a favour by telling us what he chose, and if he scored high then you can be confident in his answers. Appreciate it!

upvoted 50 times

✉️ **ZakySama** 1 year, 3 months ago

He is everywhere with the same message

upvoted 9 times

✉️ **giancarlos29** 1 year, 6 months ago

Sign of good will and telling others what to expect, I hope.

upvoted 29 times

✉️ **mrjventer** 1 year, 4 months ago

Lol this is probably a fake account for marketing purposes. "Good will" I doubt.

upvoted 9 times

✉️ **r3nenge** 1 year, 1 month ago

Not rly, I just passed AZ-104 with dump from Exam Topics, and was wondering to do same to ensure others that dumps are indeed valid

upvoted 11 times

✉  **NotMeAnyWay**  9 months, 2 weeks ago

1. The access tokens will be generated by: a. Azure AD

Azure AD is the identity provider and is responsible for generating access tokens in an OAuth 2.0 flow. The web app will authenticate with Azure AD and receive an access token.

2. Authorization decisions will be performed by: c. a web API

The web API, as the resource server in the OAuth 2.0 flow, is responsible for making authorization decisions. It validates the access token it receives from the web app and determines what resources the authenticated user can access.

upvoted 10 times

✉  **obliew**  8 months, 3 weeks ago

The answer assumes the front end web app is public client like a React SPA app supported by a back-end API, then obviously the API authorizes. In a server-side confidential client web app calling downstream API scenario, the web app would authorize endpoints and use application permission to access its API. The question doesn't specify the need for delegated API permissions

upvoted 2 times

✉  **marcellov** 6 months, 2 weeks ago

Yes it does.

"The web app must authenticate by using the identities of individual users."

upvoted 2 times

✉  **willybsmith** 10 months, 3 weeks ago

Not sure if 2/ Web API is correct. According to <https://learn.microsoft.com/en-us/azure/active-directory/fundamentals/auth-oauth2>:

Web app: The web app, or resource server, is where the resource or data resides. It trusts the authorization server to securely authenticate and authorize the OAuth client.

Azure AD: Azure AD is the authorization server, also known as the Identity Provider (IdP). It securely handles anything to do with the user's information, their access, and the trust relationship. It's responsible for issuing the tokens that grant and revoke access to resources.

upvoted 1 times

✉  **King\_Laps** 11 months, 4 weeks ago

Azure AD  
and Web API

upvoted 1 times

✉  **azkumar305** 1 year ago

Got this on 14-Apr-2023

upvoted 4 times

✉  **zellck** 1 year, 1 month ago

1. Azure AD  
2. Web API

<https://learn.microsoft.com/en-us/azure/active-directory/fundamentals/auth-oauth2>

upvoted 4 times

✉  **GarryK** 1 year, 2 months ago

correct. check the video  
<https://learn.microsoft.com/en-us/azure/active-directory/develop/authentication-vs-authorization>

upvoted 3 times

✉  **OPT\_001122** 1 year, 2 months ago

AAD  
Web API

upvoted 1 times

✉  **ORRRRR98** 1 year, 5 months ago

Davin0406 Thanks for your feedback

upvoted 3 times

✉  **kay000001** 1 year, 7 months ago

Answer is correct.

The web API makes authorization decisions based on the user identity.

The bearer token sent to the web API contains the user identity.

<https://docs.microsoft.com/en-us/azure/architecture/multitenant-identity/web-api>

upvoted 4 times



**HOTSPOT -**

You plan to create an Azure environment that will contain a root management group and 10 child management groups. Each child management group will contain five Azure subscriptions. You plan to have between 10 and 30 resource groups in each subscription.

You need to design an Azure governance solution. The solution must meet the following requirements:

- Use Azure Blueprints to control governance across all the subscriptions and resource groups.
- Ensure that Blueprints-based configurations are consistent across all the subscriptions and resource groups.
- Minimize the number of blueprint definitions and assignments.

What should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Level at which to define the blueprints:

The child management groups
The root management group
The subscriptions

Level at which to create the blueprint assignments:

The child management groups
The root management group
The subscriptions

Correct Answer:

**Answer Area**

Level at which to define the blueprints:

The child management groups
The root management group
The subscriptions

Level at which to create the blueprint assignments:

The child management groups
The root management group
The subscriptions

Box 1. The root management group

When creating a blueprint definition, you'll define where the blueprint is saved. Blueprints can be saved to a management group or subscription that you have Contributor access to. If the location is a management group, the blueprint is available to assign to any child subscription of that management group.

The root management group is built into the hierarchy to have all management groups and subscriptions fold up to it. This root management group allows for global policies and Azure role assignments to be applied at the directory level.

Box 2. The root management group

Reference:

<https://docs.microsoft.com/en-us/azure/governance/management-groups/overview> <https://docs.microsoft.com/en-us/azure/governance/blueprints/overview>

Define: Root Management Groups  
Assignments: Subscriptions.

In the dark MS language: "Assigning a blueprint definition to a management group means the assignment object exists at the management group

The deployment of artifacts still targets a subscription."

<https://docs.microsoft.com/en-us/azure/governance/blueprints/overview#blueprint-assignment>

upvoted 57 times

✉️ **DeBoer** 1 year, 1 month ago

just to support this: "Blueprints can be saved to a management group or subscription that you have Contributor access to. If the location is a management group, the blueprint is available to assign to any child subscription of that management group."

<https://docs.microsoft.com/en-us/azure/governance/blueprints/overview>

upvoted 3 times

✉️ **MiniLa92** 4 months, 2 weeks ago

Again to support this, those who are saying that with the Create Or Update REST API we can create assignment on Management group level if you refer this MS doc for API req/res you will notice that even when creating assignment on Management group level, we have to pass the subscription ID in request body under properties.scope (which means with one API call we can create assignment only for one subscription at a time) <https://learn.microsoft.com/en-us/rest/api/blueprints/assignments/create-or-update?view=rest-blueprints-2018-11-01-preview&tabs=HTTP#assignment>

So For me the answer is :

Define: Root Management Groups

Assignments: Subscriptions

upvoted 1 times

✉️ **Davin0406** Highly Voted 1 year, 6 months ago

root management groups and subscriptions. appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.

upvoted 37 times

✉️ **varinder82** Most Recent 4 weeks ago

Final Answer:

Define: Root Management Groups

Assignments: Subscriptions.

upvoted 2 times

✉️ **Fidel\_104** 1 month, 1 week ago

On a side note, AZ Blueprints are being deprecated, so probably we won't see many questions relating to them in upcoming exams.

Source: <https://learn.microsoft.com/en-us/azure/governance/blueprints/overview>

upvoted 2 times

✉️ **SDiwan** 1 month, 3 weeks ago

Define: Root Management Groups

Assignments: Subscriptions

Tested in lab, while assigning first thing to select is Subscriptions. It is multi-select, so you can choose as many subs as you want. In the example scenario since there are like 100s of subs, i would assume the admin will use CLI or powershell to provide the sub names.

upvoted 1 times

✉️ **randy0077** 5 months, 2 weeks ago

Level at which to define the blueprints: The root management group

Level at which to create the blueprint assignments: The child management groups

upvoted 3 times

✉️ **Itson1** 8 months, 1 week ago

Seems to be subscription for box 2, management group is assignable but it will not inherit to all subscriptions but just one default:

<https://learn.microsoft.com/en-us/answers/questions/420039/blueprint-assignment-at-management-group-level>

upvoted 3 times

✉️ **NotMeAnyWay** 9 months, 2 weeks ago

1. Level at which to define the blueprints: b. the root management group

Defining the blueprints at the root management group level will ensure the blueprints are available to all child management groups and subscriptions, maintaining consistency and minimizing the number of blueprint definitions needed.

2. Level at which to create the blueprint assignments: b. the root management group

Assigning the blueprints at the root management group level will apply the blueprints to all child management groups and subscriptions, ensuring a consistent governance structure and minimizing the number of blueprint assignments.

(Assigning at the Sub level would mean about 50 assignments which is not what the question asks)

upvoted 6 times

✉️ **alexander\_panfilenok** 10 months ago

Each Published Version of a blueprint can be assigned (with a max name length of 90 characters) to an existing management group or subscription

<https://learn.microsoft.com/en-us/azure/governance/blueprints/overview#blueprint-assignment>

upvoted 2 times

✉  **dave22339** 10 months ago

Each Published Version of a blueprint can be assigned (with a max name length of 90 characters) to an existing management group or subscription (From the link given in the answer). So i think given answer is supported by MS documentation (although I've not tried it to be fair).

upvoted 2 times

✉  **betterthanlife** 11 months, 2 weeks ago

In my lab with 1 Root MG (duh), 3 Child MGs, each Child MG has 1 Subscription each.

- When creating a BP I can only DEFINE it on a SINGLE Child MG, NOT the Root MG (it is greyed out), even if the Root MG has a subscription I still cannot DEFINE the BP on the Root MG. Also, tired in PS & also cannot DEFINE on the Root MG "scope is invalid".

NOTE: Once a BP is DEFINED during creation it CANNOT be re-DEFINED (greyed out).

Ø A BP CANNOT be DEFINED on the Root MG or on more than a SINGLE Child MG, I need 3 BPs, 1 for each Child MG

- During creating of the BP I can optionally DEFINE it on any of the individual Subscriptions (but I don't because I'm pretending my MGs have multiple Subscriptions)

- I publish the BP & then can ASSIGN it ONLY to any or all of the Subscriptions below that MG.

Ø A BP can ONLY be ASSIGNED to a Subscription(s), a BP cannot be ASSIGNED to MGs

upvoted 1 times

✉  **betterthanlife** 11 months, 2 weeks ago

Option 1: Child Management Groups

Option 2: The subscriptions

<https://learn.microsoft.com/en-us/azure/governance/blueprints/create-blueprint-portal>

<https://learn.microsoft.com/en-us/azure/governance/blueprints/create-blueprint-powershell>

upvoted 1 times

✉  **betterthanlife** 11 months, 1 week ago

I WAS WRONG! I hope you can find it in your heart to forgive me for doing all this work for you. Studying back through, checking YOU PEEP (& myself of course)... you can indeed assign a BP to the Root Management Group, I just did it after granting Contributor to my cloud-only default GA account I'm using on the Root Management Group. However the only option is to assign it to subscriptions, any subordinate to the MG where it is defined, I cannot assign it to other sub management groups (that's just how it is).

Option 1: Root Management Groups

Option 2: The subscriptions

So, thus, therefore, without a doubt, unless MS changes something in the next 24 hours, which is entirely possible.

upvoted 6 times

✉  **lvz** 10 months, 3 weeks ago

exactly what i thought, i.e. you need to have GA to work with root management group. thanks for the update though. really helps.

upvoted 2 times

✉  **azkumar305** 1 year ago

Got this on 14-Apr-2023

upvoted 6 times

✉  **steel72** 1 year ago

I think the provided answer is correct, blueprints can be assigned at management group level:

<https://learn.microsoft.com/en-us/azure/governance/blueprints/overview#blueprint-assignment>

upvoted 1 times

✉  **zellck** 1 year, 1 month ago

1. Root MG

2. Subscriptions

<https://learn.microsoft.com/en-us/azure/governance/blueprints/overview#blueprint-definition-locations>

When creating a blueprint definition, you'll define where the blueprint is saved. Blueprints can be saved to a management group or subscription that you have Contributor access to. If the location is a management group, the blueprint is available to assign to any child subscription of that management group.

<https://learn.microsoft.com/en-us/azure/governance/blueprints/overview#blueprint-assignment>

Assigning a blueprint definition to a management group means the assignment object exists at the management group. The deployment of artifacts still targets a subscription.

<https://learn.microsoft.com/en-us/azure/governance/blueprints/overview#permissions-in-azure-blueprints>

As blueprint assignments are created on a subscription, the blueprint assign and unassign permissions must be granted on a subscription scope or be inherited onto a subscription scope.

upvoted 5 times

✉  **Cris13** 1 year, 1 month ago

The 2nd question is "The level at which to create the blueprint assignment", so you can assign the blueprint at the management group level but the assignments will still be made at the subscription level. You only make 1 assignment but 50 will be visible (1 for each subscription) . At least that is how I see it.

upvoted 1 times

✉  **Jacky\_exam** 1 year, 1 month ago

ChatGPT:

To meet the requirements, you should include the following in the solution:

Define the Blueprints at the root management group level to ensure that the configurations are consistent across all the subscriptions and resource groups.

Create the blueprint assignments at the child management group level to apply the blueprint to all the subscriptions and resource groups under

each child management group.  
Therefore, you should select:

- b. The root management group for "Level at which to define the blueprints?"
- a. The child management groups for "Level at which to create the blueprint assignments?"  
upvoted 1 times

✉  **SomeCert** 1 year, 1 month ago

Wrong again  
upvoted 5 times

✉  **OPT\_001122** 1 year, 2 months ago

Define: Root Management Groups  
Assignments: Subscriptions.

Thanks all who have mentioned the date  
upvoted 1 times

✉  **PankajKataria** 1 year, 3 months ago

<https://learn.microsoft.com/en-us/answers/questions/420039/blueprint-assignment-at-management-group-level.html>

Define: Root Management Groups  
Assignments: Subscriptions.

upvoted 4 times

**DRAG DROP -**

You are designing a virtual machine that will run Microsoft SQL Server and contain two data disks. The first data disk will store log files, and the second data disk will store data. Both disks are P40 managed disks.

You need to recommend a host caching method for each disk. The method must provide the best overall performance for the virtual machine while preserving the integrity of the SQL data and logs.

Which host caching method should you recommend for each disk? To answer, drag the appropriate methods to the correct disks. Each method may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

**Methods** None ReadOnly ReadWrite**Answer Area**Log:  MethodData:  Method**Correct Answer:****Methods** None ReadOnly ReadWrite**Answer Area**Log:  NoneData:  ReadOnly

Box 1: None -

No data disk caching for the Log files.

Box 2: ReadOnly -

Guidelines to optimize performance for your SQL Server on Azure Virtual Machines (VMs) include:

Set host caching to read-only for data file disks.

Set host caching to none for log file disks.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/performance-guidelines-best-practices-storage>

✉  **Davin0406**  1 year, 6 months ago

None and ReadOnly. appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.

upvoted 40 times

✉  **dimsok** 1 year, 2 months ago

This question is in the contribution area so we bought it already, no need for spam.

upvoted 18 times

✉  **zellck**  1 year, 1 month ago

Log: None  
Data: ReadOnly

<https://learn.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/performance-guidelines-best-practices-storage?view=azuresql#data-file-caching-policies>

Your storage caching policy varies depending on the type of SQL Server data files that are hosted on the drive.

The following table provides a summary of the recommended caching policies based on the type of SQL Server data:

- Data disk

Enable Read-only caching for the disks hosting SQL Server data files.

Reads from cache will be faster than the uncached reads from the data disk.

Uncached IOPS and throughput plus Cached IOPS and throughput will yield the total possible performance available from the virtual machine within the VMs limits, but actual performance will vary based on the workload's ability to use the cache (cache hit ratio).

upvoted 17 times

✉ **zellck** 1 year, 1 month ago

-Transaction log disk

Set the caching policy to None for disks hosting the transaction log. There is no performance benefit to enabling caching for the Transaction log disk, and in fact having either Read-only or Read/Write caching enabled on the log drive can degrade performance of the writes against the drive and decrease the amount of cache available for reads on the data drive.

upvoted 6 times

✉ **varinder82** Most Recent ⓘ 4 weeks ago

Final Answer:

Log: None

Data: ReadOnly

upvoted 1 times

✉ **eduardobbs** 1 month, 1 week ago

Got this on my exam on 06/03/2024

upvoted 1 times

✉ **JimmyYop** 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 3 times

✉ **NotMeAnyWay** 9 months, 2 weeks ago

Log: None

Data: Readonly

For SQL Server workloads, Microsoft recommends setting the host caching policy to None for disks hosting log files to preserve data integrity. For data files, the ReadOnly setting is recommended because SQL Server itself handles a significant portion of the data caching. This setting can help with read operations while not impacting the integrity of the data.

upvoted 6 times

✉ **Tr619899** 11 months ago

Data disk: Enable Read-only caching for the disks hosting SQL Server data files.

Reads from cache will be faster than the uncached reads from the data disk.

Uncached IOPS and throughput plus Cached IOPS and throughput yield the total possible performance available from the virtual machine within the VMs limits, but actual performance varies based on the workload's ability to use the cache (cache hit ratio).

Transaction log disk: Set the caching policy to None for disks hosting the transaction log. There is no performance benefit to enabling caching for the Transaction log disk, and in fact having either Read-only or Read/Write caching enabled on the log drive can degrade performance of the writes against the drive and decrease the amount of cache available for reads on the data drive.

upvoted 3 times

✉ **OPT\_001122** 1 year, 2 months ago

Log - none

Data - Read Only

upvoted 4 times

✉ **leoletopic** 1 year, 4 months ago

Data file caching policies

<https://learn.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/performance-guidelines-best-practices-storage?view=azuresql#data-file-caching-policies>

upvoted 4 times

✉ **ExamTopicsTST** 1 year, 5 months ago

Set host caching to read-only for data file disks.

Set host caching to none for log file disks.

upvoted 1 times

✉ **Velidot100** 1 year, 7 months ago

Got this on my exam - 12. September 2022

upvoted 8 times

✉ **Balaji\_c\_s** 1 year, 7 months ago

Answer is right

<https://docs.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/performance-guidelines-best-practices-storage?view=azuresql#checklist>

upvoted 5 times

✉  **pkkalra** 1 year, 4 months ago

relevant section from above link

<https://learn.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/performance-guidelines-best-practices-storage?view=azuresql#data-file-caching-policies>

upvoted 2 times

✉  **Neo2c** 1 year, 7 months ago

The Given answer is correct

upvoted 3 times

You are designing a solution that calculates 3D geometry from height-map data.

You need to recommend a solution that meets the following requirements:

- Performs calculations in Azure.
  - Ensures that each node can communicate data to every other node.
  - Maximizes the number of nodes to calculate multiple scenes as fast as possible.
- Minimizes the amount of effort to implement the solution.

Which two actions should you include in the recommendation? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Enable parallel file systems on Azure.
- B. Create a render farm that uses virtual machines.
- C. Create a render farm that uses virtual machine scale sets.
- D. Create a render farm that uses Azure Batch.
- E. Enable parallel task execution on compute nodes.

**Correct Answer: DE**

Multi-instance tasks allow you to run an Azure Batch task on multiple compute nodes simultaneously. These tasks enable high performance computing scenarios like Message Passing Interface (MPI) applications in Batch.

You configure compute nodes for parallel task execution at the pool level.

Azure Batch allows you to set task slots per node up to (4x) the number of node cores.

Reference:

<https://docs.microsoft.com/en-us/azure/batch/batch-mpi>

<https://docs.microsoft.com/en-us/azure/batch/batch-parallel-node-tasks#enable-parallel-task-execution>

*Community vote distribution*

DE (98%)

✉️  **Davin0406** Highly Voted 1 year, 6 months ago

**Selected Answer: DE**

appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.  
upvoted 23 times

✉️  **OPT\_001122** 1 year, 2 months ago

Thanks for the exam date.

upvoted 5 times

✉️  **ServerBrain** 1 year, 3 months ago

Thank you for the heads up Davin. You're a good soul..

upvoted 12 times

✉️  **GarryK** Highly Voted 1 year, 6 months ago

**Selected Answer: DE**

How it works

A common scenario for Batch involves scaling out intrinsically parallel work, such as the rendering of images for 3D scenes, on a pool of compute nodes. This pool can be your "render farm" that provides tens, hundreds, or even thousands of cores to your rendering job.

<https://learn.microsoft.com/en-us/azure/batch/batch-technical-overview>

<https://learn.microsoft.com/en-us/azure/batch/batch-parallel-node-tasks>

You configure compute nodes for parallel task execution at the pool level

upvoted 12 times

✉️  **PMPft17** Most Recent 4 months, 3 weeks ago

If I'm not mistaken, Azure Batch and Azure Cyclecloud can be used to manage HPC. Which in turn can be used to create scalable nodes for calculation

upvoted 1 times

✉️  **PMPft17** 4 months, 3 weeks ago

One of the best-known types of HPC solutions is the supercomputer. A supercomputer contains thousands of compute nodes that work together to complete one or more tasks. This is called parallel processing. It's similar to having thousands of PCs networked together, combinin

compute power to complete tasks faster.  
upvoted 1 times

✉ **NotMeAnyWay** 9 months, 2 weeks ago

**Selected Answer: DE**

The correct answers are D. Create a render farm that uses Azure Batch and E. Enable parallel task execution on compute nodes.

Azure Batch is designed for high-performance parallel computing. It's a cloud-based job scheduling service that parallelizes the processing of large volumes of data across many virtual machines. It allows for each node to communicate data to every other node, which is a requirement in the question.

Parallel task execution enables concurrent processing of multiple tasks on a single compute node, thereby maximizing the number of nodes to calculate multiple scenes as fast as possible. This can help to speed up processing times.

upvoted 5 times

✉ **techrat** 11 months, 2 weeks ago

**Selected Answer: DE**

I passed exam today with 979, and this question was on the exam, I am confident the correct answer is DE

upvoted 2 times

✉ **globy118** 1 year, 1 month ago

appeared in exam 02/15/2023

upvoted 4 times

✉ **EngAbood** 1 year, 1 month ago

thank u for mentioned exam date , was all the questions from here , examtopics ?

upvoted 1 times

✉ **Eusouzati** 1 year, 1 month ago

**Selected Answer: CD**

ChatGPT

The two actions that should be included in the recommendation are:

C. Create a render farm that uses virtual machine scale sets, which will enable the deployment and management of a large number of identical virtual machines, and allow for automatic scaling based on the workload.

D. Create a render farm that uses Azure Batch, which provides a platform for running large-scale parallel and high-performance computing (HPC) batch jobs. It can also automatically scale the number of nodes based on the workload and provides easy integration with Azure storage.

Therefore, the recommended solution would be to create a render farm that uses virtual machine scale sets and Azure Batch in Azure to perform the 3D geometry calculations. This solution will ensure that each node can communicate with every other node, maximize the number of nodes to calculate multiple scenes as fast as possible, and minimize the amount of effort to implement the solution.

upvoted 1 times

✉ **mtc9** 1 month, 2 weeks ago

Need to maximize nodes, not minimize costs or make them scalable so not scale sets. "Everything that ChatGPT tells you is correct" - Isaac Newton

upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: DE**

D. Create a render farm that uses Azure Batch.

E. Enable parallel task execution on compute nodes.

upvoted 3 times

✉ **dubuser** 1 year, 2 months ago

Appeared in 29/01/2023 exam. Passed with 903/1000

upvoted 6 times

✉ **OPT\_001122** 1 year, 2 months ago

Thanks for the exam date.

upvoted 1 times

✉ **EngAbood** 1 year, 1 month ago

thank u for mentioned exam date , was all the questions from here , examtopics ?

upvoted 1 times

✉ **kay00001** 1 year, 7 months ago

**Selected Answer: DE**

D and E - correct.

Both Render A Farm & Parallel Task Execution are Batch features.

<https://docs.microsoft.com/en-us/azure/batch/batch-technical-overview>

upvoted 5 times



You have an on-premises application that consumes data from multiple databases. The application code references database tables by using a combination of the server, database, and table name.

You need to migrate the application data to Azure.

To which two services can you migrate the application data to achieve the goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. SQL Server Stretch Database
- B. SQL Server on an Azure virtual machine
- C. Azure SQL Database
- D. Azure SQL Managed Instance

**Correct Answer: BD**

Cross-database queries are supported by SQL Server, for example on an Azure virtual machine, and also supported by an Azure SQL Managed Instance.

Reference:

<https://techcommunity.microsoft.com/t5/azure-database-support-blog/cross-database-queries-between-azure-sql-database-and-managed/ba-p/2706670>

*Community vote distribution*

BD (100%)

✉  **GK81** Highly Voted 1 year, 6 months ago

where is cross-database query mentioned in the question?  
upvoted 11 times

✉  **ServerBrain** 1 year, 3 months ago

cross-database query mentioned in the question >>>>> "application that consumes data from multiple databases"  
upvoted 7 times

✉  **kay000001** Highly Voted 1 year, 7 months ago

**Selected Answer: BD**  
B and D.  
upvoted 8 times

✉  **JimmyYop** Most Recent 2 months, 3 weeks ago

appeared in Exam 01/2024  
upvoted 2 times

✉  **NotMeAnyWay** 9 months, 2 weeks ago

**Selected Answer: BD**  
The correct answers are B. SQL Server on an Azure virtual machine and D. Azure SQL Managed Instance.

B. SQL Server on an Azure virtual machine allows you to migrate your on-premises SQL Server databases to Azure with very minimal changes to your application. The application code can continue to reference the database tables in the same manner as it did on-premises.

D. Azure SQL Managed Instance is a fully-managed SQL Server Database Engine hosted in Azure cloud. It provides near 100% compatibility with the on-premises SQL Server and supports the same server, database, and table naming conventions, which suits the requirement of the application  
upvoted 7 times

✉  **Sanjeevsn** 11 months ago

Why not C: AZ SQL?  
upvoted 5 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: BD**  
BD is the answer.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/features-comparison?view=azuresql#features-of-sql-database-and-sql-managed-instance>

Azure SQL Managed Instance  
- Cross-database/three-part name queries - Yes  
upvoted 3 times

OPT\_001122 1 year, 2 months ago

**Selected Answer: BD**

B and D

upvoted 1 times

Snownoodles 1 year, 7 months ago

Azure SQL Database also has (virtual) sql server which is global unique.  
We can also refer a Azure SQL database table by server/database/table.  
Or the ask of this question is actually about instance features?

upvoted 4 times

Snownoodles 1 year, 7 months ago

Now Azure SQL database also supports cross-database query:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/elastic-query-getting-started-vertical?view=azuresql>

upvoted 3 times

Fal991 1 year, 5 months ago

question is "The application code references database tables by using a combination of the server, database, and table name"

upvoted 1 times

One11 1 year, 7 months ago

How do we know if there are asking for cross-database queries? Why explanation to given answer is relevant?

upvoted 4 times

Born\_Again 1 year, 4 months ago

"The application code references database tables by using a combination of the server, database, and table name"

upvoted 2 times

Jeffab 1 year, 6 months ago

As GK81 also asked, We just don't f.... know! These more recent questions are getting even more ridiculous. If questions like these, which only partially reference published material appear in real exam, then expect us to read between the lines, we have no hope of passing this exam.

upvoted 4 times

**HOTSPOT -**

You plan to migrate on-premises Microsoft SQL Server databases to Azure.

You need to recommend a deployment and resiliency solution that meets the following requirements:

- Supports user-initiated backups
- Supports multiple automatically replicated instances across Azure regions
- Minimizes administrative effort to implement and maintain business continuity

What should you recommend? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Deployment solution:

- Azure SQL Managed Instance
- SQL Server on Azure Virtual Machines
- An Azure SQL Database single database

Resiliency solution:

- Auto-failover group
- Active geo-replication
- Zone-redundant deployment

**Answer Area**

Deployment solution:

- Azure SQL Managed Instance
- SQL Server on Azure Virtual Machines
- An Azure SQL Database single database

Correct Answer:

Resiliency solution:

- Auto-failover group
- Active geo-replication
- Zone-redundant deployment

Box 1: an Azure SQL database -

Incorrect answers:

User initiated backups are not supported by Azure SQL Managed instance.

Box 2: Active geo-replication -

Active geo-replication required to multiple automatically replicated instances across Azure regions.

You can manage Azure SQL Database security for geo-restore. SQL database cannot be used for geo-restore.

Incorrect:

Not SQL Server: Active geo-replication requires Azure SQL database.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/active-geo-replication-overview>

Managed Instance + Auto Failover Group  
upvoted 83 times

□ **Student2023** 9 months, 2 weeks ago  
This is correct  
upvoted 3 times

□ **kay00001** Highly Voted 1 year, 7 months ago  
Azure SQL Managed instances & Auto Failover Group

- supports User Initiated Backups and minimizes administrative effort for business continuity.

<https://docs.microsoft.com/en-us/azure/azure-sql/managed-instance/sql-managed-instance-paas-overview?view=azuresql>

- Auto failover groups

<https://docs.microsoft.com/en-us/azure/architecture/framework/services/data/azure-sql-managed-instance/reliability>  
upvoted 24 times

□ **heero** 1 year, 7 months ago  
but Active geo-replication is not supported by Azure SQL Managed Instance.  
upvoted 1 times

□ **GarryK** 1 year, 6 months ago  
It said Auto Failover groups not active geo replication  
upvoted 4 times

□ **Cg007** Most Recent 6 days, 4 hours ago

If priority is minimal administrative effort and the ability to automate replication across regions with built-in failover, then Azure SQL Database single database with auto-failover group is the way to go.

upvoted 1 times

□ **varinder82** 4 weeks ago

Final Answer:  
- Azure SQL Database with Single SQL Database  
- Active geo replication  
upvoted 2 times

□ **ayadmaawla** 3 months, 1 week ago

My answer is  
Single SQL Database  
Active geo

MI neither supports manual backup nor multi region  
upvoted 2 times

□ **BShelat** 4 months ago

SQL Managed instance supports "copy-only" backups if initiated by users in other words it is not really a backup then. Hence SQL Managed instance is ruled out. Azure SQL DB single DB supports multiple replicas across multiple regions. Hence given answers are correct.  
upvoted 1 times

□ **bechidu** 5 months, 2 weeks ago

I think it should be Azure SQL managed instance and Auto failover group. Since user initiated backups are supported only in SQL managed instances...  
<https://learn.microsoft.com/en-us/azure/azure-sql/database/features-comparison?view=azuresql>  
upvoted 2 times

□ **Balamani1** 6 months, 2 weeks ago

Managed Instance + Auto Failover Group refer the link below <https://www.examtopics.com/discussions/microsoft/view/75025-exam-dp-300-topic-6-question-17-discussion/>  
upvoted 3 times

□ **jojorabbit2021** 7 months, 3 weeks ago

keyword is "Supports multiple automatically replicated instances" also supports user initiated backups, the only option would be managed instance. Second answer is auto-failover as managed instances don't support active geo replication.  
upvoted 3 times

□ **Sheedy9022** 9 months, 1 week ago

I guess the key here is "support multiple".... given answer is correct  
upvoted 1 times

□ **NotMeAnyWay** 9 months, 2 weeks ago

Deployment Solution: c. Azure SQL Database Single Database

Azure SQL Database Single Database supports user-initiated backups and minimizes administrative effort as it is a fully managed platform as a service (PaaS) database engine.

## Resiliency Solution: b. Active Geo-Replication

Active Geo-Replication supports multiple automatically replicated instances across Azure regions and provides a business continuity solution with minimal administrative effort. It allows for up to four readable secondary databases in the same or different data center locations (regions).

upvoted 7 times

✉ **mtc9** 1 month, 2 weeks ago

Data center is a zone, not region

upvoted 1 times

✉ **Tr619899** 10 months, 1 week ago

The recommended deployment solution is Azure SQL Managed Instance and the recommended resiliency solution is Auto-failover groups. This combination supports user-initiated backups, multiple automatically replicated instances across Azure regions, and minimizes administrative effort to implement and maintain business continuity.

upvoted 1 times

✉ **techrat** 11 months, 2 weeks ago

Passed the exam with 979 today, this question was on the exam. I answered Managed Instance and Auto Failover Group

upvoted 18 times

✉ **aksuxin** 9 months, 1 week ago

passing with 979 seems so suspicious and unnecessary. Microsoft may eventually kill this site. Don't be selfish.

upvoted 3 times

✉ **LavaPup** 6 months, 3 weeks ago

Thanks @techrat! Just ignore @aksuxin, what a waste comment!

upvoted 3 times

✉ **couldbeme** 1 year ago

⌚ Supports user-initiated backups  
⌚ Supports multiple automatically replicated instances across Azure regions  
these are mutually exclusive, if "multiple automatically replicated instances" said " multiple automatically replicated databases", then "Managed Instance + Auto Fail-over Group" would be correct.

upvoted 1 times

✉ **EXzw** 1 year ago

I think Answer is correct, I can manually Export DB from Azure portal. and I can configure replica group in the portal. have you guys tested Auto Failover to multi replicas?

upvoted 1 times

✉ **EXzw** 1 year ago

please refer to below link

<https://learn.microsoft.com/en-us/azure/azure-sql/database/business-continuity-high-availability-disaster-recover-hadr-overview?view=azuresql#compare-geo-replication-with-failover-groups>

upvoted 1 times

✉ **zellck** 1 year, 1 month ago

1. Azure SQL Managed Instance
2. Auto-failover group

<https://learn.microsoft.com/en-us/azure/azure-sql/database/features-comparison?view=azuresql#features-of-sql-database-and-sql-managed-instance>

Azure SQL Managed Instance

BACKUP command

- Yes, user initiated copy-only backups to Azure Blob storage

<https://learn.microsoft.com/en-us/azure/azure-sql/managed-instance/auto-failover-group-sql-mi?view=azuresql&tabs=azure-powershell>

The auto-failover groups feature allows you to manage the replication and failover of all user databases in a managed instance to another Azure region.

upvoted 7 times

✉ **Jamesat** 1 year, 1 month ago

I'm pretty sure this should be

SQL Managed Instance and Auto-Failover Group

A Single SQL Database definitely wouldn't be right.

upvoted 2 times

✉ **Libanhous** 1 year, 1 month ago

SQL managed instance doesn't user initiated backup, that is one of the requirements in question.

upvoted 1 times

✉ **MeerKatZA** 1 year ago

SQL MI Does, AZ SQL DB only supports system initiated backed up requests.

upvoted 2 times



You need to design a highly available Azure SQL database that meets the following requirements:

- ☞ Failover between replicas of the database must occur without any data loss.
- ☞ The database must remain available in the event of a zone outage.
- ☞ Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Managed Instance Business Critical
- B. Azure SQL Managed Instance General Purpose
- C. Azure SQL Database Business Critical
- D. Azure SQL Database Serverless

**Correct Answer: D**

Azure SQL Database Serverless meets the requirements and is less expensive than Azure SQL Database Business Critical.

Note: General Purpose service tier zone redundant availability.

Zone-redundant configuration for the general purpose service tier is offered for both serverless and provisioned compute.

This configuration utilizes Azure Availability Zones to replicate databases across multiple physical locations within an Azure region. By selecting zone-redundancy, you can make your new and existing serverless and provisioned general-purpose single databases and elastic pools resilient to a much larger set of failures, including catastrophic datacenter outages, without any changes of the application logic.

Incorrect:

Not A, not B: Zone-redundant configuration is not available in SQL Managed Instance.

Not C: Azure SQL Database Business Critical is more expensive than Azure SQL Database Serverless.

Note: Premium and Business Critical service tiers use the Premium availability model, which integrates compute resources (sqlservr.exe process) and storage

(locally attached SSD) on a single node. High availability is achieved by replicating both compute and storage to additional nodes creating a three to four-node cluster.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla>

*Community vote distribution*

D (88%)

12%

✉  **yonie**  11 months, 3 weeks ago

**Selected Answer: D**

There are \*16\* variations of this question. Each of them offering different possible answers.

The answer priority is as follows. If it exists then choose it. If it doesn't, proceed to the next priority. Sometimes both appear in the same question, so make sure to select the higher priority.

1. Azure SQL Database Premium
2. Azure SQL Database Serverless
3. Azure SQL Database Business Critical

upvoted 80 times

✉  **01111010** 1 month, 3 weeks ago

Thank you for the public service.

upvoted 4 times

✉  **Snownoodles**  1 year, 7 months ago

**Selected Answer: D**

The given answer is correct

upvoted 13 times

✉  **SDewan**  1 month, 3 weeks ago

**Selected Answer: C**

Azure SQL Business Critical is the right answer imho. Serverless is cheap but does not guarantee failover without data loss

upvoted 2 times

✉  **NotMeAnyWay** 9 months, 2 weeks ago

**Selected Answer: C**

Azure SQL Database Business Critical is indeed more expensive compared to Azure SQL Database Serverless, but it provides the high availability and resilience required in the scenario.

Azure SQL Database Serverless can be more cost-effective, particularly for infrequent, intermittent, or unpredictable workloads, because you pay for compute resources only when the database is active. However, it doesn't inherently guarantee the same level of high availability, resilience, and automatic failover without data loss across zones as the Business Critical tier.

Azure SQL Database Business Critical best meets all the requirements, even though it may not be the most cost-effective option. If cost is a primary concern and the high availability requirements can be slightly relaxed, Azure SQL Database Serverless could be considered. However, based on the requirements stated, Business Critical is the recommended choice.

upvoted 5 times

✉️ Bertmeister 10 months ago

**Selected Answer: C**

Failover without data loss: Azure SQL Database Serverless does not provide the same level of high availability as Azure SQL Database Business Critical. With Serverless, automatic failover is not guaranteed, and there may be a risk of data loss during failover.

Availability in the event of a zone outage: Azure SQL Database Serverless does not support the ability to span multiple availability zones. In the event of a zone outage, there is a possibility of downtime or unavailability of the database.

Cost optimization: Azure SQL Database Serverless offers cost optimization benefits as it automatically pauses and scales based on usage. It is a suitable option for databases with unpredictable or intermittent workloads. However, cost optimization should not be the sole factor in choosing a deployment option if meeting high availability and data integrity requirements is crucial.

upvoted 3 times

✉️ lvz 10 months, 3 weeks ago

**Selected Answer: C**

It should be C, this is an important concept for understanding business continuity from the perspective of Azure SQL.

"The Basic, Standard, and General Purpose service tiers use the remote storage availability model for both serverless and provisioned compute."

Meaning if the remote storage is down then there will be loss of data before you can provision/attach new storage. Hence it has to be business critical, reference link given below.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#:~:text=The%20Basic%2C%20Standard%2C%20and%20General%20Purpose%20service%20tiers%20use%20the%20remote%20storage%20availability%20model%20for%20both%20serverless%20and%20provisioned%20compute>

upvoted 2 times

✉️ EXzw 1 year ago

**Selected Answer: C**

i think should be C, when talking about zero data loss during failover, shouldn't we use premium tier ? i've checked from the portal , cost from lowest to highest is SQL Premium < SQL BC < SQL MI BC.

upvoted 2 times

✉️ marvicqui 1 year, 1 month ago

Azure SQL Database Business Critical provides high availability with the capability to automatically replicate data to a secondary replica within the same region, ensuring zero data loss in the event of a failover.

The deployment option also provides cross-region replication to ensure availability in case of a zone outage.

Azure SQL Managed Instance Business Critical also provides high availability, but it is more expensive than Azure SQL Database Business Critical.

Azure SQL Managed Instance General Purpose and Azure SQL Database Serverless do not provide the required level of high availability for this scenario.

Therefore, Azure SQL Database Business Critical meets all the requirements while keeping costs minimized.

upvoted 3 times

✉️ zellck 1 year, 1 month ago

**Selected Answer: D**

D is the answer.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/serverless-tier-overview?view=azuresql&tabs=general-purpose>

Serverless is a compute tier for single databases in Azure SQL Database that automatically scales compute based on workload demand and bills for the amount of compute used per second. The serverless compute tier also automatically pauses databases during inactive periods when only storage is billed and automatically resumes databases when activity returns.

upvoted 5 times

✉️ zellck 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#general-purpose-service-tier-zone-redundant-availability>

Zone-redundant configuration for the General Purpose service tier is offered for both serverless and provisioned compute. This configuration utilizes Azure Availability Zones to replicate databases across multiple physical locations within an Azure region. By selecting zone-redundancy, you can make your new and existing serverless and provisioned general purpose single databases and elastic pools resilient to a much larger set of failures, including catastrophic datacenter outages, without any changes of the application logic.

upvoted 4 times

✉️ OPT\_001122 1 year, 2 months ago

**Selected Answer: D**

D. Azure SQL Database Serverless

upvoted 1 times

✉️ ed79 1 year, 2 months ago

it says no data loss... active geo replication is asynch, so would Serverless still count?

upvoted 2 times

 **testtaker13** 1 year, 2 months ago

So reading the provided HA link for SQL DB it seems all four support Zone redundancy. The provided answer is the cheapest one. Is indeed Managed instance General purpose more expensive than SQL DB serverless?

upvoted 2 times

 **\_fvt** 1 year, 1 month ago

Depends on the workloads but serverless automatically pause / resume so then you are not charged for Compute during this time. So when kind of workload is not specified we generally consider Serverless as the cheapest one.

upvoted 1 times

 **simonseztech** 1 year, 5 months ago

**Selected Answer: D**

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#general-purpose-service-tier-zone-redundant-availability>

Zone-redundant configuration for the General Purpose service tier is offered for both serverless and provisioned compute.

upvoted 4 times

You have an Azure web app that uses an Azure key vault named KeyVault1 in the West US Azure region.

You are designing a disaster recovery plan for KeyVault1.

You plan to back up the keys in KeyVault1.

You need to identify to where you can restore the backup.

What should you identify?

- A. any region worldwide
- B. the same region only
- C. KeyVault1 only
- D. the same geography only

**Correct Answer: D**

Using the backup and restore commands has two limitations:

- \* You can't back up a key vault in one geography and restore it into another geography.
- \* The backup command backs up all versions of each secret.

Incorrect:

Not A: Azure Key Vault does not allow you to move a key vault from one region to another. You can, however, create a key vault in the new region, manually copy each individual key, secret, or certificate from your existing key vault to the new key vault, and then remove the original key vault.

Reference:

<https://docs.microsoft.com/en-us/azure/key-vault/general/move-region>

*Community vote distribution*

D (100%)

✉  **Davin0406** Highly Voted 1 year, 6 months ago

**Selected Answer: D**

appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.  
upvoted 17 times

✉  **Teab91** Highly Voted 1 year, 6 months ago

**Selected Answer: D**

When you back up a key vault object, such as a secret, key, or certificate, the backup operation will download the object as an encrypted blob. This blob can't be decrypted outside of Azure. To get usable data from this blob, you must restore the blob into a key vault within the same Azure subscription and Azure geography  
upvoted 14 times

✉  **LGWJ12** Most Recent 1 week, 3 days ago

**Selected Answer: D**

Azure KeyVault must restore the blob into a key vault within the same Azure subscription and Azure geography.  
<https://learn.microsoft.com/en-us/azure/key-vault/general/backup?tabs=azure-cli>  
upvoted 1 times

✉  **JimmyYop** 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 3 times

✉  **NotMeAnyWay** 9 months, 2 weeks ago

**Selected Answer: D**

You can restore the backup of an Azure key vault to another Azure key vault in a different Azure region, as long as both of the Azure regions belong to the same geography, and both of the key vaults belong to the same Azure subscription [\[59+source\]](#). So, the correct answer would be "D. the same geography only".  
upvoted 3 times

✉  **yonie** 11 months, 3 weeks ago

**Selected Answer: D**

The contents of your key vault can be replicated within the region and to a secondary region at least 150 miles away, but within the same geography to maintain high durability of your keys and secrets  
upvoted 1 times

✉  **ninjagatti** 1 year, 1 month ago

**Selected Answer: D**

D is the right answer  
upvoted 1 times

✉ **zellck** 1 year, 1 month ago

**Selected Answer: D**

D is the answer.

<https://learn.microsoft.com/en-us/azure/key-vault/general/backup?tabs=azure-cli#design-considerations>

When you back up a key vault object, such as a secret, key, or certificate, the backup operation will download the object as an encrypted blob. This blob can't be decrypted outside of Azure. To get usable data from this blob, you must restore the blob into a key vault within the same Azure subscription and Azure geography.

upvoted 3 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: D**

D. the same geography only  
upvoted 1 times

✉ **Tarni** 1 year, 3 months ago

This blob can't be decrypted outside of Azure. To get usable data from this blob, you must restore the blob into a key vault within the same Azure subscription and Azure geography.

<https://learn.microsoft.com/en-us/azure/key-vault/general/backup?tabs=azure-cli>

Answer: D

upvoted 1 times

✉ **MarkMac** 1 year, 4 months ago

So 'geography' doesn't mean region or even region peers, correct? For example United States would be 'a geography'?

upvoted 7 times

✉ **Mitytskr** 1 year, 3 months ago

I was confused by this as well. According to <https://azure.microsoft.com/en-us/explore/global-infrastructure/geographies/#overview> it seems you are correct that the 'geography' is at the county level, above the region.

upvoted 6 times

✉ **neeraj26** 1 year, 6 months ago

**Selected Answer: D**

The Given answer is correct  
upvoted 2 times

✉ **RJMP** 1 year, 7 months ago

**Selected Answer: D**

<https://docs.microsoft.com/en-us/azure/key-vault/general/backup?tabs=azure-cli>  
upvoted 2 times

✉ **Neo2c** 1 year, 7 months ago

**Selected Answer: D**

The Given answer is correct  
upvoted 3 times

You have an on-premises line-of-business (LOB) application that uses a Microsoft SQL Server instance as the backend.

You plan to migrate the on-premises SQL Server instance to Azure virtual machines.

You need to recommend a highly available SQL Server deployment that meets the following requirements:

- Minimizes costs

- Minimizes failover time if a single server fails

- What should you include in the recommendation?

- A. an Always On availability group that has premium storage disks and a virtual network name (VNN)
- B. an Always On Failover Cluster Instance that has a virtual network name (VNN) and a standard file share
- C. an Always On availability group that has premium storage disks and a distributed network name (DNN)
- D. an Always On Failover Cluster Instance that has a virtual network name (VNN) and a premium file share

**Correct Answer: C**

Always On availability groups on Azure Virtual Machines are similar to Always On availability groups on-premises, and rely on the underlying Windows Server Failover Cluster.

If you deploy your SQL Server VMs to a single subnet, you can configure a virtual network name (VNN) and an Azure Load Balancer, or a distributed network name (DNN) to route traffic to your availability group listener.

There are some behavior differences between the functionality of the VNN listener and DNN listener that are important to note:

\* Failover time: Failover time is faster when using a DNN listener since there is no need to wait for the network load balancer to detect the failure event and change its routing.

\* Etc.

Incorrect:

Not B, not D: Migrate to an Always On availability group, not an Always on Failover cluster Instance.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/availability-group-overview>

*Community vote distribution*

C (78%)

B (22%)

✉  **Davin0406**  1 year, 6 months ago

**Selected Answer: C**

appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.  
upvoted 26 times

✉  **OPT\_001122** 1 year, 2 months ago

Thanks for the exam date  
upvoted 2 times

✉  **GarryK**  1 year, 6 months ago

**Selected Answer: B**

I prefer B.  
Costs must be minimized.  
Failover must be provided if a single server fails.

> No information is given that would recommend to use premium storage.  
> We need protection if a server fails, Failover Cluster provides availability at the instance level whereas Availability Groups provides failover at the Database Level.

About AG.

Because availability groups only provide database-level, and not instance-level, protection, anything not captured in the transaction log or configured in the database will need to be manually synchronized for each secondary replica. Some examples of objects that must be synchronized manually are logins at the instance level, linked servers, and SQL Server Agent jobs.

About FC

Databases are only available after recovery is complete, so recovery time will depend on many factors, and will generally be longer than failing over an availability group. The tradeoff is that when you fail over an availability group, there may be additional tasks required to make a database usable such as enabling a SQL Server Agent job.

upvoted 13 times

✉  **jellybiscuit** 1 year, 6 months ago

Yea, it depends on if you start with cost, or you start with time.

I think I'd personally go with C, but I see your point.

upvoted 2 times

✉  **GarryK** 1 year, 2 months ago

And I dont understand C as DNN is used with failover clusters, not AG.

The distributed network name (DNN) replaces the virtual network name (VNN) as the connection point when used with an Always On failover cluster instance on SQL Server VMs.

<https://learn.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/failover-cluster-instance-distributed-network-name-dnn-configure?view=azuresql>

upvoted 2 times

✉  **zellck** 1 year, 1 month ago

You can use DNN with AG.

<https://learn.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/availability-group-distributed-network-name-dnn-listener-configure?view=azuresql>

With SQL Server on Azure VMs in a single subnet, the distributed network name (DNN) routes traffic to the appropriate clustered resource. It provides an easier way to connect to an Always On availability group (AG) than the virtual network name (VNN) listener, without the need for an Azure Load Balancer.

upvoted 1 times

✉  **a03** 4 months, 2 weeks ago

"While Azure shared disks also support Standard SSD sizes, we do not recommend using Standard SSDs for SQL Server workloads due to the performance limitations."

<https://learn.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/failover-cluster-instance-overview?view=azuresql>

So, correct answer D (FCI with Premium file share) if we are talking about instance level.

Or C (AG with DNN) if we are talking about database level.

upvoted 1 times

✉  **PMPft17** (Most Recent) 4 months, 3 weeks ago

The distributed network name (DNN) replaces the virtual network name (VNN) as the connection point when used with an Always On failover cluster instance on SQL Server VMs. This negates the need for an Azure Load Balancer routing traffic to the VNN, simplifying deployment, maintenance, and improving failover.

upvoted 2 times

✉  **quaternion** 8 months, 3 weeks ago

**Selected Answer: B**

Failover Cluster provides availability at the instance level

Minimize Cost --> Standard storage

upvoted 1 times

✉  **NotMeAnyWay** 9 months ago

**Selected Answer: C**

C. an Always On availability group that has premium storage disks and a distributed network name (DNN).

The Always On Availability Group with a Distributed Network Name (DNN) would be the better choice due to the faster failover time, which aligns with the requirement of minimizing failover time if a single server fails.

The DNN listener in this case doesn't require an Azure Load Balancer to reroute traffic, resulting in quicker failovers compared to the VNN listener. This is a great choice when high availability and minimal failover time are prioritized.

upvoted 4 times

✉  **techrat** 11 months, 2 weeks ago

**Selected Answer: C**

Passed exam today with 979, and this question was on the exam, I am confident the correct answer is C.

upvoted 7 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: C**

C is the answer.

<https://learn.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/availability-group-distributed-network-name-dnn-listener-configure?view=azuresql>

With SQL Server on Azure VMs in a single subnet, the distributed network name (DNN) routes traffic to the appropriate clustered resource. It provides an easier way to connect to an Always On availability group (AG) than the virtual network name (VNN) listener, without the need for an Azure Load Balancer.

upvoted 7 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: C**

C. an Always On availability group that has premium storage disks and a distributed network name (DNN)

upvoted 2 times

✉  **dubuser** 1 year, 2 months ago

This question appeared in todays exam (29/01/23)  
Answered C  
Scored 903  
upvoted 9 times

✉️  **diego\_alejandro** 1 year, 5 months ago

answer is C  
upvoted 2 times

✉️  **Snownoodles** 1 year, 5 months ago

**Selected Answer: C**  
DNN is recommended by MS  
upvoted 5 times

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company plans to deploy various Azure App Service instances that will use Azure SQL databases. The App Service instances will be deployed at the same time as the Azure SQL databases.

The company has a regulatory requirement to deploy the App Service instances only to specific Azure regions. The resources for the App Service instances must reside in the same region.

You need to recommend a solution to meet the regulatory requirement.

Solution: You recommend creating resource groups based on locations and implementing resource locks on the resource groups.

Does this meet the goal?

A. Yes

B. No

#### Correct Answer: B

Instead; you should recommend using an Azure Policy initiative to enforce the location

Note: Azure Resource Policy Definitions can be used which can be applied to a specific Resource Group with the App Service instances.

In Azure Policy, we offer several built-in policies that are available by default. For example:

\* Allowed Locations (Deny): Restricts the available locations for new resources. Its effect is used to enforce your geo-compliance requirements.

Reference:

<https://docs.microsoft.com/en-us/azure/governance/policy/overview>

*Community vote distribution*

B (100%)

✉️  NotMeAnyWay Highly Voted 9 months, 2 weeks ago

**Selected Answer: B**

B. No

While creating resource groups based on locations can help organize resources, it does not inherently limit the regions where resources can be deployed. Resource locks protect resources from accidental deletion or modification, but they do not restrict where resources can be created. For enforcing location restrictions, Azure Policy with location-based policies would be a better option. These policies can be used to ensure resources are only created in specified locations.

upvoted 6 times

✉️  JimmyYop Most Recent 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 2 times

✉️  zellck 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/lock-resources?tabs=json>

As an administrator, you can lock an Azure subscription, resource group, or resource to protect them from accidental user deletions and modifications. The lock overrides any user permissions.

You can set locks that prevent either deletions or modifications. In the portal, these locks are called Delete and Read-only. In the command line, these locks are called CanNotDelete and ReadOnly.

- CanNotDelete means authorized users can read and modify a resource, but they can't delete it.

- ReadOnly means authorized users can read a resource, but they can't delete or update it. Applying this lock is similar to restricting all authorized users to the permissions that the Reader role provides.

upvoted 4 times

✉️  OPT\_001122 1 year, 2 months ago

**Selected Answer: B**

Azure Policy is the correct ans

upvoted 1 times

 **lolo13698** 1 year, 6 months ago

**Selected Answer: B**

Correst, it is wrong

upvoted 2 times

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

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Your company plans to deploy various Azure App Service instances that will use Azure SQL databases. The App Service instances will be deployed at the same time as the Azure SQL databases.

The company has a regulatory requirement to deploy the App Service instances only to specific Azure regions. The resources for the App Service instances must reside in the same region.

You need to recommend a solution to meet the regulatory requirement.

Solution: You recommend using the Regulatory compliance dashboard in Microsoft Defender for Cloud.

Does this meet the goal?

A. Yes

B. No

#### Correct Answer: B

Instead; you should recommend using an Azure Policy initiative to enforce the location

Note: Azure Resource Policy Definitions can be used which can be applied to a specific Resource Group with the App Service instances.

In Azure Policy, we offer several built-in policies that are available by default. For example:

\* Allowed Locations (Deny): Restricts the available locations for new resources. Its effect is used to enforce your geo-compliance requirements.

Reference:

<https://docs.microsoft.com/en-us/azure/governance/policy/overview>

*Community vote distribution*

B (100%)

✉  **JimmyYop** 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 1 times

✉  **NotMeAnyWay** 9 months, 2 weeks ago

**Selected Answer: B**

B. No

The Regulatory Compliance dashboard in Microsoft Defender for Cloud helps monitor the compliance of your Azure resources with different regulatory requirements, but it doesn't inherently restrict or control where resources can be deployed. To ensure that resources are deployed only in specific regions, you would use Azure Policy with location-based policies.

upvoted 3 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/defender-for-cloud/regulatory-compliance-dashboard>

Microsoft Defender for Cloud helps streamline the process for meeting regulatory compliance requirements, using the regulatory compliance dashboard. Defender for Cloud continuously assesses your hybrid cloud environment to analyze the risk factors according to the controls and best practices in the standards that you've applied to your subscriptions. The dashboard reflects the status of your compliance with these standards.

The regulatory compliance dashboard shows the status of all the assessments within your environment for your chosen standards and regulations. As you act on the recommendations and reduce risk factors in your environment, your compliance posture improves.

upvoted 2 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

Azure Policy initiative to enforce the location - so given ans is not correct

upvoted 1 times

✉  **Clarkszw** 1 year, 3 months ago

good luck with exam to all reach here:)

upvoted 4 times



Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

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Your company plans to deploy various Azure App Service instances that will use Azure SQL databases. The App Service instances will be deployed at the same time as the Azure SQL databases.

The company has a regulatory requirement to deploy the App Service instances only to specific Azure regions. The resources for the App Service instances must reside in the same region.

You need to recommend a solution to meet the regulatory requirement.

Solution: You recommend using an Azure Policy initiative to enforce the location.

Does this meet the goal?

A. Yes

B. No

**Correct Answer: A**

Azure Resource Policy Definitions can be used which can be applied to a specific Resource Group with the App Service instances.

In Azure Policy, we offer several built-in policies that are available by default. For example:

\* Allowed Locations (Deny): Restricts the available locations for new resources. Its effect is used to enforce your geo-compliance requirements.

Reference:

<https://docs.microsoft.com/en-us/azure/governance/policy/overview>

*Community vote distribution*

A (100%)

✉  **Davin0406**  1 year, 6 months ago

**Selected Answer: A**

appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.  
upvoted 8 times

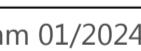
✉  **NotMeAnyWay**  9 months, 2 weeks ago

**Selected Answer: A**

A. Yes

Azure Policy can enforce specific locations for resource deployment, ensuring that App Service instances and Azure SQL databases are deployed only in specified regions, which aligns with the regulatory requirements of the company. This helps maintain control over where resources are created and ensures compliance.

upvoted 5 times

✉  **JimmyYop**  2 months, 3 weeks ago

appeared in Exam 01/2024  
upvoted 1 times

✉  **zelick** 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/cloud-adoption-framework/manage/azure-server-management/common-policies#restrict-resource-regions>

Regulatory and policy compliance often depends on control of the physical location where resources are deployed. You can use a built-in policy to allow users to create resources only in certain allowed Azure regions.

upvoted 4 times

✉  **Visakhjs** 1 year, 2 months ago

Answer : A

upvoted 1 times

✉  **dmytroslotv** 1 year, 5 months ago

**Selected Answer: A**

Correct

upvoted 1 times

You plan to move a web app named App1 from an on-premises datacenter to Azure.

App1 depends on a custom COM component that is installed on the host server.

You need to recommend a solution to host App1 in Azure. The solution must meet the following requirements:

- App1 must be available to users if an Azure datacenter becomes unavailable.
- Costs must be minimized.

What should you include in the recommendation?

- A. In two Azure regions, deploy a load balancer and a web app.
- B. In two Azure regions, deploy a load balancer and a virtual machine scale set.
- C. Deploy a load balancer and a virtual machine scale set across two availability zones.
- D. In two Azure regions, deploy an Azure Traffic Manager profile and a web app.

**Correct Answer: C**

Need to use a virtual machine as Azure App service does not allow COM components.

Need two availability zones to protect against an Azure datacenter failure.

Incorrect:

Not A, Not D: Cannot use a web app.

Azure App Service does not allow the registration of COM components on the platform. If your app makes use of any COM components, these need to be rewritten in managed code and deployed with the site or application.

Reference:

<https://docs.microsoft.com/en-us/dotnet/azure/migration/app-service#com-and-com-components>

*Community vote distribution*

C (100%)

✉  **Eltooth**  2 years, 4 months ago

**Selected Answer: C**

Question states "data centre unavailable" not region and minimise cost. This only leaves option C.  
upvoted 43 times

✉  **bkrich**  2 years, 4 months ago

**Selected Answer: C**

I think C is correct, once it said "App1 depends on a custom COM component that is installed on the host server" that sounds like you will need an actual VM.  
upvoted 19 times

✉  **\_Noe\_** 2 years, 2 months ago

Yes, I agree

upvoted 4 times

✉  **cris\_exam**  1 week, 5 days ago

I can see that C appears to be the closest to the correct answer, but what if by sheer bad luck, the 2 availability sets I create within the region end up to be sitting within the same Data Center, perhaps the same Server rack??

Availability set granular location cannot be controlled - hence, this solution is not optimal imo. But yeah, closest good answer and based on hopeful luck is C. :)

upvoted 1 times

✉  **cris\_exam** 1 week, 5 days ago

Need to correct what I said - it was late studying these questions when I wrote the above and I missed that it said Availability ZONES but my brain was thinking about Availability SETS.

C is indeed the correct answer. :)

upvoted 1 times

✉  **Fidel\_104** 1 month ago

**Selected Answer: C**

Got this on today's exam (March of 2024), answer is correct.

upvoted 1 times

✉  **mtc9** 1 month, 2 weeks ago

Load balancer does not work across regions, that leaves traffic manager+web app in multiple regions OR load balancer + vm in 2 availability zone.  
Requirement says it needs to be zone redundant, not region redundant, so that suggests LB+vms in 2 availability zones  
Additionally COM component can be installed only on VM not web app

upvoted 2 times

✉  **JimmyYop** 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 3 times

✉  **AKA1987** 1 year ago

Sorry, update:

Option C, which is to deploy a load balancer and a virtual machine scale set across two availability zones, is a valid solution to ensure high availability and meet the requirement of App1 being available to users if an Azure datacenter becomes unavailable.

Using Availability Zones ensures that the web app and its components are spread across multiple datacenters within the same region, which provides a high level of resiliency and fault tolerance. In the event of a localized infrastructure failure within a region, the web app would continue to be available from the other availability zone.

Therefore, in this scenario, Option C is a better answer as it meets the requirement of ensuring high availability of the web app in case of a datacenter failure, while also being more cost-effective than deploying across multiple regions.

upvoted 2 times

✉  **AKA1987** 1 year ago

ChatGPT says:

The correct answer for this scenario would be D. In two Azure regions, deploy an Azure Traffic Manager profile and a web app.

Using Azure Traffic Manager, you can route incoming traffic to different Azure regions hosting the web app, ensuring that the app remains available even if one region becomes unavailable. You can choose from a range of traffic-routing methods, including priority, performance, and geographic, based on your requirements.

Deploying a load balancer and a virtual machine scale set (Options A and B) is not recommended for hosting web apps that rely on COM components. Also, a virtual machine scale set may require additional maintenance and management overhead.

Deploying a load balancer and a virtual machine scale set across two availability zones (Option C) may provide high availability, but it may not meet the requirement to minimize costs.

Therefore, the correct answer is D. In two Azure regions, deploy an Azure Traffic Manager profile and a web app.

upvoted 2 times

✉  **betterthanlife** 11 months, 1 week ago

Therefore your brain is jello.

upvoted 3 times

✉  **Trillionairejeffe** 9 months, 2 weeks ago

don't trust chatgpt dude

upvoted 3 times

✉  **AdventureChick** 6 months, 4 weeks ago

No ChatGPT is just proving that human brains are still better. All you need is Availability Zones. Using 2 Regions costs more. Why use ChatGPT when a lot of people gave the explanations of why it's C.

upvoted 1 times

✉  **malcubierre** 1 year ago

**Selected Answer: C**

A -> webapp -> No COM

B -> LB cannot be in two regions

C -> OK

D -> webapp -> No COM

upvoted 3 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: C**

C is the answer.

<https://learn.microsoft.com/en-us/azure/virtual-machines/availability#virtual-machines-scale-sets>

Azure virtual machine scale sets let you create and manage a group of load balanced VMs. The number of VM instances can automatically increase or decrease in response to demand or a defined schedule. Scale sets provide high availability to your applications, and allow you to centrally manage, configure, and update many VMs. There is no cost for the scale set itself, you only pay for each VM instance that you create.

<https://learn.microsoft.com/en-us/azure/virtual-machines/availability#load-balancer>

Combine the Azure Load Balancer with availability zones and scale sets to get the most application resiliency. The Azure Load Balancer distributes traffic between multiple virtual machines.

upvoted 4 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: C**

C. Deploy a load balancer and a virtual machine scale set across two availability zones.  
upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago  
data centre unavailable + Com component leads to C  
upvoted 1 times

✉ **Malik007** 1 year, 3 months ago  
Appear in exam.  
upvoted 4 times

✉ **AzureJobsTillRetire** 1 year, 3 months ago

**Selected Answer: C**

To help me to remember, availability zone = data center  
upvoted 1 times

✉ **Dudulle** 1 year, 4 months ago

**Selected Answer: C**

Quite obvious: custom COM + reduced costs + zone (or more) redundancy = C  
upvoted 2 times

✉ **Darkx** 1 year, 6 months ago  
appeared on 11th Oct 2022  
upvoted 4 times

✉ **AubinBakana** 1 year, 8 months ago

**Selected Answer: C**

Pretty straight forward. If you need access to the OS, you can't use webApp or ACI.  
upvoted 1 times

✉ **jj0097** 1 year, 8 months ago

**Selected Answer: C**

C is good  
upvoted 1 times

You plan to deploy an application named App1 that will run in containers on Azure Kubernetes Service (AKS) clusters. The AKS clusters will be distributed across four Azure regions.

You need to recommend a storage solution to ensure that updated container images are replicated automatically to all the Azure regions hosting the AKS clusters.

Which storage solution should you recommend?

- A. geo-redundant storage (GRS) accounts
- B. Premium SKU Azure Container Registry
- C. Azure Content Delivery Network (CDN)
- D. Azure Cache for Redis

**Correct Answer: B**

Enable geo-replication for container images.

Best practice: Store your container images in Azure Container Registry and geo-replicate the registry to each AKS region.

To deploy and run your applications in AKS, you need a way to store and pull the container images. Container Registry integrates with AKS, so it can securely store your container images or Helm charts. Container Registry supports multimaster geo-replication to automatically replicate your images to Azure regions around the world.

Geo-replication is a feature of Premium SKU container registries.

Note:

When you use Container Registry geo-replication to pull images from the same region, the results are:

Faster: You pull images from high-speed, low-latency network connections within the same Azure region.

More reliable: If a region is unavailable, your AKS cluster pulls the images from an available container registry.

Cheaper: There's no network egress charge between datacenters.

Reference:

<https://docs.microsoft.com/en-us/azure/aks/operator-best-practices-multi-region>

*Community vote distribution*

B (100%)

✉  **kay000001**  1 year, 7 months ago

**Selected Answer: B**

B.

Geo-Replication is a premium SKU container registry feature.

upvoted 11 times

✉  **NotMeAnyWay**  9 months, 2 weeks ago

**Selected Answer: B**

B. Premium SKU Azure Container Registry.

Azure Container Registry is a managed Docker registry service used for storing private Docker container images. It's tightly integrated with Azure Kubernetes Service (AKS) and provides streamlined Docker image builds, storage, and retrieval.

The premium SKU of Azure Container Registry supports several advanced features, including the geo-replication of registries. Geo-replication enables an Azure container registry to function as a single registry, serving multiple regions with multi-master regional registries. This means that when you push an image to your registry, it is available across all geo-replicated regions, which would meet the requirement to automatically replicate updated container images across all Azure regions hosting the AKS clusters.

upvoted 5 times

✉  **NotMeAnyWay** 9 months ago

Here's a link to the details: <https://azure.microsoft.com/en-us/pricing/details/container-registry/>

upvoted 2 times

✉  **zellck**  1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/container-registry/container-registry-skus>

Premium registries provide the highest amount of included storage and concurrent operations, enabling high-volume scenarios. In addition to higher image throughput, Premium adds features such as geo-replication for managing a single registry across multiple regions, content trust for image tag signing, private link with private endpoints to restrict access to the registry.

upvoted 3 times

✉️  **helljzm** 1 year, 2 months ago

agree azure container register

upvoted 1 times

✉️  **VBK8579** 1 year, 2 months ago

**Selected Answer: B**

Premium SKU Azure Container Registry is the most appropriate solution because it is specifically designed for container images and has features that make it ideal for this use case. It provides features such as automatic replication of images to multiple regions, integrated security, and management capabilities that make it easier to manage and deploy the images across multiple AKS clusters.

upvoted 2 times

✉️  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

B. Premium SKU Azure Container Registry

upvoted 1 times

✉️  **OPT\_001122** 1 year, 2 months ago

Geo-replication is a feature of Premium SKU container registries.

upvoted 1 times

You have an Azure Active Directory (Azure AD) tenant.

You plan to deploy Azure Cosmos DB databases that will use the SQL API.

You need to recommend a solution to provide specific Azure AD user accounts with read access to the Cosmos DB databases.

What should you include in the recommendation?

- A. shared access signatures (SAS) and Conditional Access policies
- B. certificates and Azure Key Vault
- C. master keys and Azure Information Protection policies
- D. a resource token and an Access control (IAM) role assignment

**Correct Answer: D**

The Access control (IAM) pane in the Azure portal is used to configure role-based access control on Azure Cosmos resources. The roles are applied to users, groups, service principals, and managed identities in Active Directory. You can use built-in roles or custom roles for individuals and groups. The following screenshot shows Active Directory integration (RBAC) using access control (IAM) in the Azure portal:

NAME	TYPE	ROLE	SCOPE
jvashni@contoso.com	User	DocumentDB Account Contributor	Assigned
miowx@contoso.com	User	Reader	Assigned
Subscription admins	Group	Owner	Inherited (Subscription)

Note: To use the Azure Cosmos DB RBAC in your application, you have to update the way you initialize the Azure Cosmos DB SDK. Instead of passing your account's primary key, you have to pass an instance of a TokenCredential class. This instance provides the Azure Cosmos DB SDK with the context required to fetch an Azure AD (AAD) token on behalf of the identity you wish to use.

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/role-based-access-control> <https://docs.microsoft.com/en-us/azure/cosmos-db/how-to-setup-rbac>

*Community vote distribution*

D (100%)

✉️ **kay000001** Highly Voted 1 year, 7 months ago

**Selected Answer: D**

D. a resource token and an Access control (IAM) role assignment - correct.

upvoted 11 times

✉️ **Darkx** Highly Voted 1 year, 6 months ago

appeared on 11th Oct 2022

upvoted 10 times

✉️ **JimmyYop** Most Recent 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 5 times

✉️ **NotMeAnyWay** 9 months, 2 weeks ago

**Selected Answer: D**

D. a resource token and an Access control (IAM) role assignment.

Azure Cosmos DB's SQL API provides two types of authorization: master key token and resource token. Master key tokens provide access to the all

data and all permissions. Resource tokens provide access to specific containers and permissions, and you can create these tokens with an Azure AD user's identity.

To provide Azure AD users with access to the Azure Cosmos DB, you would assign them a specific IAM role. Azure Cosmos DB uses Azure role-based access control (Azure RBAC) for providing specific access. Azure RBAC is an authorization system built on Azure Resource Manager that provides fine-grained access management of resources in Azure.

The combination of a resource token and an IAM role assignment would provide the necessary access control for the Azure AD user accounts to have read access to the Cosmos DB databases.

upvoted 7 times

 **zellck** 1 year, 1 month ago

**Selected Answer: D**

D is the answer.

<https://learn.microsoft.com/en-us/azure/cosmos-db/secure-access-to-data?tabs=using-primary-key#resource-tokens>

You can use a resource token (by creating Azure Cosmos DB users and permissions) when you want to provide access to resources in your Azure Cosmos DB account to a client that cannot be trusted with the primary key.

Azure Cosmos DB resource tokens provide a safe alternative that enables clients to read, write, and delete resources in your Azure Cosmos DB account according to the permissions you've granted, and without need for either a primary or read only key.

upvoted 3 times

 **ITboy8** 1 year, 1 month ago

**Selected Answer: D**

Yes D is the one

upvoted 1 times

 **OPT\_001122** 1 year, 2 months ago

**Selected Answer: D**

D. a resource token and an Access control (IAM) role assignment

upvoted 1 times

 **OPT\_001122** 1 year, 2 months ago

The Access control (IAM) pane in the Azure portal is used to configure role-based access control on Azure Cosmos resources.

upvoted 1 times

 **Born\_Again** 1 year, 4 months ago

**Selected Answer: D**

D IAM and Resource Token

upvoted 1 times

You need to recommend an Azure Storage solution that meets the following requirements:

- The storage must support 1 PB of data.
- The data must be stored in blob storage.
- The storage must support three levels of subfolders.
- The storage must support access control lists (ACLs).

What should you include in the recommendation?

- A. a premium storage account that is configured for block blobs
- B. a general purpose v2 storage account that has hierarchical namespace enabled
- C. a premium storage account that is configured for page blobs
- D. a premium storage account that is configured for file shares and supports large file shares

**Correct Answer: B**

Default limits for Azure general-purpose v2 (GPv2), general-purpose v1 (GPv1), and Blob storage accounts include:

\* Default maximum storage account capacity: 5 PiB

Blob storage supports Azure Data Lake Storage Gen2, Microsoft's enterprise big data analytics solution for the cloud. Azure Data Lake Storage Gen2 offers a hierarchical file system as well as the advantages of Blob storage.

Blob storage supports Azure Data Lake Storage Gen2, Microsoft's enterprise big data analytics solution for the cloud. Azure Data Lake Storage Gen2 offers a hierarchical file system as well as the advantages of Blob storage

Incorrect:

Not D: In a Premium FileStorage account, storage size is limited to 100 TB.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blobs-introduction> <https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/azure-subscription-service-limits#storage-limits>

*Community vote distribution*

B (100%)

✉  **Davin0406** Highly Voted 1 year, 6 months ago

**Selected Answer: B**

appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.  
upvoted 19 times

✉  **kay000001** Highly Voted 1 year, 7 months ago

**Selected Answer: B**

B. a general purpose v2 storage account that has hierarchical namespace enabled.

GPv2 with hierarchical structure gives you the following provisions:

- The storage must support three levels of subfolders.
- The storage must support access control lists (ACLs).
- The storage must support 1 PB of data.
- The data must be stored in blob storage.

upvoted 12 times

✉  **JimmyYop** Most Recent 2 months, 3 weeks ago

appeared in Exam 01/2024

upvoted 3 times

✉  **NotMeAnyWay** 9 months, 2 weeks ago

**Selected Answer: B**

B. a general purpose v2 storage account that has hierarchical namespace enabled.

Azure Blob Storage is designed to store large amounts of unstructured object data, such as text or binary data, and can store petabytes of data. General Purpose v2 accounts deliver the lowest per-gigabyte capacity prices for Azure Storage, as well as industry-competitive transaction prices.

Hierarchical namespace allows the blob storage to support multiple levels of directories and subfolders.

Moreover, when you enable a hierarchical namespace, the data in the account becomes accessible through Azure Data Lake Storage Gen2, which supports access control lists (ACLs) for granular permissions.

upvoted 6 times

 **rex303** 1 year ago

**Selected Answer: B**

The answer is B: general purpose v2 storage account.

The first reason is that we require Access Control lists, which require either block blob storage or general v2. Then we narrow it down even more because we require three levels of subfolders which mean we need hierarchical name spaces enabled which only option B has.

upvoted 6 times

 **zellck** 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-namespace>

With a hierarchical namespace enabled, a storage account becomes capable of providing the scalability and cost-effectiveness of object storage, with file system semantics that are familiar to analytics engines and frameworks.

upvoted 7 times

 **globby118** 1 year, 1 month ago

appeared in exam 02/15/2023

upvoted 4 times

 **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

B. a general purpose v2 storage account that has hierarchical namespace enabled

upvoted 1 times

**HOTSPOT -**

You manage a database environment for a Microsoft Volume Licensing customer named Contoso, Ltd. Contoso uses License Mobility through Software Assurance.

You need to deploy 50 databases. The solution must meet the following requirements:

- Support automatic scaling.
- Minimize Microsoft SQL Server licensing costs.

What should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Purchase model:

- DTU
- vCore
- Azure reserved virtual machine instances

Deployment option:

- An Azure SQL managed instance
- An Azure SQL Database elastic pool
- A SQL Server Always On availability group

**Answer Area**

Purchase model:

- DTU
- vCore
- Azure reserved virtual machine instances

Correct Answer:

Deployment option:

- An Azure SQL managed instance
- An Azure SQL Database elastic pool
- A SQL Server Always On availability group

Box 1: vCore -

You can only apply the Azure Hybrid licensing model when you choose a vCore-based purchasing model and the provisioned compute tier for your Azure SQL

Database. Azure Hybrid Benefit isn't available for service tiers under the DTU-based purchasing model or for the serverless compute tier.

Box 2: An Azure SQL Database elastic pool

Azure SQL Database elastic pools are a simple, cost-effective solution for managing and scaling multiple databases that have varying and unpredictable usage demands. The databases in an elastic pool are on a single server and share a set number of resources at a set price. Elastic pools in SQL Database enable software as a service (SaaS) developers to optimize the price performance for a group of databases within a prescribed budget while delivering performance elasticity for each database.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/azure-hybrid-benefit> <https://docs.microsoft.com/ko-kr/azure/azure-sql/database/elastic-pool-overview>

 **Malik007** Highly Voted 1 year, 3 months ago

Appear in exam.

Answer is correct

upvoted 17 times

 **kay000001** Highly Voted 1 year, 7 months ago

Answers are correct.

VCore - With the provisioned compute, you can choose the amount of compute resources that are always provisioned for your workload. With the serverless compute you can specify the autoscaling of the compute resources over a configurable compute range.

Support automatic scaling - elastic pool.

upvoted 16 times

✉  **MSC\_2022** Most Recent ⓘ 8 months, 2 weeks ago

Appear in exam. Answer is correct

upvoted 6 times

✉  **NotMeAnyWay** 9 months, 2 weeks ago

Purchase Model: b. vCore

Deployment option: b. an Azure SQL Database elastic pool

Explanation:

a. Purchase Model: The vCore model provides a more direct way to choose compute and storage resources, and it can offer cost savings. The vCore-based purchasing model also allows you to use Azure Hybrid Benefit to save on licensing costs.

b. Deployment option: Azure SQL Database elastic pools are a simple, cost-effective solution for managing and scaling multiple databases that have varying and unpredictable usage demands. Elastic pools enable you to purchase resources for a pool shared by multiple databases to accommodate unpredictable periods of usage by individual databases. You can allocate exactly the resources you need for your databases in a flexible, budget-friendly way.

upvoted 6 times

✉  **lombri** 10 months, 1 week ago

License Mobility through Software Assurance enhances the value of volume licenses with Software Assurance by extending their use to the cloud. This benefit can also help you lower your operating costs by using an Authorized Mobility Partner's shared infrastructure.

upvoted 1 times

✉  **zellck** 1 year, 1 month ago

1. vCore

2. An Azure SQL DB elastic pool

<https://learn.microsoft.com/en-us/azure/azure-sql/database/purchasing-models?view=azuresql#purchasing-models>

vCore-based

- This model allows you to independently choose compute and storage resources. The vCore-based purchasing model also allows you to use Azure Hybrid Benefit for SQL Server to save costs.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/elastic-pool-overview?view=azuresql>

Azure SQL Database elastic pools are a simple, cost-effective solution for managing and scaling multiple databases that have varying and unpredictable usage demands. The databases in an elastic pool are on a single server and share a set number of resources at a set price. Elastic pools in SQL Database enable software as a service (SaaS) developers to optimize the price performance for a group of databases within a prescribed budget while delivering performance elasticity for each database.

upvoted 6 times

✉  **OPT\_001122** 1 year, 2 months ago

The answer is correct

Box 1: vCore -

Azure Hybrid Benefit isn't available for service tiers under the DTU-based purchasing model or for the serverless compute tier.

Box 2: An Azure SQL Database elastic pool

MI does not support auto scaling

upvoted 3 times

✉  **darthfodio** 1 year, 2 months ago

The answer is correct, but I'm still trying to understand why an Azure Solutions Architect would be "managing" a database, or any resources for that matter. This common across MSFT cert exams. Much overlap in role responsibilities in these specialty exams.

upvoted 4 times

✉  **kastanov** 1 year, 2 months ago

You cant use your licenses in Azure SQL Database. It should be managed instance

upvoted 1 times

✉  **testtaker13** 1 year, 2 months ago

Doesn't look to be true.

<https://learn.microsoft.com/en-us/azure/azure-sql/azure-hybrid-benefit?view=azuresql&tabs=azure-portal>

upvoted 1 times

✉  **arska** 1 year, 4 months ago

vCore and elastic pool. This link explains it all:

<https://www.microsoft.com/en-us/licensing/news/expanded-ahb-rights-for-microsoft-sql-server>

upvoted 1 times

✉  **Snownoodles** 1 year, 5 months ago

Given answer is correct  
MI doesn't support auto-scale  
upvoted 2 times

✉  **Dinima** 1 year, 6 months ago

I feel the answer for this is managed instance, as only that supports bring your own licensing. Elastic pool is an option with azure sql which doesn't provide the option use the existing licensing.  
upvoted 4 times

✉  **Marciojsilva** 1 year, 6 months ago  
that's true, I check on website

"To set or update the license type using the Azure portal:

For new managed instances, during creation, select Configure Managed Instance on the Basics tab and select the option for Azure Hybrid Benefit.

For existing managed instances, select Compute + storage in the Settings menu and select the option for Azure Hybrid Benefit."

<https://learn.microsoft.com/en-us/azure/azure-sql/azure-hybrid-benefit?view=azuresql&tabs=azure-portal>

upvoted 1 times

✉  **ronsav80** 1 year, 6 months ago

See <https://learn.microsoft.com/en-us/azure/azure-sql/azure-hybrid-benefit?view=azuresql&tabs=azure-portal> ... "You can only apply the Azure Hybrid licensing model when you choose a vCore-based purchasing model and the provisioned compute tier for your Azure SQL Database."

upvoted 1 times

✉  **codefries** 1 year, 6 months ago

managed instance does not support auto-scale: No, you need to choose reserved compute and storage. The change of service tier (vCore or max storage) is online and requires minimal or no downtime. <https://learn.microsoft.com/en-us/azure/azure-sql/database/features-comparison?view=azuresql>

upvoted 1 times

You have an on-premises application named App1 that uses an Oracle database.

You plan to use Azure Databricks to transform and load data from App1 to an Azure Synapse Analytics instance.

You need to ensure that the App1 data is available to Databricks.

Which two Azure services should you include in the solution? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Azure Data Box Gateway
- B. Azure Import/Export service
- C. Azure Data Lake Storage
- D. Azure Data Box Edge
- E. Azure Data Factory

**Correct Answer: BE**

Data Factory is a data integration service that provides a low-code or no-code approach to construct extract, transform, and load (ETL) processes within a visual environment or by writing your own code.

Exporting data, either to another data technology or to another Dataverse environment, can use any of the same technologies for importing data, such as dataflows, Data Factory, Power Query, and Power Automate.

Reference:

<https://docs.microsoft.com/en-us/power-apps/maker/data-platform/import-export-data>

*Community vote distribution*

CE (87%)

13%

✉️  **Snownoodles**  1 year, 7 months ago

**Selected Answer: CE**

The correct answer should be C and E

ADF moves data from on-prem Oracle to Data Lake storage, which makes data ready for DataBrick

<https://docs.microsoft.com/en-us/azure/data-factory/load-azure-data-lake-storage-gen2>

DataBricks "ETL" data to Synapse:

<https://docs.microsoft.com/en-us/azure/databricks/scenarios/databricks-extract-load-sql-data-warehouse>

upvoted 35 times

✉️  **mufflon** 1 year, 6 months ago

yes, this is the only answer if they dont ask for how to get the data to azure

upvoted 3 times

✉️  **np2021** 1 year, 1 month ago

I thought this also at first, but the first line of the question indicates on-premises Oracle data. So i think the question is suggesting "getting the data to Azure/into a lake so DataBricks can process it". In which case this is Import/DataFactory requirement.

This is very difficult call to make, i think when sitting the test just assume you will get 1/2 points on this one.

upvoted 4 times

✉️  **Fidel\_104** 1 month, 1 week ago

Indeed, but Data Factory has a lot of connectors, including one that makes it possible to extract data from an Oracle DB :) So you can simply set up a data pipeline in Data Factory that extracts the data from Oracle, and saves it to ADLS - therefore I believe CE is right.

More info here: <https://learn.microsoft.com/en-us/azure/data-factory/connector-oracle?tabs=data-factory>

upvoted 1 times

✉️  **d365ppp**  1 year, 4 months ago

**Selected Answer: BE**

Two Services not storage

upvoted 7 times

✉️  **pkkalra** 1 year, 1 month ago

Azure lake storage is a cloud "service" offered by MS

upvoted 6 times

✉️  **Paul\_white**  4 months, 2 weeks ago

**Selected Answer: CE**

To ensure that the data from App1 is available to Azure Databricks, you should include the following Azure services in your solution:

1. Azure Data Factory (E): Azure Data Factory can be used to create a data pipeline for ETL (Extract, Transform, Load) processes, which can move

your data from the on-premises Oracle database to Azure<sup>14</sup>.

2. Azure Data Lake Storage (C): Azure Data Lake Storage can act as the intermediary storage area where the transformed data can be placed. Azure Databricks is tightly integrated with Azure Data Lake Storage, making it an ideal choice for storing your data.

Please note that while Azure Data Box Gateway and Azure Data Box Edge are used for offline transfer of large amounts of data, and Azure Import/Export service is used for importing large amounts of data into Azure, they might not be necessary if your data can be transferred online or isn't extremely large.

upvoted 1 times

✉️ **FurnishedFlapjack** 7 months, 3 weeks ago

**Selected Answer: CE**

From this link it looks like you can directly link to an Oracle DB from ADF, doesn't look like import/export would be required. I'm going with CE  
<https://learn.microsoft.com/en-us/azure/data-factory/connector-oracle?tabs=data-factory>

upvoted 2 times

✉️ **AdventureChick** 6 months, 4 weeks ago

Yes - you can connect ADF to pretty much anything for ETL/ELT

upvoted 2 times

✉️ **sawanti** 8 months ago

**Selected Answer: CE**

ADF - to extract and load data to Data Lake  
Data Lake - as it's the only storage generally supported by Databricks

upvoted 1 times

✉️ **NotMeAnyWay** 9 months ago

**Selected Answer: CE**

C. Azure Data Lake Storage  
E. Azure Data Factory

Azure Data Lake Storage is a secure, scalable and reliable data lake that allows you to perform analytics on large amounts of data. It's a great choice for storing large volumes of data, like what App1 might produce.

Azure Data Factory is a cloud-based data integration service that allows you to create data-driven workflows for moving and transforming data at scale. In this case, it can be used to create a pipeline to move the data from your on-premises Oracle database to Azure Data Lake Storage, making it available for further processing with Azure Databricks. Azure Data Factory has built-in support for a wide range of data sources, including Oracle.

After the data is stored in Azure Data Lake Storage, you can use Azure Databricks to transform the data and load it into the Azure Synapse Analytics instance.

upvoted 5 times

✉️ **wpestan** 11 months ago

**Selected Answer: BE**

B and E, teacher correct in question in Azure Course

upvoted 1 times

✉️ **sawanti** 8 months ago

Databricks can only read data from Data Lake (and some external sources, but that's not the case). Where do you have Data Lake in your solution??? CE is correct (ADF to Extract data from on-premise system and load to Data Lake, and then Data Lake to be mounted to Databricks)

upvoted 1 times

✉️ **Tr619899** 11 months ago

Azure Data Lake Storage (Option C): Azure Data Lake Storage provides a scalable and secure repository for storing large amounts of data. You can ingest data from App1 into Azure Data Lake Storage, and then make it available for processing in Azure Databricks.

Azure Data Factory (Option E): Azure Data Factory is a fully managed data integration service that allows you to orchestrate and automate data movement and data transformation workflows. You can use Azure Data Factory to extract data from App1, transform it using Azure Databricks, and then load it into Azure Synapse Analytics.

upvoted 1 times

✉️ **yonie** 11 months, 3 weeks ago

**Selected Answer: CE**

In AZ-304 it was ADL and ADF meaning CE

<https://www.examtopics.com/discussions/microsoft/view/51579-exam-az-304-topic-3-question-20-discussion/>

upvoted 7 times

✉️ **rex303** 1 year ago

**Selected Answer: CE**

This scenario should be consistent with using C and E.

Azure Data Factory is a recommended solution for migrating Oracle data.

Azure Data Lake storage can then hold the data in a useable format for the chosen solution: Azure Databricks.

Azure Data Box Gateway does not natively support Oracle. Azure Data Box Edge is an appliance not a service. And the azure import/export service is for one-shot migrations not really suitable for this scenario.

upvoted 2 times

cp2323 1 year, 1 month ago

**Selected Answer: CE**

CE should be the answer, why someone want to use Azure Import/Export service!

upvoted 2 times

zellck 1 year, 1 month ago

**Selected Answer: CE**

CE is the answer.

<https://learn.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-introduction#designed-for-enterprise-big-data-analytics>

Data Lake Storage Gen2 makes Azure Storage the foundation for building enterprise data lakes on Azure. Designed from the start to service multiple petabytes of information while sustaining hundreds of gigabits of throughput, Data Lake Storage Gen2 allows you to easily manage massive amounts of data.

<https://learn.microsoft.com/en-us/azure/data-factory/introduction>

Big data requires a service that can orchestrate and operationalize processes to refine these enormous stores of raw data into actionable business insights. Azure Data Factory is a managed cloud service that's built for these complex hybrid extract-transform-load (ETL), extract-load-transform (ELT), and data integration projects.

upvoted 5 times

zellck 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/synapse-analytics/migration-guides/oracle/7-beyond-data-warehouse-migration>

A key reason to migrate your existing data warehouse to Azure Synapse Analytics is to utilize a globally secure, scalable, low-cost, cloud-native, pay-as-you-use analytical database. With Azure Synapse, you can integrate your migrated data warehouse with the complete Microsoft Azure analytical ecosystem to take advantage of other Microsoft technologies and modernize your migrated data warehouse. Those technologies include:

- Azure Data Lake Storage for cost effective data ingestion, staging, cleansing, and transformation. Data Lake Storage can free up the data warehouse capacity occupied by fast-growing staging tables.
- Azure Data Factory for collaborative IT and self-service data integration with connectors to cloud and on-premises data sources and streaming data.

upvoted 2 times

Rams\_84z06n 1 year, 1 month ago

**Selected Answer: BE**

I remember answering another question Topic 1 Q26 <https://www.examtopics.com/exams/microsoft/az-305/view/6/>

The solution suggests import/export might be good option to ingest on-premise data continuously upstream to processing the data with ADF pipeline.

upvoted 1 times

Rams\_84z06n 1 year, 1 month ago

**Selected Answer: BE**

on-premise data => Azure Synapse Link for dataverse (import/export) => Data Factory (data pipeline) => data bricks

upvoted 1 times

Eusouzati 1 year, 1 month ago

**Selected Answer: CE**

Is Correct

- C. Azure Data Lake Storage
- E. Azure Data Factory

upvoted 1 times

VBK8579 1 year, 1 month ago

**Selected Answer: CE**

Azure Data Lake Storage can be used to store the transformed data from App1 to be loaded into Azure Synapse Analytics instance.

Azure Data Factory can be used to extract the data from the Oracle database and load it into Azure Data Lake Storage. The transformed data can then be loaded into Azure Synapse Analytics using Databricks

upvoted 1 times

SvenHorsheim 1 year, 2 months ago

I guess the question is what is MSFT asking with this question? Are they asking what services you would use to actually get the data to an Azure storage account? Or are they asking for a complete package of what you would use to get it to an Azure storage account and what kind of storage account to use? Very tricky and I don't have a good feel for it.

Obviously, if the former, then it will be Import/Export & ADF.

If the latter then technically you could use either import/export or ADF for the mechanism to get the data up and then Data lake as the storage type.

As a side note there is a very similar question to this earlier in the dump where import/export is the consensus.

upvoted 1 times

**HOTSPOT -**

You are designing a cost-optimized solution that uses Azure Batch to run two types of jobs on Linux nodes. The first job type will consist of short-running tasks for a development environment. The second job type will consist of long-running Message Passing Interface (MPI) applications for a production environment that requires timely job completion.

You need to recommend the pool type and node type for each job type. The solution must minimize compute charges and leverage Azure Hybrid Benefit whenever possible.

What should you recommend? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

First job:

- Batch service and dedicated virtual machines
- User subscription and dedicated virtual machines
- User subscription and low-priority virtual machines

Second job:

- Batch service and dedicated virtual machines
- User subscription and dedicated virtual machines
- User subscription and low-priority virtual machines

**Answer Area**

First job:

- Batch service and dedicated virtual machines
- User subscription and dedicated virtual machines
- User subscription and low-priority virtual machines

Correct Answer:

Second job:

- Batch service and dedicated virtual machines
- User subscription and dedicated virtual machines
- User subscription and low-priority virtual machines

Box 1: User subscription and low-priority virtual machines

The first job type will consist of short-running tasks for a development environment.

Among the many ways to purchase and consume Azure resources are Azure low priority VMs and Spot VMs. These virtual machines are compute instances allocated from spare capacity, offered at a highly discounted rate compared to "on demand" VMs. This means they can be a great option for cost savings for the right workloads.

Box 2: Batch service and dedicated virtual machines

The second job type will consist of long-running Message Passing Interface (MPI) applications for a production environment that requires timely job completion.

Azure Batch Service is a cloud based job scheduling and compute management platform that enables running large-scale parallel and high performance computing applications efficiently in the cloud. Azure Batch Service provides job scheduling and automatically scaling and managing virtual machines running those jobs.

Reference:

<https://www.parkmycloud.com/blog/azure-low-priority-vms>

<https://azure.microsoft.com/en-us/pricing/details/batch/>

✉️  **jellybiscuit** Highly Voted  1 year, 6 months ago

I agree with the given answer.

- Low Priority VMs
- batch service and dedicated VMs

Low priority VMs are being phased out by Spot VMs, but it does exist.

<https://learn.microsoft.com/en-us/azure/batch/batch-spot-vms>

I feel like the mention of Hybrid Benefit is a red herring here. Without knowing your linux variant, that may not even factor into the decision. You can enable it on RHEL or SUSE on a VM.

I'm not entirely clear how licensing factors into batch, but the functionality of the batch pool is the most important thing here.

upvoted 28 times

✉️  **Nicklaas** 1 year, 6 months ago

Good point about the licensing, also uncertain how it factors (if at all).

upvoted 1 times

✉️  **Snownoodles** 1 year, 5 months ago

Low Priority VM can only be supported in Batch Service

Spot VMs can only be supported in user subscription

upvoted 5 times

✉️  **Snownoodles** Highly Voted  1 year, 7 months ago

The answer should be:

"User Subscription and Dedicated virtual machines"

"User Subscription and Dedicated virtual machines"

1. To use "Azure Hybrid Benefit", the pool allocation mode has to be "User Subscription"
2. "User Subscription" doesn't support low-priority VMs(Batch service does)

upvoted 9 times

✉️  **Garon** 1 year, 5 months ago

But there is not Hybrid Benefit as OS is Linux and needs to be Windows OS.

upvoted 1 times

✉️  **Villa76** 1 year, 3 months ago

There is Hybrid benefits for Linux :

<https://learn.microsoft.com/en-us/azure/virtual-machines/linux/azure-hybrid-benefit-byos-linux>

Low priority virtual machines is an Azure Batch concept (Batch computing at a fraction of the price). Low priority virtual machines get allocated from the surplus of compute capacity in each region and are offered at a substantially reduced price. This comes with the understanding that there may not be capacity available to satisfy your request. In some rare cases, Azure may have to take some of this capacity back to satisfy other compute allocation requests.

Low priority virtual machines are well suited for batch activities like media processing / encoding

If you are looking at deploying an A-Series virtual machine in Azure then there are two tiers to choose from:

Basic

Standard

upvoted 1 times

✉️  **Snownoodles** 1 year, 5 months ago

"Azure Hybrid Benefit now provides software updates and integrated support directly from Azure infrastructure for Red Hat Enterprise Linux (RHEL) and SUSE Linux Enterprise Server (SLES) virtual machines"

<https://learn.microsoft.com/en-us/azure/virtual-machines/linux/azure-hybrid-benefit-byos-linux>

upvoted 2 times

✉️  **BShelat** Most Recent  4 months ago

<https://learn.microsoft.com/en-us/azure/batch/batch-spot-vms>

With user subscription pool allocation pool will always have either dedicated or SPOT VMs but not low priority VMs. With Batch managed pool allocation, pool may have either dedicated or low-priority VMs. So, "user subscription & low-priority VM" option is ruled out for both answers. 1st job needs to be run by "specific" department - development for short running tasks so " User Subscription & dedicated VMs" can meet that requirement. For 2nd job opting for "batch service & dedicated VMs" would successfully complete long-running Message Passing Interface (MPI) applications for a production environment in a timely fashion.

upvoted 1 times

✉️  **InvalidNickname** 8 months, 1 week ago

Got this on Aug 5th, 2023.

upvoted 4 times

NotMeAnyWay 9 months, 2 weeks ago

For the first job, which consists of short-running tasks for a development environment, we can indeed use "User subscription and low-priority virtual machines". This choice allows us to take advantage of the cost benefits of low-priority VMs, as these tasks are short-running and the job completion time is flexible.

For the second job, which consists of long-running MPI applications for a production environment, we should indeed use "Batch service and dedicated virtual machines". This choice ensures that the VMs are not preempted, which is important for long-running applications and a production environment where timely job completion is required.

upvoted 2 times

lombri 11 months, 2 weeks ago

Short-running tasks for development environment:

Pool type: On-demand

Node type: Low-priority VMs

Explanation: Since the job type consists of short-running tasks for a development environment, it's recommended to use On-demand pool type and Low-priority VMs as they are the most cost-effective option.

Long-running MPI applications for production environment:

Pool type: Batch service

Node type: Dedicated VMs

Explanation: Since the job type consists of long-running MPI applications for a production environment, it's recommended to use Batch service pool type and Dedicated VMs as they provide better performance and reliability. Using Azure Hybrid Benefit will help to minimize compute charges.

upvoted 3 times

zellck 1 year, 1 month ago

1. User subscription and low-priority virtual machines
2. Batch service and dedicated virtual machines

<https://learn.microsoft.com/en-us/azure/machine-learning/how-to-use-low-priority-batch?tabs=cli>

Azure Batch Deployments supports low priority VMs to reduce the cost of batch inference workloads. Low priority VMs enable a large amount of compute power to be used for a low cost. Low priority VMs take advantage of surplus capacity in Azure. When you specify low priority VMs in your pools, Azure can use this surplus, when available.

The tradeoff for using them is that those VMs may not always be available to be allocated, or may be preempted at any time, depending on available capacity. For this reason, they are most suitable for batch and asynchronous processing workloads where the job completion time is flexible and the work is distributed across many VMs.

Low priority VMs are offered at a significantly reduced price compared with dedicated VMs.

upvoted 6 times

zellck 1 year, 1 month ago

Got this in Feb 2023 exam.

upvoted 8 times

zellck 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/batch/best-practices#pool-configuration-and-naming>

Pool allocation mode: When creating a Batch account, you can choose between two pool allocation modes: Batch service or user subscription. For most cases, you should use the default Batch service mode, in which pools are allocated behind the scenes in Batch-managed subscriptions. In the alternative user subscription mode, Batch VMs and other resources are created directly in your subscription when a pool is created. User subscription accounts are primarily used to enable a small but important subset of scenarios.

upvoted 8 times

VBK8579 1 year, 2 months ago

For the first job type: User subscription and low-priority virtual machines

For the second job type: Batch service and dedicated virtual machines

upvoted 4 times

RandomNickname 1 year, 2 months ago

Given answer looks correct to me.

First questions fairly straight forward

Second see article;

<https://learn.microsoft.com/en-us/azure/batch/batch-mpi>

upvoted 1 times

LeeVee 1 year, 2 months ago

The key here states that "The solution must minimize compute charges and leverage Azure Hybrid Benefit \*\*whenever\*\* possible. So Job1= low prio VMs, Job2 Batchw/dedicatedVMs. It's pointless to have dedicated VMs for a short-run job1."

upvoted 1 times

Malik007 1 year, 3 months ago

Appear in exam.

Answer is correct

upvoted 4 times

✉  **rocroberto** 1 year, 4 months ago

Probably because it is talking about dev rather prod, low priority/spot instances are not a bad idea ?  
upvoted 1 times

✉  **in\_da\_cloud** 1 year, 4 months ago

I guess - the question is not complete, that's why - the answers are not logical:

The first job type will consist of short-running tasks for a development environment:  
batch service and low-priority virtual machines  
You don't need reserved instances and can go for this option.

the second productive job is a long runner and needs relatively much compute power

Therefore you need user sub dedicated prio virtual machines:

This option gives you the ability to reserve instances with relatively strong compute power.

upvoted 1 times

✉  **randomaccount123** 1 year, 5 months ago

"User Subscription and Dedicated virtual machines"  
"User Subscription and Dedicated virtual machines"  
upvoted 2 times

✉  **kay000001** 1 year, 7 months ago

Answer should be -

First Job:

User Subscription and dedicated virtual machines.

Second Job:

Batch service and dedicated virtual machines.

<https://docs.microsoft.com/en-us/azure/batch/batch-quota-limit>

upvoted 6 times

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping. You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Notification Hubs
- B. Azure Service Fabric
- C. Azure Queue Storage
- D. Azure Data Lake

**Correct Answer: C**

Queue Storage delivers asynchronous messaging between application components, whether they are running in the cloud, on the desktop, on an on-premises server, or on a mobile device.

The maximum message size supported by Azure Storage Queues is 64KB while Azure Service Bus Queues support messages up to 256KB. This becomes an important factor especially when the message format is padded (such as XML).

Reference:

<https://docs.microsoft.com/en-us/azure/storage/queues/storage-dotnet-how-to-use-queues> <https://blog.kloud.com.au/2016/03/01/cloud-cushioning-using-azure-queues/>

*Community vote distribution*

C (94%) 6%

✉  **yonie**  11 months, 3 weeks ago

**Selected Answer: C**

There are 15 variations of this question, each offering different answers. In all 15 questions, there is always only one out of two answers: either its Azure Queue Storage or its Azure Service Bus.

I haven't seen a question where both of them are a possibility.

upvoted 29 times

✉  **shubhary25**  1 year, 7 months ago

**Selected Answer: C**

Azure Queue Storage is the correct answer

upvoted 10 times

✉  **Teab91** 1 year, 6 months ago

Not so sure about that

upvoted 1 times

✉  **xRiot007**  1 month, 2 weeks ago

The answer is technically correct, but in the real world, it depends.

I would not advise splitting your transaction in multiple messages.

Better to use a Blob in that case.

upvoted 2 times

✉  **NotMeAnyWay** 9 months, 2 weeks ago

**Selected Answer: C**

The appropriate service for this requirement is Azure Queue Storage. Azure Queue Storage is a service for storing large numbers of messages that can be accessed from anywhere in the world via authenticated calls using HTTP or HTTPS. It offers asynchronous message queueing for communication between application components, whether they are running in the cloud, on the desktop, on-premises, or on mobile devices.

So, the answer is:

C. Azure Queue Storage

upvoted 2 times

✉  **lombri** 11 months, 2 weeks ago

**Selected Answer: C**

Azure Queue Storage is a messaging service that allows decoupling of components in an application by providing a reliable way to pass messages between them asynchronously. It can handle messages in a first-in-first-out (FIFO) order and can scale to handle millions of messages per second.

By using Azure Queue Storage, each component of the transaction process can push messages to the queue with relevant transaction information in XML format, which can be retrieved by the receiving component. This allows for loose coupling between the components, as they do not need to know about each other to communicate.

Azure Notification Hubs and Azure Service Fabric are not messaging services but rather services for pushing notifications and deploying microservices, respectively. Azure Data Lake is a storage service for big data processing and analytics and does not provide messaging capabilities.  
upvoted 3 times

✉ **zellck** 1 year, 1 month ago

Same as Question 83.  
<https://www.examtopics.com/discussions/microsoft/view/99750-exam-az-305-topic-4-question-83-discussion>  
upvoted 2 times

✉ **zellck** 1 year, 1 month ago

**Selected Answer: C**

C is the answer.

<https://learn.microsoft.com/en-us/azure/storage/queues/storage-queues-introduction>

Azure Queue Storage is a service for storing large numbers of messages. You access messages from anywhere in the world via authenticated calls using HTTP or HTTPS. A queue message can be up to 64 KB in size. A queue may contain millions of messages, up to the total capacity limit of a storage account. Queues are commonly used to create a backlog of work to process asynchronously.

upvoted 2 times

✉ **cp2323** 1 year, 1 month ago

**Selected Answer: B**

ASB. this is repeated question

upvoted 1 times

✉ **Bigbluee** 11 months, 3 weeks ago

There is no ASB in answers. Think!

upvoted 2 times

✉ **moshos** 1 year, 2 months ago

**Selected Answer: C**

Correct Answer: C

upvoted 1 times

✉ **VBK8579** 1 year, 2 months ago

**Selected Answer: C**

C. Azure Queue Storage

upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: C**

C. Azure Queue Storage

upvoted 1 times

✉ **VBK8579** 1 year, 2 months ago

C. Azure Queue Storage

upvoted 1 times

✉ **LeeVee** 1 year, 2 months ago

In absence of ASB in the choose, next solution to be look at is Azure Storage Queue. In my opinion though, ASB is more durable than a Storage queue.

upvoted 3 times

✉ **xRiot007** 1 month, 2 weeks ago

More durable, no, but it provides a bigger message size limit, which might benefit some businesses.

upvoted 1 times

✉ **janvandermerwer** 1 year, 2 months ago

**Selected Answer: C**

I'm going to have to go with C on this one.

upvoted 1 times

✉ **yeanlingmedal71** 1 year, 2 months ago

**Selected Answer: B**

Asynchronous messaging options.

There are different types of messages and the entities that participate in a messaging infrastructure. Based on the requirements of each message type, Microsoft recommends Azure messaging services. The options include Azure Service Bus, Event Grid, and Event Hubs.

Azure Service Bus queues are well suited for transferring commands from producers to consumers.

Data is transferred between different applications and services using messages. A message is a container decorated with metadata, and contains data. The data can be any kind of information, including structured data encoded with the common formats such as the following ones: JSON, XML, Apache Avro, Plain Text.

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/messaging>

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview>

upvoted 2 times

✉️  **Tash95** 1 year, 2 months ago

Azure Service Fabric is a distributed systems platform that makes it easy to package, deploy, and manage scalable and reliable microservices and containers. Azure Service Fabric enables you to create Service Fabric clusters on premises or in other clouds. Azure Service Fabric is low-latency and scales up to thousands of machines.

So nothing to do with messaging

upvoted 1 times

✉️  **honzar** 1 year, 3 months ago

Appeared 2023/01/03 in the exam

upvoted 5 times

✉️  **Teab91** 1 year, 6 months ago

Duplicate question with wrong answer.

Topic 4 and question 13

upvoted 3 times

✉️  **gg112022** 1 year, 5 months ago

Topic 4 and Question 13 choices are different and the answer there is "Azure Service Bus". For this question "Azure Queue Storage" is the answer.

upvoted 9 times

✉️  **lvz** 10 months, 3 weeks ago

how can azure queue storage be an answer? as AQS doesnt support First in first out and doesnt guarantee non duplication either.

upvoted 1 times

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping. You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Notification Hubs
- B. Azure Service Fabric
- C. Azure Queue Storage
- D. Azure Application Gateway

**Correct Answer: C**

Queue storage is often used to create a backlog of work to process asynchronously.

A queue message must be in a format compatible with an XML request using UTF-8 encoding.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/queues/storage-tutorial-queues>

*Community vote distribution*

C (90%) 10%

✉️  **lolo13698** Highly Voted 1 year, 6 months ago

Seriously, duplicate question again. What is the contributor access advantage exactly ?!

upvoted 13 times

✉️  **meinekarte** 1 year, 5 months ago

The answers are different, read again

upvoted 2 times

✉️  **Guest** 1 year, 4 months ago

As far as I see only option D is different, the rest looks identical

upvoted 1 times

✉️  **ServerBrain** 1 year, 3 months ago

Therefore, it's not duplicate..

upvoted 5 times

✉️  **luke996** 1 year, 5 months ago

Monello

upvoted 2 times

✉️  **jojorabbit2021** Most Recent 8 months ago

azure service bus is different than azure service fabric .... If you had memorized blindly you'd choose service fabric but answer is queue storage. But then you'll memorize blindly again that the keyword is 'bus' otherwise 'storage queue' and problem solved!

upvoted 1 times

✉️  **xRiot007** 1 month, 2 weeks ago

The keyword is to go to the Azure site and learn the basics of what a queue and a service bus are. Then you won't have to memorize all this silly stuff.

upvoted 1 times

✉️  **lombri** 11 months, 2 weeks ago

**Selected Answer: C**

Answer: Azure Queue Storage

Reasons:

- Azure Queue Storage is a messaging solution that enables asynchronous communication between different components of a distributed system.
- It supports message-based communication using XML and other formats.
- It is a cost-effective solution for managing message queues, and it scales automatically based on demand.

upvoted 3 times

✉️  **zellck** 1 year, 1 month ago

Same as Question 83.

<https://www.examtopics.com/discussions/microsoft/view/99750-exam-az-305-topic-4-question-83-discussion>

upvoted 1 times

zellck 1 year, 1 month ago

**Selected Answer: C**

C is the answer.

<https://learn.microsoft.com/en-us/azure/storage/queues/storage-queues-introduction>

Azure Queue Storage is a service for storing large numbers of messages. You access messages from anywhere in the world via authenticated calls using HTTP or HTTPS. A queue message can be up to 64 KB in size. A queue may contain millions of messages, up to the total capacity limit of a storage account. Queues are commonly used to create a backlog of work to process asynchronously.

upvoted 1 times

Eusouzati 1 year, 1 month ago

**Selected Answer: C**

C. Azure Queue Storage

upvoted 1 times

VBK8579 1 year, 2 months ago

**Selected Answer: C**

C. Azure Queue Storage

upvoted 1 times

OPT\_001122 1 year, 2 months ago

**Selected Answer: C**

C. Azure Queue Storage

upvoted 1 times

Zepoonstream 1 year, 2 months ago

**Selected Answer: C**

C. Azure Queue Storage.

Azure Queue Storage can be used to asynchronously communicate transaction information between cloud services by using XML messages. Azure Queue Storage is a fully managed message queue that can store and retrieve large numbers of messages. Messages can be stored in a queue for a specified period of time and can be retrieved by multiple consumers. This allows different cloud services to process customer orders, billing, payment, inventory, and shipping in parallel and asynchronously, without having to wait for a response from other services.

upvoted 1 times

tfulanchan 1 year, 2 months ago

I want a refund or a convincing explanation.

upvoted 1 times

bacms 1 year, 2 months ago

**Selected Answer: C**

Duplicated with #65, should be Azure Queue Storage

upvoted 1 times

yealingmedal71 1 year, 2 months ago

**Selected Answer: B**

Asynchronous messaging options.

There are different types of messages and the entities that participate in a messaging infrastructure. Based on the requirements of each message type, Microsoft recommends Azure messaging services. The options include Azure Service Bus, Event Grid, and Event Hubs.

Azure Service Bus queues are well suited for transferring commands from producers to consumers.

Data is transferred between different applications and services using messages. A message is a container decorated with metadata, and contains data. The data can be any kind of information, including structured data encoded with the common formats such as the following ones: JSON, XML, Apache Avro, Plain Text.

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/messaging>

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview>

upvoted 1 times

FabrytDev 1 year, 2 months ago

Option B is Service Fabric, not Service Bus

upvoted 2 times

70mach1 1 year, 3 months ago

The question is worded the same and the answer is the same. Just because you changed one answer does not make them different questions. Reall puts the "185 questions" in doubt.

upvoted 3 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Database Hyperscale
- B. Azure SQL Database Premium
- C. Azure SQL Database Basic
- D. Azure SQL Database Standard

**Correct Answer: B**

*Community vote distribution*

B (88%) 13%

✉  **mVic**  1 year, 3 months ago

**Selected Answer: B**

Premium should be the answer.

Whenever zone-redundancy (availability within the same region) is required you can only choose:

- General Purpose
- Premium
- Business Critical

See:

<https://learn.microsoft.com/en-GB/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

upvoted 17 times

✉  **ServerBrain**  1 year, 3 months ago

Actually About 23 questions added today..

upvoted 6 times

✉  **[Removed]** 1 year, 3 months ago

Some look like they are duplicates

upvoted 3 times

✉  **steel72**  1 year ago

**Selected Answer: B**

Correct answer is "Azure SQL Database Premium".

Basic and Standard do not support zone-redundancy:

<https://learn.microsoft.com/en-GB/azure/azure-sql/database/high-availability-sla>

upvoted 3 times

✉  **zellck** 1 year, 1 month ago

Same as Question 16.

<https://www.examtopics.com/discussions/microsoft/view/79423-exam-az-305-topic-2-question-16-discussion>

upvoted 1 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/sql-database-paas-overview?view=azuresql#service-tiers>

The Premium service tier is designed for OLTP applications with high transaction rates and low latency I/O requirements. It offers the highest resilience to failures by using several isolated replicas.

upvoted 1 times

✉  **VBK8579** 1 year, 2 months ago

**Selected Answer: B**

B. Azure SQL Database Premium

upvoted 1 times

OPT\_001122 1 year, 2 months ago

**Selected Answer: B**

B. Azure SQL Database Premium

upvoted 1 times

janvandermerwer 1 year, 2 months ago

**Selected Answer: B**

Premium for failover without data loss.

upvoted 1 times

yeanlingmedal71 1 year, 2 months ago

**Selected Answer: B**

Azure SQL Database Premium tier supports multiple redundant replicas for each database that are automatically provisioned in the same datacenter within a region. This design leverages the SQL Server AlwaysON technology and provides resilience to server failures with 99.99% availability SLA and RPO=0.

With the introduction of Azure Availability Zones, we are happy to announce that SQL Database now offers built-in support of Availability Zones in its Premium service tier.

<https://azure.microsoft.com/en-us/blog/azure-sql-database-now-offers-zone-redundant-premium-databases-and-elastic-pools/>

Zone-redundant configuration is not available in SQL Managed Instance. In SQL Database this feature is only available when the Gen5 hardware is selected.

<https://docs.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

upvoted 3 times

uacanillo 1 year, 2 months ago

The deployment option that should be used to meet the requirements of a highly available Azure SQL database with minimal data loss and minimum cost is option D, Azure SQL Database Standard. This option provides active-passive failover capabilities and also allows for read-access to secondary replicas, which can help minimize costs. Additionally, it also provides zone-redundant databases, so in case of zone outage, the database will remain available

upvoted 1 times

diego84 1 year, 2 months ago

check this

Basic, Standard, and General Purpose service tier locally redundant availability.  
However, General Purpose service tier zone redundant availability

<https://learn.microsoft.com/en-GB/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

upvoted 1 times

mscgbgslt 1 year, 3 months ago

**Selected Answer: D**

Azure SQL database standard as we have to minimize costs:

<https://azure.microsoft.com/en-us/blog/azure-sql-database-standard-geo-replication/>

upvoted 4 times

maku067 1 year, 3 months ago

**Selected Answer: B**

seems correct.

upvoted 1 times

ServerBrain 1 year, 3 months ago

This question was added today 05Jan2023. Serves as update confirmation ..

upvoted 2 times

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping.

You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Service Bus
- B. Azure Data Lake
- C. Azure Traffic Manager
- D. Azure Blob Storage

**Correct Answer: A**

*Community vote distribution*

A (100%)

✉  **lombri** 11 months, 2 weeks ago

**Selected Answer: A**

Azure Service Bus

because it is a messaging service that supports asynchronous communication between different components of an application.

It enables the exchange of messages using different protocols and message patterns, including XML messages.

It also supports features such as pub/sub messaging, message batching, and message ordering.

upvoted 2 times

✉  **zellck** 1 year, 1 month ago

Same as Question 82.

<https://www.examtopics.com/discussions/microsoft/view/99749-exam-az-305-topic-4-question-82-discussion>

upvoted 1 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview>

Azure Service Bus is a fully managed enterprise message broker with message queues and publish-subscribe topics (in a namespace). Service Bus is used to decouple applications and services from each other, providing the following benefits:

- Load-balancing work across competing workers
- Safely routing and transferring data and control across service and application boundaries
- Coordinating transactional work that requires a high-degree of reliability

upvoted 2 times

✉  **RouterWifi443** 1 year, 1 month ago

**Selected Answer: A**

Azure Service Bus

upvoted 1 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: A**

Azure Service Bus

upvoted 1 times

✉  **VBK8579** 1 year, 2 months ago

**Selected Answer: A**

A is correct

upvoted 1 times

✉  **ZakySama** 1 year, 3 months ago

**Selected Answer: A**

Correct ( Azure Service Bus or Azure Queue Storage)

upvoted 3 times

✉  **maku067** 1 year, 3 months ago

**Selected Answer: A**

seems correct.

upvoted 1 times

✉  **Clarkszw** 1 year, 3 months ago

**Selected Answer: A**

Service bus or Storage queue

upvoted 3 times

✉  **ServerBrain** 1 year, 3 months ago

**Selected Answer: A**

A is 100% correct

upvoted 1 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- Azure SQL Database Basic
- Azure SQL Managed Instance General Purpose
- Azure SQL Database Business Critical
- Azure SQL Managed Instance Business Critical

**Correct Answer: C**

*Community vote distribution*

C (75%)	B (23%)
---------	---------

 **zellck** Highly Voted 1 year, 1 month ago

**Selected Answer: C**

C is the answer.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/sql-database-paas-overview?view=azuresql#service-tiers>  
The Business Critical service tier is designed for OLTP applications with high transaction rates and low latency I/O requirements. It offers the highest resilience to failures by using several isolated replicas.

upvoted 8 times

 **rishisoft1** Most Recent 3 weeks, 6 days ago

C is the answer because Managed Instance SQL General Purpose is cheaper option but still zone redundancy is under preview. Here is Microsoft Document says "Zone redundancy for General Purpose service tier is currently in preview."

upvoted 1 times

 **rumino** 1 month, 1 week ago

**Selected Answer: B**

SQL MI General Purpose is cheaper than SQL DB Business Critical  
failover without data loss is guaranteed  
DB remains available at zone outage, only performance can be degraded until the cache will fill

upvoted 2 times

 **rumino** 1 month, 1 week ago

<https://learn.microsoft.com/en-us/azure/azure-sql/managed-instance/high-availability-sla?view=azuresql-mi&preserve-view=true>  
upvoted 2 times

 **SDiwani** 1 month, 3 weeks ago

**Selected Answer: C**

For high availability/no data loss related question, the answer is either Business Critical ( for vcore based) or Premium ( for DTU based)  
upvoted 1 times

 **OrangeSG** 5 months, 2 weeks ago

**Selected Answer: C**

B is wrong because Azure SQL Managed Instance General Purpose does not support Zone redundancy.

Reference

Migrate SQL Managed Instance to availability zone support

<https://learn.microsoft.com/en-us/azure/reliability/migrate-sql-managed-instance>

Prerequisites

To migrate to availability-zone support:

- Your instance must be running under Business Critical tier with the November 2022 feature wave update.
- Confirm that your instance is located in a supported region.
- Your instances must be running on standard-series (Gen5) hardware.

upvoted 2 times

 **Jools** 8 months, 2 weeks ago

**Selected Answer: C**

C is the answer. Storage in the general purpose tier is LRS which is not resiliant in case of zone outage <https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql-db&viewFallbackFrom=azuresql-mi&tabs=azure-powershell>

upvoted 2 times

✉️ **NotMeAnyWay** 9 months ago

**Selected Answer: C**

The best deployment option that meets all the requirements would be:

C. Azure SQL Database Business Critical

The Business Critical service tier is designed for applications that require low-latency responses and high transaction rates, and need the highest degree of resilience to failures. It supports multiple read-only replicas, and failover between replicas of the database occurs without any data loss. It is also designed to maintain availability in the event of a zone outage.

While Azure SQL Managed Instance Business Critical also provides high availability and zero data loss, it generally costs more than Azure SQL Database Business Critical. Therefore, to minimize costs as per your requirement, Azure SQL Database Business Critical would be a better choice.

Azure SQL Database Basic and Azure SQL Managed Instance General Purpose do not offer the same level of high availability and data resilience as the Business Critical options.

upvoted 2 times

✉️ **lombri** 11 months, 2 weeks ago

**Selected Answer: B**

Option B (Azure SQL Managed Instance General Purpose)

best meets the stated requirements, as it supports automatic failover between replicas and ensures availability even in the event of a zone outage, at a lower cost than Option C, and D.

upvoted 2 times

✉️ **lombri** 11 months, 2 weeks ago

D. Azure SQL Managed Instance Business Critical.

This option is designed for high availability and disaster recovery, with multiple replicas across different availability zones to ensure minimal data loss and downtime.

The Business Critical service tier offers the highest resilience to failures and is specifically designed for OLTP applications with high transaction rates and low latency I/O requirements.

Option C, Azure SQL Database Business Critical, only offers replication within the same region and does not provide zone redundancy.

upvoted 1 times

✉️ **alexander\_panfilenok** 9 months, 4 weeks ago

Azure SQL Database Business Critical does provide Zone Redundancy: <https://learn.microsoft.com/en-GB/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

upvoted 2 times

✉️ **zellck** 1 year, 1 month ago

Same as Question 84.

<https://www.examtopics.com/discussions/microsoft/view/99751-exam-az-305-topic-4-question-84-discussion>

upvoted 3 times

✉️ **pkkalra** 1 year, 1 month ago

**Selected Answer: C**

C. Azure SQL Database Business Critical

upvoted 3 times

✉️ **\_fvt** 1 year, 1 month ago

**Selected Answer: C**

"Zone-redundant configuration is currently in preview for SQL Managed Instance, and only available for the Business Critical service tier." (<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>)

So any Managed Instance option should yet not be an acceptable answer.

upvoted 3 times

✉️ **\_fvt** 1 year, 1 month ago

Also Azure SQL Database Basic doesn't offer zone redundant availability so it can only be answer C: "Azure SQL Database Business Critical"

upvoted 1 times

✉️ **Lu5ck** 1 year, 2 months ago

**Selected Answer: C**

Hi guys,

Managed Instance General Purpose zone redundant feature is not available world wide yet therefore I don't think is a "safe" answer.

Therefore, it come down to C and D. Azure SQL Database Business Critical should be cheaper than Managed. I mean, managed is called managed for a reason even if you don't know the actual available specs. Upon googling, you will learn that Azure SQL Database Business Critical provide lower specs aka cheaper options than Managed.

upvoted 4 times

✉️  **jingasloth** 1 year, 2 months ago

ChatGPT says C - Azure SQL Database Business Critical  
upvoted 4 times

✉️  **ITboy8** 1 year, 1 month ago

well, respect the chatGPT then. I will go with C  
upvoted 1 times

✉️  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: B**

B. Azure SQL Managed Instance General Purpose  
upvoted 1 times

✉️  **OPT\_001122** 1 year, 2 months ago

this seems not to be the correct ans,  
Same question73 has a different ans and it is highly voted  
A. Azure SQL Database Business Critical  
upvoted 1 times

✉️  **Tralala182** 1 year, 2 months ago

Chatgpt answer is D  
upvoted 2 times

✉️  **tfulanchan** 1 year, 2 months ago

**Selected Answer: C**

Zone-redundant configuration is currently in preview for SQL Managed Instance, and only available for the Business Critical service tier.  
<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#general-purpose-service-tier-zone-redundant-availability>  
upvoted 3 times

✉️  **VBK8579** 1 year, 2 months ago

**Selected Answer: C**

C. Azure SQL Database Business Critical  
upvoted 2 times

You have an Azure subscription.

You need to deploy an Azure Kubernetes Service (AKS) solution that will use Windows Server 2019 nodes. The solution must meet the following requirements:

- Minimize the time it takes to provision compute resources during scale-out operations.
- Support autoscaling of Windows Server containers.

Which scaling option should you recommend?

- A. horizontal pod autoscaler
- B. Virtual nodes
- C. Kubernetes version 1.20.2 or newer
- D. cluster autoscaler

**Correct Answer: D**

*Community vote distribution*

D (100%)

✉  **maku067** Highly Voted 1 year, 3 months ago

**Selected Answer: D**

For me D.  
cluster autoscaler - For Windows  
virtual nodes - For Linux  
upvoted 41 times

✉  **ZakySama** 1 year, 3 months ago  
Correct... Thank you  
upvoted 2 times

✉  **OPT\_001122** 1 year, 2 months ago  
good description to clear confusion  
upvoted 4 times

✉  **RouterWifi443** Most Recent 4 months, 2 weeks ago

**Selected Answer: D**

Given answer is correct  
upvoted 1 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: D**

D is the answer.

<https://learn.microsoft.com/en-us/azure/aks/cluster-autoscaler>  
To keep up with application demands in Azure Kubernetes Service (AKS), you may need to adjust the number of nodes that run your workloads. The cluster autoscaler component can watch for pods in your cluster that can't be scheduled because of resource constraints. When issues are detected, the number of nodes in a node pool is increased to meet the application demand. Nodes are also regularly checked for a lack of running pods, with the number of nodes then decreased as needed. This ability to automatically scale up or down the number of nodes in your AKS cluster lets you run an efficient, cost-effective cluster.

upvoted 3 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: D**

D. cluster autoscaler  
upvoted 1 times

✉  **tfulanchan** 1 year, 2 months ago

Virtual nodes are only supported with Linux pods and nodes.  
<https://learn.microsoft.com/en-us/azure/aks/virtual-nodes>  
upvoted 2 times

✉  **lmy** 1 year, 3 months ago

same questions order has been changed.

upvoted 2 times

✉  **shako** 1 year, 3 months ago

**Selected Answer: D**

as it's Windows nodes I go for D.  
my notes :  
Linux nodes autoscale: virtual nodes.  
Windows nodes autoscale: cluster autoscaler.

upvoted 1 times

✉  **Clarkszw** 1 year, 3 months ago

**Selected Answer: D**

Linux => Virtual nodes  
Windows => cluster autoscale

upvoted 1 times

✉  **ServerBrain** 1 year, 3 months ago

for a second, I thought answer should be B?

upvoted 1 times

✉  **[Removed]** 1 year, 3 months ago

Look at question 28 in topic 4

upvoted 1 times

✉  **[Removed]** 1 year, 3 months ago

Linux is virtual nodes, windows is cluster autoscaler??

upvoted 1 times

✉  **maku067** 1 year, 3 months ago

For me D.

cluster autoscaler - For Windows  
virtual nodes - For Linux

upvoted 1 times

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping.

You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Service Fabric
- B. Azure Data Lake
- C. Azure Service Bus
- D. Azure Application Gateway

**Correct Answer: C**

*Community vote distribution*

C (100%)

✉  **Crossfader2208** 1 month, 1 week ago

I think I'm now ready to answer to this correctly in the exam  
upvoted 2 times

✉  **lombri** 11 months, 2 weeks ago

**Selected Answer: C**

Azure Service Bus in the recommendation as it provides reliable and scalable cloud messaging between the different cloud services in the application.  
Same as question 68  
upvoted 3 times

✉  **Glob3r** 1 year, 1 month ago

Same as question 68  
upvoted 1 times

✉  **zellck** 1 year, 1 month ago

Same as Question 82.  
<https://www.examtopics.com/discussions/microsoft/view/99749-exam-az-305-topic-4-question-82-discussion>  
upvoted 2 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: C**

C is the answer.

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview>

Azure Service Bus is a fully managed enterprise message broker with message queues and publish-subscribe topics (in a namespace). Service Bus is used to decouple applications and services from each other, providing the following benefits:

- Load-balancing work across competing workers
  - Safely routing and transferring data and control across service and application boundaries
  - Coordinating transactional work that requires a high-degree of reliability
- upvoted 2 times

✉  **globby118** 1 year, 1 month ago

appeared in exam 02/15/2023  
upvoted 4 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: C**

C. Azure Service Bus  
upvoted 1 times

✉  **VBK8579** 1 year, 2 months ago

**Selected Answer: C**

Answer C  
upvoted 1 times

✉  **janvandermerwer** 1 year, 2 months ago

**Selected Answer: C**

C is the best answer by far.

upvoted 1 times

✉  **yanlingmedal71** 1 year, 2 months ago

**Selected Answer: C**

Asynchronous messaging options.

There are different types of messages and the entities that participate in a messaging infrastructure. Based on the requirements of each message type, Microsoft recommends Azure messaging services. The options include Azure Service Bus, Event Grid, and Event Hubs.

Azure Service Bus queues are well suited for transferring commands from producers to consumers.

Data is transferred between different applications and services using messages. A message is a container decorated with metadata, and contains data. The data can be any kind of information, including structured data encoded with the common formats such as the following ones: JSON, XML, Apache Avro, Plain Text.

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/messaging>

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview>

upvoted 1 times

✉  **maku067** 1 year, 3 months ago

**Selected Answer: C**

seems correct.

upvoted 1 times

✉  **ServerBrain** 1 year, 3 months ago

**Selected Answer: C**

C, all day..

upvoted 1 times

Your company has offices in North America and Europe.

You plan to migrate to Azure.

You need to recommend a networking solution for the new Azure infrastructure. The solution must meet the following requirements:

- The Point-to-Site (P2S) VPN connections of mobile users must connect automatically to the closest Azure region.
- The offices in each region must connect to their local Azure region by using an ExpressRoute circuit.
- Transitive routing between virtual networks and on-premises networks must be supported.
- The network traffic between virtual networks must be filtered by using FQDNs.

What should you include in the recommendation?

- A. Azure Virtual WAN with a secured virtual hub
- B. virtual network peering and application security groups
- C. virtual network gateways and network security groups (NSGs)
- D. Azure Route Server and Azure Network Function Manager

**Correct Answer: C**

*Community vote distribution*

A (93%) 5%

✉️  **SilverFox22** Highly Voted  1 year, 3 months ago

**Selected Answer: A**

The Virtual WAN meets the first 3 requirements, and the secured virtual hub has the Azure Firewall Manager, which can do the FQDN filtering.  
<https://learn.microsoft.com/en-us/azure/firewall-manager/secured-virtual-hub> <https://learn.microsoft.com/en-us/azure/firewall/fqdn-filtering-network-rules>  
upvoted 22 times

✉️  **steel72** 1 year ago

And NSG does not support FQDN filtering.

Source or destination: Any, or an individual IP address, classless inter-domain routing (CIDR) block (10.0.0.0/24, for example), service tag, or application security group.

<https://learn.microsoft.com/en-us/azure/virtual-network/network-security-groups-overview#security-rules>

upvoted 2 times

✉️  **lombri** Highly Voted  11 months, 2 weeks ago

**Selected Answer: A**

Option A, Azure Virtual WAN with a secured virtual hub,  
is the best recommendation for this scenario as it allows for automatic connection of mobile users to the closest Azure region, connection of offices to their local Azure region via ExpressRoute circuits, support for transitive routing, and filtering of network traffic between virtual networks by using FQDNs.

Option B, virtual network peering and application security groups,  
does not provide automatic connection of mobile users to the closest Azure region or support for transitive routing.

Option C, virtual network gateways and network security groups (NSGs),  
does not provide automatic connection of mobile users to the closest Azure region or support for transitive routing, and filtering network traffic between virtual networks by using FQDNs is more challenging.

Option D, Azure Route Server and Azure Network Function Manager,  
does not provide automatic connection of mobile users to the closest Azure region or support for filtering network traffic between virtual networks by using FQDNs.

upvoted 9 times

✉️  **Leocan** Most Recent  7 months, 1 week ago

**Selected Answer: A**

Azure Virtual WAN

upvoted 2 times

✉️  **NotMeAnyWay** 9 months ago

**Selected Answer: A**

The recommendation that meets the requirements specified would be:

- A. Azure Virtual WAN with a secured virtual hub

Azure Virtual WAN allows for transitive routing between virtual networks and on-premises networks, and the automatic connection to the closest Azure region for Point-to-Site (P2S) VPN connections.

The offices in each region can connect to their local Azure region using ExpressRoute circuits that can be integrated into the Virtual WAN.

A Secured Virtual Hub is an Azure Virtual WAN Hub with associated security and routing policies. It is a Microsoft-managed resource that lets you easily create hub-and-spoke architectures. When security and routing policies are associated with such a hub, it is referred to as a Secured Virtual Hub.

The Secured Virtual Hub allows for Azure Firewall, which can filter the network traffic between virtual networks using Fully Qualified Domain Name (FQDNs).

upvoted 4 times

✉ **Dean208** 1 year, 1 month ago

**Selected Answer: A**

Virtual WAN

upvoted 1 times

✉ **zellck** 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/firewall-manager/secured-virtual-hub>

A secured virtual hub is an Azure Virtual WAN Hub with associated security and routing policies configured by Azure Firewall Manager. Use secured virtual hubs to easily create hub-and-spoke and transitive architectures with native security services for traffic governance and protection.

You can use a secured virtual hub to filter traffic between virtual networks (V2V), virtual networks and branch offices (B2V) and traffic to the Internet (B2I/V2I).

upvoted 4 times

✉ **Srirupam** 1 year, 1 month ago

**Selected Answer: A**

Correct Answer A

upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: A**

A. Azure Virtual WAN with a secured virtual hub

upvoted 3 times

✉ **VBK8579** 1 year, 2 months ago

**Selected Answer: A**

A. Azure Virtual WAN with a secured virtual hub.

upvoted 1 times

✉ **tfulanchan** 1 year, 2 months ago

Not sure if this is relevant:

Virtual Networks connected to the Secure Virtual Hub can send traffic to public, destinations on the Internet, using the Secure Hub as a central point of Internet access.

This traffic can be filtered locally using Azure Firewall FQDN rules, or sent to a third-party security service for inspection.

<https://learn.microsoft.com/en-us/azure/virtual-wan/migrate-from-hub-spoke-topology#path-7>

upvoted 1 times

✉ **Kay04** 1 year, 3 months ago

**Selected Answer: A**

Only A can filter by FQDN

upvoted 1 times

✉ **[Removed]** 1 year, 3 months ago

**Selected Answer: A**

A is correct

upvoted 1 times

✉ **mercuryit** 1 year, 3 months ago

**Selected Answer: A**

B & C incorrect: they work at 4th network level

Request is for FQDN filtering

upvoted 1 times

✉ **Mltytskr** 1 year, 3 months ago

**Selected Answer: A**

According to <https://learn.microsoft.com/en-us/azure/architecture/networking/hub-spoke-vwan-architecture#architecture>, which shako shared, I think the answer needs to be A. This supports requirement 1 & 2 (P2S/ExpressRoute) per "Standard Virtual WAN supports any-to-any connectivity (Site-to-Site VPN, VNet, ExpressRoute, Point-to-site endpoints) in a single hub as well as across hubs." Requirement 2 "Virtual network peering is a nontransitive relationship between two virtual networks. While using Azure Virtual WAN, virtual network peering is managed by Microsoft. Each connection added to a hub will also configure virtual network peering. With the help of Virtual WAN, all spokes will have a transitive relationship." Finally, requirement 4, "A virtual hub can be created as a secured virtual hub or converted to a secure one anytime after creation. For additional information, see Secure your virtual hub using Azure Firewall Manager." Azure Firewall Manager will allow the FQDN filtering.

upvoted 2 times

**Mltytskr** 1 year, 3 months ago

EDIT: the Virtual network peering is actually requirement 3, sorry.

upvoted 1 times

**mVic** 1 year, 3 months ago**Selected Answer: B**

B should be the right one to include FQDN filtering requirement

upvoted 1 times

**mVic** 1 year, 3 months ago

I think Mltytskr and SilverFox are right, and the answer is A.

upvoted 1 times

**shako** 1 year, 3 months ago**Selected Answer: B**

for connection transitivity and security, I go for B.

IMO the case study stick with this architecture: <https://learn.microsoft.com/en-us/azure/architecture/networking/hub-spoke-vwan-architecture#architecture>

upvoted 2 times

**Mltytskr** 1 year, 3 months ago

Based on the link you shared, why would the answer not be A - Virtual WAN hub? In the link, it states: "Standard Virtual WANs are by default connected in a full mesh. Standard Virtual WAN supports any-to-any connectivity (Site-to-Site VPN, VNet, ExpressRoute, Point-to-site endpoint) in a single hub as well as across hubs." That seems to meet the different connection requirements listed. Additionally, you stated B - virtual network peering, and in the same article, it states: "Virtual network peering is a nontransitive relationship between two virtual networks," and the requirement says transitive, so I'm not sure B is correct.

upvoted 1 times

**Darkeh** 8 months, 1 week ago

My ist, your shako

upvoted 1 times

**ServerBrain** 1 year, 3 months ago**Selected Answer: C**

correct

upvoted 1 times

**[Removed]** 1 year, 3 months ago

Something doesn't right here, correct me if I am wrong but, this quote:

"The network traffic between virtual networks must be filtered by using FQDNs"

NSGs do not understand FQDNs as they operate at Layer 4, so TCP/UDP. FQDN is Layer 7.

Am I missing something?

upvoted 2 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Database Business Critical
- B. Azure SQL Managed Instance Business Critical
- C. Azure SQL Database Standard
- D. Azure SQL Managed Instance General Purpose

**Correct Answer: A**

*Community vote distribution*

A (88%) 13%

✉️  **OrangeSG** 5 months, 2 weeks ago

**Selected Answer: A**

C is wrong option because Azure SQL Database Standard do not have Zone-redundant availability.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#zone-redundant-availability>

Zone-redundant availability is available to databases in the General Purpose, Premium, Business Critical and Hyperscale service tiers of the vCore purchasing model, and not the Basic and Standard service tiers of the DTU-based purchasing model. Zone-redundant availability ensures Recovery Point Objective (RPO) which indicates the amount of data loss is zero.

upvoted 2 times

✉️  **zellck** 1 year, 1 month ago

Same as Question 84.

<https://www.examtopics.com/discussions/microsoft/view/99751-exam-az-305-topic-4-question-84-discussion>

upvoted 3 times

✉️  **zellck** 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/sql-database-paas-overview?view=azuresql#service-tiers>

The Business Critical service tier is designed for OLTP applications with high transaction rates and low latency I/O requirements. It offers the highest resilience to failures by using several isolated replicas.

upvoted 4 times

✉️  **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#premium-and-business-critical-service-tier-zone-redundant-availability>

By default, the cluster of nodes for the premium availability model is created in the same datacenter. With the introduction of Azure Availability Zones, SQL Database can place different replicas of the Business Critical database to different availability zones in the same region. To eliminate a single point of failure, the control ring is also duplicated across multiple zones as three gateway rings (GW). The routing to a specific gateway ring is controlled by Azure Traffic Manager (ATM). Because the zone-redundant configuration in the Premium or Business Critical service tiers doesn't create additional database redundancy, you can enable it at no extra cost. By selecting a zone-redundant configuration, you can make your Premium or Business Critical databases resilient to a much larger set of failures, including catastrophic datacenter outages, without any changes to the application logic.

upvoted 1 times

✉️  **CloudK** 1 year, 1 month ago

**Selected Answer: A**

From: <https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

Zone-redundant configuration is currently in preview for SQL Managed Instance, and ONLY available for the Business Critical service tier.

I think that for a production service it is correct to use a service that is not in preview, so the correct answer should be "A"

upvoted 1 times

✉️  **Mangocurry** 1 year, 2 months ago

**Selected Answer: C**

I think this should be C, General Purpose with ZRS.

upvoted 2 times

✉ **Mangocurry** 1 year, 2 months ago

Actually this is wrong. Standard falls under DTU based purchasing model and does not support ZRS. Standard != General Purpose  
upvoted 2 times

✉ **zellck** 1 year, 1 month ago

Azure SQL DB Standard tier only supports LRS.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#basic-standard-and-general-purpose-service-tier-locally-redundant-availability>

upvoted 1 times

✉ **clueless888** 1 year, 2 months ago

From what I have read GeneralPurpose(aka Standard) supports ZRS

There are three architectural models that are used in Azure SQL Database:

- General Purpose/Standard
- Business Critical/Premium
- Hyperscale

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

upvoted 4 times

✉ **Lu5ck** 1 year, 2 months ago

MI GP does not available world wide yet thus the safest choice is as stated.

upvoted 1 times

✉ **yeanlingmedal71** 1 year, 2 months ago

**Selected Answer: A**

Duplicate

upvoted 2 times

✉ **RandomNickname** 1 year, 2 months ago

**Selected Answer: A**

For no data-loss and as per mVic A is correct.

upvoted 1 times

✉ **mVic** 1 year, 3 months ago

**Selected Answer: A**

for these questions where zone-redundancy is required, there are only these options:

- General Purpose
- Premium
- Business Critical

<https://learn.microsoft.com/en-GB/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

upvoted 2 times

✉ **ServerBrain** 1 year, 3 months ago

**Selected Answer: A**

Correct, In the absence of Azure SQL Database Premium

upvoted 2 times

You are designing a point of sale (POS) solution that will be deployed across multiple locations and will use an Azure Databricks workspace in the Standard tier. The solution will include multiple apps deployed to the on-premises network of each location.

You need to configure the authentication method that will be used by the app to access the workspace. The solution must minimize the administrative effort associated with staff turnover and credential management.

What should you configure?

- A. a managed identity
- B. a service principal
- C. a personal access token

**Correct Answer: B**

*Community vote distribution*

B (85%)

A (15%)

✉  **uettidam**  1 year, 3 months ago

**Selected Answer: B**

response is B

reason: MID can be used only between Azure resources, here we have on-prem application communicating to Azure resources, then you need a service principal

upvoted 32 times

✉  **[Removed]** 1 year, 2 months ago

A managed identity is a type of service principal.

upvoted 1 times

✉  **[Removed]** 1 year, 2 months ago

Correction. A service principal is one of two types of managed identities fam

upvoted 5 times

✉  **VBK8579**  1 year, 2 months ago

**Selected Answer: B**

A managed identity can provide authentication for Azure resources, but it cannot provide authentication for on-premises resources. In the case of an on-premises network, you would typically use a service principal or a personal access token for authentication.

upvoted 15 times

✉  **quaternion**  8 months, 3 weeks ago

**Selected Answer: B**

Service Principal must be used for accessing on-prem apps to Azure resources. (MI is for within Azure resources).

upvoted 3 times

✉  **NotMeAnyWay** 9 months ago

**Selected Answer: B**

If the POS system is on-premises and not on Azure, then you cannot use Azure Managed Identity because Managed Identity is only applicable for resources that reside within Azure.

B. a service principal

A service principal is an identity created for use with applications, hosted services, and automated tools to access Azure resources. This access is restricted by the roles assigned to the service principal, giving you control over which resources can be accessed and at what level. For security reasons, it's always recommended to use service principals with automated tools rather than allowing them to log in with a user identity.

You can create a service principal for the application and grant it just enough permissions to perform the operations it needs. This way, you can manage application credentials and permissions in a centralized way, which helps reduce administrative effort associated with staff turnover and credential management.

upvoted 3 times

✉  **sjb66** 11 months, 1 week ago

**Selected Answer: B**

Service principle, since we're connecting a third party app with AAD. See <https://devblogs.microsoft.com/devops/demystifying-service-principals-managed-identities/>

upvoted 2 times

✉ **lombri** 11 months, 2 weeks ago

**Selected Answer: A**

A managed identity

Is a service principal that is automatically managed by Azure and provides an easier and more secure way to authenticate applications and services to access Azure resources.

It reduces the administrative effort associated with credential management and provides seamless access to the Azure resources.

With managed identity, you do not have to store any secrets or credentials in the application code or configuration.

upvoted 1 times

✉ **lombri** 11 months, 2 weeks ago

my mistake

service principal is the rightone

authentication method for accessing an Azure Databricks workspace from an application deployed on-premises. A service principal provides an identity for the application and enables the application to authenticate with Azure Databricks without requiring user credentials. This approach reduces the administrative effort associated with managing user credentials and simplifies the process of granting and revoking access to the workspace.

upvoted 3 times

✉ **EXzw** 1 year ago

**Selected Answer: A**

From GPT

Managed identities are a feature of Azure Active Directory (Azure AD) and are primarily designed for use with Azure services. However, you can leverage managed identities for on-premises applications by using Azure AD Application Proxy or Hybrid Connections. This way, the on-premises application can authenticate with Azure services using the managed identity.

Here's a high-level overview of how you can achieve this:

Configure Azure AD Application Proxy or Hybrid Connections to securely expose the on-premises application to the internet.

Register the on-premises application in Azure AD and enable a managed identity for the app.

Assign the appropriate roles and permissions to the managed identity for accessing the required Azure resources, such as the Azure Databricks workspace.

Update the on-premises application to use the managed identity to authenticate with Azure services.

upvoted 1 times

✉ **BShelat** 4 months ago

"he solution must minimize the administrative effort associated with staff turnover and credential management." is also need to be considered.  
Less administrative effort

upvoted 1 times

✉ **EXzw** 1 year ago

Continued....

Please note that this approach adds some complexity and requires additional configuration. However, it allows you to take advantage of managed identities for your on-premises applications, thus minimizing administrative effort associated with staff turnover and credential management.

upvoted 1 times

✉ **Jamesat** 1 year, 1 month ago

Service Principal as Managed Identity can't be used for On-Premises workloads.

upvoted 1 times

✉ **cp2323** 1 year, 1 month ago

**Selected Answer: B**

its onsite app authentication hence it should be Service Principal

upvoted 1 times

✉ **zellck** 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/databricks/administration-guide/users-groups/service-principals#what-is-a-service-principal>

A service principal is an identity that you create in Azure Databricks for use with automated tools, jobs, and applications. Service principals give automated tools and scripts API-only access to Azure Databricks resources, providing greater security than using users or groups. It also prevents jobs and automations from failing if a user leaves your organization or a group is modified.

upvoted 9 times

✉ **Eusouzati** 1 year, 2 months ago

**Selected Answer: B**

B - A Service Principal

upvoted 2 times

OPT\_001122 1 year, 2 months ago

**Selected Answer: B**

on-premises = Service Principle  
upvoted 3 times

OPT\_001122 1 year, 2 months ago

**Selected Answer: B**

B. a service principal  
upvoted 2 times

VBK8579 1 year, 2 months ago

A. a managed identity per ChatGPT  
upvoted 3 times

alphajt 1 year, 2 months ago

ChatGPT is not always right. You should always check for correctness  
upvoted 1 times

VBK8579 1 year, 2 months ago

Wrong Answer.

Answer is B. a service principal

Because A managed identity can provide authentication for Azure resources, but it cannot provide authentication for on-premises resources. In the case of an on-premises network, you would typically use a service principal or a personal access token for authentication.

upvoted 1 times

ed79 1 year, 2 months ago

Azure Databricks doesn't support use of Managed Identity only Service Principals  
upvoted 1 times

kmk\_01 1 year, 2 months ago

Wrong, Azure Databricks supports system-assigned managed identities not user-assigned. <https://learn.microsoft.com/en-us/azure/databricks/data-governance/unity-catalog/azure-managed-identities#--configure-a-managed-identity-for-unity-catalog>. However, the answer for this question is Service Principal.

upvoted 2 times

diego84 1 year, 2 months ago

**Selected Answer: B**

as  
The solution will include multiple apps deployed to the on-premises network of each location. You need to configure the authentication method that will be used by the app to access the workspace.  
app->on-prem-> service principal-> auth Azure  
upvoted 2 times

janvandermerwer 1 year, 2 months ago

**Selected Answer: B**

<https://learn.microsoft.com/en-us/azure/databricks/administration-guide/users-groups/#identity-model>

This is a hard one and I can't find a definitive answer.  
Initially thought A, but now I'm leaning toward service principals.  
upvoted 2 times

**HOTSPOT**

You have two Azure AD tenants named contoso.com and fabrikam.com. Each tenant is linked to 50 Azure subscriptions. Contoso.com contains two users named User1 and User2.

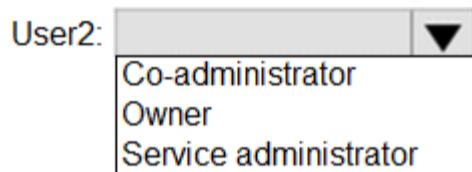
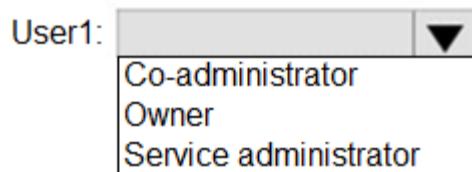
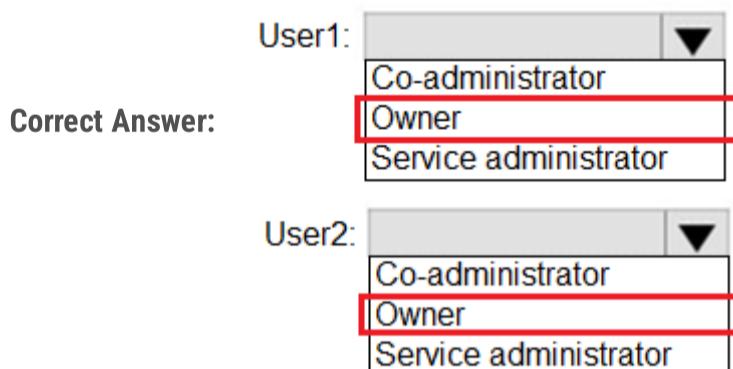
You need to meet the following requirements:

- Ensure that User1 can change the Azure AD tenant linked to specific Azure subscriptions.
- If an Azure subscription is linked to a new Azure AD tenant, and no available Azure AD accounts have full subscription-level permissions to the subscription, elevate the access of User2 to the subscription.

The solution must use the principle of least privilege.

Which role should you assign to each user? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area****Answer Area**

zellck Highly Voted 1 year, 1 month ago

1. Owner
2. Owner

<https://learn.microsoft.com/en-us/azure/active-directory/fundamentals/active-directory-how-subscriptions-associated-directory#before-you-begin>  
Before you can associate or add your subscription, do the following steps:  
- Sign in using an account that Has an Owner role assignment for the subscription.  
upvoted 14 times

NotMeAnyWay Highly Voted 9 months, 2 weeks ago

- User1: b. Owner  
User2: b. Owner

For User1 who needs to change the Azure AD tenant linked to specific Azure subscriptions, they need to be assigned the role of "Owner". This is because to change the Azure AD tenant linked to a subscription, the user must have enough permissions, which are available at the Owner level.

For User2 who needs to have the access elevated to the subscription if no available Azure AD accounts have full subscription-level permissions to

the subscription, they need to be assigned the "Owner" role as well. This role provides full access to all resources, including the right to delegate access to others. In this scenario, the "Owner" role would allow User2 to gain access to the subscription in the absence of any other account with full permissions.

upvoted 10 times

✉️  **randy0077** Most Recent ⓘ 5 months ago

owner owner is correct answer.

upvoted 1 times

✉️  **MichaelMelb** 5 months, 3 weeks ago

User1: Service Admin

Service Admin fits to all the requirements whereas Owner has more than required permissions

"By default, for a new subscription, the Account Administrator is also the Service Administrator.

The Service Administrator has the equivalent access of a user who is assigned the Owner role at the subscription scope.

The Service Administrator has full access to the Azure portal."

<https://learn.microsoft.com/en-us/azure/role-based-access-control/rbac-and-directory-admin-roles>

User2: Owner

upvoted 1 times

✉️  **Trillionairejefje** 9 months, 2 weeks ago

1.Service administrator

2.Co-administrator

reference : <https://learn.microsoft.com/en-us/azure/role-based-access-control/rbac-and-directory-admin-roles#classic-subscription-administrator-roles>

upvoted 1 times

✉️  **sawanti** 8 months ago

Both roles are a LEGACY roles. Do you really believe that Microsoft is proposing something that it takes them years to retire? Both roles will be retired on August 31, 2024 (<https://learn.microsoft.com/en-us/azure/role-based-access-control/rbac-and-directory-admin-roles>)

upvoted 2 times

✉️  **betterthanlife** 11 months, 1 week ago

- Co-Administrator "can't change the association of subs to Azure AD directories so it's out.

- Given that the tenants & some subs exist then, & since we live in the real world (as strange as it's become) & there's no mention otherwise, & given the options we can presume User 1 to have the Service Administrator role, which provides full access to the Azure portal.

- Given "elevate the access" is a requirement for User, the only deduction in this whole madness of stupidity mess possible is Owner.

<https://learn.microsoft.com/en-us/azure/role-based-access-control/rbac-and-directory-admin-roles>

upvoted 1 times

✉️  **ctlearn** 1 year, 1 month ago

Service Administrator and Co-Administrator are classic subscription roles that have the equivalent access of a user who is assigned the Owner role at the subscription scope. The answer for both is Owner.

<https://learn.microsoft.com/en-us/azure/role-based-access-control/rbac-and-directory-admin-roles>

upvoted 1 times

✉️  **VBK8579** 1 year, 2 months ago

Owner

Owner

upvoted 2 times

✉️  **RandomNickname** 1 year, 2 months ago

Based on the requirements in the question given answer looks correct to me.

upvoted 1 times

✉️  **OPT\_001122** 1 year, 2 months ago

Owner

Owner

upvoted 1 times

✉️  **upwork** 1 year, 2 months ago

From ChatGPT:

An Azure AD Service Administrator role is designed to manage user, groups and other resources within an Azure AD tenant. While they can manage the users and groups, they don't have the permission to move a subscription from one tenant to another.

To move a subscription from one tenant to another, you need to have the "Subscription Owner" or "Global Administrator" role within the Azure AD tenant to which you want to move the subscription.

So I think the answer should be "Owner" x 2

upvoted 8 times

✉️  **upwork** 1 year, 2 months ago

Not sure about the GPT answer, but I find this link useful <https://learn.microsoft.com/en-us/azure/role-based-access-control/classic-administrators>

It suggests the answer would be the Service Admin and the Co-Admin in the old-school days, but today perhaps we should rely on the Owner's role.

upvoted 1 times

✉️  **sawanti** 8 months ago

Both Service Administrator and Co-something are legacy roles and will be retired, hence Microsoft will NEVER intentionally mark them as a correct answer. Owner is the only valid answer

upvoted 2 times

✉  **tfulanchan** 1 year, 2 months ago

There are only four "Azure roles", and "Owner" is the only "role" in the answers, the other two are "Classic subscription administrator".

The Service Administrator and Co-Administrators are assigned the Owner role at the subscription scope.

<https://learn.microsoft.com/en-us/azure/role-based-access-control/rbac-and-directory-admin-roles#azure-roles>

upvoted 2 times

✉  **LeeVee** 1 year, 2 months ago

Service Administrator and Co-Administrator were a classic subscription role. These two Roles equivalent is current role assignment is Owner. So I think answer is correct. you don't want to use classic RBAC as Microsoft will move away on this classic roles in the future. do future proofing a bit on this.

upvoted 1 times

✉  **Mo22** 1 year, 3 months ago

The answer is correct to me:

<https://learn.microsoft.com/en-us/azure/active-directory/fundamentals/active-directory-how-subscriptions-associated-directory>

upvoted 1 times

✉  **Kernelv5** 1 year, 3 months ago

They are talking about role

Owner : The Service Administrator and Co-Administrators are assigned the Owner role at the subscription scope

Applies to all resource types.

upvoted 1 times

✉  **maku067** 1 year, 3 months ago

Why 2x "Owner"?

upvoted 1 times

✉  **shako** 1 year, 3 months ago

from <https://learn.microsoft.com/en-us/azure/role-based-access-control/rbac-and-directory-admin-roles#classic-subscription-administrator-roles>:

"Co-administrator: same access privileges as the Service Administrator, but can't change the association of subscriptions to Azure AD directories"

"The Co-Administrator has the equivalent access of a user who is assigned the Owner role at the subscription scope." ==> My understanding is that co-admin role has owner role's permissions + its permissions. If yes here is the order from most to less privileges: service admin > co-admin > owner.

So I'd go for:

user1: service administrator.

user2: owner.

upvoted 5 times

✉  **Darkeh** 8 months, 1 week ago

I still have an ist for your shako!

upvoted 1 times

Your company has the divisions shown in the following table.

Division	Azure subscription	Azure AD tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.

You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1.

What should you recommend?

- A. Configure a Conditional Access policy.
- B. Use Azure AD entitlement management to govern external users.
- C. Configure the Azure AD provisioning service.
- D. Configure Azure AD Identity Protection.

**Correct Answer: C**

*Community vote distribution*

B (100%)

✉  **yonie** Highly Voted 11 months, 3 weeks ago

**Selected Answer: B**

There are 10 variations of this question. In each question there are two possible answers. Either its

- Use Azure AD entitlement management to govern external users

Or

- Configure Supported account types in the application registration and update the sign-in endpoint

These two answers are never offered together in the same question.

upvoted 37 times

✉  **zellck** Highly Voted 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-overview#what-can-i-do-with-entitlement-management>

Here are some of capabilities of entitlement management:

- Select connected organizations whose users can request access. When a user who isn't yet in your directory requests access, and is approved, they're automatically invited into your directory and assigned access. When their access expires, if they have no other access package assignments their B2B account in your directory can be automatically removed.

upvoted 7 times

✉  **paulseatonsmith** Most Recent 5 months ago

If anyone gets this wrong in the exam there's no hope for them!

upvoted 3 times

✉  **joesatriani** 6 months, 2 weeks ago

**Selected Answer: B**

B is right answer. This is pattern.

upvoted 1 times

✉  **Ario** 9 months, 1 week ago

**Selected Answer: B**

Yes B is correct here

upvoted 1 times

✉  **NotMeAnyWay** 9 months, 2 weeks ago

**Selected Answer: B**

B. Use Azure AD entitlement management to govern external users.

Explanation:

Azure AD entitlement management is an identity governance feature that enables organizations to manage identity and access lifecycle at scale, by automating access request workflows, access assignments, reviews, and expiration. In the context of the question, it can be used to enable users from the fabrikam.com tenant to authenticate to App1.

Options A, C and D are not suitable for enabling users from another tenant to authenticate to App1.

upvoted 3 times

✉️  NotMeAnyWay 9 months ago

You would create an access package in the contoso.com tenant and grant access for the fabrikam.com users. These users will then be able to authenticate to App1 in the contoso.com tenant.

upvoted 1 times

✉️  JohnPhan 1 year ago

**Selected Answer: B**

B. Use Azure AD entitlement management to govern external users.

upvoted 2 times

✉️  zellck 1 year, 1 month ago

Same as Question 38.

<https://www.examtopics.com/discussions/microsoft/view/93994-exam-az-305-topic-1-question-38-discussion>

upvoted 2 times

✉️  VBK8579 1 year, 2 months ago

**Selected Answer: B**

B. Use Azure AD entitlement management to govern external users.

upvoted 1 times

✉️  OPT\_001122 1 year, 2 months ago

**Selected Answer: B**

B. Use Azure AD entitlement management to govern external users.

upvoted 1 times

✉️  Mo22 1 year, 3 months ago

**Selected Answer: B**

Agreed that B is the correct answer:

<https://learn.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-external-users>

Keep in mind if we wanted to allow the App to be accessible to our AZ AD users then C would be correct like a SaaS

upvoted 2 times

✉️  ZakySama 1 year, 3 months ago

**Selected Answer: B**

It should be B

upvoted 1 times

✉️  [Removed] 1 year, 3 months ago

**Selected Answer: B**

B is correct

upvoted 1 times

✉️  lmy 1 year, 3 months ago

This appears at least 3/4 times.

upvoted 4 times

✉️  FabrityDev 1 year, 2 months ago

The question is the same but answers might not. If you know which answer is correct you probably don't notice that one or two of others answers change and it matters if you are not sure which one is correct.

upvoted 1 times

✉️  maku067 1 year, 3 months ago

Should be B?

upvoted 1 times

✉️  Clarkszw 1 year, 3 months ago

**Selected Answer: B**

Azure AD for single-tenant user authentication

upvoted 1 times

✉️  Aziza\_Adam 1 year, 3 months ago

B is the right answer

upvoted 1 times



You have a multi-tier app named App1 and an Azure SQL database named SQL1. The backend service of App1 writes data to SQL1. Users use the App1 client to read the data from SQL1.

During periods of high utilization, the users experience delays retrieving the data.

You need to minimize how long it takes for data requests.

What should you include in the solution?

- A. Azure Cache for Redis
- B. Azure Content Delivery Network (CDN)
- C. Azure Data Factory
- D. Azure Synapse Analytics

**Correct Answer: A**

*Community vote distribution*

A (100%)

✉️  **sawanti**  8 months ago

**Selected Answer: A**

Pretty straightforward this time:

- A. Azure Cache for Redis - Cache the data so users can achieve them quicker
- B. Azure Content Delivery Network (CDN) - There isn't any issue with the networking
- C. Azure Data Factory - This tool is for orchestration, not for enhancing anything existing
- D. Azure Synapse Analytics - Also an orchestration tool with additional data warehouse capabilities, not relevant in this case

upvoted 8 times

✉️  **NotMeAnyWay**  9 months, 2 weeks ago

**Selected Answer: A**

- A. Azure Cache for Redis

Explanation:

Azure Cache for Redis provides an in-memory data store based on open-source software Redis. It can be used to cache the most frequently accessed data, thus significantly reducing latency and increasing throughput for the application data requests. By storing data that's accessed often in a cache, you can improve app performance by reducing the load on your main database and make the app more responsive even during high traffic.

Azure Content Delivery Network (CDN) is more for delivering static content to users, and not designed for database queries.

upvoted 6 times

✉️  **azureguyx**  8 months, 1 week ago

**Selected Answer: A**

"Azure Cache for Redis" is the correct answer.

I think the other solutions are like using a shotgun to kill flies.

upvoted 2 times

✉️  **zellck** 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/azure-cache-for-redis/cache-overview>

Azure Cache for Redis provides an in-memory data store based on the Redis software. Redis improves the performance and scalability of an application that uses backend data stores heavily. It's able to process large volumes of application requests by keeping frequently accessed data in the server memory, which can be written to and read from quickly. Redis brings a critical low-latency and high-throughput data storage solution to modern applications.

upvoted 3 times

✉️  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: A**

- A. Azure Cache for Redis

upvoted 1 times

 **VBK8579** 1 year, 2 months ago

**Selected Answer: A**

A. Azure Cache for Redis

upvoted 1 times

 **[Removed]** 1 year, 2 months ago

**Selected Answer: A**

Caching: Implementing a caching mechanism, such as Redis, can help to reduce the number of requests made to the Azure SQL database. This can improve the performance of data retrieval for users.

upvoted 3 times

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Description
VM1	Virtual machine	Frontend component in the Central US Azure region
VM2	Virtual machine	Backend component in the East US Azure region
VM3	Virtual machine	Backend component in the West US 2 Azure region
VNet1	Virtual network	Hosts VM1
VNet2	Virtual network	Hosts VM2
VNet3	Virtual network	Hosts VM3

You create peering between VNet1 and VNet2 and between VNet1 and VNet3.

The virtual machines host an HTTPS-based client/server application and are accessible only via the private IP address of each virtual machine.

You need to implement a load balancing solution for VM2 and VM3. The solution must ensure that if VM2 fails, requests will be routed automatically to VM3, and if VM3 fails, requests will be routed automatically to VM2.

What should you include in the solution?

- A. Azure Firewall Premium
- B. Azure Application Gateway v2
- C. a cross-region load balancer
- D. Azure Front Door Premium

**Correct Answer: D**

*Community vote distribution*

D (93%) 7%

 **zellck** Highly Voted 1 year, 1 month ago

**Selected Answer: D**

D is the answer.

<https://learn.microsoft.com/en-us/azure/frontdoor/front-door-faq#what-is-the-difference-between-azure-front-door-and-azure-application-gateway>

While both Front Door and Application Gateway are layer 7 (HTTP/HTTPS) load balancers, the primary difference is that Front Door is a non-regional service whereas Application Gateway is a regional service. While Front Door can load balance between your different scale units/clusters/stamp units across regions, Application Gateway allows you to load balance between your VMs/containers etc. that is within the scale unit.

upvoted 13 times

 **NotMeAnyWay** Highly Voted 9 months, 2 weeks ago

**Selected Answer: D**

D. Azure Front Door Premium

Azure Front Door Premium now supports Private Link, which enables private connectivity from a virtual network to a service running in Azure. This feature can be used to connect to services across regions privately, so this should work for your use case where VM2 is in East US and VM3 is in West US. Here is how it could work:

Azure Front Door Premium could be set up with Private Link to create a private endpoint in a regional network. This network can route traffic to VM2 and VM3 through the private link over the Microsoft backbone network, without exposure to the public internet. When one VM fails, Azure Front Door can automatically route the traffic to the other VM, maintaining the availability of your application.

upvoted 12 times

 **cris\_exam** Most Recent 1 week, 5 days ago

Global LB (cross region LB) could do this same load balancing just the same, but I think this is a slightly old question when cross region LB was still in preview, which is no longer the case.

Still, AFD is capable as per below to have an internal LB as backend (Endpoints), so, let's say that AFD could very well be the answer here.

<https://learn.microsoft.com/en-us/azure/frontdoor/front-door-faq#can-i-deploy-azure-load-balancer-behind-front-door>

upvoted 2 times

✉ **ubdubdoo** 4 days, 2 hours ago

i dont think cross region LB supports private endpoints directly.

upvoted 1 times

✉ **rex303** 1 year ago

**Selected Answer: D**

The answer is D.

While both front door and the Cross-Region load balancer are used for cross-region load balancing. Front door allows the use of Private IP's, nd th Cross-region load balancer does not, as per documentation: <https://learn.microsoft.com/en-us/azure/load-balancer/cross-region-overview#regional-redundancy> .

Also, as of the time of writing this answer, the Cross-Region load balancer is still in preview and should not be the first choice for production loads.  
upvoted 6 times

✉ **RandomNickname** 1 year, 2 months ago

**Selected Answer: D**

Based on the limitation with C: as per below as well as in preview the more appropriate choice is likely D:

<https://learn.microsoft.com/en-us/azure/load-balancer/cross-region-overview#regional-redundancy>

upvoted 1 times

✉ **SajanK** 1 year, 2 months ago

This link says that Azure Front Door premium can use private IPs.

<https://learn.microsoft.com/en-us/azure/frontdoor/private-link>

upvoted 4 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: D**

D. Azure Front Door Premium

upvoted 1 times

✉ **upwork** 1 year, 2 months ago

Can Azure Front Door load balance or route traffic within a virtual network?

Azure Front Door Standard, Premium and (classic) tier requires a public IP or publicly resolvable DNS name to route traffic to backend resources.

Azure resources such as Application Gateways or Azure Load Balancers can enable routing to resources within a virtual network.

<https://learn.microsoft.com/en-us/azure/frontdoor/front-door-faq#can-azure-front-door-load-balance-or-route-traffic-within-a-virtual-network->

upvoted 3 times

✉ **sumaju** 5 months, 2 weeks ago

Azure Front Door Premium can connect to your origin using Private Link. Your origin can be hosted in a virtual network or hosted as a PaaS service such as Azure Web App or Azure Storage. Private Link removes the need for your origin to be accessed publicly.

<https://learn.microsoft.com/en-us/azure/frontdoor/private-link>

upvoted 1 times

✉ **upwork** 1 year, 2 months ago

Front Door requires public IPs while the case explicitly says the VMs are accessible only on private IPs.

Front Door: Backend pools can be composed of Storage, Web App, Kubernetes instances, or any other custom hostname that has public connectivity. Azure Front Door requires that the backends are defined either via a public IP or a publicly resolvable DNS hostname. Members of backend pools can be across zones, regions, or even outside of Azure as long as they have public connectivity.

upvoted 2 times

✉ **sumaju** 5 months, 2 weeks ago

Azure Front Door Premium can connect to your origin using Private Link. Your origin can be hosted in a virtual network or hosted as a PaaS service such as Azure Web App or Azure Storage. Private Link removes the need for your origin to be accessed publicly.

<https://learn.microsoft.com/en-us/azure/frontdoor/private-link>

upvoted 1 times

✉ **mscbslt** 1 year, 2 months ago

**Selected Answer: D**

<https://learn.microsoft.com/en-us/azure/frontdoor/front-door-faq>

upvoted 1 times

✉ **janvandermerwer** 1 year, 2 months ago

**Selected Answer: D**

D - Looks to be the best answer

<https://learn.microsoft.com/en-us/azure/frontdoor/health-probes>

b - Application load balancer is only for in-region connectivity. - incorrect

upvoted 3 times

 **jwjw** 1 year, 2 months ago

**Selected Answer: D**

VMs are in different regions so only FrontDoor  
upvoted 3 times

 **[Removed]** 1 year, 2 months ago

**Selected Answer: B**

Answer is B as per - <https://learn.microsoft.com/en-us/azure/application-gateway/overview-v2>

"The autoscaling v2 SKU now supports default health probes to automatically monitor the health of all resources in its backend pool and highlight those backend members that are considered unhealthy. "

upvoted 3 times

 **[Removed]** 1 year, 2 months ago

Answer might be correct looking at this

upvoted 1 times

 **[Removed]** 1 year, 2 months ago

<https://learn.microsoft.com/en-us/azure/frontdoor/health-probes>

upvoted 1 times

You are designing an app that will include two components. The components will communicate by sending messages via a queue.

You need to recommend a solution to process the messages by using a First in, First out (FIFO) pattern.

What should you include in the recommendation?

- A. storage queues with a custom metadata setting
- B. Azure Service Bus queues with partitioning enabled
- C. Azure Service Bus queues with sessions enabled
- D. storage queues with a stored access policy

**Correct Answer: C**

*Community vote distribution*

C (100%)

✉  **zellck**  1 year, 1 month ago

**Selected Answer: C**

C is the answer.

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/message-sessions>

Azure Service Bus sessions enable joint and ordered handling of unbounded sequences of related messages. Sessions can be used in first in, first out (FIFO) and request-response patterns. This article shows how to use sessions to implement these patterns when using Service Bus.

upvoted 14 times

✉  **NotMeAnyWay**  9 months, 2 weeks ago

**Selected Answer: C**

C. Azure Service Bus queues with sessions enabled

Explanation:

Azure Service Bus supports a FIFO pattern through the use of sessions. A session is a sequence of ordered messages. All messages in a session are handled in the order they arrive. This ensures that messages are processed in the order they were added to the queue.

Options A and D are incorrect because Azure Storage queues do not natively support the First In, First Out (FIFO) pattern. There are no such features as custom metadata setting or stored access policy that can establish FIFO in Azure Storage queues.

Option B is incorrect because while partitioning in Azure Service Bus can improve performance by spreading the load across multiple message brokers and stores, it doesn't enforce FIFO ordering across partitions. FIFO ordering is maintained within a partition, but not across partitions. Hence, for strict FIFO, you would not want to enable partitioning, you would want to use sessions.

upvoted 12 times

✉  **xRiot007**  1 month, 2 weeks ago

The wording of the question is slightly misleading.

A queue has by default a FIFO mechanism to send and receive messages.

In this context the user wants to create his own CUSTOM order.

To do this, sessions are used to mark the messages that should be received first, then second, etc, so what is known as FIFO is broken.

This article helps with a visualization of the process:

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/message-sessions#session-features>

A session is like a subqueue.

upvoted 2 times

✉  **steel72** 1 year ago

**Selected Answer: C**

"Azure Service Bus queues with sessions enabled"

As a solution architect/developer, you should consider using Service Bus queues when your solution requires the queue to provide a guaranteed first-in-first-out (FIFO) ordered delivery.

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/service-bus-azure-and-service-bus-queues-compared-contrasted#consider-using-service-bus-queues>

Sessions can be used in first in, first out (FIFO) and request-response patterns.

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/message-sessions>

upvoted 2 times

✉ **VBK8579** 1 year, 1 month ago

**Selected Answer: C**

C. Azure Service Bus queues with sessions enabled.

Azure Service Bus queues with sessions enabled ensure a FIFO pattern by allowing messages to be processed in order, and messages are processed by a single receiver instance.

upvoted 2 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: C**

C. Azure Service Bus queues with sessions enabled

upvoted 2 times

✉ **janvandermerwer** 1 year, 2 months ago

**Selected Answer: C**

C is a go and recommended from what i can see.

Service Bus queues ordering guarantee

Yes - First-In-First-Out (FIFO)

(by using message sessions)

upvoted 2 times

✉ **FabryDev** 1 year, 2 months ago

**Selected Answer: C**

Only Service Bus guarantees FIFO and you need to use Sessions for this.

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/service-bus-azure-and-service-bus-queues-compared-contrasted>

upvoted 2 times

✉ **[Removed]** 1 year, 2 months ago

**Selected Answer: C**

C:

Sessions: Enabling sessions on an Azure Service Bus queue allows for grouping of related messages together. This can be useful if you need to ensure that messages related to a specific session or conversation are processed in order. With sessions, you can also allow multiple consumers to process messages from the same session in parallel, which can improve the overall throughput of the queue. This is useful if you expect to have a large number of conversations and need to scale out the processing of those messages.

upvoted 2 times

**HOTSPOT**

You need to deploy an instance of SQL Server on Azure Virtual Machines. The solution must meet the following requirements:

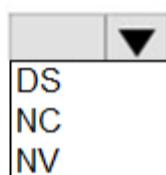
- Support 15,000 disk IOPS.
- Support SR-IOV.
- Minimize costs.

What should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

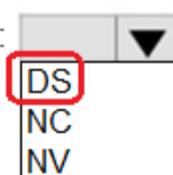
Virtual machine series:



Disk type:

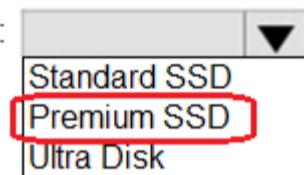
**Answer Area**

Virtual machine series:



Correct Answer:

Disk type:



✉ **SomeCert** Highly Voted 1 year ago

What's the point of memorizing this kind of sheit?

upvoted 94 times

✉ **AdventureChick** 6 months, 4 weeks ago

Microsoft has a minimum WTF?!? threshold required per user per exam (min\_WTF)

If they don't add crap like this, they don't hit the quota, it generates a crapload of alerts and a dashboard in Redmond turns bright red. :))

Yes .... I've been studying too long and just seeing if anyone is paying attention.

upvoted 18 times

✉ **exam\_taker24** 10 months, 3 weeks ago

I agree, it's dumb

upvoted 3 times

✉ **betterthanlife** 11 months, 2 weeks ago

It's stupidity...

upvoted 4 times

✉ **NinjaDog00** 1 year ago

Agree.....

upvoted 7 times

✉ **[Removed]** Highly Voted 1 year, 2 months ago

Answers are correct:

Azure Virtual Machine:

Use a high-performance Azure Virtual Machine such as the Dv3 or Ev3 series, which are optimized for workloads that require low latency and high throughput.

SR-IOV: Enable SR-IOV on the Virtual Machine. SR-IOV allows for direct communication between the virtual NIC and the physical NIC, reducing latency and increasing throughput.

Azure Premium SSD Disks:

Use Azure Premium SSD Disks as they are optimized for performance-sensitive workloads and have a high IOPS and throughput limit.  
upvoted 12 times

✉️ **Crossfader2208** Most Recent 1 month, 1 week ago

I will tattoo this info into my brain. Very important.  
upvoted 3 times

✉️ **mtc9** 1 month, 1 week ago

I just love questions like that.  
upvoted 2 times

✉️ **dave22339** 2 months ago

Just memorise the answer. It's the one named after a Citroen. Don't have a way of memorising premium yet.  
upvoted 3 times

✉️ **guntor66** 1 month, 1 week ago

Citroen DS could target people in the "Premium" class, with a certain prestige.  
Citroen DS was at the time a presidential car in France ;)  
upvoted 2 times

✉️ **Fidel\_104** 1 month, 1 week ago

these are the kind of insights I'm looking for among the comments  
upvoted 1 times

✉️ **NIC\_Name** 6 months, 3 weeks ago

The exam is open book at last, so a search in the Exam for Virtual Machine DS gives the answer.  
upvoted 7 times

✉️ **SaiKJ** 7 months, 2 weeks ago

:-(.. there is no point in asking such questions in design.  
upvoted 3 times

✉️ **hantolini** 8 months ago

Answer is Correct:  
NC and NV does not support SR-IOV (Accelerated Networking). Per this note, enable it on this VMs types has no effect.

<https://learn.microsoft.com/en-us/azure/virtual-network/accelerated-networking-overview?tabs=redhat#supported-vm-instances>

So, only Ds vms type take advantage of SR-IOV.

The, Premium SSD is enough to support 15000 IOPs  
upvoted 2 times

✉️ **Bintokol** 9 months ago

From olabiba.ai:

DS= Dedicated series  
NC=GPU-optimized  
NV=Virtualized GPU

....and I agree, Why we need to memorize this!!!!  
upvoted 9 times

✉️ **NotMeAnyWay** 9 months, 2 weeks ago

Virtual machine series:

The correct option is a. DS.

Explanation: The DS series Azure Virtual Machines are designed for applications that require high storage performance and are ideal for SQL Server instances. The DSv3 and Dsv4-series, for instance, support Azure's premium SSDs and offer good I/O throughput, making them suitable for SQL Server workloads. NC and NV series are more oriented towards GPU-intensive and AI workloads, which are not the requirement in this case. SR-IOV is supported by DS series VMs.

Disk Type:

The correct option is b. Premium SSD.

Explanation: To achieve 15,000 IOPS, you would need Premium SSDs. Standard SSDs offer lower performance in terms of IOPS and throughput, and while Ultra Disks could provide the necessary IOPS, they are more expensive and hence not the optimal choice for minimizing costs.  
upvoted 6 times

✉️  **lombri** 1 year ago

The answer seems correct:

1. DS

Ideal for testing and development, small to medium databases, and low to medium traffic web servers.

D-series, feature a more powerful CPU and optimal CPU-to-memory configuration, making them suitable for most production workloads.

2. Premium SSD

Azure Premium SSDs deliver high-performance and low-latency disk support for virtual machines (VMs) with input/output (IO)-intensive workloads (max IOPS 20,000)

For any consultation see look this link is going to be helpful for every one :

Link 1 = <https://learn.microsoft.com/en-us/azure/virtual-machines/sizes>

Link 2 = <https://learn.microsoft.com/en-us/azure/virtual-machines/dv2-dsv2-series>

Link 3 = <https://learn.microsoft.com/en-us/azure/virtual-machines/sizes-general>

Link 3 = <https://learn.microsoft.com/en-us/azure/virtual-machines/disks-types#disk-type-comparison>  
upvoted 1 times

✉️  **zellck** 1 year, 1 month ago

1. DS

2. Premium SSD

<https://learn.microsoft.com/en-us/azure/virtual-network/accelerated-networking-overview>

<https://learn.microsoft.com/en-us/azure/virtual-machines/disks-types#disk-type-comparison>

Premium SSD

- Max IOPS: 20,000

upvoted 7 times

✉️  **pkkalra** 1 year, 1 month ago

Premium SSD supports upto 20,000 IOPS

Only DS supports SR-IOV/Accelerated Networking

Although NC and NV sizes will show in the command below, they do not support Accelerated Networking. Enabling Accelerated Networking on NC or NV VMs will have no effect.

<https://learn.microsoft.com/en-us/azure/virtual-network/accelerated-networking-overview>

<https://learn.microsoft.com/en-us/azure/virtual-network/accelerated-networking-overview>

upvoted 3 times

✉️  **pkkalra** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/virtual-machines/disks-types>

upvoted 1 times

✉️  **OPT\_001122** 1 year, 2 months ago

1. DS

2. Premium SSD

upvoted 1 times

✉️  **janvandermerwer** 1 year, 2 months ago

Agreed - DS series and premium SSD

initially thought maybe a use case for ultra - but that is lacking a few features we'll probably need for sql

upvoted 1 times

✉️  **RandomNickname** 1 year, 2 months ago

Answer looks correct;

<https://learn.microsoft.com/en-us/azure/virtual-machines/disks-types>

<https://azure.microsoft.com/en-us/pricing/details/virtual-machines/series/>

<https://learn.microsoft.com/en-us/azure/site-recovery/azure-vm-disaster-recovery-with-accelerated-networking>

upvoted 3 times

✉️  **WindowAFX** 1 year, 2 months ago

Looks correct

upvoted 4 times

You are developing an app that will use Azure Functions to process Azure Event Hubs events. Request processing is estimated to take between five and 20 minutes.

You need to recommend a hosting solution that meets the following requirements:

- Supports estimates of request processing runtimes
- Supports event-driven autoscaling for the app

Which hosting plan should you recommend?

A. Dedicated

B. Consumption

C. App Service

D. Premium

**Correct Answer: D**

*Community vote distribution*

D (100%)

 **NotMeAnyWay** Highly Voted 9 months, 2 weeks ago

**Selected Answer: D**

D. Premium

The Premium plan is the best fit for this scenario. It supports both longer execution times and event-driven scaling, which are the requirements specified in the question.

Azure Functions on a Premium plan can run for a longer period, up to 60 minutes (or indefinitely if the host.json "functionTimeout" setting is null), making it suitable for the estimated request processing times of five to 20 minutes. The Premium plan also supports event-driven autoscaling.

The Consumption plan supports event-driven autoscaling but only allows functions to run for up to 10 minutes, so it wouldn't support the estimated request processing times of five to 20 minutes.

The Dedicated and App Service plans can run for a longer period, but they do not support event-driven autoscaling. The Dedicated plan is also the most costly option and should be used when you need the most control over the function app environment.

upvoted 15 times

 **azkumar305** Highly Voted 1 year ago

Got this on 14-Apr-2023

upvoted 12 times

 **BShelat** Most Recent 4 months ago

**Selected Answer: D**

<https://learn.microsoft.com/en-us/azure/azure-functions/functions-scale#scale>

D is the answer.

upvoted 1 times

 **zellick** 1 year, 1 month ago

**Selected Answer: D**

D is the answer.

<https://learn.microsoft.com/en-us/azure/event-hubs/compare-tiers#features>

Premium

Dynamic Partition scale out

- Yes

upvoted 5 times

 **zellick** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/azure-functions/functions-scale#timeout>

Premium plan

- default timeout: 30 mins

- max timeout: Unlimited

upvoted 2 times

zellck 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/azure-functions/functions-scale#scale>

Premium plan

- Event driven. Scale out automatically, even during periods of high load. Azure Functions infrastructure scales CPU and memory resources by adding additional instances of the Functions host, based on the number of events that its functions are triggered on.

upvoted 3 times

VBK8579 1 year, 1 month ago

**Selected Answer: D**

App timeout duration for Consumption plan is 5 mins default and Maximum is 10 mins. For dedicated and Premium, it is 30 mins default and maximum is unlimited.

Dedicated supports Autoscaling but cannot support event driven. Only Consumption and Premium supports Event driven autoscaling.

So best suitable option is Premium

upvoted 2 times

OPT\_001122 1 year, 2 months ago

**Selected Answer: D**

D. Premium

upvoted 2 times

Jzx 1 year, 2 months ago

**Selected Answer: D**

D it is...

upvoted 1 times

janvandermerwer 1 year, 2 months ago

**Selected Answer: D**

Let's go with D

- Mostly due to time based limits.

upvoted 2 times

vldt 1 year, 2 months ago

**Selected Answer: D**

Only Dedicated and Premium have the matching timeout so we need to choose between A and D. Then as usual they let us guess what is hidden in the "Supports estimates of request processing runtimes". If it is "Predictive scaling and costs are required" then the correct answer is D as per <https://learn.microsoft.com/en-us/azure/azure-functions/functions-scale#overview-of-plans>

upvoted 2 times

RandomNickname 1 year, 2 months ago

**Selected Answer: D**

D looks like as per article provided by jose

<https://learn.microsoft.com/en-us/azure/azure-functions/functions-scale#timeout>

upvoted 1 times

rolmisha 1 year, 2 months ago

Premium - consumption time is up to 30 minutes.

upvoted 1 times

[Removed] 1 year, 2 months ago

Think this should be B, consumption:

The Consumption Plan is a serverless hosting plan that automatically scales the number of instances of your function based on the number of incoming events, which can help to optimize costs and ensure that your app can handle varying loads. Additionally, the Consumption Plan supports the ability to set a timeout for your functions, which can help to ensure that your app can handle estimates of request processing runtimes.

upvoted 2 times

jose 1 year, 2 months ago

In consumption plan the maximum timeout is 10 minutes:

<https://learn.microsoft.com/en-us/azure/azure-functions/functions-scale#timeout>

upvoted 6 times

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping.

You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Notification Hubs
- B. Azure Application Gateway
- C. Azure Service Bus
- D. Azure Traffic Manager

**Correct Answer: C**

*Community vote distribution*

C (100%)

✉️  **Crossfader2208** 1 month, 1 week ago

I now definitely know the answer to this question.  
upvoted 2 times

✉️  **Sanjeevsn** 10 months, 4 weeks ago

**Selected Answer: C**

Azure Service Bus  
upvoted 2 times

✉️  **malcubierre** 1 year ago

**Selected Answer: C**

Azure Service Bus is the only one that allow async comm  
upvoted 1 times

✉️  **zellck** 1 year, 1 month ago

**Selected Answer: C**

C is the answer.

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview>

Azure Service Bus is a fully managed enterprise message broker with message queues and publish-subscribe topics (in a namespace). Service Bus is used to decouple applications and services from each other, providing the following benefits:

- Load-balancing work across competing workers
  - Safely routing and transferring data and control across service and application boundaries
  - Coordinating transactional work that requires a high-degree of reliability
- upvoted 1 times

✉️  **pkkalra** 1 year, 1 month ago

**Selected Answer: C**

service bus  
upvoted 1 times

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping.

You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Notification Hubs
- B. Azure Application Gateway
- C. Azure Queue Storage
- D. Azure Traffic Manager

**Correct Answer: C**

*Community vote distribution*

C (100%)

✉️  **Tplenty** 5 months ago

The answer is either Azure Queue Storage or Azure Service Bus. C is correct  
upvoted 3 times

✉️  **Alessandro365** 1 year, 1 month ago

**Selected Answer: C**  
C is the correct answer  
upvoted 2 times

✉️  **zellck** 1 year, 1 month ago

**Selected Answer: C**  
C is the answer.

<https://learn.microsoft.com/en-us/azure/storage/queues/storage-queues-introduction>

Azure Queue Storage is a service for storing large numbers of messages. You access messages from anywhere in the world via authenticated calls using HTTP or HTTPS. A queue message can be up to 64 KB in size. A queue may contain millions of messages, up to the total capacity limit of a storage account. Queues are commonly used to create a backlog of work to process asynchronously.

upvoted 4 times

✉️  **pkkalra** 1 year, 1 month ago

**Selected Answer: C**  
Azure Queue Storage  
upvoted 2 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Database Basic
- B. Azure SQL Database Business Critical
- C. Azure SQL Database Standard
- D. Azure SQL Managed Instance General Purpose

**Correct Answer: B**

*Community vote distribution*

B (75%)      D (17%)      8%

✉  **rumino** 1 month, 1 week ago

**Selected Answer: D**

Azure SQL Managed Instance General Purpose, as it's cheaper than Azure SQL Database Business Critical

By selecting a zone-redundant configuration, you can make your Business Critical or General Purpose instances resilient to a much larger set of failures, including catastrophic datacenter outages, without any changes to the application logic. You can also convert any existing Business Critical or General Purpose instances to zone-redundant configuration.

<https://learn.microsoft.com/en-us/azure/azure-sql/managed-instance/high-availability-sla?view=azuresql-mi&preserve-view=true>

upvoted 2 times

✉  **mariomishty** 4 months ago

D. Azure SQL Managed Instance General Purpose

upvoted 2 times

✉  **Tplenty** 5 months ago

It is a repeated question, the answer is B. Azure SQL Database Business Critical

upvoted 1 times

✉  **NotMeAnyWay** 9 months, 2 weeks ago

**Selected Answer: B**

B. Azure SQL Database Business Critical

Azure SQL Database Business Critical tier is designed to provide high availability with zero data loss during failover, which meets one of the main requirements of the scenario.

Additionally, Azure SQL Database Business Critical tier offers zone redundant configurations, which means that replicas of the data are stored in different availability zones. This means the database will remain available in the event of a zone outage, meeting another requirement of the scenario.

Azure SQL Managed Instance General Purpose, while providing automatic backups and high availability within a single region, doesn't support the required zone redundancy.

Please note, while Business Critical tier might appear costly, the requirement is to minimize costs, not to choose the least costly option. Considering the high availability and zero data loss requirements, Business Critical tier would be the most cost-effective choice.

upvoted 4 times

✉  **sainandam** 1 year, 1 month ago

**Selected Answer: C**

Minimize costs

upvoted 1 times

✉  **zellck** 1 year, 1 month ago

Azure SQL DB Standard tier only supports LRS.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#basic-standard-and-general-purpose-service-tier-locally-redundant-availability>

upvoted 3 times

✉️  **zellck** 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/sql-database-paas-overview?view=azuresql#service-tiers>

The Business Critical service tier is designed for OLTP applications with high transaction rates and low latency I/O requirements. It offers the highest resilience to failures by using several isolated replicas.

upvoted 3 times

✉️  **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#premium-and-business-critical-service-tier-zone-redundant-availability>

By default, the cluster of nodes for the premium availability model is created in the same datacenter. With the introduction of Azure Availability Zones, SQL Database can place different replicas of the Business Critical database to different availability zones in the same region. To eliminate a single point of failure, the control ring is also duplicated across multiple zones as three gateway rings (GW). The routing to a specific gateway ring is controlled by Azure Traffic Manager (ATM). Because the zone-redundant configuration in the Premium or Business Critical service tiers doesn't create additional database redundancy, you can enable it at no extra cost. By selecting a zone-redundant configuration, you can make your Premium or Business Critical databases resilient to a much larger set of failures, including catastrophic datacenter outages, without any changes to the application logic.

upvoted 1 times

✉️  **pkkalra** 1 year, 1 month ago

**Selected Answer: B**

Azure SQL Database Business Critical

upvoted 2 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Database Hyperscale
- B. Azure SQL Database Premium
- C. Azure SQL Database Standard
- D. Azure SQL Managed Instance General Purpose

**Correct Answer: B**

*Community vote distribution*

B (100%)

✉️  **Tplenty** 5 months ago

The answer is either Azure SQL Database Premium or Azure SQL Database Business Critical  
upvoted 4 times

✉️  **williamjcg** 1 month ago

Don't forget about Hyperscale haha.  
Premium - Hyperscale - Business Critical  
upvoted 2 times

✉️  **c7d45f4** 7 months, 1 week ago

**Selected Answer: B**  
the answer is Premium so B  
upvoted 1 times

✉️  **lombri** 1 year ago

**Selected Answer: B**  
In Premium, Business Critical, and Hyperscale service tiers, SQL Database supports the use of read-only replicas to offload read-only query workloads, using the ApplicationIntent=ReadOnly parameter in the connection string.

The question to ask for costs must be minimized.

So the answer is Premium  
upvoted 3 times

✉️  **lombri** 1 year ago

In Premium, Business Critical, and Hyperscale service tiers, SQL Database supports the use of read-only replicas to offload read-only query workloads, using the ApplicationIntent=ReadOnly parameter in the connection string.

The question to ask for costs must be minimized.

So the answer is Premium  
upvoted 1 times

✉️  **Alessandro365** 1 year, 1 month ago

**Selected Answer: B**  
B is the correct answer  
upvoted 2 times

**HOTSPOT**

You company has offices in New York City, Sydney, Paris, and Johannesburg.

The company has an Azure subscription.

You plan to deploy a new Azure networking solution that meets the following requirements:

- Connects to ExpressRoute circuits in the Azure regions of East US, Southeast Asia, North Europe, and South Africa
- Minimizes latency by supporting connection in three regions
- Supports Site-to-site VPN connections
- Minimizes costs

You need to identify the minimum number of Azure Virtual WAN hubs that you must deploy, and which virtual WAN SKU to use.

What should you identify? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Number of Virtual WAN hubs:

Virtual WAN SKU:

  
**Answer Area**

Number of Virtual WAN hubs:

Virtual WAN SKU:

Correct Answer:

 **cryptotafkar** Highly Voted  6 months, 3 weeks ago

Minimizes latency by supporting connection in three regions

The requirement to "minimize latency by supporting connection in three regions" suggests that connections should be optimized across three regions. However, the solution also needs to connect to ExpressRoute circuits in four specific Azure regions: East US, Southeast Asia, North Europe, and South Africa.

To meet all these requirements, a hub should be deployed in each of these four regions. This ensures that each region has a local connection point reducing latency. Even though connections are optimized across three regions, the fourth hub is necessary to provide a local connection point in the fourth region.

So, while three hubs might seem sufficient based on one requirement, considering all requirements makes it clear that four hubs are needed. This is a common scenario in network planning where various factors and requirements must be balanced.

upvoted 11 times

✉ **r3nenge** Highly Voted 1 year, 1 month ago

But why is it 3 virtual hubs, if we have 4 localisations?

upvoted 10 times

✉ **kanag1** 1 year, 1 month ago

Q :Minimizes latency by supporting connection in three regions

upvoted 14 times

✉ **Ras\_Al\_Ghul** 6 months, 4 weeks ago

The most important part and then the question asks what is the minimum ...

upvoted 1 times

✉ **bd1234** 1 year, 1 month ago

should be 4 virtual hubs.

upvoted 6 times

✉ **sankar07** 11 months, 3 weeks ago

Requirement is "Minimizes latency by supporting connection in three regions". 3 is sufficient.

upvoted 4 times

✉ **arxxas** 1 year, 1 month ago

Based on the requirements, you should deploy at least one Azure Virtual WAN hub in each of the following regions: East US, North Europe, and South Africa.

To support Site-to-site VPN connections and minimize costs, you should use the Basic SKU of Azure Virtual WAN.

Therefore, you should deploy three Azure Virtual WAN hubs using the Basic SKU, one in each of the required regions. This configuration would allow you to connect to ExpressRoute circuits in those regions and minimize latency by supporting connections in three regions.

upvoted 1 times

✉ **Debosree** 1 year ago

why Southeast Asia not considered here?

upvoted 11 times

✉ **AdventureChick** 6 months, 4 weeks ago

Basic does not support ExpressRoute. Therefore, it's Standard.

<https://learn.microsoft.com/en-us/azure/virtual-wan/virtual-wan-about>

upvoted 4 times

✉ **obllew** 8 months, 3 weeks ago

What does "supporting connection" mean here? The requirement is also that the virtual WAN "connects to ExpressRoute circuits" in 4 different regions. Doesn't that require a hub in each region? You can't have one extra connected circuit that also isn't connected...

upvoted 1 times

✉ **Azwscp2023** Most Recent 5 months, 2 weeks ago

4 hubs: East US, Southeast Asia, North Europe, and South Africa

and

SKU: Standard

upvoted 10 times

✉ **PatrickMel** 6 months, 3 weeks ago

should have 4 hub as ExpressRoute should not connect cross region.

upvoted 2 times

✉ **fred356** 11 months, 1 week ago

SKU: Standard, because:

Basic: Site-to-site VPN only

Standard: ExpressRoute, User VPN (P2S), VPN (site-to-site), Inter-hub and VNet-to-VNet transiting through the virtual hub, Azure Firewall, NVA in a virtual WAN

Source: <https://learn.microsoft.com/en-us/azure/virtual-wan/virtual-wan-about>

upvoted 6 times

✉ **sjb66** 11 months, 4 weeks ago

4 hubs, standard sku.

upvoted 3 times

✉ **sjb66** 11 months, 4 weeks ago

Moderator, please ignore this comment, should be three hubs  
upvoted 2 times

✉️ 🚩 **VBK8579** 1 year, 1 month ago

deploy at least three Azure Virtual WAN hubs in order to minimize latency by supporting connections in three regions.

As for the SKU, the Basic SKU does not support ExpressRoute or site-to-site VPN connections, so you would need to use the Standard SKU to meet all the requirements.

upvoted 5 times

✉️ 🚩 **sainandam** 1 year, 1 month ago

A Basic hub is limited to site-to-site VPN functionality only. When you upgrade from Basic to Standard, all the hubs within the virtual WAN are upgraded to Standard hubs. Standard hubs support ExpressRoute, point-to-site (User VPN), a full mesh hub, and VNet-to-VNet transit through the Azure hubs.

upvoted 4 times

✉️ 🚩 **mscbgslt** 1 year, 1 month ago

Site-to-site VPN only => Basic virtual WAN only.

Standard => ExpressRoute available.

upvoted 1 times

You have an Azure Functions microservice app named App1 that is hosted in the Consumption plan. App1 uses an Azure Queue Storage trigger.

You plan to migrate App1 to an Azure Kubernetes Service (AKS) cluster.

You need to prepare the AKS cluster to support App1. The solution must meet the following requirements:

- Use the same scaling mechanism as the current deployment.
- Support kubenet and Azure Container Networking Interface (CNI) networking.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct answer is worth one point.

- A. Configure the horizontal pod autoscaler.
- B. Install Virtual Kubelet.
- C. Configure the AKS cluster autoscaler.
- D. Configure the virtual node add-on.
- E. Install Kubernetes-based Event Driven Autoscaling (KEDA).

**Correct Answer: AE**

*Community vote distribution*

AE (96%)

4%

✉️  **zellck**  1 year, 1 month ago

**Selected Answer: AE**

AE is the answer.

<https://learn.microsoft.com/en-us/azure/aks/concepts-scale#horizontal-pod-autoscaler>

Kubernetes uses the horizontal pod autoscaler (HPA) to monitor the resource demand and automatically scale the number of replicas. By default, the horizontal pod autoscaler checks the Metrics API every 15 seconds for any required changes in replica count, but the Metrics API retrieves data from the Kubelet every 60 seconds. Effectively, the HPA is updated every 60 seconds. When changes are required, the number of replicas is increased or decreased accordingly. Horizontal pod autoscaler works with AKS clusters that have deployed the Metrics Server for Kubernetes 1.8+.

<https://learn.microsoft.com/en-us/azure/aks/keda-about>

Kubernetes Event-driven Autoscaling (KEDA) is a single-purpose and lightweight component that strives to make application autoscaling simple and is a CNCF Incubation project.

It applies event-driven autoscaling to scale your application to meet demand in a sustainable and cost-efficient manner with scale-to-zero.

upvoted 15 times

✉️  **NotMeAnyWay**  9 months, 2 weeks ago

**Selected Answer: AE**

- A. Configure the horizontal pod autoscaler.
- E. Install Kubernetes-based Event Driven Autoscaling (KEDA).

In order to replicate the same scaling mechanism as the Azure Function Consumption plan (which scales based on the number of incoming events), you need to implement Kubernetes-based Event Driven Autoscaling (KEDA). KEDA allows for fine-grained autoscaling (including to/from zero) for event-driven Kubernetes workloads. KEDA serves as a Kubernetes Metrics Server and allows users to define autoscaling rules using a dedicated Kubernetes custom resource definition.

Horizontal Pod Autoscaler (HPA) is a Kubernetes component that automatically scales the number of pods in a replication controller, deployment, replica set, or stateful set based on observed CPU utilization or with custom metrics support. You need the HPA to work with KEDA for autoscaling your pods.

upvoted 8 times

✉️  **marcellov**  6 months, 2 weeks ago

**Selected Answer: AE**

"KEDA works by horizontally scaling a Kubernetes Deployment or a Job. It is built on top of the Kubernetes Horizontal Pod Autoscaler and allows the user to leverage External Metrics in Kubernetes to define autoscaling criteria based on information from any event source, such as a Kafka topic lag, length of an Azure Queue, or metrics obtained from a Prometheus query."

<https://cloudblogs.microsoft.com/opensource/2020/05/12/scaling-kubernetes-keda-intro-kubernetes-based-event-driven-autoscaling/>

upvoted 1 times

✉ **acepanda99** 7 months, 3 weeks ago

**Selected Answer: AE**

- Support kubenet and Azure Container Networking Interface (CNI) networking.

With Azure Container Networking Interface (CNI), every pod gets an IP address from the subnet and can be accessed directly. Systems in the same virtual network as the AKS cluster see the pod IP as the source address for any traffic from the pod.

Therefore, Pods level autoscaler is required. Which means AE would be the answer.

upvoted 1 times

✉ **AHUI** 10 months, 3 weeks ago

**Selected Answer: AE**

ans is correct

upvoted 1 times

✉ **Tr619899** 11 months ago

To prepare the AKS cluster to support App1 and meet the requirements you specified, you should perform two actions: Configure the horizontal pod autoscaler and Install Kubernetes-based Event Driven Autoscaling (KEDA).

The horizontal pod autoscaler will allow you to use the same scaling mechanism as the current deployment by automatically scaling the number of pods based on CPU utilization or other application-provided metrics. KEDA will enable event-driven autoscaling by allowing you to scale based on events in Azure Queue Storage.

upvoted 3 times

✉ **Sudhir204** 11 months, 3 weeks ago

apps can be part of only pods not the nodes.. hence it should be hpa.

upvoted 1 times

✉ **azkumar305** 1 year ago

Got this on 14-Apr-2023

upvoted 4 times

✉ **megaejay** 1 year ago

**Selected Answer: AC**

each choice represent part of solution. A and E do the same action . it's wrong . For me it's A & C

upvoted 1 times

✉ **bd1234** 1 year ago

Even A looks good,

I vote for:

C. AKS cluster autoscaler

E. KEDA

upvoted 2 times

✉ **bd1234** 1 year, 1 month ago

just wondering why there are no AKS node scaling involved? which is C.

A and E are both pod level scaling.

upvoted 1 times

✉ **infavolante** 1 year, 1 month ago

Answers are correct

upvoted 1 times

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping.

You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Application Gateway
- B. Azure Queue Storage
- C. Azure Data Lake
- D. Azure Traffic Manager

**Correct Answer: B**

*Community vote distribution*

B (100%)

✉  **Tplenty** 5 months ago

It is either B. queue Storage or Service Bus Queue  
upvoted 2 times

✉  **ahmadns** 7 months, 2 weeks ago

**Selected Answer: B**  
Duplicate for the 100th time...  
upvoted 2 times

✉  **RonZhong** 8 months, 4 weeks ago

Again? :)  
upvoted 4 times

✉  **NotMeAnyWay** 9 months, 2 weeks ago

**Selected Answer: B**  
B. Azure Queue Storage.

Explanation:

Azure Queue Storage is a service for storing large numbers of messages that can be accessed from anywhere in the world via authenticated calls using HTTP or HTTPS. It provides cloud messaging between application components, which would be ideal for this scenario where different components (customer orders, billing, payment, inventory, and shipping) need to communicate transaction information asynchronously.  
upvoted 3 times

✉  **fred356** 11 months, 1 week ago

**Selected Answer: B**  
asynchronously = queue Storage or Service Bus Queue  
upvoted 3 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Managed Instance General Purpose
- B. Azure SQL Database Hyperscale
- C. Azure SQL Database Premium
- D. Azure SQL Managed Instance Business Critical

**Correct Answer: C**

*Community vote distribution*

C (100%)

NotMeAnyWay Highly Voted 9 months, 2 weeks ago

Selected Answer: C

C. Azure SQL Database Premium.

Explanation:

Azure SQL Database Premium tier offers the best high availability with an always-on model, with automatic failover and zero data loss in case of failure (RPO = 0). It also supports availability across multiple zones, meaning that it can remain available in the event of a zone outage.

Here's why other options may not be suitable:

Azure SQL Managed Instance General Purpose: While it provides high availability, it doesn't support automatic failover with zero data loss. It also lacks the zone redundant configuration.

Azure SQL Database Hyperscale: While it supports high scale and rapid growth, it may not necessarily be the most cost-effective option for the scenario described.

Azure SQL Managed Instance Business Critical: While it supports automatic failover with zero data loss, and has built-in zone redundancy, it is typically more expensive than the Azure SQL Database Premium.

upvoted 5 times

Wavy\_Bel Most Recent 3 weeks, 3 days ago

I will finally be able to validate this question on the exam

upvoted 1 times

mariomishty 4 months ago

D. Azure SQL Managed Instance General Purpose

In this scenario, Azure SQL Managed Instance meets the given requirements because it offers automatic failover with zero data loss, ensuring data consistency and minimizing any potential loss during failover. Additionally, it supports zone redundancy, allowing for availability even during a zone outage by automatically failing over to replicas in other zones. This high availability is coupled with cost efficiency, making Azure SQL Managed Instance a suitable option that balances the necessary features with cost considerations.

Hence, the correct answer is: D. Azure SQL Managed Instance General Purpose

Azure SQL Database Premium is incorrect because it does not inherently provide zone redundancy, so in the event of a zone outage, there may be downtime and unavailability of the database until the issue is resolved or failover is initiated.

upvoted 2 times

joesatriani 6 months, 3 weeks ago

Selected Answer: C

Duplicate questions are noticeable.

upvoted 2 times

ahmadns 7 months, 2 weeks ago

Selected Answer: C

Duplicate.

upvoted 1 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Database Hyperscale
- B. Azure SQL Database Premium
- C. Azure SQL Database Basic
- D. Azure SQL Database Serverless

**Correct Answer: B**

*Community vote distribution*

B (100%)

✉️  **williamjcg** 1 month ago

Hopefully this question will come up in my exam... I'll surely get it right  
upvoted 2 times

✉️  **c7d45f4** 7 months, 1 week ago

**Selected Answer: B**  
Azure SQL Database Premium is correct  
upvoted 2 times

✉️  **joykutta** 8 months, 2 weeks ago

hiiiiiiiiiiiiiiiiii  
upvoted 1 times

✉️  **lombri** 10 months, 1 week ago

Azure SQL Database Hyperscale is a scalable option for large workloads with flexible storage management. However, it is not specifically designed to ensure availability in case of zone outages and does not offer data-loss-free failover.

Azure SQL Database Basic is the most cost-effective option but lacks advanced features such as automatic failover and high availability.

Azure SQL Database Serverless is a cost-effective option for light and intermittent workloads but may not be suitable for an application requiring high availability without interruptions.

Azure SQL Database Premium is the recommended option as it offers advanced features like active geo-replication and automatic, data-loss-free failover. It also supports high availability in case of zone outages, ensuring the database remains accessible even if a specific zone experiences an interruption

upvoted 2 times

✉️  **Andy\_S** 9 months, 1 week ago

Answer C  
There is no mentioning about interruption. So correct Answer is "Serverless"  
upvoted 3 times

✉️  **techrat** 11 months, 2 weeks ago

**Selected Answer: B**  
Passed the exam with 979 today, my answer to this question on the exam was Premium  
upvoted 3 times

✉️  **waqarahmed78** 12 months ago

This Question is same as Question # 52 on page 31 and answer is different. Why? Shouldn't it be Serverless?  
upvoted 3 times

✉️  **yonie** 11 months, 3 weeks ago

There are \*16\* variations of this question. Each of them offering different possible answers.  
The answer priority is as follows. If it exists then choose it. If it doesn't, proceed to the next priority. Sometimes both appear in the same question, so make sure to select the higher priority.

1. Azure SQL Database Premium

2. Azure SQL Database Serverless
  3. Azure SQL Database Business Critical
- upvoted 34 times

 **Paul\_white** 4 months, 2 weeks ago  
This answer deserves more up votes  
upvoted 1 times

Question #91

Topic 4

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping.

You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Notification Hubs
- B. Azure Service Bus
- C. Azure Blob Storage
- D. Azure Service Fabric

**Correct Answer: B**

*Community vote distribution*

B (100%)

 **Vimeiro** 11 months, 2 weeks ago

What is the purpose of repeating these questions over and over ???  
upvoted 4 times

 **exam\_taker24** 10 months, 3 weeks ago

Haha it's nice cause I have to finish fewer questions than expected  
upvoted 10 times

 **GS300** 11 months, 3 weeks ago

**Selected Answer: B**  
It is B  
upvoted 1 times

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping.

You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Service Fabric
- B. Azure Traffic Manager
- C. Azure Queue Storage
- D. Azure Notification Hubs

**Correct Answer: C**

*Community vote distribution*

C (100%)

 **abdx**  8 months, 1 week ago

To enable asynchronous communication between cloud services using XML messages, you should use a messaging system. Out of the options provided:

- A. Azure Service Fabric: It's a distributed systems platform for deploying and managing microservices and containers. While it can be used to build resilient applications, it's not a messaging system per se.
- B. Azure Traffic Manager: It's a DNS-based traffic load balancer. It doesn't deal with asynchronous messaging.
- C. Azure Queue Storage: This service allows you to decouple cloud components and ensure asynchronous message delivery. Messages can be placed into a queue, where another service can pick them up and process them, which is exactly what's described in the scenario. The messages can be in XML format or any other format that suits your needs.
- D. Azure Notification Hubs: This is for sending push notifications to mobile devices. It's not designed for inter-service communication.

Therefore, the correct Answer is:

- C. Azure Queue Storage.  
upvoted 5 times

 **Tikalosh**  1 month, 1 week ago

**Selected Answer: C**  
Correct answer selected, same as various others, either Queue Storage or Service Bus - Queue Storage for this one.  
upvoted 2 times

You have an on-premises Microsoft SQL Server 2008 instance that hosts a 50-GB database.

You need to migrate the database to an Azure SQL managed instance. The solution must minimize downtime.

What should you use?

- A. Azure Migrate
- B. Azure Data Studio
- C. WANdisco LiveData Platform for Azure
- D. SQL Server Management Studio (SSMS)

**Correct Answer: B**

*Community vote distribution*

B (57%) A (39%) 4%

✉  **psr83**  11 months, 4 weeks ago

**Selected Answer: B**

Migration guide: SQL Server to Azure SQL Managed Instance

Prerequisites

To migrate your SQL Server to Azure SQL Managed Instance, make sure you have:

- 1.Chosen a migration method and the corresponding tools for your method.
- 2.Install the Azure SQL migration extension for Azure Data Studio.
- 3.Created a target Azure SQL Managed Instance

4. Configured connectivity and proper permissions to access both source and target.

5. Reviewed the SQL Server database engine features available in Azure SQL Managed Instance.

<https://learn.microsoft.com/en-us/azure/azure-sql/migration-guides/managed-instance/sql-server-to-managed-instance-guide?view=azuresql>  
upvoted 16 times

✉  **lombri**  11 months, 2 weeks ago

**Selected Answer: A**

Azure Data Studio

Is a lightweight multi-platform database tool for managing SQL Server instances and databases. While it can be used for migrations, it is not specifically designed for this purpose and does not provide the same level of automation and ease of use as Azure Migrate.

upvoted 10 times

✉  **NotMeAnyWay** 9 months, 1 week ago

You mean B. Azure Data Studio

upvoted 4 times

✉  **LGWJ12**  1 week, 2 days ago

**Selected Answer: C**

It's C. WANdisco LiveData Platform for Azure. Check this.

<https://azure.microsoft.com/en-us/blog/migrate-your-hadoop-data-lakes-with-wandisco-livedata-platform-for-azure/>

<https://learn.microsoft.com/en-us/azure/storage/blobs/migrate-gen2-wandisco-live-data-platform>

upvoted 1 times

✉  **LGWJ12** 1 week, 2 days ago

I apologize for any confusion. Let me clarify why C. WANdisco LiveData Platform for Azure is not the recommended choice for minimizing downtime during database migration:

WANdisco LiveData Platform is primarily designed for continuous data replication across different environments, including on-premises and cloud. It ensures data consistency and availability by synchronizing data in real-time. However, it is not specifically tailored for database migrations.

While WANdisco LiveData Platform can be useful for maintaining data consistency during ongoing operations, it does not provide the necessary features for a seamless migration process .

Azure Data Studio Solution: On the other hand, the Azure SQL Migration extension for Azure Data Studio is specifically designed for seamless migrations with minimal disruption. It provides step-by-step guidance, assessment, and online migration options, ensuring a smooth transition.

So, Correct Answer it's B. no C.

upvoted 1 times

✉  **ahmedkmj** 3 weeks, 6 days ago

**Selected Answer: B**

Correct Answer

upvoted 1 times

✉ **rumno** 1 month, 1 week ago

**Selected Answer: B**

<https://learn.microsoft.com/en-us/sql/sql-server/migrate/dma-azure-migrate-compare-migration-tools?view=sql-server-ver16#quick-comparison>  
Use Azure Migrate in the following scenarios:

Easily migrate SQL Server databases to Azure SQL Database without the need for complex scripts or manual steps.

Migrate small or large databases.

upvoted 1 times

✉ **rumno** 1 month, 1 week ago

Use Azure Migrate in the following scenarios:

Assess and discover your SQL Server data estate.

Get Azure SQL deployment recommendations, target sizing, and monthly estimates.

Lift your entire data estate to SQL Server on Azure VMs.

upvoted 1 times

✉ **01111010** 1 month, 3 weeks ago

**Selected Answer: B**

Per Microsoft's migration matrix Azure Data Studio is compatible with SQL Managed Instance. See the link below:

<https://learn.microsoft.com/en-us/sql/sql-server/migrate/dma-azure-migrate-compare-migration-tools?view=sql-server-ver16#quick-comparison>

Capability Azure Migrate DMA SSMA DMS DEA Azure Data Studio xtn

SQL Managed No Yes No Yes No Y

upvoted 2 times

✉ **glynglyn84** 4 months, 2 weeks ago

Answer B: Azure SQL migration extension for Azure Data Studio - migration with near-zero downtime. taken from <https://learn.microsoft.com/en-us/azure/azure-sql/migration-guides/managed-instance/sql-server-to-managed-instance-guide?view=azuresql>

upvoted 2 times

✉ **Paul\_white** 4 months, 2 weeks ago

**Selected Answer: B**

To migrate your SQL Server 2008 database to an Azure SQL managed instance with minimal downtime, you should use Azure Data Studio<sup>12</sup>.

Here are the steps you need to follow:

1. Choose a migration method and the corresponding tools for your method.
2. Install the Azure SQL migration extension for Azure Data Studio<sup>1</sup>.
3. Create a target Azure SQL Managed Instance<sup>1</sup>.
4. Configure connectivity and proper permissions to access both source and target<sup>1</sup>.

So, the correct answer is B. Azure Data Studio\*\*. Please note that you should also review the SQL Server database engine features available in Azure SQL Managed Instance to validate the supportability of your migration target<sup>2</sup>.

upvoted 2 times

✉ **PMPft17** 4 months, 2 weeks ago

Azure Migrate doesn't cater to SQL Server migrations. For that Azure Data Studio or from previous answers SQL Server Migration Assistant would be useful to migrate to a Managed Instance.

upvoted 1 times

✉ **a03** 5 months ago

Azure Database Migration Service is part of Azure Migrate hub, for one side...

Database Migration Service powers the "Azure SQL Migration" extension for Azure Data Studio, for another side...

but... Azure portal, PowerShell and Azure CLI can also be used to access Database Migration Service as well...

so, generally it should be A (Azure Migrate)... because B (Azure Data Studio) is only one particular case...

upvoted 1 times

✉ **GODUSGREAT** 5 months ago

**Selected Answer: B**

B is correct

upvoted 1 times

✉ **Som\_triv** 6 months, 3 weeks ago

<https://learn.microsoft.com/en-us/azure/dms/dms-tools-matrix>

Azure SQL MI - Azure Migrate for Discover/inventory

Azure SQL Migration extension - Target and SKU recommendation.

upvoted 1 times

✉ **xRiot007** 4 weeks ago

Azure Data Studio can also target managed instances.

upvoted 2 times

✉ **burns25** 6 months, 3 weeks ago

**Selected Answer: A**

Please refer to this overview and focus on Managed Instance which will not available for Azure Migrate.

<https://learn.microsoft.com/en-us/sql/sql-server/migrate/dma-azure-migrate-compare-migration-tools?view=sql-server-ver16#quick-comparison>

upvoted 7 times

✉ **Leocan** 7 months, 1 week ago

**Selected Answer: B**

<https://learn.microsoft.com/en-us/azure/dms/migration-using-azure-data-studio?tabs=azure-sql-mi>

You can run your migration online (for migrations that require minimal downtime) or offline (for migrations where downtime persists throughout the migration) depending on your business requirements.

upvoted 3 times

✉ **sawanti** 8 months ago

**Selected Answer: B**

B seems correct (Azure Data Studio): Use the Azure SQL migration extension in Azure Data Studio to migrate database(s) from a SQL Server instance to an Azure SQL Managed Instance with minimal downtime.

upvoted 4 times

✉ **Darkeh** 8 months ago

**Selected Answer: B**

B azure data studio

upvoted 1 times

✉ **Raj70** 8 months, 1 week ago

**Selected Answer: B**

<https://learn.microsoft.com/en-us/sql/azure-data-studio/extensions/azure-sql-migration-extension?view=sql-server-ver16>. Answer is B

upvoted 1 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Managed Instance Business Critical
- B. Azure SQL Managed Instance General Purpose
- C. Azure SQL Database Standard
- D. Azure SQL Database Premium

**Correct Answer: D**

*Community vote distribution*

D (100%)

✉  **OrangeSG** Highly Voted 5 months, 2 weeks ago

**Selected Answer: D**

This question appears a lot of time, with different options as answer.

Always the answers are (in this order):

1. Azure SQL Database Premium
2. Azure SQL Database Serverless
3. Azure SQL Database Business Critical

If there is only one of them, select it. If there are 2 of them, remember the order, and select the option in the order showed here.

upvoted 10 times

✉  **joesatriani** Most Recent 6 months, 3 weeks ago

**Selected Answer: D**

This is another duplicate question.

upvoted 1 times

✉  **c7d45f4** 7 months, 1 week ago

**Selected Answer: D**

Now its D,Azure SQL Database Premium

upvoted 1 times

✉  **RouterWifi443** 7 months, 1 week ago

**Selected Answer: D**

Duplicated

upvoted 1 times

✉  **acepanda99** 7 months, 3 weeks ago

Duplicated Question

upvoted 1 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Database Business Critical
- B. Azure SQL Database Basic
- C. Azure SQL Managed Instance General Purpose
- D. Azure SQL Database Hyperscale

**Correct Answer: A**

*Community vote distribution*

A (100%)

✉  **OrangeSG**  5 months, 2 weeks ago

**Selected Answer: A**

This question appears a lot of time, with different options as answer.

Always the answers are (in this order):

1. Azure SQL Database Premium
2. Azure SQL Database Serverless
3. Azure SQL Database Business Critical

If there is only one of them, select it. If there are 2 of them, remember the order, and select the option in the order showed here.

upvoted 6 times

✉  **Tplenty**  5 months ago

This question better come out in the exam because it's repeated multiple times

upvoted 2 times

✉  **c7d45f4** 7 months, 1 week ago

**Selected Answer: A**

Azure SQL Database Business Critical is the one

upvoted 1 times

✉  **joesatriani** 9 months, 2 weeks ago

**Selected Answer: A**

Answer is A, I just tested also check this table this took me to the answer

<https://docs.microsoft.com/en-us/azure/azure-sql/database/service-tiers-general-purpose-business-critical#service-tier-comparison>

fast failover only applies for biz critical and only azure sql support and

Would you like to make this database zone redundant? is only available for normal Azure SQL and not for managed instances.

upvoted 2 times

✉  **csol** 11 months, 3 weeks ago

**Selected Answer: A**

A - Hyperscale is more expensive and the other options doesn't support zone outage

upvoted 1 times

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping.

You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Service Fabric
- B. Azure Queue Storage
- C. Azure Traffic Manager
- D. Azure Application Gateway

**Correct Answer: B**

*Community vote distribution*

B (100%)

✉️ ⚒ fred356 Highly Voted 11 months, 1 week ago

asynchronously => queue  
upvoted 5 times

✉️ ⚒ Tplenty Most Recent 5 months ago

Azure Queue Storage  
upvoted 1 times

✉️ ⚒ joesatriani 6 months, 3 weeks ago

Selected Answer: B

This is another duplicate question.  
upvoted 1 times

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping.

You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Application Gateway
- B. Azure Data Lake
- C. Azure Queue Storage
- D. Azure Blob Storage

**Correct Answer: C**

*Community vote distribution*

C (100%)

✉  **joesatriani** 6 months, 3 weeks ago

**Selected Answer: C**

This is another duplicate question.

upvoted 1 times

✉  **joesatriani** 6 months, 3 weeks ago

**Selected Answer: C**

This is another duplicate question.

upvoted 1 times

✉  **c7d45f4** 7 months, 1 week ago

**Selected Answer: C**

Azure Queue Storage is the one

upvoted 1 times

✉  **RouterWifi443** 7 months, 1 week ago

**Selected Answer: C**

The answer is always Azure Service Bus or Azure Queue Storage.

upvoted 2 times

✉  **Darkeh** 7 months, 3 weeks ago

The answer is always Azure Service Bus or Azure Queue Storage.

upvoted 1 times

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping.

You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Blob Storage
- B. Azure Data Lake
- C. Azure Queue Storage
- D. Azure Service Fabric

**Correct Answer: C**

*Community vote distribution*

C (100%)

✉️  **InvalidNickname** Highly Voted 8 months, 2 weeks ago

Repeated like a 1000 times. I might forget my name but won't forget the ans to this question.  
upvoted 22 times

✉️  **niket67** 4 months ago

HAHAHHAHAA  
upvoted 1 times

✉️  **Poluxzin** Most Recent 1 day, 14 hours ago

Gravei essa pergunta para o resto da vida :D  
upvoted 1 times

✉️  **ehabsoa** 2 months, 2 weeks ago

Okey believe me I get it!  
upvoted 1 times

✉️  **cesco1286** 4 months ago

I swear if I dont get this in the exam... :D  
upvoted 1 times

✉️  **joesatriani** 6 months, 3 weeks ago

**Selected Answer: C**  
This is another duplicate question.  
upvoted 1 times

✉️  **c7d45f4** 7 months, 1 week ago

**Selected Answer: C**  
Azure Queue Storage is the one  
upvoted 1 times

✉️  **gca22** 11 months, 3 weeks ago

C. Azure Queue Storage  
upvoted 3 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Database Serverless
- B. Azure SQL Managed Instance General Purpose
- C. Azure SQL Database Basic
- D. Azure SQL Database Business Critical

**Correct Answer: A**

*Community vote distribution*

A (50%) D (50%)

✉  **yonie**  11 months, 3 weeks ago

There are \*16\* variations of this question. Each of them offering different possible answers.

The answer priority is as follows. If it exists then choose it. If it doesn't, proceed to the next priority. Sometimes both appear in the same question, so make sure to select the higher priority.

1. Azure SQL Database Premium
2. Azure SQL Database Serverless
3. Azure SQL Database Business Critical

upvoted 95 times

✉  **HarryRhodes** 1 week, 3 days ago

Good stuff yonie, you beat me to it.

upvoted 1 times

✉  **betterthanlife** 11 months, 3 weeks ago

It is true, thanks yonie.

upvoted 4 times

✉  **SandCloud** 11 months, 2 weeks ago

thanks yonie

upvoted 5 times

✉  **Azwscp2023**  5 months, 2 weeks ago

**Selected Answer: D**

D. Azure SQL Database Business Critical

Azure SQL Database Serverless is a good option for workloads that experience variable or unpredictable traffic. However, it does not offer the same level of high availability as Azure SQL Database Business Critical.

upvoted 5 times

✉  **dejedi**  6 days, 23 hours ago

**Selected Answer: A**

I would go for this serie of question with this priority order Premium , serverless , business Critical

In this case Serverless

upvoted 1 times

✉  **varinder82** 3 weeks, 2 days ago

Final Answer:

Cost Of : Premium < Serverless < Business Critical < HyperScale

upvoted 3 times

✉  **[Removed]** 3 months ago

**Selected Answer: A**

1. Azure SQL Database Premium

2. Azure SQL Database Serverless

3. Azure SQL Database Business Critical

upvoted 3 times

✉  **joesatriani** 6 months, 3 weeks ago

**Selected Answer: A**

This is another duplicate question.

upvoted 2 times

✉  **c7d45f4** 7 months, 1 week ago

**Selected Answer: A**

Azure SQL Database Serverless is the one

upvoted 2 times

✉  **Leocan** 7 months, 1 week ago

**Selected Answer: A**

Serverless is a better answer than Business Critical.

upvoted 2 times

✉  **SDiwani** 1 month, 3 weeks ago

No serverless can not guarantee no data loss failover

upvoted 2 times

✉  **reddyreddy** 7 months, 2 weeks ago

thanks a lot yonie,

upvoted 1 times

✉  **tdctdc** 8 months, 3 weeks ago

**Selected Answer: A**

Serverless.

upvoted 2 times

✉  **AdelM** 8 months, 3 weeks ago

**Selected Answer: D**

should be D

upvoted 3 times

✉  **skye\_winnn** 10 months, 2 weeks ago

The general purpose service tier zone redundant availability is only available in some regions, not all of the regions: <https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#general-purpose-service-tier-zone-redundant-availability>

upvoted 1 times

✉  **sankar07** 11 months, 3 weeks ago

**Selected Answer: D**

Several times repeated and now the answer is A. It should be D.

upvoted 4 times

✉  **sankar07** 11 months, 3 weeks ago

I take it back. the order is Premium - Serverless - Business Critical. Answer is right. A.

upvoted 4 times

✉  **przema86** 11 months, 3 weeks ago

Why these question is constantly repeating? last 10x times a correct answer on the same question was "Azure SQL Database Business Critical"

upvoted 2 times

✉  **gca22** 11 months, 3 weeks ago

D. Azure SQL Database Business Critical

upvoted 4 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Database Standard
- B. Azure SQL Managed Instance General Purpose
- C. Azure SQL Database Serverless
- D. Azure SQL Database Premium

**Correct Answer: D**

*Community vote distribution*

D (80%) C (20%)

✉️  **P8r**  12 months ago

**Selected Answer: D**

In order of preference:  
Premium > Serverless > Business Critical  
upvoted 23 times

✉️  **reddyreddy** 6 months, 3 weeks ago  
thank u  
upvoted 1 times

✉️  **eoicp**  11 months ago

I think it's serverless. Servers the requirement AT less cost  
upvoted 6 times

✉️  **techtest848**  1 month, 3 weeks ago

**Selected Answer: C**

I believe the order or preference for this question is Serverless, Premium and Business Critical (from least expensive to Most expensive)  
upvoted 1 times

✉️  **joesatriani** 6 months, 3 weeks ago

**Selected Answer: D**

1. Azure SQL Database Premium 2. Azure SQL Database Serverless 3. Azure SQL Database Business Critical  
upvoted 1 times

✉️  **pxo1000** 11 months, 2 weeks ago

**Selected Answer: C**

Please explain how Premium is a better answer here than serverless? If serverless supports zone availability, it can failover without any data loss  
upvoted 5 times

✉️  **resser19** 10 months, 2 weeks ago

Here are some factors to consider when choosing between Azure Database Serverless and Premium:

Database size: If your database is small, Azure Database Serverless is the most cost-effective option.

Database usage: If your database is used infrequently, Azure Database Serverless is the most cost-effective option.

Database requirements: If your database has specific requirements, such as high availability or disaster recovery, Azure Database Premium may be the best option.

Ultimately, the best way to choose between Azure Database Serverless and Premium is to consider your specific needs and requirements.  
upvoted 1 times

✉️  **resser19** 10 months, 2 weeks ago

This response from Google Bard.

upvoted 1 times

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping.

You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Notification Hubs
- B. Azure Queue Storage
- C. Azure Blob Storage
- D. Azure Application Gateway

**Correct Answer: B**

*Community vote distribution*

B (100%)

✉  **psr83** Highly Voted 11 months, 4 weeks ago

**Selected Answer: B**

Azure Queue Storage / Azure Service Bus are used to asynchronously communicate transaction information by using XML messages  
upvoted 6 times

✉  **joesatriani** Most Recent 6 months, 3 weeks ago

**Selected Answer: B**

1. Azure SQL Database Premium 2. Azure SQL Database Serverless 3. Azure SQL Database Business Critical  
upvoted 1 times

✉  **c7d45f4** 7 months, 1 week ago

**Selected Answer: B**

Azure Queue Storage > correct  
upvoted 1 times

✉  **Madbo** 10 months, 2 weeks ago

Azure Queue Storage provides a reliable messaging solution for asynchronous communication between different components of an application. It allows messages to be stored in a queue and processed later by the receiving service. XML messages can be stored as messages in the Azure Queue Storage, enabling asynchronous communication between the cloud services.  
upvoted 1 times

✉  **JohnPhan** 12 months ago

**Selected Answer: B**

Answer is B  
upvoted 2 times

**HOTSPOT**

You are developing a multi-tier app named App1 that will be hosted on Azure virtual machines. The peak utilization periods for App1 will be from 8 AM to 9 AM and 4 PM to 5 PM on weekdays.

You need to deploy the infrastructure for App1. The solution must meet the following requirements:

- Support virtual machines deployed to four availability zones across two Azure regions.
- Minimize costs by accumulating CPU credits during periods of low utilization.

What is the minimum number of virtual networks you should deploy, and which virtual machine size should you use? To answer, select the appropriate options in the answer area.

**Answer Area**

Number of virtual networks:

  
1  
2  
3  
4

Virtual machine size:

  
A-Series  
B-Series  
D-Series  
M-Series**Answer Area**

Number of virtual networks:

  
1  
2  
3  
4

**Correct Answer:**

Virtual machine size:

  
A-Series  
B-Series  
D-Series  
M-Series

✉️  **MegaBro** Highly Voted 9 months ago

GIVEN SOLUTION IS CORRECT according to GPT-4

Number of Virtual networks:

✓ 2

Virtual machine size

✓ B-Series

Explanation:

Number of Virtual networks:

You need at least one virtual network per Azure region for the local resources, hence since you have two Azure regions, you'll need at least 2 virtual networks.

Virtual machine size:

The B-Series VM size is the best choice here because of the ability to bank CPU credits during periods of low utilization. The B-series are burstable VMs that accumulate CPU credits during idle times and then consume these credits during periods of high CPU usage. This matches well with your requirement to minimize costs by accumulating CPU credits during periods of low utilization. Other series like A-Series, D-Series, and M-Series do not have this functionality.

upvoted 14 times

✉️  **memo454** Highly Voted 6 months, 4 weeks ago

This question is on today's exam 17-09-2023.

upvoted 8 times

✉️  **trferreiraBR** Most Recent 3 months, 3 weeks ago

Correct. Number of Virtual networks: 2

Virtual networks and subnets span all availability zones in a region. You don't need to divide them by availability zones to accommodate zonal resources. For example, if you configure a zonal VM, you don't have to take into consideration the virtual network when selecting the availability zone for the VM. The same is true for other zonal resources.

<https://learn.microsoft.com/en-us/azure/virtual-network/virtual-networks-overview#virtual-networks-and-availability-zones>

upvoted 2 times

✉ **mmarkiew** 4 months, 1 week ago

"While traditional Azure virtual machines provide fixed CPU performance, B-series virtual machines are the only VM type that use credits for CPU performance provisioning. B-series VMs utilize a CPU credit model to track how much CPU is consumed - the virtual machine accumulates CPU credits when a workload is operating below the base CPU performance threshold and, uses credits when running above the base CPU performance threshold until all of its credits are consumed."

<https://learn.microsoft.com/en-us/azure/virtual-machines/b-series-cpu-credit-model/b-series-cpu-credit-model>

upvoted 2 times

✉ **m1dp** 8 months ago

B-series for bursts. 2 VNets for the two regions.

upvoted 4 times

Question #103

Topic 4

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping.

You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Service Bus
- B. Azure Blob Storage
- C. Azure Notification Hubs
- D. Azure Application Gateway

**Correct Answer: A**

*Community vote distribution*

A (100%)

✉ **m1dp** Highly Voted 8 months ago

**Selected Answer: A**

Always service bus or queue storage for asynchronous & XML. By now, 20 variants of this question have passed, I better get one of these on the exam.

upvoted 5 times

✉ **reddyreddy** Most Recent 6 months, 3 weeks ago

how many variants of this question there are?? really 20 o maybe more

upvoted 3 times

You have an on-premises Microsoft SQL server named SQL1 that hosts 50 databases.

You plan to migrate SQL1 to Azure SQL Managed Instance.

You need to perform an offline migration of SQL1. The solution must minimize administrative effort.

What should you include in the solution?

- A. Azure Migrate
- B. Azure Database Migration Service
- C. SQL Server Migration Assistant (SSMA)
- D. Data Migration Assistant (DMA)

**Correct Answer: B**

*Community vote distribution*

B (96%) 4%

✉️  NotMeAnyWay Highly Voted 9 months ago

**Selected Answer: B**

The best solution for this scenario is:

- B. Azure Database Migration Service

Azure Database Migration Service is a tool that helps you simplify, guide, and automate your database migration to Azure. Specifically for SQL Server to Azure SQL Managed Instance migrations, it provides an option for offline (one-time) migrations which is suitable for your scenario.

The Data Migration Assistant (DMA) tool can be used beforehand to assess your SQL Server databases for any feature parity and compatibility issues that could impact the database functionality in Azure SQL Managed Instance.

Azure Migrate is a service that helps you assess and migrate applications, infrastructure, and data, but it doesn't specifically cater to SQL Server migrations. SQL Server Migration Assistant (SSMA) is more suited for migrations to Azure SQL Database and does not support Azure SQL Managed Instance.

upvoted 21 times

✉️  accon100 8 months, 2 weeks ago

Thanks NotMeAnyWay, can you share me all the question of this dump. I don't know but I cannot see some Questions ...

upvoted 1 times

✉️  husam421 Highly Voted 6 months, 2 weeks ago

Azure Database Migration Service (classic) - SQL scenarios are on a deprecation path. Since August 1, 2023, you're no longer able to create new Database Migration Service (classic) resources for SQL Server scenarios from Azure portal. The service will be retired on March 15, 2026 for all customers. You can migrate to Azure SQL Database using the latest version of Azure Database Migration Service, which is available as an extension in Azure Data Studio, or by using Azure PowerShell and Azure CLI. For more information, see Retirement notice: Database Migration Service (classic).

upvoted 5 times

✉️  rumino Most Recent 1 month, 1 week ago

**Selected Answer: B**

Use the Database Migration Service in the following scenarios:

Migrate both databases to Azure SQL, especially at scale, and for extensive (in terms of number and size of databases) migrations.

Migrate databases to Azure Database.

<https://learn.microsoft.com/en-us/sql/sql-server/migrate/dma-azure-migrate-compare-migration-tools?view=sql-server-ver16#quick-comparison>

upvoted 1 times

✉️  husam421 6 months, 2 weeks ago

**Selected Answer: D**

<https://learn.microsoft.com/en-us/sql/sql-server/migrate/dma-azure-migrate-compare-migration-tools?view=sql-server-ver16#quick-comparison>

upvoted 1 times

✉️  seong 4 months, 4 weeks ago

DMA does not support database migrations to Azure SQL Managed Instance. Use the Azure SQL migration extension for Azure Data Studio instead, which supports both online and offline database migrations to Azure SQL Managed Instance.

<https://learn.microsoft.com/en-us/sql/dma/dma-overview?view=sql-server-ver16>

upvoted 1 times

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping.

You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Service Bus
- B. Azure Data Lake
- C. Azure Traffic Manager
- D. Azure Notification Hubs

**Correct Answer: A**

*Community vote distribution*

A (100%)

✉️  **chair123** 4 weeks, 1 day ago

**Selected Answer: A**

people don't even comment or vote at this point lol  
upvoted 1 times

✉️  **Darkeh** 7 months, 3 weeks ago

The answer is always Azure Service Bus or Azure Queue Storage.  
upvoted 4 times

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping.

You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Service Bus
- B. Azure Data Lake
- C. Azure Application Gateway
- D. Azure Notification Hubs

**Correct Answer: A**

*Community vote distribution*

A (100%)

✉  **olivier13** 5 months, 3 weeks ago

Examtopic please stop spam with repetitive questions.

upvoted 1 times

✉  **dorl** 5 months ago

Agree.

I'm gonna be crazy due to so many same questions,  
Or is it training to see how much mental pain you can endure?

upvoted 1 times

✉  **tigerz** 7 months, 1 week ago

**Selected Answer: A**

A. Azure Service Bus

What is Azure Service Bus?

Data is transferred between different applications and services using messages. A message is a container decorated with metadata, and contains data. The data can be any kind of information, including structured data encoded with the common formats such as the following ones: JSON, XML, Apache Avro, Plain Text.

<https://learn.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview>

upvoted 1 times

✉  **Darkeh** 7 months, 3 weeks ago

The answer is always Azure Service Bus or Azure Queue Storage.

upvoted 2 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Database Business Critical
- B. Azure SQL Database Hyperscale
- C. Azure SQL Managed Instance Business Critical
- D. Azure SQL Database Standard

**Correct Answer: A**

*Community vote distribution*

A (100%)

✉  **InvalidNickname** Highly Voted 8 months, 2 weeks ago

Choice should be :

- 1) SQL DB Premium
- 2) SQL DB Serverless
- 3) SQL DB Business Critical

upvoted 10 times

✉  **AndPorks** 4 months ago

Exatamente

upvoted 2 times

✉  **ssmit** 3 months, 4 weeks ago

You got 2 business critial.

The SQL DB is a cheaper version and require less administration then the SQL Manged Instance.

upvoted 1 times

✉  **LGWJ12** Most Recent 1 week, 2 days ago

**Selected Answer: A**

1. Azure SQL Database Premium
2. Azure SQL Database Serverless
3. Azure SQL Database Business Critical

Premium < Serverless < Business Critical < HyperScale

upvoted 1 times

✉  **katonab** 2 weeks, 3 days ago

**Selected Answer: A**

Correct: A. SQL DB Business Critical  
yep, not the first question of sort...

upvoted 1 times

✉  **ziggy1117** 4 months ago

Choice should be :

- 1) SQL DB Premium
- 2) SQL DB Serverless / General Purpose
- 3) SQL DB Business Critical

upvoted 2 times

## DRAG DROP

You plan to deploy an infrastructure solution that will contain the following configurations:

- External users will access the infrastructure by using Azure Front Door.
- External user access to the backend APIs hosted in Azure Kubernetes Service (AKS) will be controlled by using Azure API Management.
- External users will be authenticated by an Azure AD B2C tenant that uses OpenID Connect-based federation with a third-party identity provider.

Which function does each service provide? To answer, drag the appropriate functions to the correct services. Each function may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

**Functions****Answer Area**

Protection against Open Web Application Security Project (OWASP) vulnerabilities

Front Door:

IP filtering on a per-API level

API Management:

Validation of Azure B2C JSON Web Tokens (JWTs)

**Answer Area**

Correct Answer: Front Door:

Validation of Azure B2C JSON Web Tokens (JWTs)

API Management:

IP filtering on a per-API level

✉  **MenadeCai**  6 months, 3 weeks ago

Correct answers should be:

- Front Door --> OWASP
- APIM --> Validation JWT

upvoted 27 times

✉  **Som\_triv**  6 months, 3 weeks ago

Front Door - OWASP with WAF

APIM - JWT VALIDATION and IP filtering

<https://learn.microsoft.com/en-us/azure/api-management/ip-filter-policy>

<https://learn.microsoft.com/en-us/azure/api-management/validate-jwt-policy>

upvoted 14 times

✉  **marcellov** 6 months, 2 weeks ago

I wasn't sure I could select 2 functions for APIM but indeed that is the right answer.

upvoted 2 times

✉  **mmarkiew** 4 months, 1 week ago

Is IP filtering even needed for this solution, given it's B2C? Why would we want to restrict IP addresses?

upvoted 1 times

✉  **9b03b96**  5 days, 21 hours ago

Appeared on the test, 3 April, 24. Answered Front Door -> OWASP and APIM -> Validation JWT. Passed with 840.

upvoted 1 times

✉  **varinder82** 1 week, 4 days ago

Final Answer:

- Front Door --> OWASP
- APIM --> Validation JWT

upvoted 1 times

✉️  **Fidel\_104** 1 month ago

Got this on today's exam (March of 2024), answered OWASP / JWT and passed the exam.  
Thanks guys for the votes & comments, this was a useful learning resource.

upvoted 2 times

✉️  **177c705** 1 month, 2 weeks ago

Front Door - OWASP with WAF  
APIM - JWT VALIDATION and IP filtering !!  
upvoted 1 times

✉️  **[Removed]** 3 months ago

Since we don't know the SKU for the Azure Front Door deployment (not all tiers support WAF, only the premium SKU does that), I tend to agree with:

Front Door: IP Filtering on a per-API level  
API Management: JWT validation  
upvoted 1 times

✉️  **Santosh4u** 4 months ago

Looks like the give answer is correct:  
<https://learn.microsoft.com/en-us/azure/architecture/solution-ideas/articles/protect-backend-apis-azure-management>  
upvoted 3 times

✉️  **BShelat** 4 months ago

Front Door SKU (Classic, standard or Premium) information is not given and we cannot assume that it is Premium SKU. Only Premium SKU has WAF so protection against OWASP is ruled out as it is function of WAF. Front Door provides IP Filtering per API level but cannot validate B2C JWTs. API management can validate B2C JWTs.

upvoted 2 times

✉️  **BShelat** 4 months ago

Azure Front Door has three SKUs. Classic, Standard and Premium. In this question SKU information is not given. Classic version just do load balancing of https traffic across regions. We need CDN & WAF as additional components if it is Classic SKU. Standard SKU is basically Azure Front Door classic + CDN and Premium SKU = standard + WAF. Considering this fact I would rule out mapping the Function "Protection ....(OWASP) vulnerabilities" to Front Door because WAF performs that and we do not have enough information of Front Door SKU here. So answers given here are correct.

upvoted 1 times

✉️  **Paul\_white** 4 months, 2 weeks ago

1. \*\*Protection against Open Web Application Security Project (OWASP) Vulnerabilities\*\*: This function is provided by \*\*Azure Front Door\*\*. It offers platform-level protection against network-level DDoS attacks<sup>1</sup>. It also provides a Web Application Firewall<sup>2</sup>.

2. \*\*IP Filtering on a per-API level\*\*: This function is provided by \*\*Azure API Management\*\*. It allows you to manage and secure your APIs, including IP filtering<sup>6</sup>.

3. \*\*Validation of Azure B2C JSON Web Tokens(JWTs)\*\*: This function is also provided by \*\*Azure API Management\*\*. It supports authentication by relying on industry standards such as OAuth 2.0 and OpenID Connect<sup>[^10^]</sup>.

upvoted 2 times

✉️  **babakeyfgir** 4 months, 3 weeks ago

it was a exam Question  
upvoted 4 times

✉️  **Elecktrus** 6 months, 1 week ago

A complicated question.  
Box 2 is clear, it's Validation of Azure B2C. Front Door can't validate token and it is a requirement  
Box 1, Front Door can do both things (Protect from Owasp vulnerabilities and filter by IP).  
But:  
- Front Door only can filter by the origin IP, not for the destination IP (that is, the Per-API level commented)  
- the question says that "External user access to the backend APIs hosted in Azure Kubernetes Service (AKS) will be controlled by using Azure API Management", so if API Management does it, we don't need filter the IP

So, I think that right answers are:

Box1 - FrontDoor => Protect against OWASP Vulnerabilities

Box2 - API Management => Validation token JWT

upvoted 4 times

✉️  **z** 5 months, 2 weeks ago

The trick is that both can block by IP, but the answer offers only Per-API level.

FrontDoor => IP Filtering

API Management => Validation token JWT

<https://learn.microsoft.com/en-AU/azure/api-management/api-management-policies>

OWASP is not applicable here.

The given answer is correct.

upvoted 1 times

✉️  **z** 5 months, 2 weeks ago

Sorry, the default answer is not correct, mine is.

FrontDoor => IP Filtering

API Management => Validation token JWT

upvoted 1 times

✉️  z 5 months, 2 weeks ago

This article shows that Front Door can do both too

<https://learn.microsoft.com/en-us/azure/active-directory-b2c/custom-domain>

upvoted 1 times

✉️  HeroDad 6 months, 2 weeks ago

It was on exam today.

Front Door: IP Filtering

<https://learn.microsoft.com/en-us/azure/web-application-firewall/afds/waf-front-door-configure-ip-restriction>

APIM: JWT

Trick questions. it's not asking for vulnerabilities so OWASP doesn't apply.

upvoted 5 times

✉️  mmarkiew 4 months, 1 week ago

I disagree with your first answer. Both Front Door and APIM support IP filtering, but I don't see why that's needed for this solution given it's supporting a B2C scenario. On the other hand, you're going to want OWASP vulnerability protection via Front Door WAF.

upvoted 1 times

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company plans to deploy various Azure App Service instances that will use Azure SQL databases. The App Service instances will be deployed at the same time as the Azure SQL databases.

The company has a regulatory requirement to deploy the App Service instances only to specific Azure regions. The resources for the App Service instances must reside in the same region.

You need to recommend a solution to meet the regulatory requirement.

Solution: You recommend using an Azure Policy initiative to enforce the location of resource groups.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

*Community vote distribution*

B (96%) 4%

✉️  marcellov Highly Voted 6 months, 2 weeks ago

**Selected Answer: B**

It seems like a trick question:

"You recommend using an Azure Policy initiative to enforce the location of resource groups".

You need to enforce the location of the App Service instances, and not of resource groups.

The right answer was in the question #57: "You recommend using an Azure Policy initiative to enforce the location".

upvoted 15 times

✉️  dejedi Most Recent 6 days, 23 hours ago

**Selected Answer: B**

No , should be the location of the resources not the resource groups

upvoted 1 times

✉️  ayadmawla 3 months, 1 week ago

**Selected Answer: A**

The question is referring to a Policy Initiative that can have multiple policies. Whilst Allowed Location policy does not control RGs, there is another policy for that purpose.

Resource groups are excluded from "Allowed locations" policy. If you want to restrict the locations where resource groups can be created, please use "Allowed locations for resource groups" policy.

For reference, below is the Description of Allowed locations policy definition:

This policy enables you to restrict the locations your organization can specify when deploying resources. Use to enforce your geo-compliance requirements. Excludes resource groups, Microsoft.AzureActiveDirectory/b2cDirectories, and resources that use the 'global' region.

See: <https://learn.microsoft.com/en-us/answers/questions/1193471/azure-policy-on-location-is-not-affecting-to-resou>  
upvoted 1 times

✉️  cesco1286 4 months ago

**Selected Answer: B**

Resources can be created in a region different than the RG's one

upvoted 2 times

✉️  babakeyfgir 4 months, 3 weeks ago

it was a exam Question

upvoted 3 times

 **Tplenty** 5 months ago

The answer is A, it's a repeated question  
upvoted 1 times

 **GODUSGREAT** 5 months ago

**Selected Answer: B**  
tricky question  
upvoted 2 times

 **maxustermann** 5 months, 3 weeks ago

**Selected Answer: B**  
The location of rg has nothing to do with the location of the resources inside the rg. So the answer is no --> B  
upvoted 4 times

 **joesatriani** 6 months, 3 weeks ago

Host stateless web apps with Azure subscriptions = create Azure Traffic Manager profiles  
Deploy to multiple Azure regions Support rate limiting = Azure Front Door  
Deploy App Service instances only to specific Azure regions = Azure Policy initiative  
upvoted 2 times

 **LavaPup** 6 months, 3 weeks ago

Yes. Pretty straight-forward I believe :)  
upvoted 1 times

 **sixlips** 6 months, 3 weeks ago

Why is this yes? "You recommend using an Azure Policy initiative to enforce the location of resource groups"  
resources within a resource group can be in a different location which wouldn't meet the requirements of the question  
upvoted 7 times

Your on-premises datacenter contains a server that runs Linux and hosts a Java app named App1. App1 has the following characteristics:

- App1 is an interactive app that users access by using HTTPS connections.
- The number of connections to App1 changes significantly throughout the day.
- App1 runs multiple concurrent instances.
- App1 requires major changes to run in a container.

You plan to migrate App1 to Azure.

You need to recommend a compute solution for App1. The solution must meet the following requirements:

- The solution must run multiple instances of App1.
- The number of instances must be managed automatically depending on the load.
- Administrative effort must be minimized.

What should you include in the recommendation?

- A. Azure Batch
- B. Azure App Service
- C. Azure Kubernetes Service (AKS)
- D. Azure Virtual Machine Scale Sets

**Correct Answer: D**

*Community vote distribution*

B (74%)

D (24%)

✉  **Geekyhunchback** Highly Voted 6 months, 1 week ago

**Selected Answer: B**

In order to minimize administrative effort, I believe Azure App Service is the right answer  
upvoted 15 times

✉  **sumaju** Highly Voted 5 months, 2 weeks ago

**Selected Answer: D**

It is not a containerized application. So AKS is out of question. VMSS is the only solution considering the scaling requirements.  
upvoted 5 times

✉  **cesco1286** 4 months ago

have you ever deployed an app service? Do you know that you can have auto-scaling based on many metrics?  
upvoted 2 times

✉  **rumino** Most Recent 1 month ago

**Selected Answer: B**

App Service app does not need to be containerized  
upvoted 1 times

✉  **[Removed]** 3 months ago

**Selected Answer: B**

If your application requires major changes to run in a container, and you want to minimize administrative effort, Azure App Service is likely the better choice. It abstracts away many infrastructure management tasks and provides a simpler deployment model for applications.

Azure Virtual Machine Scale Sets might be more suitable when you need more control over the virtual machines, have specific configuration requirements, or if you need to run the application on a specific operating system.  
upvoted 3 times

✉  **ziggy1117** 4 months ago

**Selected Answer: D**

D. Azure Virtual Machine Scale Sets

Administration effort must be minimized. Switching to Azure App service would require code modifications

upvoted 3 times

✉  **Hammer84** 5 months, 3 weeks ago

**Selected Answer: C**

Azure Batch (Option A) is more suitable for high-performance computing workloads and batch processing rather than running interactive, stateful applications like App1. Azure App Service (Option B) is designed for hosting web applications, but it may not provide the same level of control and flexibility as AKS, especially for complex applications like App1. Azure Virtual Machine Scale Sets (Option D) can be used for scalable VM deployments, but it doesn't provide the same level of container orchestration and automatic scaling that AKS offers for containerized applications.

So, for the given scenario and requirements, Azure Kubernetes Service (AKS) is the recommended solution.

upvoted 1 times

✉  **sumaju** 5 months, 2 weeks ago

"App1 requires major changes to run in a container". AKS can run only containerized applications. So VMSS is the only option.

upvoted 2 times

✉  **pabsinaz** 6 months ago

**Selected Answer: B**

Absolutely Azure App Service.

"requires major changes to run in a container" so Azure Kubernetes Service discarded. No need for Azure Batch. Azure Virtual Machine Scale Sets is bigger a burden and setup.

upvoted 4 times

✉  **pabsinaz** 6 months ago

Also, Azure App Service has horizontal autoscaling to adjust the number of instances automatically based on thresholds.

upvoted 2 times

✉  **alfaAzure** 6 months, 1 week ago

**Selected Answer: B**

B.

Echo what Geekyhunchback said.

upvoted 2 times

**HOTSPOT**

You have an Azure App Service web app named Webapp1 that connects to an Azure SQL database named DB1. Webapp1 and DB1 are deployed to the East US Azure region.

You need to ensure that all the traffic between Webapp1 and DB1 is sent via a private connection.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Create a virtual network that contains at least:

- 1 subnet
- 2 subnets
- 3 subnets

From the virtual network, configure name resolution to use:

- A private DNS zone
- A public DNS zone
- The Azure DNS Private Resolver

**Answer Area**

Create a virtual network that contains at least:

- 1 subnet
- 2 subnets
- 3 subnets

From the virtual network, configure name resolution to use:

- A private DNS zone
- A public DNS zone
- The Azure DNS Private Resolver

 **OrangeSG** Highly Voted 5 months, 2 weeks ago

Box 1: 2 subnets

Create a virtual network that contains at least 2 subnets. One for the Azure App Service VNet Integration and another for the Azure Private Link.

Box 2: a private DNS zone

Configure name resolution to use a private DNS zone. This is necessary for the web app to work with Azure DNS private zones.

upvoted 14 times

 **kodathedog** 5 months, 1 week ago

Private Endpoints do not require their own subnet - see <https://learn.microsoft.com/en-us/azure/private-link/private-link-faq>:

"Do I require a dedicated subnet for Private Endpoints?

No. You don't require a dedicated subnet for Private Endpoints. You can choose a Private Endpoint IP from any subnet from the VNet where your service is deployed."

upvoted 5 times

 **fodocel235** 4 months, 2 weeks ago

You are correct that Private Endpoint does NOT require a dedicated subnet, but when you use Web Apps inside a VNet, then delegation (integration) comes into place. If the subnet of the Web App has a delegation (Microsoft.Web/serverFarms) nothing can be created in that subnet besides the "Microsoft.Web/serverFarms". So it is NOT possible to create Private Endpoint in a delegated subnet.

So in this case you need a VNet. In that VNet you create a subnet for Web Apps with delegation. You need another subnet for the Private Endpoint to connect to the SQL database.

Answer:

2 subnets (1x Private Endpoint; 1x Web Apps)

A private DNS zone

upvoted 11 times

 **cris\_exam** Most Recent 1 week, 4 days ago

Box1: 2 VNets

Box2: Private DNS zone

I have been working with PE/PLs for the past 3 years, so MS tells us that PEs don't go along with delegated subnets as in this case with the webapp and the SQL PE.

Any Subnet that has been delegated (as in webapp VNET integration), doesn't support to have a PE inside it.

<https://learn.microsoft.com/en-us/azure/virtual-network/subnet-delegation-overview#effect-of-subnet-delegation-on-your-subnet>

"Each Azure service defines their own deployment model, where they can define what properties they do or don't support in a delegated subnet for injection purposes as follows:

Can't be used with a private endpoint if the subnet is delegated."

upvoted 2 times

✉️  **cris\_exam** 1 week, 4 days ago

sorry = correction

Box1: 2 Subnets

upvoted 2 times

✉️  **kodjoa2024** 3 weeks, 2 days ago

Azure App Service VNet Integration required dedicated subnet and we need second subnet for IP address of Private Link.

upvoted 1 times

✉️  **cesco1286** 4 months ago

People that respond in here never used Azure. You need Virtual network integration for a Web App to talk with a service inside a Vnet. And you need a different subnet for the SQL Private endpoint. So you need at the very least 2 subnets to have this working

upvoted 4 times

✉️  **kodathedog** 5 months ago

This is a nasty question.

1 subnet would be sufficient if the App only needs inbound traffic, because Private Endpoints only support Inbound traffic - "Private endpoint is only used for incoming traffic to your app. Outgoing traffic won't use this private endpoint. You can inject outgoing traffic to your network in a different subnet through the virtual network integration feature." - <https://learn.microsoft.com/en-us/azure/app-service/overview-private-endpoint>

So you need Virtual Network Integration as well as a private endpoint for the app, to enable the app to talk to the database.

For example, see <https://gregorsuttie.com/2023/01/16/azure-web-app-using-azure-sql-using-private-endpoints/>

upvoted 3 times

✉️  **a03** 5 months ago

in this example are 2 subnets

webappsSubnet: 10.1.2.0/24

sqlSubnet: 10.1.1.0/24

upvoted 3 times

✉️  **JazzyStahh** 5 months, 1 week ago

2 subnets. one for the DB and one for the app service. <https://learn.microsoft.com/en-us/azure/app-service/overview-vnet-integration#subnet-requirements>

upvoted 2 times

✉️  **randy0077** 5 months, 1 week ago

given answer is correct.

upvoted 1 times

✉️  **pabsinaz** 6 months ago

Correct answer.

1 subnet and Private DNS zone.

upvoted 3 times

**HOTSPOT**

Your on-premises network contains an Active Directory Domain Services (AD DS) domain. The domain contains a server named Server1. Server1 contains an app named App1 that uses AD DS authentication. Remote users access App1 by using a VPN connection to the on-premises network.

You have an Azure AD tenant that syncs with the AD DS domain by using Azure AD Connect.

You need to ensure that the remote users can access App1 without using a VPN. The solution must meet the following requirements:

- Ensure that the users authenticate by using Azure Multi-Factor Authentication (MFA).
- Minimize administrative effort.

What should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

In Azure AD:

- A managed identity
- An access package
- An app registration
- An enterprise application

On-premises:

- A server that runs Windows Server and has the Azure AD Application Proxy connector installed
- A server that runs Windows Server and has the on-premises data gateway (standard mode) installed
- A server that runs Windows Server and has the Web Application Proxy role service installed

**Answer Area**

In Azure AD:

- A managed identity
- An access package
- An app registration
- An enterprise application

Correct Answer:

On-premises:

- A server that runs Windows Server and has the Azure AD Application Proxy connector installed
- A server that runs Windows Server and has the on-premises data gateway (standard mode) installed
- A server that runs Windows Server and has the Web Application Proxy role service installed

✉  matanzpl  6 months ago

Correct answers

box1: ent app (required for MFA in conditional access)

box2: azure ad app proxy

upvoted 10 times

✉  prshntdxt7  2 weeks, 5 days ago

answers are correct, there's another similar mcq in earlier topics with same answer.

upvoted 1 times

✉  techtest848 1 month, 3 weeks ago

Provided answers are correct - <https://learn.microsoft.com/en-us/entra/identity/app-proxy/application-proxy-add-on-premises-application#add-an-on-premises-app-to-microsoft-entra-id>

upvoted 3 times

✉  OrangeSG 5 months, 2 weeks ago

Box 1: An app registration

This allows App1 to use Azure AD for authentication.

<https://learn.microsoft.com/en-us/answers/questions/270680/app-registration-vs-enterprise-applications>

Box 2: a server that runs windows server and has the Azure AD Application Proxy connector installed

On-premises: A server that runs Windows Server and has the Azure AD Application Proxy connector installed. This allows App1 to be accessed from outside the on-premises network without a VPN.

upvoted 3 times

✉️  **kodathedog** 5 months, 1 week ago

The application doesn't do the authentication, this is handled by the App Proxy service, see <https://learn.microsoft.com/en-us/entra/identity/app-proxy/application-proxy-security>

The service requires an Enterprise Application to be created, see <https://learn.microsoft.com/en-us/entra/identity/app-proxy/application-proxy-add-on-premises-application> - see section "Add an on-premises app to Microsoft Entra ID", "2. Browse to Identity > Applications > Enterprise applications".

upvoted 6 times

You have an Azure subscription that contains an Azure Kubernetes Service (AKS) instance named AKS1. AKS1 hosts microservice-based APIs that are configured to listen on non-default HTTP ports.

You plan to deploy a Standard tier Azure API Management instance named APIM1 that will make the APIs available to external users.

You need to ensure that the AKS1 APIs are accessible to APIM1. The solution must meet the following requirements:

- Implement mTLS authentication between APIM1 and AKS1.
- Minimize development effort.
- Minimize costs.

What should you do?

- A. Implement an external load balancer on AKS1.
- B. Redeploy APIM1 to the virtual network that contains AKS1.
- C. Implement an ExternalName service on AKS1.
- D. Deploy an ingress controller to AKS1.

**Correct Answer: D**

*Community vote distribution*

D (100%)

✉️  **a03** 4 months, 2 weeks ago

Ingress controller is correct answer.

There is picture describing the architecture (API Management > Ingress Controller > AKS cluster):

<https://learn.microsoft.com/en-us/azure/architecture/solution-ideas/articles/mutual-tls-deploy-aks-api-management>  
upvoted 3 times

✉️  **babakeyfgir** 4 months, 3 weeks ago

it was a exam Question

upvoted 3 times

✉️  **OrangeSG** 5 months, 2 weeks ago

**Selected Answer: D**

Mutual TLS (mTLS) authentication is natively supported by Azure API Management and can be enabled in Kubernetes by installing an Ingress Controller. This approach simplifies the microservices as the authentication will be performed in the Ingress Controller. This solution also meets the requirements of implementing mTLS authentication between APIM1 and AKS1, minimizing development effort, and minimizing costs.

Please note that while deploying an ingress controller to AKS1, you should ensure that it supports mTLS. Examples of enterprise-level ingress controllers that support mTLS include NGINX and AGIC1.

<https://learn.microsoft.com/en-us/azure/api-management/api-management-kubernetes>  
upvoted 4 times

✉️  **KakashiCopyNinja** 6 months, 1 week ago

**Selected Answer: D**

D

<https://learn.microsoft.com/en-us/azure/api-management/api-management-kubernetes>  
upvoted 4 times

✉️  **KakashiCopyNinja** 6 months, 1 week ago

D is correct.

<https://learn.microsoft.com/en-us/azure/api-management/api-management-kubernetes#option-2-install-an-ingress-controller>  
upvoted 4 times

**HOTSPOT**

You need to recommend a solution to integrate Azure Cosmos DB and Azure Synapse. The solution must meet the following requirements:

- Traffic from an Azure Synapse workspace to the Azure Cosmos DB account must be sent via the Microsoft backbone network.
- Traffic from the Azure Synapse workspace to the Azure Cosmos DB account must NOT be routed over the internet.
- Implementation effort must be minimized.

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

When provisioning the Azure Synapse workspace:

Configure a dedicated managed virtual network.  
Disable public network access to the workspace endpoints.  
Enable the use of the Azure AD authentication.

When configuring the Azure Cosmos DB account, enable:

Managed private endpoints  
Server-level firewall rules  
Service endpoint policies

**Answer Area**

When provisioning the Azure Synapse workspace:

Configure a dedicated managed virtual network.  
Disable public network access to the workspace endpoints.  
Enable the use of the Azure AD authentication.

**Correct Answer:**

When configuring the Azure Cosmos DB account, enable:

Managed private endpoints  
Server-level firewall rules  
Service endpoint policies

✉ **Elecktrus** Highly Voted  6 months ago

In the exam 11-Oct. Answers are right

upvoted 7 times

✉ **OrangeSG** Highly Voted  5 months, 2 weeks ago

Box 1: Configure a dedicated managed virtual network

Provision the Azure Synapse workspace with the option to Configure a dedicated managed virtual network. This will ensure that the traffic between Azure Synapse and Azure Cosmos DB is routed through the Microsoft backbone network and not over the internet.

Box 2: Managed private endpoints

Configure the Azure Cosmos DB account to use Managed private endpoints. This will allow Azure Synapse to securely connect to Azure Cosmos DB using a private link.

upvoted 7 times

✉ **trferreiraBR** Most Recent  3 months, 2 weeks ago

Correct.

Box 1: Configure a dedicated managed virtual network

Managed private endpoints are only supported in Azure Synapse workspaces with a Managed workspace Virtual Network.

Box 2: Managed private endpoints

When you use Managed private endpoints, traffic between your Azure Synapse workspace and other Azure resources traverse entirely over the Microsoft backbone network.

<https://learn.microsoft.com/en-us/azure/synapse-analytics/security/synapse-workspace-managed-private-endpoints#managed-private-endpoints>

<https://learn.microsoft.com/en-us/azure/synapse-analytics/security/synapse-workspace-managed-vnet>

upvoted 4 times

✉ **dave22339** 4 months, 1 week ago

Hmm yeah you know what confused me. If an Azure service connects to another Azure service on an Azure public IP then that traffic will not leave the Azure backbone. Technically speaking does it traverse the internet? I don't think so. That said reading the other comments has put me right

(thanks OrangeSG, Elecktrus and KakashiCopyNinja). I'm sure you're right.

upvoted 1 times

 **KakashiCopyNinja** 6 months, 1 week ago

Correct.

<https://learn.microsoft.com/en-us/azure/cosmos-db/analytical-store-private-endpoints#enable-a-private-endpoint-for-the-analytical-store>

<https://learn.microsoft.com/en-us/azure/cosmos-db/analytical-store-private-endpoints#add-a-managed-private-endpoint-for-azure-cosmos-db-analytical-store>

<https://learn.microsoft.com/en-us/azure/cosmos-db/analytical-store-private-endpoints>

upvoted 3 times

You have an Azure subscription that contains an Azure Cosmos DB for NoSQL account named account1 and an Azure Synapse Analytics workspace named Workspace1. The account1 account contains a container named Contained that has the analytical store enabled.

You need to recommend a solution that will process the data stored in Contained in near-real-time (NRT) and output the results to a data warehouse in Workspace1 by using a runtime engine in the workspace. The solution must minimize data movement.

Which pool in Workspace1 should you use?

- A. Apache Spark
- B. serverless SQL
- C. dedicated SQL
- D. Data Explorer

**Correct Answer: B**

*Community vote distribution*

A (43%)      D (43%)      14%

✉  **varinder82** 1 week ago

Final Answer : D  
upvoted 1 times

✉  **LGWJ12** 1 week, 2 days ago

**Selected Answer: A**

A: Apache Spark, it's in Azure Synapse Analytics is an analytics engine that facilitates large-scale data processing. It can read data from Cosmos DB in near-real-time, process it, and then output the results to a data warehouse in the same Azure Synapse Analytics workspace. This minimizes data movement as the data processing and storage are happening within the same service (Azure Synapse Analytics).

upvoted 1 times

✉  **masetromain** 2 weeks, 2 days ago

**Selected Answer: A**

Apache Spark is a distributed processing framework that can handle near-real-time processing and is well-integrated with Azure Synapse Analytics. It can directly access data stored in Azure Cosmos DB analytical store without needing to move the data around. This minimizes data movement and provides efficient processing capabilities.

So, the correct answer is:

- A. Apache Spark  
upvoted 2 times

✉  **azureworm** 2 weeks, 5 days ago

A is the correct answer <https://learn.microsoft.com/en-us/azure/cosmos-db/synapse-link-use-cases>  
upvoted 1 times

✉  **MohsenSic** 2 weeks, 6 days ago

I go with A:  
Two reasons:  
Synapse had Apache Spark,  
Data explore is mainly for logs, refer to the bottom flowchart of the below link

<https://learn.microsoft.com/en-us/azure/data-explorer/data-explorer-overview>  
upvoted 1 times

✉  **varinder82** 4 weeks ago

Final Answer :  
D  
upvoted 1 times

✉  **Frank\_2022** 1 month ago

**Selected Answer: C**

Dedicated SQL pools are specifically designed for low-latency analytical workloads, making them ideal for processing data in near-real-time.  
upvoted 1 times

✉️  **rumino** 1 month ago

**Selected Answer: D**

Azure Data Explorer is a fully managed, high-performance, big data analytics platform that makes it easy to analyze high volumes of data in near real time. The Azure Data Explorer toolbox gives you an end-to-end solution for data ingestion, query, visualization, and management.

<https://learn.microsoft.com/en-us/azure/data-explorer/data-explorer-overview>

<https://learn.microsoft.com/en-us/azure/synapse-analytics/data-explorer/data-explorer-overview>

upvoted 1 times

✉️  **Frank\_2022** 1 month ago

Data Explorer is a powerful tool for querying data in Synapse Workspace, it's not designed for real-time data processing. I believe.

upvoted 1 times

✉️  **Felas** 3 weeks ago

Azure Data Explorer is a fast, fully managed data analytics service for analyzing large volumes of streaming data from applications, websites, IoT devices, etc. in real time.

<https://azure.microsoft.com/es-es/products/data-explorer>

upvoted 1 times

✉️  **Frank\_2022** 1 month, 1 week ago

I recommend using a dedicated SQL pool

Near-real-time processing: Dedicated SQL pools are specifically designed for low-latency analytical workloads, making them ideal for processing data in near-real-time.

Data minimization: Dedicated SQL pools are integrated with Workspace1, allowing for seamless data movement between the Cosmos DB analytical store and the data warehouse within the same workspace. This minimizes data movement and avoids the need for external data transfer processes.

Runtime engine: Dedicated SQL pools provide a T-SQL compatible query engine that can be used to interact with data stored in the data warehouse. This allows you to leverage familiar SQL syntax for data transformation and analysis.

upvoted 1 times

✉️  **Appon** 1 month, 2 weeks ago

**Selected Answer: D**

because of "near-real-time"

upvoted 2 times

✉️  **KeyMan** 3 months, 1 week ago

B. Serverless SQL pool

Reasoning:

Serverless SQL pool in Azure Synapse Analytics is designed to handle on-demand queries against large datasets, which is suitable for the NRT processing requirement stated.

Minimal Data Movement: Using serverless SQL pool allows querying data in place without the need to move data into the pool, which aligns with the need to minimize data movement. It can directly query the Cosmos DB analytical store.

Integration with Cosmos DB Analytical Store: Serverless SQL pool has built-in integration with Azure Cosmos DB's analytical store, allowing efficient and performant processing of the data.

Apache Spark could also process the data, but it would involve more data movement compared to serverless SQL. Dedicated SQL pool requires pre-provisioned resources and wouldn't be as cost-effective for NRT scenarios. Data Explorer is not a compute pool within Azure Synapse Analytics.

upvoted 4 times

✉️  **deegadaze1** 3 months ago

NO!

When to use Azure Synapse Data Explorer?

Use Data Explorer as a data platform for building near real-time log analytics and IoT analytics solutions to:

Consolidate and correlate your logs and events data across on-premises, cloud, and third-party data sources.

Accelerate your AI Ops journey (pattern recognition, anomaly detection, forecasting, and more).

Replace infrastructure-based log search solutions to save cost and increase productivity.

Build IoT analytics solutions for your IoT data.

Build analytics SaaS solutions to offer services to your internal and external customers.

Azure Data Explorer is a fully managed, high-performance, big data analytics platform that makes it easy to analyze high volumes of data in near real time. The Azure Data Explorer toolbox gives you an end-to-end solution for data ingestion, query, visualization, and management.

upvoted 7 times

✉️  **deegadaze1** 3 months ago

<https://learn.microsoft.com/en-us/azure/data-explorer/data-explorer-overview>

<https://learn.microsoft.com/en-us/azure/synapse-analytics/data-explorer/data-explorer-overview>

upvoted 6 times

✉️  **Fidel\_104** 1 month, 1 week ago

Further supporting B - serverless SQL pool, the Azure Synapse Link guide for Cosmos DB also recommends serverless pools for the real-time operational reporting use-cases:

Source: <https://learn.microsoft.com/en-us/azure/cosmos-db/synapse-link-use-cases>

upvoted 1 times

## DRAG DROP

You have an on-premises datacenter named Site1. Site1 contains a VMware vSphere cluster named Cluster1 that hosts 100 virtual machines. Cluster1 is managed by using VMware vCenter.

You have an Azure subscription named Sub1.

You plan to migrate the virtual machines from Cluster1 to Sub1.

You need to identify which resources are required to run the virtual machines in Azure. The solution must minimize administrative effort.

What should you configure? To answer, drag the appropriate resources to the correct targets. Each resource may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

**Resources** An Azure Migrate appliance An Azure Migrate project An Azure VMware Solution private cloud An Azure VMware Solution host**Answer Area**

Sub1:

Cluster1:

**Answer Area****Correct Answer:**Sub1:  An Azure VMware Solution private cloudCluster1:  An Azure Migrate project**Mc71** Highly Voted 3 months, 1 week ago

Answers should be:

Sub: Azure Migrate project

Cluster: Azure Migrate appliance

Assuming that the agentless migration is the optimal way to reduce admin effort. You need a Migrate Project in Azure, and a Migrate Appliance (VM) in the on-prem host to discover and assess the rest of the VMs. As per: <https://learn.microsoft.com/en-us/azure/migrate/server-migration-overview#compare-deployment-steps>

upvoted 13 times

**[Removed]** Highly Voted 3 months ago

IMO this should be:

Sub1: Azure Migrate Project

Cluster: Azure Migrate appliance

I've done this kind of migrations several times in production environments and I can tell you that the effort is not that big when you use Azure Migrate.

I never used stuff like VMware Solution host/private cloud so I am not sure how that would work but when you have Azure Migrate which is even free for 180 days and is natively supported + has a ton of features to assist with the migration, I don't know why you would go for anything else.

upvoted 10 times

**varinder82** Most Recent 1 week ago

Final Answer:

Answers should be:

Sub: Azure Migrate project

Cluster: Azure Migrate appliance

upvoted 1 times

**varinder82** 1 week, 4 days ago

Final Answer:

1. Sub: Azure Migrate project
2. Cluster: Azure Migrate appliance

upvoted 1 times

✉️  **Hiteshp2288** 1 month, 1 week ago

<https://learn.microsoft.com/en-us/azure/migrate/tutorial-discover-vmware>

Sub: Azure Migrate project

Cluster: Azure Migrate appliance

upvoted 2 times

✉️  **fe0b3b4** 2 months ago

Be careful! The question is not about performing the migration but about assessing the required resources. So it should be:

Sub: Azure Migrate Project

Cluster: Azure Migrate Appliance

See: <https://learn.microsoft.com/en-us/azure/migrate/tutorial-assess-vmware-azure-vm>

upvoted 4 times

✉️  **trferreiraBR** 3 months, 1 week ago

Sub1: An Azure VMware Solution host

Azure VMware Solution is a pre-requisite to provides Azure VMware Solution private cloud.

An Azure VMware Solution host is the infrastructure layer

An Azure VMware Solution private cloud is the software layer

<https://learn.microsoft.com/en-us/azure/azure-vmware/introduction>

<https://learn.microsoft.com/en-us/azure/azure-vmware/concepts-private-clouds-clusters>

Cluster1: An Azure Migrate project

<https://learn.microsoft.com/en-us/azure/migrate/tutorial-migrate-vmware-agent>

upvoted 1 times

✉️  **trferreiraBR** 3 months, 1 week ago

So, I have to change the Sub1 answer. In my opinion, Sub1 is Azure VMware Solution private cloud.

Why? The solution must minimize administrative effort. Today is possible to create directly in the Azure Portal an Azure VMware Solution private cloud and selecting the solution host 'VMware vSphere' with the number of hosts.

upvoted 1 times

✉️  **trferreiraBR** 3 months, 1 week ago

<https://learn.microsoft.com/en-us/azure/azure-vmware/deploy-azure-vmware-solution?tabs=azure-portal>

upvoted 2 times

✉️  **usual** 3 months ago

you cant create Azure migrate project on cluster 1

upvoted 1 times

**HOTSPOT**

Your on-premises datacenter contains a server named Server1 that runs Microsoft SQL Server 2022. Server1 contains a 30-TB database named DB1 that stores customer data. Server1 runs a custom application named App1 that verifies the compliance of records in DB1. App1 must run on the same server as DB1.

You have an Azure subscription.

You need to migrate DB1 to Azure. The solution must minimize administrative effort.

To which service should you migrate DB1, and what should you use to perform the migration? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Migrate to:

- Azure SQL Database
- Azure SQL Managed Instance
- SQL Server on Azure Virtual Machines

By using:

- Azure Database Migration Service
- Azure Migrate
- The Azure SQL Migration extension for Azure Data Studio

Migrate to:

- Azure SQL Database
- Azure SQL Managed Instance
- SQL Server on Azure Virtual Machines

Correct Answer:

By using:

- Azure Database Migration Service
- Azure Migrate
- The Azure SQL Migration extension for Azure Data Studio

✉  **LGWJ12** 1 week, 2 days ago

SQL Server on Azure Virtual Machines and Azure Database Migration Service.

Given the requirement that the custom application App1 must run on the same server as DB1, the best option is SQL Server on Azure Virtual Machines.

For the migration process, you should use Azure Database Migration Service because the Azure SQL Migration extension for Azure Data Studio is more suited for migrating to Azure SQL Database or Azure SQL Managed Instance and not to SQL server on Azure virtual machine.

upvoted 1 times

✉  **bazylson** 2 weeks, 3 days ago

According to this: <https://learn.microsoft.com/en-us/sql/sql-server/migrate/dma-azure-migrate-compare-migration-tools?view=sql-server-ver16#quick-comparison>

only Azure Migrate & DMA can handle a SQL Server migration to Azure VM. Since DMA option is not available, only Azure Migrate remains.

upvoted 3 times

✉  **MohsenSic** 3 weeks ago

Sql database tier and DMS, 30Tb is only supported by databsetier  
upvoted 1 times

✉  **kodjoa2024** 3 weeks, 2 days ago

for the second question it sound for me Azure Migrate because there also app to migrate.  
upvoted 1 times

✉  **ahmedkmj** 3 weeks, 6 days ago

I would say also it should be Azure SQL migration extension for Azure Data Studio, according to Microsoft recommendations  
<https://learn.microsoft.com/en-us/azure/azure-sql/migration-guides/virtual-machines/sql-server-to-sql-on-azure-vm-migration-overview?view=azuresql>  
upvoted 1 times

✉  **rumino** 1 month ago

The first choice is easy, obviously we need VM to install additional app.  
Regarding the second, I'd go for SQL Migration extension for Azure Data Studio. It seems to be all-in-one easy to use tool.  
<https://learn.microsoft.com/en-us/azure-data-studio/extensions/azure-sql-migration-extension?tabs=connected>  
upvoted 2 times

For migration Azure Database Migration Service  
<https://learn.microsoft.com/en-us/azure/migrate/migrate-services-overview#integrated-tools>

Data Studio is only for Azure SQL migration not MI or VM SQL. (link from the original comment)  
upvoted 1 times

✉  **xRiot007** 1 month, 1 week ago

The second box is slightly ambiguous. Bot Azure Migrate and Azure Database Migration Service are correct. This is because the service sits inside the context of Azure Migrate.

upvoted 2 times

✉  **xRiot007** 1 month, 1 week ago

Thinking again, using the DMS might be more precise of a response, so that is more correct...  
upvoted 2 times

✉  **Crossfader2208** 1 month, 1 week ago

given answer is correct.  
upvoted 2 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Managed Instance Business Critical
- B. Azure SQL Database Business Critical
- C. Azure SQL Database Basic
- D. Azure SQL Database Standard

**Correct Answer: B**

*Community vote distribution*

B (100%)

✉️  **rumin0** 1 month ago

**Selected Answer: B**

SQL Database Business Critical as it's cheaper than Managed Instance Business Critical  
upvoted 1 times

✉️  **Crossfader2208** 1 month, 1 week ago

How many copies of this question ET is going to post here. That is the question.  
upvoted 2 times

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

- A. Azure Log Analytics
- B. Azure Arc
- C. Azure Monitor metrics
- D. Azure Monitor action groups

**Correct Answer: A**

*Community vote distribution*

A (100%)

✉️  **rumin0** 1 month ago

**Selected Answer: A**

We want Activity Logs and they can be send to Log Analytics Workspace  
<https://learn.microsoft.com/en-us/azure/azure-monitor/essentials/diagnostic-settings>  
upvoted 1 times

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

- A. Azure Log Analytics
- B. Azure Arc
- C. Azure Analysis Services
- D. Azure Monitor action groups

**Correct Answer: A**

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

- A. Azure Log Analytics
- B. Azure Analysis Services
- C. Azure Monitor metrics
- D. Azure Monitor action groups

**Correct Answer: A**

✉️  **PTark** 2 weeks, 4 days ago

If this question comes up twice in the Exam I will laugh my head off.  
upvoted 2 times

✉️  **LGWJ12** 1 week, 2 days ago

hahahah x2  
upvoted 1 times

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Database Business Critical
- B. Azure SQL Database Premium
- C. Azure SQL Database Basic
- D. Azure SQL Database Hyperscale

**Correct Answer: A**

*Community vote distribution*

B (100%)

✉️  **Joonzz** 1 month ago

What about recent update ?

Improve the resiliency of your General Purpose Azure SQL Managed Instances by upgrading to a zone-redundant configuration.  
<https://azure.microsoft.com/en-au/updates/public-preview-azure-sql-updates-for-midmarch-2024/>

upvoted 1 times

✉️  **LGWJ12** 1 week, 2 days ago

While the General Purpose tier now supports zone-redundant configuration, it does not guarantee zero data loss in the event of a failover. The Business Critical tier, on the other hand, provides automatic failover within the same region without any data loss, which is one of your requirements.

upvoted 1 times

✉️  **rumino** 3 weeks ago

Still costs are Serverless < Premium DTU < General Purpose < General Purpose MI < Business Critical  
upvoted 1 times

✉️  **dejedi** 1 month ago

**Selected Answer: B**

Database premium is cheaper B

upvoted 2 times

✉️  **rumino** 1 month ago

**Selected Answer: B**

Premium is cheaper than Business Critical that is cheaper than Hyperscale

upvoted 1 times

✉️  **Frank\_2022** 1 month ago

**Selected Answer: B**

B should be the correct answer.

upvoted 2 times

✉️  **Crossfader2208** 1 month, 1 week ago

**Selected Answer: B**

The answer is incorrect. B is the correct answer. After dozens of variations of this question. How can it be? Really.

upvoted 2 times

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

- A. Application Insights
- B. Azure Analysis Services
- C. Azure Advisor
- D. Azure Log Analytics

**Correct Answer:** D

**HOTSPOT**

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Description
contoso.com	Azure Private DNS zone	<i>None</i>
VNet1	Virtual network	Linked to contoso.com Peered with VNet2
VNet2	Virtual network	Linked to contoso.com Peered with VNet1
VNet3	Virtual network	Linked to contoso.com Isolated from VNet1 and VNet2
Workspace1	Log Analytics workspace	Stores logs collected from the virtual machines on all the virtual networks

VNet1, VNet2, and VNet3 each has multiple virtual machines connected. The virtual machines use the Azure DNS service for name resolution.

You need to recommend an Azure Monitor log routing solution that meets the following requirements:

- Ensures that the logs collected from the virtual machines and sent to Workspace1 are routed over the Microsoft backbone network
- Minimizes administrative effort

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

**Answer Area**

Minimum number of Azure Monitor Private Link Scope (AMPLS) objects:

  
 1  
 2  
 3

Minimum number of private endpoints:

  
 1  
 2  
 3**Answer Area**

Minimum number of Azure Monitor Private Link Scope (AMPLS) objects:

  
 1  
 2  
 3

Correct Answer:

Minimum number of private endpoints:

  
 1  
 2  
 3

✉ **ubdubdoo** 3 days, 1 hour ago

If your VNets share the same DNS configuration, you should use a single AMPLS for all of them  
upvoted 1 times

✉ **cris\_exam** 1 week, 4 days ago

Box1: 1 AMPLS  
Box2: 2 PEs

I tested this and used 1 AMPLS and 2 PEs.

As long as the DNS settings are correct and the PEs resolve for each VM fine without overlapping IPs, with just 1 AMPLS you can make this work to as many VNETs you want.

The key idea here is to have the proper DNS private zone settings configured and of course VMs to have network connectivity to the PE.

upvoted 2 times

✉ **varinder82** 3 weeks, 2 days ago

Final Answer:

1. 2
2. 2

upvoted 2 times

✉ **Kbueno** 3 weeks, 3 days ago

It should be AMPLS 2 and Private endpoint 2 (because the peering with vnet1 and vnet2)

upvoted 2 times

✉ **Frank\_2022** 1 month ago

box 1, AMPLS object should be: 2

One for VNet1 and VNet 2, since they are peered. And one for VNet3. It isolated from VNet1 and VNet2.

Here is explanation:

#### Peered networks

Network peering is used in various topologies, other than hub and spoke. Such networks can share each other's IP addresses, and most likely share the same DNS. In such cases, create a single private link on a network that's accessible to your other networks. Avoid creating multiple private endpoints and AMPLS objects because ultimately only the last one set in the DNS applies.

#### Isolated networks

If your networks aren't peered, you must also separate their DNS to use private links. After that's done, create a separate private endpoint for each network, and a separate AMPLS object. Your AMPLS objects can link to the same workspaces/components or to different ones.

Link from MS Learn:

<https://learn.microsoft.com/en-us/azure/azure-monitor/logs/private-link-design>

upvoted 2 times

✉ **PRACKY** 1 month ago

we have to consider this fact that VNet3 is connected to private DNS contoso.com

As per MS documentation , Isolated networks: If your networks aren't peered, you must also separate their DNS to use private links So based on that I think AMPLS object should be: 1.

Please counter this reason.

upvoted 1 times

✉ **cris\_exam** 1 week, 4 days ago

I agree with Pracky, 1 AMPLS presence is enough to satisfy this design and then 2 PEs, 1PE for VNET 1 & 2 (since they are peered) and 1PE for VNET 3.

Key point here is that as long as the FQDN resolves to the proper private IP of the PE it should work fine.

So separate DNS settings for VNET1&2 and VNET3 for this to work, and only 1 AMPLS required configured with Workspace1.

upvoted 1 times

✉ **Crossfader2208** 1 month, 1 week ago

given answer is correct.

upvoted 1 times

✉ **DH333** 1 month, 1 week ago

Shouldn't the answer be 2 AMPLS -2 Private Endpoint?? Because of the isolated VNET3, for that another AMPLS and a Private Endpoint is necessary

<https://learn.microsoft.com/en-us/azure/azure-monitor/logs/private-link-design>

upvoted 3 times

✉ **rumino** 1 month ago

Network peering is used in various topologies, other than hub and spoke. Such networks can share each other's IP addresses, and most likely share the same DNS. In such cases, create a single private link on a network that's accessible to your other networks. Avoid creating multiple private endpoints and AMPLS objects because ultimately only the last one set in the DNS applies.

So I'd agree that we need two private link connections thus 2 Link Scopes and 2 Endpoints

upvoted 2 times

✉️ 🚩 **chair123** 4 weeks, 1 day ago

i agree with you. but don't know how to confirm!

upvoted 2 times

Question #125

Topic 4

You need to design a highly available Azure SQL database that meets the following requirements:

- Failover between replicas of the database must occur without any data loss.
- The database must remain available in the event of a zone outage.
- Costs must be minimized.

Which deployment option should you use?

- A. Azure SQL Database Standard
- B. Azure SQL Managed Instance Business Critical
- C. Azure SQL Database Serverless
- D. Azure SQL Database Premium

**Correct Answer: B**

*Community vote distribution*

D (100%)

✉️ 🚩 **Frank\_2022** Highly Voted 1 month ago

**Selected Answer: D**

The given answer is wrong. It should be D (Azure SQL Database Remium).

upvoted 5 times

✉️ 🚩 **HarryRhodes** 1 month ago

Agreed. Only choose Business Critical in the absence of Premium in these questions.

upvoted 3 times

**HOTSPOT**

You have 100 Azure Storage accounts.

Access to the accounts is restricted by using Azure role-based access control (Azure RBAC) assignments.

You need to recommend a solution that uses role assignment conditions based on the tags assigned to individual resources within the storage accounts.

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

**Answer Area**

Implement role assignment conditions by using:

- Access control lists (ACLs)
- Attribute-based access control (ABAC)
- Shared access signatures (SAS)

Assign permissions to:

- Blobs
- Files
- Tables

Implement role assignment conditions by using:

- Access control lists (ACLs)
- Attribute-based access control (ABAC)
- Shared access signatures (SAS)

**Correct Answer:**

Assign permissions to:

- Blobs**
- Files
- Tables

  **DH333** Highly Voted 1 month, 1 week ago

Given answer is correct

<https://techcommunity.microsoft.com/t5/microsoft-entra-blog/introducing-attribute-based-access-control-abac-in-azure/ba-p/2147069>  
upvoted 7 times

  **Crossfader2208** Most Recent 1 month, 1 week ago

given answer is correct.  
upvoted 4 times

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping.

You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- A. Azure Service Fabric
- B. Azure Notification Hubs
- C. Azure Service Bus
- D. Azure Traffic Manager

**Correct Answer:** C

**Introductory Info**

## Case Study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case.

However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

## To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

## Overview -

Litware, Inc. is a medium-sized finance company that has a main office in Boston.

## Existing Environment -

## Identity Environment -

The network contains an Active Directory forest named litware.com that is linked to an Azure Active Directory (Azure AD) tenant named litware.com. All users have Azure Active Directory Premium P2 licenses.

Litware has a second Azure AD tenant named dev.litware.com that is used as a development environment.

The litware.com tenant has a Conditional Access policy named Capolicy1. Capolicy1 requires that when users manage the Azure subscription for a production environment by using the Azure portal, they must connect from a hybrid Azure AD-joined device.

## Azure Environment -

Litware has 10 Azure subscriptions that are linked to the Litware.com tenant and five Azure subscriptions that are linked to the dev.litware.com tenant. All the subscriptions are in an Enterprise Agreement (EA).

The litware.com tenant contains a custom Azure role-based access control (Azure RBAC) role named Role1 that grants the DataActions read permission to the blobs and files in Azure Storage.

## On-Premises Environment -

The on-premises network of Litware contains the resources shown in the following table.

Name	Type	Configuration
SERVER1 SERVER2 SERVER3	Ubuntu 18.04 virtual machines hosted on Hyper-V	The virtual machines host a third-party app named App1. App1 uses an external storage solution that provides Apache Hadoop-compatible data storage. The data storage supports POSIX access control list (ACL) file-level permissions.
SERVER10	Server that runs Windows Server 2016	The server contains a Microsoft SQL Server instance that hosts two databases named DB1 and DB2.

## Network Environment -

Litware has ExpressRoute connectivity to Azure.

## Planned Changes and Requirements

### Planned Changes -

Litware plans to implement the following changes:

Migrate DB1 and DB2 to Azure.

Migrate App1 to Azure virtual machines.

Migrate the external storage used by App1 to Azure Storage.

Deploy the Azure virtual machines that will host App1 to Azure dedicated hosts.

▪

### Authentication and Authorization Requirements

Litware identifies the following authentication and authorization requirements:

Only users that manage the production environment by using the Azure portal must connect from a hybrid Azure AD-joined device and authenticate by using

Azure Multi-Factor Authentication (MFA).

The Network Contributor built-in RBAC role must be used to grant permissions to the network administrators for all the virtual networks in all the Azure subscriptions.

To access the resources in Azure, App1 must use the managed identity of the virtual machines that will host the app.

RBAC roles must be applied to management groups.

### Resiliency Requirements -

Litware identifies the following resiliency requirements:

Once migrated to Azure, DB1 and DB2 must meet the following requirements:

- Maintain availability if two availability zones in the local Azure region fail.
- Fail over automatically.
- Minimize I/O latency.

App1 must meet the following requirements:

- Be hosted in an Azure region that supports availability zones.
- Be hosted on Azure virtual machines that support automatic scaling.
- Maintain availability if two availability zones in the local Azure region fail.

### Security and Compliance Requirements

Litware identifies the following security and compliance requirements:

Once App1 is migrated to Azure, you must ensure that new data can be written to the app, and the modification of new and existing data is prevented for a period of three years.

On-premises users and services must be able to access the Azure Storage account that will host the data in App1.

Access to the public endpoint of the Azure Storage account that will host the App1 data must be prevented.

All Azure SQL databases in the production environment must have Transparent Data Encryption (TDE) enabled.

App1 must NOT share physical hardware with other workloads.

### Business Requirements -

Litware identifies the following business requirements:

Minimize administrative effort.

Minimize costs.

▪

## Question

### HOTSPOT -

You need to ensure that users managing the production environment are registered for Azure MFA and must authenticate by using Azure MFA when they sign in to the Azure portal. The solution must meet the authentication and authorization requirements.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

To register the users for Azure MFA, use:

Azure AD Identity Protection
Security defaults in Azure AD
Azure AD authentication methods policy

To enforce Azure MFA authentication, configure:

Grant control in capolicy1
Session control in capolicy1
Sign-in risk policy in Azure AD Identity Protection for the Litware.com.tenant

Correct Answer:

### Answer Area

To register the users for Azure MFA, use:

Azure AD Identity Protection
Security defaults in Azure AD
Azure AD authentication methods policy

To enforce Azure MFA authentication, configure:

Grant control in capolicy1
Session control in capolicy1
Sign-in risk policy in Azure AD Identity Protection for the Litware.com.tenant

#### Box 1: Azure AD Identity Protection

Only users that manage the production environment by using the Azure portal must connect from a hybrid Azure AD-joined device and authenticate by using Azure Multi-Factor Authentication (MFA).

Note: Policy configuration -

1. Navigate to the Azure portal.
2. Browse to Azure Active Directory > Security > Identity Protection > MFA registration policy.
3. Under Assignments
4. Users - Choose All users or Select individuals and groups if limiting your rollout.
5. Optionally you can choose to exclude users from the policy.
6. Enforce Policy - On
7. Save

#### Box 2: Grant control in capolicy1

The litware.com tenant has a Conditional Access policy named Capolicy1. Capolicy1 requires that when users manage the Azure subscription for a production environment by using the Azure portal, they must connect from a hybrid Azure AD-joined device.

Note: We need to configure the policy conditions for capolicy1 that prompt for MFA.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/identity-protection/howto-identity-protection-configure-mfa-policy>

<https://docs.microsoft.com/en-us/azure/active-directory/authentication/tutorial-enable-azure-mfa>

  Guest  1 year, 3 months ago

If it helps there seem to be only 3 case studies.

All the others have the same case, but different questions

Maybe the admins can merge this ?

topic 5: Litware

topic 6: Contoso

topic 7: Fabrikam

topic 8: Litware = topic 5

topic 9: Fabrikam = topic 7

topic 10: Contoso Ltd = topic 6

topic 11: Fabrikam = topic 7

topic 12: Litware = topic 5

topic 13: Contoso Ltd = topic 6

topic 14: Contoso Ltd = topic 6

topic 15: Litware = topic 5

topic 16: Fabrikam = topic 7

upvoted 44 times

✉️ **OPT\_001122** 1 year, 2 months ago

This is a great help!!!! . i added few more details into it - case study specific details

topic 5: Litware-Question #1-Page42

topic 8: Litware-Question #1-Page44

topic 8: Litware-Question #2-Page44

topic 8: Litware-Question #3-Page45

topic 8: Litware-Question #4-Page45

topic 8: Litware-Question #5-Page45

topic 12: Litware-Question #1-Page47

topic 15: Litware-Question #1-Page48

=====

Total = 8

upvoted 15 times

✉️ **OPT\_001122** 1 year, 2 months ago

Total = 9

topic 5: Litware-Question #2-Page42

upvoted 3 times

✉️ **comoon** 1 year, 1 month ago

what is this, man?

upvoted 4 times

✉️ **Davin0406** Highly Voted 1 year, 6 months ago

Correct. appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.

upvoted 27 times

✉️ **memo454** Most Recent 6 months, 4 weeks ago

This Case study was in the Exam.

I passed the exam today 17-09-2023 with a score of 906/1000. Four new questions.! The team is easier than AZ-104.

A new question of hot spot related to FrontDoor and PIM, to drag the OWASP or Just-in Time.

Another question related to subnets and DNS.

upvoted 8 times

✉️ **NotMeAnyWay** 9 months, 1 week ago

1. To register the users for Azure MFA, use: a. Azure AD identity Protection. Azure AD Identity Protection is a tool that allows organizations to discover, investigate, and remediate identity-based risks in their environment. It can help you manage the roll-out of Multi-Factor Authentication (MFA) registration by prompting users for registration during risk sign-in attempts.

2. To enforce Azure MFA authentication, configure: a. Grant control in capolicy1. Grant controls are used to enforce additional requirements that a user must meet before they are granted access. You can enforce Azure MFA by setting it as a requirement in the Grant control settings of Capolicy:

upvoted 6 times

✉️ **steel72** 1 year ago

The provided answer is correct.

First box "Azure AD Identity Protection":

<https://learn.microsoft.com/en-us/azure/active-directory/identity-protection/howto-identity-protection-configure-mfa-policy>

Second box "Grant control in capolicy1":

7. Under Access controls > Grant, select Grant access, Require multifactor authentication, and select Select.

<https://learn.microsoft.com/en-us/azure/active-directory/conditional-access/howto-conditional-access-policy-all-users-mfa#create-a-conditional-access-policy>

upvoted 6 times

✉️ **globy118** 1 year, 1 month ago

appeared in exam 02/15/2023

upvoted 2 times

✉️ **OPT\_001122** 1 year, 2 months ago

the given ans is correct

upvoted 1 times

✉️ **Mo22** 1 year, 3 months ago

I agree with both selections, the answer is correct to me

upvoted 1 times

✉️ **[Removed]** 1 year, 3 months ago

Given answer is correct, 'nuff said.

upvoted 1 times

✉️ **Ghoshy** 1 year, 3 months ago

One can define AD Authentication Method Policy which enforces MFA. So, it could be Azure AD Authentication Method Policy and Grant Control.

You could navigate to Access Method for the AD by Security-> Manage Section-> Authentication Methods

upvoted 3 times

✉️ **jellybiscuit** 1 year, 6 months ago

Identity Protection  
Grant control

Identity protection can create MFA registration policies if you have AD Premium P2. (which is mentioned in the study)

<https://learn.microsoft.com/en-us/azure/active-directory/identity-protection/howto-identity-protection-configure-mfa-policy>

<https://learn.microsoft.com/en-us/azure/active-directory/identity-protection/overview-identity-protection>

<https://learn.microsoft.com/en-us/azure/active-directory/authentication/tutorial-enable-azure-mfa>

upvoted 11 times

✉️ **Neo2c** 1 year, 7 months ago

It's security defaults for MFA

<https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/concept-fundamentals-security-defaults>

upvoted 2 times

✉️ **Neo2c** 1 year, 7 months ago

The Document Says the if we use Conditional access policy then it does not make sense to use Security defaults. so it should be the third option which enables the MS authenticator APP for MFA

upvoted 1 times

✉️ **Som\_triv** 6 months, 3 weeks ago

You can use security defaults in Microsoft Entra tenants to quickly enable Microsoft Authenticator for all users. The scenario here is only for specific users, so that option is not valid.

upvoted 1 times

✉️ **kay000001** 1 year, 7 months ago

1: Azure AD Identity Protection

2: Grant control in capolicy1

upvoted 4 times

✉️ **One111** 1 year, 7 months ago

First part does not make sense. Identity Protection has nothing to do with hybrid joined device or enforcing mfa to resource managers. It can provide risky policies or password protection.

upvoted 2 times

✉️ **ServerBrain** 1 year, 3 months ago

Because Microsoft is notorious for providing irrelevant info to try and throw you off, focus on the buzzwords. By focusing on those buzzwords, the answer should be easier to formulate..

upvoted 1 times

✉️ **jellybiscuit** 1 year, 6 months ago

<https://learn.microsoft.com/en-us/azure/active-directory/identity-protection/howto-identity-protection-configure-mfa-policy>

It does if you have Azure AD Premium P2

upvoted 2 times

## Introductory Info

### Case Study -

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### Overview -

Litware, Inc. is a medium-sized finance company that has a main office in Boston.

### Existing Environment -

#### Identity Environment -

The network contains an Active Directory forest named litware.com that is linked to an Azure Active Directory (Azure AD) tenant named litware.com. All users have Azure Active Directory Premium P2 licenses.

Litware has a second Azure AD tenant named dev.litware.com that is used as a development environment.

The litware.com tenant has a Conditional Access policy named Capolicy1. Capolicy1 requires that when users manage the Azure subscription for a production environment by using the Azure portal, they must connect from a hybrid Azure AD-joined device.

#### Azure Environment -

Litware has 10 Azure subscriptions that are linked to the Litware.com tenant and five Azure subscriptions that are linked to the dev.litware.com tenant. All the subscriptions are in an Enterprise Agreement (EA).

The litware.com tenant contains a custom Azure role-based access control (Azure RBAC) role named Role1 that grants the DataActions read permission to the blobs and files in Azure Storage.

#### On-Premises Environment -

The on-premises network of Litware contains the resources shown in the following table.

Name	Type	Configuration
SERVER1 SERVER2 SERVER3	Ubuntu 18.04 virtual machines hosted on Hyper-V	The virtual machines host a third-party app named App1. App1 uses an external storage solution that provides Apache Hadoop-compatible data storage. The data storage supports POSIX access control list (ACL) file-level permissions.
SERVER10	Server that runs Windows Server 2016	The server contains a Microsoft SQL Server instance that hosts two databases named DB1 and DB2.

#### Network Environment -

Litware has ExpressRoute connectivity to Azure.

## Planned Changes and Requirements

### Planned Changes -

Litware plans to implement the following changes:

Migrate DB1 and DB2 to Azure.

Migrate App1 to Azure virtual machines.

Migrate the external storage used by App1 to Azure Storage.

Deploy the Azure virtual machines that will host App1 to Azure dedicated hosts.

### Authentication and Authorization Requirements

Litware identifies the following authentication and authorization requirements:

Only users that manage the production environment by using the Azure portal must connect from a hybrid Azure AD-joined device and authenticate by using

Azure Multi-Factor Authentication (MFA).

The Network Contributor built-in RBAC role must be used to grant permissions to the network administrators for all the virtual networks in all the Azure subscriptions.

To access the resources in Azure, App1 must use the managed identity of the virtual machines that will host the app.

RBAC roles must be applied to management groups.

### Resiliency Requirements -

Litware identifies the following resiliency requirements:

Once migrated to Azure, DB1 and DB2 must meet the following requirements:

- Maintain availability if two availability zones in the local Azure region fail.
- Fail over automatically.
- Minimize I/O latency.

App1 must meet the following requirements:

- Be hosted in an Azure region that supports availability zones.
- Be hosted on Azure virtual machines that support automatic scaling.
- Maintain availability if two availability zones in the local Azure region fail.

### Security and Compliance Requirements

Litware identifies the following security and compliance requirements:

Once App1 is migrated to Azure, you must ensure that new data can be written to the app, and the modification of new and existing data is prevented for a period of three years.

On-premises users and services must be able to access the Azure Storage account that will host the data in App1.

Access to the public endpoint of the Azure Storage account that will host the App1 data must be prevented.

All Azure SQL databases in the production environment must have Transparent Data Encryption (TDE) enabled.

App1 must NOT share physical hardware with other workloads.

### Business Requirements -

Litware identifies the following business requirements:

Minimize administrative effort.

Minimize costs.

### Question

After you migrate App1 to Azure, you need to enforce the data modification requirements to meet the security and compliance requirements.

What should you do?

- A. Create an access policy for the blob service.
- B. Implement Azure resource locks.
- C. Create Azure RBAC assignments.
- D. Modify the access level of the blob service.

### Correct Answer: A

Scenario: Once App1 is migrated to Azure, you must ensure that new data can be written to the app, and the modification of new and existing data is prevented for a period of three years.

As an administrator, you can lock a subscription, resource group, or resource to prevent other users in your organization from accidentally

deleting or modifying critical resources. The lock overrides any permissions the user might have.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/lock-resources>

*Community vote distribution*

A (93%) 7%

✉️  **Davin0406**  1 year, 6 months ago

**Selected Answer: A**

This case study appeared in exam, 10/14/2022. I passed with 946/1000 and there were only 1~2 new questions but others were all from AZ-305 dump.

upvoted 35 times

✉️  **AzureJobsTillRetire** 1 year, 3 months ago

Your contributions are much appreciated

upvoted 4 times

✉️  **Kikota12** 1 year ago

He posts this in every comment, i think we understood

upvoted 5 times

✉️  **AHUI** 11 months, 3 weeks ago

appreciated your feedback Davin0406. keep it up

upvoted 2 times

✉️  **Mwavy** 1 year, 6 months ago

Well, we are tired of your comments on every question that you passed.

You are adding no value to this dump.

upvoted 40 times

✉️  **MarkMac** 1 year, 4 months ago

Totally disagree. Helps validate the accuracy of the post. Please keep it up Davin0406.

upvoted 13 times

✉️  **EXzw** 1 year ago

Agree. keep it up Davin0406.

upvoted 2 times

✉️  **Mo22** 1 year, 3 months ago

wow, just no comments ... how can you be so disrespectful, he is adding a great a value

upvoted 7 times

✉️  **ExamTopicsTST** 1 year, 5 months ago

No value? The lad is giving you heads up this is case study was seen on recent exam. Why would you not find value in that? And the fact that they got a high score, if they saw a question, and agreed with the answer, then I'd probably take note of this and for sure study this for the exam. We know there are not this many questions on the exam. So appreciate those that come back to help others. Geez.

upvoted 24 times

✉️  **ExamTopicsTST** 1 year, 5 months ago

I will confirm, after passing w/903 on 11/13, this case study was the one that I was presented w/8 questions from this dump.

upvoted 4 times

✉️  **ExamTopicsTST** 1 year, 5 months ago

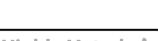
My bad...CORRECTION...it was the next case study with Fabrikam that had the App1 and App2 scenario.

upvoted 3 times

✉️  **ianzzy** 1 year, 3 months ago

Hey mate did you studied the 304 dump as well or only this one?

upvoted 1 times

✉️  **zellck**  1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/storage/blobs/immutable-storage-overview>

Immutable storage for Azure Blob Storage enables users to store business-critical data in a WORM (Write Once, Read Many) state. While in a WORM state, data cannot be modified or deleted for a user-specified interval. By configuring immutability policies for blob data, you can protect your data from overwrites and deletes.

upvoted 8 times

✉️  **zellck**  1 year, 1 month ago

Same as Question 1.

<https://www.examtopics.com/discussions/microsoft/view/67635-exam-az-305-topic-5-question-1-discussion>

upvoted 2 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: A**

A. Create an access policy for the blob service.

upvoted 2 times

✉ **janvandermerwer** 1 year, 2 months ago

**Selected Answer: A**

I'm going to go with A - Seems to be "most" correct.

upvoted 2 times

✉ **marcellov** 6 months, 2 weeks ago

Agree with you. A most precise answer would be retention policy or immutability policies. Anyway, it is the closest.

upvoted 1 times

✉ **MadSysadmin** 1 year, 2 months ago

**Selected Answer: B**

Azure resource locks can do this

upvoted 1 times

✉ **Villa76** 1 year, 3 months ago

access policy is the right answer because resource lock will not achieve the time based retention which is required here. Have a look here you will understand all :<https://learn.microsoft.com/en-us/azure/storage/blobs/immutable-policy-configure-version-scope?tabs=azure-portal#configure-a-default-time-based-retention-policy>

upvoted 2 times

✉ **Born\_Again** 1 year, 4 months ago

**Selected Answer: A**

100% A is the right choice!

upvoted 1 times

✉ **CLToh** 1 year, 5 months ago

**Selected Answer: B**

Why not B since the explanation is about applying resource lock?

As an administrator, you can lock a subscription, resource group, or resource to prevent other users in your organization from accidentally deleting or modifying critical resources. The lock overrides any permissions the user might have.

upvoted 3 times

✉ **FabrytDev** 1 year, 2 months ago

Because you don't want to lock the resource, only the data in it, specifically in a storage.

upvoted 2 times

✉ **randomaccount123** 1 year, 5 months ago

That's used for the actual resource in Azure mate. Access policies are used for the actual data in the containers.

upvoted 11 times

✉ **Snownoodles** 1 year, 5 months ago

**Selected Answer: A**

Given answer is correct

upvoted 1 times

✉ **kay000001** 1 year, 7 months ago

**Selected Answer: A**

A. Create an access policy for the blob service.

upvoted 1 times

✉ **kay000001** 1 year, 7 months ago

**Selected Answer: A**

A. Create an access policy for the blob service.

upvoted 1 times

## Question #1

**Introductory Info**

## Case Study -

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## Overview -

Contoso, Ltd. is a research company that has a main office in Montreal.

## Existing Environment -

## Technical Environment -

The on-premises network contains a single Active Directory domain named contoso.com.

Contoso has a single Azure subscription.

## Business Partnerships -

Contoso has a business partnership with Fabrikam, Inc. Fabrikam users access some Contoso applications over the internet by using Azure Active Directory (Azure AD) guest accounts.

## Requirements -

## Planned Changes -

Contoso plans to deploy two applications named App1 and App2 to Azure.

## App1 -

App1 will be a Python web app hosted in Azure App Service that requires a Linux runtime. Users from Contoso and Fabrikam will access App1. App1 will access several services that require third-party credentials and access strings. The credentials and access strings are stored in Azure Key Vault.

App1 will have six instances: three in the East US Azure region and three in the West Europe Azure region.

App1 has the following data requirements:

Each instance will write data to a data store in the same availability zone as the instance.

Data written by any App1 instance must be visible to all App1 instances.

App1 will only be accessible from the internet. App1 has the following connection requirements:

Connections to App1 must pass through a web application firewall (WAF).

Connections to App1 must be active-active load balanced between instances.

All connections to App1 from North America must be directed to the East US region. All other connections must be directed to the West Europe region.

Every hour, you will run a maintenance task by invoking a PowerShell script that copies files from all the App1 instances. The PowerShell script will run from a central location.

## App2 -

App2 will be a .NET app hosted in App Service that requires a Windows runtime. App2 has the following file storage requirements:

Save files to an Azure Storage account.

Replicate files to an on-premises location.

Ensure that on-premises clients can read the files over the LAN by using the SMB protocol.

You need to monitor App2 to analyze how long it takes to perform different transactions within the application. The solution must not require changes to the application code.

### Application Development Requirements

Application developers will constantly develop new versions of App1 and App2. The development process must meet the following requirements:

A staging instance of a new application version must be deployed to the application host before the new version is used in production.

After testing the new version, the staging version of the application will replace the production version.

The switch to the new application version from staging to production must occur without any downtime of the application.

### Identity Requirements -

Contoso identifies the following requirements for managing Fabrikam access to resources:

Every month, an account manager at Fabrikam must review which Fabrikam users have access permissions to App1. Accounts that no longer need permissions must be removed as guests.

The solution must minimize development effort.

### Security Requirement -

All secrets used by Azure services must be stored in Azure Key Vault.

Services that require credentials must have the credentials tied to the service instance. The credentials must NOT be shared between services.

### Question

You need to recommend a solution for the App1 maintenance task. The solution must minimize costs.

What should you include in the recommendation?

- A. an Azure logic app
- B. an Azure function
- C. an Azure virtual machine
- D. an App Service WebJob

### Correct Answer: A

Every hour, you will run a maintenance task by invoking a PowerShell script that copies files from all the App1 instances. The PowerShell script will run from a central location.

App1 will have six instances: three in the East US Azure region and three in the West Europe Azure region.

You can create and manage workflows with Azure PowerShell in Azure Logic Apps.

You can create a Consumption logic app in multi-tenant Azure Logic Apps by using the JSON file for a logic app workflow definition. You can then manage your logic app by running the cmdlets in the Az.LogicApp PowerShell module.

Reference:

<https://docs.microsoft.com/en-us/azure/logic-apps/quickstart-logic-apps-azure-powershell>

#### Community vote distribution

B (59%)

A (41%)

✉️  **Tusharsp** Highly Voted 1 year, 3 months ago

#### Selected Answer: A

Azure function will need to be run from every region. This will need 2 functions. Logic app can be created centrally and executed for both regions as per given requirement. "The PowerShell script will run from a central location."

upvoted 25 times

✉️  **pkkalra** 1 year, 3 months ago

Azure function as a resource is created in a region but it can access data store from a different region if access is provided. A single function from a region should be able to do the job. I have no reason to believe that a logic app can access data store from two regions but a function cannot. Answer is B.

upvoted 5 times

✉️ **AzureJobsTillRetire** 1 year, 3 months ago

You can create a Consumption logic app in multi-tenant Azure Logic Apps by using the JSON file for a logic app workflow definition. You can then manage your logic app by running the cmdlets in the Az.LogicApp PowerShell module.

Reference:

<https://docs.microsoft.com/en-us/azure/logic-apps/quickstart-logic-apps-azure-powershell>

upvoted 2 times

✉️ **AzureJobsTillRetire** 1 year, 3 months ago

"Azure Functions resources are region-specific and can't be moved across regions. You must create a copy of your existing function app resources in the target region, then redeploy your functions code over to the new app."

<https://learn.microsoft.com/en-us/azure/azure-functions/functions-move-across-regions>

upvoted 4 times

✉️ **techrat** Highly Voted 11 months, 2 weeks ago

I am confident it's B. Azure Function. I had this question on the exam today, and I got 979, in the Design Infrastructure Solutions, I was 100% correct and this question belongs to this category.

upvoted 15 times

✉️ **ubdubdoo** Most Recent 1 day, 8 hours ago

Azure Logic Apps does not have a native connector to directly run PowerShell scripts within its workflows

upvoted 1 times

✉️ **varinder82** 3 weeks, 2 days ago

Final Answer:

an Azure logic app

upvoted 1 times

✉️ **177c705** 1 month, 2 weeks ago

B. an Azure function

upvoted 2 times

✉️ **IN4Dev** 1 month, 2 weeks ago

Selected Answer: B

PowerShell script and every hour, this is Azure Function for sure.

upvoted 2 times

✉️ **BShelat** 4 months ago

"Every hour, you will run a maintenance task by invoking a PowerShell script that copies files from all the App1 instances. " --> This shows that require coding for copying is taken care of by PowerShell script and now it just need to be scheduled and executed. Logic App does not need coding Azure Functions need coding. So ruling out Azure Functions. Answer is Logic App.

upvoted 1 times

✉️ **mtc9** 1 month, 1 week ago

Bro you need to run a PS script, which can be the code of the function

upvoted 1 times

✉️ **ziggy1117** 4 months ago

Selected Answer: A

Azure Logic App. The key here is the term "every hour"

"Every hour, you will run a maintenance task by invoking a PowerShell script that copies files from all the App1 instances. The PowerShell script will run from a central location."

In Azure Logic App, you can schedule every hour.

upvoted 1 times

✉️ **xRiot007** 1 month, 2 weeks ago

Wrong. The thing you call "key" should be "minimize costs". As for "every hour" all those options can be timed to execute hourly.

upvoted 2 times

✉️ **dlenc** 3 months ago

timer-triggered azure function: exists

upvoted 2 times

✉️ **Paul\_white** 4 months, 2 weeks ago

For the App1 maintenance task, I would recommend using an \*\*Azure Function\*\* (Option B). Azure Functions is a serverless compute service that lets you run event-triggered code without having to explicitly provision or manage infrastructure. Given that the maintenance task needs to run every hour, this can be easily configured with a timer trigger in Azure Functions. This approach would minimize costs as you only pay for the compute time you consume - there is no charge when your code is not running. Plus, with Azure Functions, you can write your function code in PowerShell, which aligns with your requirement to run a PowerShell script.

upvoted 2 times

✉️ **xxavimr** 7 months ago

Selected Answer: A

Both Azure function and Logic App may solve the problem but in terms of cost, Logic App is more efficient.

Azure Functions need to have VNet integration to connect to every resource. As it is in different regions, they need Dedicated plan with a VNet Gateway (with its charges). See the matrix in <https://learn.microsoft.com/en-us/azure/azure-functions/functions-networking-options?tabs=azure-cli#virtual-network-integration>

upvoted 2 times

✉️ **Red0101** 7 months ago

**Selected Answer: A**

I'd say Logic App because we don't know how much time the powershell script is going to take (with the risk of being over the 10 minutes allowed from the consumption plan); and something should still trigger the azure function periodically, so it would require another component

upvoted 1 times

✉️ **mtc9** 1 month, 1 week ago

The function code can be the script itself, so you don't need to code 2 components

upvoted 1 times

✉️ **Red0101** 7 months ago

I'd say Logic App because we don't know how much time the powershell script is going to take (with the risk of being over the 10 minutes allowed from the consumption plan); and something should still trigger the azure function periodically, so it would require another component

upvoted 2 times

✉️ **Leocan** 7 months, 1 week ago

**Selected Answer: B**

I choose B.

upvoted 2 times

✉️ **Raj70** 8 months ago

Super clear that one cannot run functions with one central copy across regions. So it has to be Logic Apps.

upvoted 2 times

✉️ **daniloaclima** 9 months, 2 weeks ago

**Selected Answer: A**

<https://docs.microsoft.com/en-us/azure/logic-apps/quickstart-logic-apps-azure-powershell>

upvoted 1 times

✉️ **Tr619899** 10 months, 1 week ago

Yes, Azure Functions can run a PowerShell script from a central location. Azure Functions support PowerShell as a language for writing functions, and you can use the timer trigger to run the function every hour as mentioned in the current web page context. The function can be hosted in one of the regions where App1 is deployed, either East US or West Europe, and can access all the App1 instances to copy the files.

upvoted 1 times

✉️ **Clarisa** 10 months, 3 weeks ago

**Selected Answer: B**

Azure Function

upvoted 1 times

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#### Technical Environment -

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Ensure that on-premises clients can read the files over the LAN by using the SMB protocol.

You need to monitor App2 to analyze how long it takes to perform different transactions within the application. The solution must not require changes to the application code.

#### Application Development Requirements

Application developers will constantly develop new versions of App1 and App2. The development process must meet the following requirements:

A staging instance of a new application version must be deployed to the application host before the new version is used in production.

After testing the new version, the staging version of the application will replace the production version.

▪

The switch to the new application version from staging to production must occur without any downtime of the application.

#### Identity Requirements -

Contoso identifies the following requirements for managing Fabrikam access to resources:

Every month, an account manager at Fabrikam must review which Fabrikam users have access permissions to App1. Accounts that no longer need permissions must be removed as guests.

The solution must minimize development effort.

#### Security Requirement -

All secrets used by Azure services must be stored in Azure Key Vault.

Services that require credentials must have the credentials tied to the service instance. The credentials must NOT be shared between services.

#### Question

You need to recommend a solution that meets the application development requirements.

What should you include in the recommendation?

- A. the Azure App Configuration service
- B. an Azure Container Registry instance
- C. deployment slots
- D. Continuous Integration/Continuous Deployment (CI/CD) sources

#### Correct Answer: C

When you deploy your web app, web app on Linux, mobile back end, or API app to Azure App Service, you can use a separate deployment slot instead of the default production slot when you're running in the Standard, Premium, or Isolated App Service plan tier. Deployment slots are live apps with their own host names.

App content and configurations elements can be swapped between two deployment slots, including the production slot.

Deploying your application to a non-production slot has the following benefits:

- \* You can validate app changes in a staging deployment slot before swapping it with the production slot.
- \* Deploying an app to a slot first and swapping it into production makes sure that all instances of the slot are warmed up before being swapped into production.

This eliminates downtime when you deploy your app.

- \* After a swap, the slot with previously staged app now has the previous production app. If the changes swapped into the production slot aren't as you expect, you can perform the same swap immediately to get your "last known good site" back.

#### Note: Application Development Requirements

Application developers will constantly develop new versions of App1 and App2. The development process must meet the following requirements:

- A staging instance of a new application version must be deployed to the application host before the new version is used in production.
- After testing the new version, the staging version of the application will replace the production version.
- The switch to the new application version from staging to production must occur without any downtime of the application.

#### Reference:

<https://docs.microsoft.com/en-us/azure/app-service/deploy-staging-slots>

*Community vote distribution*

C (100%)

**Selected Answer: C**

Should be C - Deployment Slots

<https://learn.microsoft.com/en-us/azure/app-service/deploy-staging-slots>

upvoted 6 times

✉  **zellck** Highly Voted 1 year, 1 month ago

**Selected Answer: C**

C is the answer.

<https://learn.microsoft.com/en-us/azure/app-service/deploy-best-practices#use-deployment-slots>

Whenever possible, use deployment slots when deploying a new production build. When using a Standard App Service Plan tier or better, you can deploy your app to a staging environment, validate your changes, and do smoke tests. When you are ready, you can swap your staging and production slots. The swap operation warms up the necessary worker instances to match your production scale, thus eliminating downtime.

upvoted 6 times

✉  **danielaclima** Most Recent 9 months, 2 weeks ago

**Selected Answer: C**

<https://docs.microsoft.com/en-us/azure/app-service/deploy-staging-slots>

upvoted 1 times

✉  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: C**

C. deployment slot

upvoted 1 times

✉  **diego\_alejandro** 1 year, 5 months ago

Correct Answer C-Deployments Slots

upvoted 3 times

✉  **randomaccount123** 1 year, 6 months ago

Its wants deployment slots as the answer, but CI/CD would be the better way of doing it.

upvoted 3 times

✉  **Darkx** 1 year, 6 months ago

appeared on 11th Oct 2022

upvoted 5 times

✉  **Dinima** 1 year, 7 months ago

For me CI/CD could be the best option. you can test it when it's in an env.

upvoted 3 times

✉  **Sant25** 1 year, 7 months ago

It should be A. the Azure App Configuration service

upvoted 1 times

✉  **kay000001** 1 year, 7 months ago

**Selected Answer: C**

Answer is C - Deployment Slots

We are dealing with testing then deploying versions of Apps.

As per the Case Study:

Application Development Requirements:

Application developers will constantly develop new versions of App1 and App2. The development process must meet the following requirements:

A staging instance of a new application version must be deployed to the application host before the new version is used in production.

After testing the new version, the staging version of the application will replace the production version.

upvoted 4 times

## Introductory Info

### Case Study -

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### Overview -

Contoso, Ltd. is a research company that has a main office in Montreal.

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#### Technical Environment -

The on-premises network contains a single Active Directory domain named contoso.com.

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### Requirements -

#### Planned Changes -

Contoso plans to deploy two applications named App1 and App2 to Azure.

#### App1 -

App1 will be a Python web app hosted in Azure App Service that requires a Linux runtime. Users from Contoso and Fabrikam will access App1. App1 will access several services that require third-party credentials and access strings. The credentials and access strings are stored in Azure Key Vault.

App1 will have six instances: three in the East US Azure region and three in the West Europe Azure region.

App1 has the following data requirements:

Each instance will write data to a data store in the same availability zone as the instance.

Data written by any App1 instance must be visible to all App1 instances.

App1 will only be accessible from the internet. App1 has the following connection requirements:

Connections to App1 must pass through a web application firewall (WAF).

Connections to App1 must be active-active load balanced between instances.

All connections to App1 from North America must be directed to the East US region. All other connections must be directed to the West Europe region.

Every hour, you will run a maintenance task by invoking a PowerShell script that copies files from all the App1 instances. The PowerShell script will run from a central location.

#### App2 -

App2 will be a .NET app hosted in App Service that requires a Windows runtime. App2 has the following file storage requirements:

Save files to an Azure Storage account.

Replicate files to an on-premises location.

Ensure that on-premises clients can read the files over the LAN by using the SMB protocol.

You need to monitor App2 to analyze how long it takes to perform different transactions within the application. The solution must not require changes to the application code.

#### Application Development Requirements

Application developers will constantly develop new versions of App1 and App2. The development process must meet the following requirements:

A staging instance of a new application version must be deployed to the application host before the new version is used in production.

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▪

The switch to the new application version from staging to production must occur without any downtime of the application.

#### Identity Requirements -

Contoso identifies the following requirements for managing Fabrikam access to resources:

Every month, an account manager at Fabrikam must review which Fabrikam users have access permissions to App1. Accounts that no longer need permissions must be removed as guests.

The solution must minimize development effort.

#### Security Requirement -

All secrets used by Azure services must be stored in Azure Key Vault.

Services that require credentials must have the credentials tied to the service instance. The credentials must NOT be shared between services.

#### Question

You need to recommend an App Service architecture that meets the requirements for App1. The solution must minimize costs.

What should you recommend?

- A. one App Service Environment (ASE) per availability zone
- B. one App Service Environment (ASE) per region
- C. one App Service plan per region
- D. one App Service plan per availability zone

#### Correct Answer: B

App1 has the following data requirements:

Each instance will write data to a data store in the same availability zone as the instance.

Data written by any App1 instance must be visible to all App1 instances.

Note: The Azure App Service Environment v2 is an Azure App Service feature that provides a fully isolated and dedicated environment for securely running App

Service apps at high scale.

Customers can create multiple ASEs within a single Azure region or across multiple Azure regions. This flexibility makes ASEs ideal for horizontally scaling stateless application tiers in support of high requests per second (RPS) workloads.

Reference:

<https://docs.microsoft.com/en-us/azure/app-service/environment/intro>

*Community vote distribution*

C (85%)

B (15%)

✉️  **GarryK**  1 year, 6 months ago

**Selected Answer: C**

No need for dedicated environment. So Azure Service Plan per region is enough.

upvoted 34 times

✉️  **NotMeAnyWay**  9 months, 1 week ago

**Selected Answer: C**

C. one App Service plan per region

An App Service Environment (ASE, option B) is a premium Azure App Service hosting offering that provides fully isolated and dedicated environments for securely running App Service apps at high scale. While it does meet the requirements for App1, it's a costly option compared to the App Service plan (option C).

On the other hand, an App Service plan (option C) represents a set of compute resources that you allocate to host your apps. You can host multiple apps in the same App Service plan, sharing the resources and thereby reducing costs.

For App1, which is planned to have three instances in each of two regions, it would be more cost-effective to use a single App Service plan per region. This would allow the multiple App1 instances in each region to share the resources of the single App Service plan.

upvoted 12 times

✉ **BShelat** Most Recent 4 months ago

One App service plan per region should be enough if Contoso has only one application App1 or Contoso does not want isolation of App1 and App2 traffic with each other. Ideally both should be isolated and hence two virtual networks per region - each for one app. So App1 having its own virtual network in this ideal scenario, One ASE per region is better option than one app service plan per region.

upvoted 2 times

✉ **ziggy1117** 4 months ago

**Selected Answer: C**

C. One App Service Plan per region. To be exact, the Basic App Service Plan offers up to 3 dedicated instances for your app to run.  
<https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/azure-subscription-service-limits#app-service-limits>

upvoted 1 times

✉ **xxavimr** 7 months ago

**Selected Answer: C**

In my opinion for two reasons:

- With Premium App Service App is enough in terms of zone redundant. It is offered in P2 and P3.
- Comparing prices with ASE that is Isolated. ASE in zone redundant is charged with nine instances as minimum regardless of using 3 instances. So it is much expensive. See this link in pricing section (Zone redundant App Service Environment v3): <https://learn.microsoft.com/en-us/azure/app-service/environment/overview?source=recommendations>

upvoted 2 times

✉ **Leocan** 7 months, 1 week ago

**Selected Answer: C**

Azure Service Plan per region is enough.

upvoted 2 times

✉ **ATLTennis** 8 months ago

what about this requirement:

Connections to App1 must be active-active load balanced between instances.

can App Service Plan handle that or we would need ASE to handle this requirement? I am leaning towards Answer B

upvoted 1 times

✉ **Darkeh** 8 months ago

**Selected Answer: C**

C - minimize cost, both C and B technically work, but B is more expensive

upvoted 1 times

✉ **alexander\_panfilenok** 9 months, 3 weeks ago

So if the answer is "App Service Plan per region" and there should be 6 instances and there are 2 regions, Can anybody tell me what is the reason to have 3 instances of the same Web App sitting on the same App Service Plan?

upvoted 1 times

✉ **alexander\_panfilenok** 9 months, 2 weeks ago

I have found the answer to my question. Some App Service Plans can be zone redundant. So I suppose the correct answer is C "Azure Service Plan per region"

upvoted 2 times

✉ **jeanmi312** 12 months ago

**Selected Answer: B**

In

<https://learn.microsoft.com/en-us/azure/app-service/overview-hosting-plans#should-i-put-an-app-in-a-new-plan-or-an-existing-plan>  
Isolate your app into a new App Service plan when:

....

- The app needs resource in a different geographical region.

In

<https://learn.microsoft.com/en-us/azure/app-service/manage-move-across-regions>  
App Service resources are region-specific and can't be moved across regions.

As per case study, data for one instance of App1 must be available to all instances of App1

So I would say B even if it's more expensive

upvoted 1 times

✉ **SedateBloggs** 1 year ago

**Selected Answer: B**

I did think C initially, but am angling towards B now (not withstanding the cost requirement) The only additional thing that I would say should be considered should be the need for the data to be available to App1 across all regions and instances. App service plans are region specific. At

<https://learn.microsoft.com/en-us/azure/app-service/environment/overview#virtual-network-support> its stated "If the App Service Environment virtual network is connected to another network, the apps in the App Service Environment can access resources in those extended networks." Does this not imply that the app can therefore access all data across all six instances? Not sure that having a separate app service plan in each region would allow that portion of the requirement stated

upvoted 2 times

✉ **curtmcgirt** 1 year ago

**Selected Answer: C**

ASE is too much. ASP will do .

upvoted 1 times

✉ **memyself2** 1 year, 1 month ago

**Selected Answer: C**

This was a question was on my exam today (2/26/23) - Scored 844

I selected C, ASE seems like more than requested, if trying to keep it simple

upvoted 8 times

✉ **globy118** 1 year, 1 month ago

Exam Question 02/15/2023

upvoted 4 times

✉ **RandomNickname** 1 year, 2 months ago

**Selected Answer: C**

No need to ASE as far as the requirement go that I can see.

ASP should be fine, which also minimizes cost.

<https://learn.microsoft.com/en-us/azure/app-service/overview-hosting-plans>

upvoted 2 times

✉ **OPT\_001122** 1 year, 2 months ago

**Selected Answer: C**

C. one App Service plan per region

upvoted 1 times

✉ **gramotei** 1 year, 3 months ago

**Selected Answer: C**

Since it's minimise cost I would go with C:

Availability zone support is a property of the App Service plan. The following are the current requirements/limitations for enabling availability zones:

Both Windows and Linux are supported.

Requires either Premium v2 or Premium v3 App Service plans.

upvoted 4 times

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#### Security Requirement -

All secrets used by Azure services must be stored in Azure Key Vault.

Services that require credentials must have the credentials tied to the service instance. The credentials must NOT be shared between services.

#### Question

HOTSPOT -

You need to recommend a solution to ensure that App1 can access the third-party credentials and access strings. The solution must meet the security requirements.

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

#### Answer Area

**Authenticate App1 by using:**

<input type="checkbox"/>
<b>A certificate</b>
<b>A system-assigned managed identity</b>
<b>A user-assigned managed identity</b>

**Authorize App1 to retrieve Key Vault secrets by using:**

<input type="checkbox"/>
<b>An access policy</b>
<b>A connected service</b>
<b>A private link</b>
<b>A role assignment</b>

Correct Answer:

## Answer Area

Authenticate App1 by using:

A certificate
<b>A system-assigned managed identity</b>
A user-assigned managed identity

Authorize App1 to retrieve Key Vault secrets by using:

An access policy
<b>A connected service</b>
A private link
A role assignment

Scenario: Security Requirement -

All secrets used by Azure services must be stored in Azure Key Vault.

Services that require credentials must have the credentials tied to the service instance. The credentials must NOT be shared between services.

Box 1: A system-assigned managed identity

No one knows the credentials of managed identities.

Managed Identities exist in two formats:

\* System assigned: in this scenario, the identity is linked to a single Azure Resource, eg a Virtual Machine, a Logic App, a Storage Account, Web App, Function, so almost anything. Next, they also live with the Azure Resource, which means they get deleted when the Azure Resource gets deleted.

\* User Assigned Managed Identity (incorrect for this question), which means that you first have to create it as a stand-alone Azure resource by itself, after which it can be linked to multiple Azure Resources.

Box 2: An access policy -

Set up an access policy for the system-assigned managed identity.

Note: Grant access -

The managed identity needs to be granted access to read the secret that we'll store in the Key Vault.

1. Navigate to your newly created Key Vault
2. Select Access Policy from the menu on the left side.
3. Select Add Access Policy
4. Etc.

Reference:

<https://devblogs.microsoft.com/devops/demystifying-service-principals-managed-identities/> <https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-nonaad>

 **kay000001** Highly Voted 1 year, 7 months ago

Drop Down 1:  
A system-assigned managed identity.

Drop Down 2:  
Role Assignment.

But I'm happy to be corrected. Thanks.  
upvoted 35 times

 **Snownoodles** 1 year, 6 months ago

Question 2: Both access policy and role assignment should work here  
upvoted 4 times

 **Snownoodles** 1 year, 6 months ago

I figured out why only "role assignment" is the correct answer.  
"Services that require credentials must have the credentials tied to the service instance. The credentials must NOT be shared between services"  
RBAC can assign permission to a specific secret, but the access policy assigns permissions for all secrets or keys, not as granular as RBAC  
upvoted 15 times

✉️  **AzureJobsTillRetire** 1 year, 3 months ago

I created a key and a secret in a key vault and can confirm that you cannot do role assignment on a particular key or secret.  
upvoted 3 times

✉️  **upwork** 1 year, 2 months ago

You need to select RBAC permission model first, then you can assign granular permissions to individual items.  
upvoted 1 times

✉️  **AzureJobsTillRetire** 1 year, 3 months ago

What do you mean RBAC can assign permission to a specific secret? How? For the controls at key/secret level, Access Policy is more granular than RBAC.  
upvoted 1 times

✉️  **JaQua** Highly Voted 1 year, 6 months ago

1. user assigned managed identity - share 1 identity among all 6 app services
  2. access policy
- upvoted 22 times

✉️  **Jay\_2pt0** 1 year, 5 months ago

It specifies that "credentials must NOT be shared."  
upvoted 6 times

✉️  **DeBoer** 1 year, 1 month ago

They must not be shared... between APP1 and APP2. But it says nothing about sharing between instances of the app. If we want to reduce admin overhead then this is actually better while still adhering to requirements,  
upvoted 5 times

✉️  **m1dp** 8 months ago

Services that require credentials must have the credentials tied to the service instance. The credentials must NOT be shared between services.

Credentials tied to the service instance. System assigned.

upvoted 4 times

✉️  **ubdubdo0** Most Recent 1 day, 2 hours ago

If you need separate managed identities for each instance, you would have to use user-assigned managed identities instead of system-assigned. User-assigned identities are created as separate Azure resources that can then be assigned individually to each App Service instance as needed. A MI would be the same across instances. The "not sharing" between services is about separating Key Vaults or not using the same UI between the two apps.

upvoted 1 times

✉️  **chair123** 4 weeks, 1 day ago

When I create a key vault I get to choose either RBAC or Access Policy. I think both are correct but which of them satisfy the security requirements?

"Security Requirement -

- All secrets used by Azure services must be stored in Azure Key Vault.
  - Services that require credentials must have the credentials tied to the service instance. The credentials must NOT be shared between services."
- Box1:  
"Services that require credentials must have the credentials tied to the service instance. The credentials must NOT be shared between services." > system-assigned-managed identity

Box2: we can use either of RBAC or Access Policy. couldn't find a clue which one to choose of them.

upvoted 1 times

✉️  **chair123** 4 weeks, 1 day ago

In this RBAC article: <https://learn.microsoft.com/en-us/azure/key-vault/general/rbac-guide>

Also in the access policy article: [https://learn.microsoft.com/en-us/azure/key-vault/general/assign-access-policy?WT.mc\\_id=Portal-Microsoft\\_Azure\\_KeyVault&tabs=azure-portal#:~:text=you%27re%20using%20a-,managed%20identity,-for%20the%20app](https://learn.microsoft.com/en-us/azure/key-vault/general/assign-access-policy?WT.mc_id=Portal-Microsoft_Azure_KeyVault&tabs=azure-portal#:~:text=you%27re%20using%20a-,managed%20identity,-for%20the%20app)

anyone can give me an insight on which one better would be great :D

upvoted 1 times

✉️  **BShelat** 4 months ago

With given answers how following condition can be met?

App1 will be a Python web app hosted in Azure App Service that requires a Linux runtime. Users from Contoso and Fabrikam will access App1.  
upvoted 1 times

✉️  **Paul\_white** 4 months, 2 weeks ago

To ensure that App1 can access the third-party credentials and access strings securely, you should:

\*\*Authenticate App1 by using\*\*: A system-assigned managed identity (Option B). A system-assigned managed identity is tied to your App Service and is automatically cleaned up when the service is deleted.

\*\*Authorize App1 to retrieve Key Vault secrets by using\*\*: An access policy (Option A). You can configure Azure Key Vault to allow your App Service to retrieve secrets using its system-assigned managed identity. This is done by adding an access policy in Key Vault that grants the necessary permissions (like Get and List) to the managed identity.

upvoted 3 times

✉️ **StixxNSnares** 4 months, 2 weeks ago

I recommend the following solution:

System-assigned managed identity - This will allow app1 to use the Azure ad identity of the app service instance to access other Azure resources such as Key Vault.

Then to authorize App1 to retrieve key vault secrets, use access policy. This will grant App1 the necessary permissions to read the secrets from the Key Vault.

See this: <https://docs.microsoft.com/en-us/azure/app-service/overview-managed-identity>

<https://docs.microsoft.com/en-us/azure/key-vault/general/assign-access-policy-portal>

upvoted 1 times

✉️ **spotted** 4 months, 2 weeks ago

If you use ChatGPT 4 now the answer became the following.

A system-assigned managed identity: This is an identity created by Azure for the App Service instance, which is tied to the lifecycle of this service and does not require the management of credentials.

A role assignment: Utilizing Azure role-based access control (RBAC), you can assign a specific role to the managed identity, like "Key Vault Secrets User", to retrieve secrets from the Key Vault.

Chat GPT 4 has now been updated to 2023 and its answer changed compared to a few months ago.

upvoted 2 times

✉️ **pabsinaz** 5 months, 4 weeks ago

Option 2 is role assignment is more granular. Here is how:

<https://learn-attachment.microsoft.com/api/attachments/193976-image.png?platform=QnA>

upvoted 1 times

✉️ **m1dp** 8 months ago

Drop down 1: system-assigned MI. Literally states services cannot share the same identity.

Drop down 2: Role assignment. More granular than access policy.

upvoted 1 times

✉️ **stanl2** 8 months ago

I think DD1 should be "A user-assigned managed identity". Here's why:

Requirements state: "App1 will have six instances: three in the East US Azure region and three in the West Europe Azure region." This means we have two App Services (one per region), each with its own system identity.

Using user-managed identity, we can have a single MI to control the access.

DD2 should be: Role Assignment (as pointed out in other posts, it provides more granular access)

upvoted 1 times

✉️ **NotMeAnyWay** 9 months, 1 week ago

Answer:

1. Authenticate App1 by using:

- B. A system-assigned managed identity

2. Authorize App1 to retrieve Key Vault secrets by using:

- A. An access policy

Explanation:

System-assigned managed identities are automatically managed by Azure, providing an identity for the Azure resource in Azure AD. This makes it an ideal choice for authenticating App1.

The Key Vault Access Policy determines what permissions the identities have, like get, list, set, and delete rights for secrets, which is necessary for App1 to retrieve the secrets stored in the Key Vault, hence the selection of an Access Policy for authorization.

upvoted 6 times

✉️ **vali6969** 9 months, 2 weeks ago

It's said here (<https://learn.microsoft.com/en-us/azure/key-vault/general/rbac-access-policy>) that access policies is the "legacy" mode to access key vault. It's not said that one is more granular than other one. <https://learn.microsoft.com/en-us/azure/key-vault/general/rbac-access-policy> So for me that will be :

Drop Down 1: System-Assigned Managed Identity.

Drop Down 2: Role Assignment.

upvoted 2 times

✉️ **vali6969** 9 months, 2 weeks ago

Sorry It's said too that Azure RBAC is built on Azure Resource Manager and provides FINE-GRAINED access management of Azure resources. And the scope can be an individual resource and the access policy is limited to key vault scope.

upvoted 1 times

✉️  **alexander\_panfilenok** 9 months, 4 weeks ago

System Assigned Managed Identity + Role Assignment.

Just create the KeyVault and then go to settings -> access configuration. You will see that the RBAC is turned on by default and it is recommended

The Access Policy is turned off.

upvoted 4 times

✉️  **tunaparker** 10 months, 3 weeks ago

For the second dropdown question, chatgpt-3 says:

For retrieving secrets from Azure Key Vault in your specific scenario, the recommended approach would be to use an access policy.

Access policies within Azure Key Vault are specifically designed to control and manage permissions for accessing secrets stored within the Key Vault. By adding an access policy for your App1 application, you can define the specific actions (such as "get" or "list") that the application can perform on the secrets stored in the Key Vault.

Role assignments, on the other hand, are used to grant broader access to Azure resources at a higher scope, such as a subscription or resource group. While role assignments can provide access to the Key Vault itself, they do not offer the same granular control over secret operations as access policies do.

Therefore, in the context of retrieving secrets from Azure Key Vault for your App1 application, the primary mechanism to use would be an access policy within the Key Vault. This allows you to grant the necessary permissions to your application to retrieve the secrets securely.

upvoted 2 times

✉️  **nitin\_90** 1 year ago

About KV,

Whenever question about Authentication => Use RBAC / MI / SP

when about authorization => Use Access policy

upvoted 4 times

✉️  **upwork** 1 year, 2 months ago

Tested in Azure. If we are asked to isolate access to individual items in a Key Vault, then RBAC model is the only solution.

upvoted 3 times

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Fabrikam, Inc. is an engineering company that has offices throughout Europe. The company has a main office in London and three branch offices in Amsterdam, Berlin, and Rome.

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The network contains two Active Directory forests named corp.fabrikam.com and rd.fabrikam.com. There are no trust relationships between the forests.

Corp.fabrikam.com is a production forest that contains identities used for internal user and computer authentication.

Rd.fabrikam.com is used by the research and development (R&D) department only. The R&D department is restricted to using on-premises resources only.

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Each office contains at least one domain controller from the corp.fabrikam.com domain. The main office contains all the domain controllers for the rd.fabrikam.com forest.

All the offices have a high-speed connection to the internet.

An existing application named WebApp1 is hosted in the data center of the London office. WebApp1 is used by customers to place and track orders. WebApp1 has a web tier that uses Microsoft Internet Information Services (IIS) and a database tier that runs Microsoft SQL Server 2016. The web tier and the database tier are deployed to virtual machines that run on Hyper-V.

The IT department currently uses a separate Hyper-V environment to test updates to WebApp1.

Fabrikam purchases all Microsoft licenses through a Microsoft Enterprise Agreement that includes Software Assurance.

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The use of WebApp1 is unpredictable. At peak times, users often report delays. At other times, many resources for WebApp1 are underutilized.

**Requirements: Planned Changes -**

Fabrikam plans to move most of its production workloads to Azure during the next few years, including virtual machines that rely on Active Directory for authentication.

As one of its first projects, the company plans to establish a hybrid identity model, facilitating an upcoming Microsoft 365 deployment.

All R&D operations will remain on-premises.

Fabrikam plans to migrate the production and test instances of WebApp1 to Azure.

**Requirements: Technical Requirements**

Fabrikam identifies the following technical requirements:

Website content must be easily updated from a single point.

User input must be minimized when provisioning new web app instances.

Whenever possible, existing on-premises licenses must be used to reduce cost.

Users must always authenticate by using their corp.fabrikam.com UPN identity.

Any new deployments to Azure must be redundant in case an Azure region fails.

Whenever possible, solutions must be deployed to Azure by using the Standard pricing tier of Azure App Service. An email distribution group named IT Support must be notified of any issues relating to the directory synchronization services. In the event that a link fails between Azure and the on-premises network, ensure that the virtual machines hosted in Azure can authenticate to Active Directory. Directory synchronization between Azure Active Directory (Azure AD) and corp.fabrikam.com must not be affected by a link failure between Azure and the on-premises network.

Requirements: Database Requirements

Fabrikam identifies the following database requirements:

Database metrics for the production instance of WebApp1 must be available for analysis so that database administrators can optimize the performance settings.

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Database backups must be retained for a minimum of seven years to meet compliance requirements.

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Fabrikam identifies the following security requirements:

Company information including policies, templates, and data must be inaccessible to anyone outside the company.

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Administrators must be able to authenticate to the Azure portal by using their corp.fabrikam.com credentials.

All administrative access to the Azure portal must be secured by using multi-factor authentication (MFA).

The testing of WebApp1 updates must not be visible to anyone outside the company.

#### Question

HOTSPOT -

You are evaluating the components of the migration to Azure that require you to provision an Azure Storage account. For each of the following statements, select

Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

#### Answer Area

Statements	Yes	No
You must provision an Azure Storage account for the SQL Server database migration.	<input type="radio"/>	<input type="radio"/>
You must provision an Azure Storage account for the Web site content storage.	<input type="radio"/>	<input type="radio"/>
You must provision an Azure Storage account for the Database metric monitoring.	<input type="radio"/>	<input type="radio"/>

Correct Answer:

#### Answer Area

Statements	Yes	No
You must provision an Azure Storage account for the SQL Server database migration.	<input type="radio"/>	<input checked="" type="radio"/>
You must provision an Azure Storage account for the Web site content storage.	<input type="radio"/>	<input checked="" type="radio"/>
You must provision an Azure Storage account for the Database metric monitoring.	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: No -

Online migration will work fine. It does not require an Azure Storage account.

Box 2: No -

Data for the web site can be migrated to Azure app service.

Box 3: Yes -

Scenario: Database metrics for the production instance of WebApp1 must be available for analysis so that database administrators can

optimize the performance settings.

Reference:

<https://azure.microsoft.com/en-au/services/sql-server-stretch-database/>

✉️  **Greysi** Highly Voted 2 years, 3 months ago

Y,N,N - just another solution

1. SQL Migration:

Because on-prem licenses must be used, whenever possible=> BYOL. Preferred SQL Migration in this case is uploading VHD from on-prem Hyper-V VM and create a new Azure VM

<https://docs.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/migrate-to-vm-from-sql-server#choose-a-migration-method>

2. WebApp: <https://docs.microsoft.com/en-us/azure/app-service/deploy-continuous-deployment?tabs=github>

Single point source: GitHub Repository can be configured as source for continuous Deployment

3. Database metrics: <https://docs.microsoft.com/en-us/azure/azure-sql/database/monitor-tune-overview>

Also for SQL Server on Azure VMs it is possible to send metrics to 3 services:

a) Log Analytics workspace in Azure Monitor

b) Azure Event Hub

c) Azure Storage

2 of 3 do not need a dedicated Azure Storage account.. It is not REQUIRED to create a storage account to fulfill requirements.

upvoted 62 times

✉️  **chair123** 4 weeks, 1 day ago

in No. 3 , if you used (log analytics workspace, event hub,...etc.) they all require a storage account/container to save the logs and events in it? you got to save them in some storage account.

I think it's yes. Please let me know if i missed something

upvoted 1 times

✉️  **AberdeenAngus** 1 year, 11 months ago

I don't see why we must migrate to SQL Server on Azure VM. The requirement to reuse on-prem licenses can be met with Azure Hybrid Benefit which works with SQL Managed Instance and SQL Database (vCore) too. As others have pointed out, if we go to SQL Managed Instance then we can meet the requirement to minimize downtime with the online migration method, which requires a storage account.

I can't see anything in <https://docs.microsoft.com/en-us/azure/azure-sql/database/monitor-tune-overview?view=azuresql> which says a storage account is always required so I'm also going YNN, but for slightly different reasons.

upvoted 2 times

✉️  **Nichols** 2 years, 1 month ago

The first question is N:

You can migrate to SQL MI without storage account

Azure Hybrid Benefit allows you to use SQL Server licenses with Software Assurance or qualifying subscription licenses to pay a reduced base rate\* for these products and services for SQL Server on Azure:

vCPU-based service tiers of Azure SQL Database (excluding serverless).

Azure SQL Managed Instance.

SQL Server in Azure Virtual Machines.

SQL Server Integration Services.

\*When you apply Azure Hybrid Benefit to your existing deployments, the base rate will be calculated beginning with when you select the benefit in the Azure portal. Credit will not be issued retroactively.

[https://azure.microsoft.com/en-us/pricing/hybrid-benefit/faq/#:~:text=Azure%20Hybrid%20Benefit%20allows%20you,SQL%20Database%20\(excluding%20serverless\).](https://azure.microsoft.com/en-us/pricing/hybrid-benefit/faq/#:~:text=Azure%20Hybrid%20Benefit%20allows%20you,SQL%20Database%20(excluding%20serverless).)

upvoted 3 times

✉️  **FrancisFerreira** 2 years ago

Without storage account we can only do offline migrations, which means longer downtime. So, to minimize downtime as per requirement, we do need a storage account.

upvoted 5 times

✉️  **Shadoken** 1 year, 8 months ago

In this question we are supposing that we will use SQL Server on VM (IaaS). Although in previous questions we suppose we will use Azure SQL Databases with Long-term retention (PaaS).

If I understood, we can't use long-term backup retention in SQL Server VM.

Then we have to use IaaS database or PaaS database?

upvoted 1 times

✉️  **honzar** Highly Voted 1 year, 3 months ago

Appeared 2023/01/04 in the exam

upvoted 11 times

✉️  **varinder82** Most Recent 1 week ago

Final Answer : N N Y  
upvoted 1 times

✉ **varinder82** 1 week, 4 days ago

Final Answer: YYN  
upvoted 1 times

✉ **Paul\_white** 4 months, 2 weeks ago

1. \*\*You must provision an Azure storage account for the SQL server database migration\*\*: Yes. Azure Storage is often used as a staging area for migrations, including SQL Server databases.

2. \*\*You must provision an Azure storage account for the web site content storage\*\*: Yes. Azure Storage can be used to store static website content such as HTML, CSS, JavaScript, and image files.

3. \*\*You must provision an Azure storage account for the Database metric monitoring\*\*: No. Database metrics are typically monitored using Azure Monitor and Log Analytics, not Azure Storage. However, logs and metrics could potentially be exported to Azure Storage for long-term retention or further analysis.

upvoted 1 times

✉ **babakeyfgir** 4 months, 3 weeks ago

it was a exam Question  
upvoted 1 times

✉ **Red0101** 7 months ago

I think NO NO NO

You can use Azure Hybrid Benefits for the Azure SQL database too; the live migration with DMS does not require a storage account for Azure SQL Database

You are not forced to use a storage account for the content storage; you could simply upload it to the web app instances

You are not forced to use a storage account to store DB logs, in fact for the database engine telemetry, you need the log analytic workspace <https://learn.microsoft.com/en-us/azure/azure-sql/database/monitor-tune-overview?view=azuresql>

upvoted 2 times

✉ **kodathedog** 5 months, 1 week ago

DMS requires a storage account for both online and offline migration, because that is where it gets the database backup files from to do the restore to the destination SQL database. See <https://learn.microsoft.com/en-us/azure/dms/tutorial-sql-server-managed-instance-online-ads>  
upvoted 1 times

✉ **yonie** 11 months, 2 weeks ago

I think it is Yes No Yes

Same as question from az-304 - this question has been around for a long time.

<https://www.examtopics.com/discussions/microsoft/view/56780-exam-az-304-topic-13-question-4-discussion/>

upvoted 4 times

✉ **sawanti** 7 months, 4 weeks ago

You can use Log Analytics Workspace to store the metrics, so it surely NO. Yes No No seems fine

upvoted 1 times

✉ **upwork** 1 year, 2 months ago

SQL Server db migration does not require a storage account in some min.downtime scenarios and I would go with NO for the first point, but what about the existing backups? According to the case study "Database backups must be retained for a minimum of seven years to meet compliance requirements." so perhaps we already have a bunch of them.

upvoted 1 times

✉ **OPT\_001122** 1 year, 2 months ago

topic 7: Fabrikam-Question #1-Page-44

topic 7: Fabrikam-Question #2-Page-44

topic 9: Fabrikam-Question #1-Page-45

topic 9: Fabrikam-Question #2-Page-46

topic 9: Fabrikam-Question #3-Page-46

topic 11: Fabrikam-Question #1-Page-47

topic 16: Fabrikam-Question #1-Page-48

=====

Total = 7

upvoted 7 times

✉ **RandomNickname** 1 year, 2 months ago

#1 Y. "database downtime must be minimized when databases are migrated."

Offline isn't applicable which doesn't need storage account.

Online migration required which needs storage account

<https://learn.microsoft.com/en-us/azure/dms/tutorial-sql-server-managed-instance-online#configure-migration-settings>

#2 Y. If this is as per the question is referring to ensure you have storage to render content then Y due to article reference below for static content, otherwise N

"Website content must be easily updated from a single point."

<https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-static-website>

#3 N. No need for storage for metrics, these will be sent to other Azure services like log analytics

upvoted 6 times

✉️ **testtaker13** 1 year, 2 months ago

1. Y. Your link is under older tutorials. But it seems under Azure Data Studio the information is similar. Storage or SMB share is required.

<https://learn.microsoft.com/en-us/azure/dms/tutorial-sql-server-managed-instance-online-ads>

upvoted 2 times

✉️ **RandomNickname** 1 year, 1 month ago

Nice. Good spot.

Cheers

upvoted 1 times

✉️ **CineZorro824** 1 year, 4 months ago

1. SQL Migration: Y

because Database migration assistant requires a Storage Account to store the database backup files

2. Web app content: Y

Content needs to be updated from an easy to use single point. That's a storage account. I don't consider the available storage that's built into an App Service as easily accessible or a 'single point'

3. Database metrics: N

Log Analytics workspace has its own storage, it doesn't require you to link your own storage account (although it's possible)

upvoted 3 times

✉️ **sondrex** 1 year, 5 months ago

Answer NO NO YES - are correct

upvoted 3 times

✉️ **MountainW** 1 year, 5 months ago

1. SQL migration. It request minimum downtime. Because of reusing the license requirement from other question with same situation, this migration uses SQL managed instance. There is no need of storage account to create a SQL MI.

- The migration entails establishing a network connection between SQL Server and SQL Managed Instance, and opening communication ports.

- Uses Always On availability group technology to replicate database near real-time, making an exact replica of the SQL Server database on SQL Managed Instance.

- The database can be used for read-only access on SQL Managed Instance while migration is in progress.

- Provides the best performance during migration with minimum downtime.

Managed Instance link is for customers who require the most performant minimum downtime migration.

<https://learn.microsoft.com/en-us/azure/azure-sql/migration-guides/managed-instance/sql-server-to-managed-instance-overview?view=azuresql>

upvoted 1 times

✉️ **AubinBakana** 1 year, 8 months ago

They've not provided enough information on the database and application requirement to determine whether we want to do a lift & shift to an Azure VM, migrate to MI or SQL Database. So the suggestion that we must create a storage account is inaccurate - you have options where you can migrate without the need for a storage account. Hence, both first and second options have to be false.

Answer is: N,o No, Yes.

upvoted 2 times

✉️ **sapien45** 1 year, 10 months ago

YNN

Make sure to create the Azure Storage Account in the same region as the Azure Database Migration Service instance is created

upvoted 2 times

✉️ **Ahbey\_911** 1 year, 11 months ago

Y,N,Y seem correct if one considers the database requirement of the case study. Be sure to check the requirement before selecting an answer.

upvoted 3 times

✉️ **Ahbey\_911** 1 year, 11 months ago

I now agree with Y,N,N.

It is not compulsory to create a storage account for metrics analysis, Log Analytics workspace in Azure Monitor will suffice.

upvoted 2 times

## Introductory Info

### Case Study -

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### Overview -

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The network contains two Active Directory forests named corp.fabrikam.com and rd.fabrikam.com. There are no trust relationships between the forests.

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Rd.fabrikam.com is used by the research and development (R&D) department only. The R&D department is restricted to using on-premises resources only.

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Each office contains at least one domain controller from the corp.fabrikam.com domain. The main office contains all the domain controllers for the rd.fabrikam.com forest.

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An existing application named WebApp1 is hosted in the data center of the London office. WebApp1 is used by customers to place and track orders. WebApp1 has a web tier that uses Microsoft Internet Information Services (IIS) and a database tier that runs Microsoft SQL Server 2016. The web tier and the database tier are deployed to virtual machines that run on Hyper-V.

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The use of WebApp1 is unpredictable. At peak times, users often report delays. At other times, many resources for WebApp1 are underutilized.

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Fabrikam plans to move most of its production workloads to Azure during the next few years, including virtual machines that rely on Active Directory for authentication.

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Fabrikam identifies the following technical requirements:

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Administrators must be able to authenticate to the Azure portal by using their corp.fabrikam.com credentials.

All administrative access to the Azure portal must be secured by using multi-factor authentication (MFA).

The testing of WebApp1 updates must not be visible to anyone outside the company.

## Question

What should you include in the identity management strategy to support the planned changes?

- A. Deploy domain controllers for corp.fabrikam.com to virtual networks in Azure.
- B. Move all the domain controllers from corp.fabrikam.com to virtual networks in Azure.
- C. Deploy a new Azure AD tenant for the authentication of new R&D projects.
- D. Deploy domain controllers for the rd.fabrikam.com forest to virtual networks in Azure.

### Correct Answer: A

Directory synchronization between Azure Active Directory (Azure AD) and corp.fabrikam.com must not be affected by a link failure between Azure and the on-premises network. (This requires domain controllers in Azure).

Users on the on-premises network must be able to authenticate to corp.fabrikam.com if an Internet link fails. (This requires domain controllers on-premises).

*Community vote distribution*

A (100%)

✉  andas2008  2 years, 3 months ago

**Selected Answer: A**

correct answer

upvoted 18 times

✉  Paulwryan  2 years, 3 months ago

This appears to be correct:

<https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/identity/adds-extend-domain>

upvoted 7 times

✉  Paulwryan 2 years, 3 months ago

That is, deploy domain controllers in azure. do not move them, they are still needed on prem.

upvoted 5 times

✉  erajendar  4 months ago

**Selected Answer: A**

correct

upvoted 1 times

✉  babakeyfgir 4 months, 3 weeks ago

it was a exam Question

upvoted 3 times

✉  memyslef2 1 year, 1 month ago

This was a question was on my exam today (2/26/23) - Scored 844

I agree with this answer

upvoted 4 times

✉  RandomNickname 1 year, 2 months ago

**Selected Answer: A**

A looks correct as per article and request  
upvoted 1 times

✉ **honzar** 1 year, 3 months ago

Appeared 2023/01/04 in the exam  
upvoted 3 times

✉ **randomaccount123** 1 year, 5 months ago

Never a good idea to move a DC to Azure. Better to always create a new one.  
upvoted 3 times

✉ **rishisoft1** 2 weeks, 5 days ago

Its creating new one only, not moving the existing from on-premise.  
upvoted 1 times

✉ **codefries** 1 year, 6 months ago

Shouldn't B instead of A?  
As per requirement: Directory synchronization between Azure Active Directory (Azure AD) and corp.fabrikam.com must not be affected by a link failure between Azure and the on-premises network.  
upvoted 1 times

✉ **Dudulle** 1 year, 4 months ago

Nope because, in this case, users won't be able to authenticate in case of internet failure  
upvoted 3 times

✉ **Dudulle** 1 year, 4 months ago

Since, as ALL DCs are in Azure, there are 0 left on-prem!  
upvoted 1 times

✉ **AubinBakana** 1 year, 8 months ago

**Selected Answer: A**  
Yes. This will ensure that when the London office AD DS is down, other branch offices have access to WebApp1.  
upvoted 1 times

✉ **Teringzooi** 1 year, 11 months ago

**Selected Answer: A**  
Correct answer: A  
<https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/identity/adds-extend-domain>  
upvoted 1 times

✉ **Justin0020** 2 years, 1 month ago

Was in my exam on March. 10  
upvoted 5 times

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## Overview -

Litware, Inc. is a medium-sized finance company that has a main office in Boston.

## Existing Environment -

## Identity Environment -

The network contains an Active Directory forest named litware.com that is linked to an Azure Active Directory (Azure AD) tenant named litware.com. All users have Azure Active Directory Premium P2 licenses.

Litware has a second Azure AD tenant named dev.litware.com that is used as a development environment.

The litware.com tenant has a Conditional Access policy named Capolicy1. Capolicy1 requires that when users manage the Azure subscription for a production environment by using the Azure portal, they must connect from a hybrid Azure AD-joined device.

## Azure Environment -

Litware has 10 Azure subscriptions that are linked to the Litware.com tenant and five Azure subscriptions that are linked to the dev.litware.com tenant. All the subscriptions are in an Enterprise Agreement (EA).

The litware.com tenant contains a custom Azure role-based access control (Azure RBAC) role named Role1 that grants the DataActions read permission to the blobs and files in Azure Storage.

## On-Premises Environment -

The on-premises network of Litware contains the resources shown in the following table.

Name	Type	Configuration
SERVER1 SERVER2 SERVER3	Ubuntu 18.04 virtual machines hosted on Hyper-V	The virtual machines host a third-party app named App1. App1 uses an external storage solution that provides Apache Hadoop-compatible data storage. The data storage supports POSIX access control list (ACL) file-level permissions.
SERVER10	Server that runs Windows Server 2016	The server contains a Microsoft SQL Server instance that hosts two databases named DB1 and DB2.

## Network Environment -

Litware has ExpressRoute connectivity to Azure.

## Planned Changes and Requirements

### Planned Changes -

Litware plans to implement the following changes:

Migrate DB1 and DB2 to Azure.

Migrate App1 to Azure virtual machines.

Migrate the external storage used by App1 to Azure Storage.

Deploy the Azure virtual machines that will host App1 to Azure dedicated hosts.

▪

### Authentication and Authorization Requirements

Litware identifies the following authentication and authorization requirements:

Only users that manage the production environment by using the Azure portal must connect from a hybrid Azure AD-joined device and authenticate by using

Azure Multi-Factor Authentication (MFA).

The Network Contributor built-in RBAC role must be used to grant permissions to the network administrators for all the virtual networks in all the Azure subscriptions.

To access the resources in Azure, App1 must use the managed identity of the virtual machines that will host the app.

RBAC roles must be applied to management groups.

### Resiliency Requirements -

Litware identifies the following resiliency requirements:

Once migrated to Azure, DB1 and DB2 must meet the following requirements:

- Maintain availability if two availability zones in the local Azure region fail.
- Fail over automatically.
- Minimize I/O latency.

App1 must meet the following requirements:

- Be hosted in an Azure region that supports availability zones.
- Be hosted on Azure virtual machines that support automatic scaling.
- Maintain availability if two availability zones in the local Azure region fail.

### Security and Compliance Requirements

Litware identifies the following security and compliance requirements:

Once App1 is migrated to Azure, you must ensure that new data can be written to the app, and the modification of new and existing data is prevented for a period of three years.

On-premises users and services must be able to access the Azure Storage account that will host the data in App1.

Access to the public endpoint of the Azure Storage account that will host the App1 data must be prevented.

All Azure SQL databases in the production environment must have Transparent Data Encryption (TDE) enabled.

App1 must NOT share physical hardware with other workloads.

### Business Requirements -

Litware identifies the following business requirements:

Minimize administrative effort.

Minimize costs.

▪

### Question

#### HOTSPOT -

You plan to migrate App1 to Azure.

You need to recommend a high-availability solution for App1. The solution must meet the resiliency requirements.

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Number of host groups:

1
2
3
6

Number of virtual machine scale sets:

0
1
3

## Answer Area

Number of host groups:

1
2
3
6

Number of virtual machine scale sets:

0
1
3

Box 1: 3 -

Need three host groups to meet the third scenario requirement below.

Scenario: App1 must meet the following requirements:

Be hosted in an Azure region that supports availability zones.

Be hosted on Azure virtual machines that support automatic scaling.

Maintain availability if two availability zones in the local Azure region fail.

Box 2: 3 -

The availability setting of your host group should match your scale set.

\* The host group and the scale set must be using the same availability zone.

\* The fault domain count for the host group level should match the fault domain count for your scale set.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/dedicated-hosts>

 zenithcsa1 Highly Voted 1 year, 5 months ago

3-3

VMSS supports zone-redundant, while Dedicated Host does not. No-zone option of host group in Dedicated Host is not zone-redundant, it represents regional resource.

- You must create a host group in each zone.
- You must create a VMSS in each zone where the host group is deployed.

<https://learn.microsoft.com/en-us/azure/reliability/availability-zones-service-support#azure-services-with-availability-zone-support>  
<https://learn.microsoft.com/en-us/azure/virtual-machines/dedicated-hosts#virtual-machine-scale-set-support>

In addition, when a Host Groups is deployed in each zone, creating a zone-redundant VMSS is also not possible.

All tested with multiple hosts, FSv2 Type1.

upvoted 25 times

steel72 1 year ago

The host group and the scale set must be using the same availability zone.

<https://learn.microsoft.com/en-us/azure/virtual-machines/dedicated-hosts#virtual-machine-scale-set-support>

upvoted 1 times

techrat Highly Voted 11 months, 2 weeks ago

I am confident the answer is 3-3.

I had this question in my exam today, and I passed the exam with 979. In Design Infrastructure Solutions section, I got 100% correct.

upvoted 25 times

Ezio8423 Most Recent 11 months, 4 weeks ago

Automatic VM placement needs to be enabled.

The availability setting of your host group should match your scale set.

A regional host group (created without specifying an availability zone) should be used for regional scale sets.

The host group and the scale set must be using the same availability zone.

The fault domain count for the host group level should match the fault domain count for your scale set. The Azure portal lets you specify max spreading for your scale set, which sets the fault domain count of 1.

Dedicated hosts should be created first, with sufficient capacity, and the same settings for scale set zones and fault domains.

The supported VM sizes for your dedicated hosts should match the one used for your scale set.

upvoted 2 times

globy118 1 year, 1 month ago

Exam Question 02/15/2023

upvoted 3 times

GarryK 1 year, 2 months ago

3-3

<https://learn.microsoft.com/en-us/azure/virtual-machines/dedicated-hosts#groups-hosts-and-vms>

A host group is created in a single availability zone. Once created, all hosts will be placed within that zone. To achieve high availability across zones you need to create multiple host groups (one per zone) and spread your hosts between them accordingly.

If you assign a host group to an availability zone, all VMs created on that host must be created in the same zone.

When creating a Virtual Machine Scale Set, you can specify an existing host group to have all of the VM instances created on dedicated hosts.

upvoted 5 times

GarryK 1 year, 2 months ago

The host group and the scale set must be using the same availability zone.

upvoted 1 times

OPT\_001122 1 year, 2 months ago

3 and 3

upvoted 1 times

FabirtyDev 1 year, 2 months ago

Based on <https://learn.microsoft.com/en-us/azure/virtual-machines/dedicated-hosts#virtual-machine-scale-set-support> i would say it's 3-3

upvoted 2 times

RandomNickname 1 year, 2 months ago

3-3 Looks correct as per article:

<https://learn.microsoft.com/en-us/azure/virtual-machines/dedicated-hosts#groups-hosts-and-vms>

upvoted 1 times

Guest 1 year, 3 months ago

Maybe this Testlet can be merged with Topic 5 - Testlet 1?

Case looks identical (questions are different)

upvoted 1 times

Ravi1383 1 year, 4 months ago

what are the correct answer folks? what have changed on 10th Oct?

upvoted 2 times

Snownoodles 1 year, 5 months ago

3-3

"If the VM is in an availability zone, it must be the same availability zone as the host group. The availability zone settings for the VM and the host group must match"

<https://learn.microsoft.com/en-us/azure/virtual-machines/dedicated-hosts-how-to?tabs=portal>

upvoted 4 times

heero 1 year, 6 months ago

should be

3

1

upvoted 5 times

ronsav80 1 year, 6 months ago

I think based on <https://learn.microsoft.com/en-us/azure/virtual-machines/dedicated-hosts> under "Virtual Machine Scale Set Support", it states "When creating a virtual machine scale set you can specify an existing host group to have all of the VM instances created on dedicated hosts." So based on this, I think this is 3-3

upvoted 9 times

✉️  **Garon** 1 year, 5 months ago

1 scale set can span the 3 hosts in separate AZ's.

upvoted 2 times

✉️  **ckyap** 1 year, 5 months ago

3 host in the same availability zone only, if you want to span across different zone, you need to create additional host group.<https://learn.microsoft.com/en-us/azure/virtual-machines/dedicated-hosts-how-to?tabs=portal#:~:text=Span%20across%20multiple%20availability%20zones.%20In%20this%20case%2C%20you%27re%20required%20to%20have%20a%20host%20group%20in%20each%20of%20the%20zones%20you%20wish%20to%20use>

upvoted 1 times

✉️  **Garon** 1 year, 5 months ago

Recent changes on 10th Oct makes it 1 and 1. Will they update the answers?

upvoted 1 times

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The network contains an Active Directory forest named litware.com that is linked to an Azure Active Directory (Azure AD) tenant named litware.com. All users have Azure Active Directory Premium P2 licenses.

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Once migrated to Azure, DB1 and DB2 must meet the following requirements:

- Maintain availability if two availability zones in the local Azure region fail.
- Fail over automatically.
- Minimize I/O latency.

App1 must meet the following requirements:

- Be hosted in an Azure region that supports availability zones.
- Be hosted on Azure virtual machines that support automatic scaling.
- Maintain availability if two availability zones in the local Azure region fail.

### Security and Compliance Requirements

Litware identifies the following security and compliance requirements:

Once App1 is migrated to Azure, you must ensure that new data can be written to the app, and the modification of new and existing data is prevented for a period of three years.

On-premises users and services must be able to access the Azure Storage account that will host the data in App1.

Access to the public endpoint of the Azure Storage account that will host the App1 data must be prevented.

All Azure SQL databases in the production environment must have Transparent Data Encryption (TDE) enabled.

App1 must NOT share physical hardware with other workloads.

### Business Requirements -

Litware identifies the following business requirements:

Minimize administrative effort.

Minimize costs.

### Question

#### HOTSPOT -

You plan to migrate App1 to Azure.

You need to recommend a storage solution for App1 that meets the security and compliance requirements.

Which type of storage should you recommend, and how should you recommend configuring the storage? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Storage account type:

	▼
Premium page blobs	
Premium file shares	
Standard general-purpose v2	

Configuration:

	▼
NFSv3	
Large file shares	
Hierarchical namespace	

### Answer Area

Storage account type:

	▼
Premium page blobs	
Premium file shares	
Standard general-purpose v2	

Correct Answer:

Configuration:

	▼
NFSv3	
Large file shares	
Hierarchical namespace	

Box 1: Standard general-purpose v2

Standard general-purpose v2 supports Blob Storage.

Azure Storage provides data protection for Blob Storage and Azure Data Lake Storage Gen2.

Scenario:

Litware identifies the following security and compliance requirements:

- Once App1 is migrated to Azure, you must ensure that new data can be written to the app, and the modification of new and existing data is prevented for a period of three years.
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- Access to the public endpoint of the Azure Storage account that will host the App1 data must be prevented.

All Azure SQL databases in the production environment must have Transparent Data Encryption (TDE) enabled.

-

- App1 must NOT share physical hardware with other workloads.

Box 2: Hierarchical namespace -

Scenario: Plan: Migrate App1 to Azure virtual machines.

Azure Data Lake Storage Gen2 implements an access control model that supports both Azure role-based access control (Azure RBAC) and POSIX-like access control lists (ACLs).

Data Lake Storage Gen2 and the Network File System (NFS) 3.0 protocol both require a storage account with a hierarchical namespace enabled.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/data-protection-overview> <https://docs.microsoft.com/en-us/azure/storage/blobs/immutable-storage-overview>

 **WickedMJ** Highly Voted  1 year, 6 months ago

> Storage account type: " Standard general-purpose v2 "

> Configuration: " Hierarchical namespace "

upvoted 35 times

✉  **yuhji** 1 year, 2 months ago

Using only hierarchical namespaces does not support ACLs.

Therefore, NFS must be used.

Azure BLOB storage now supports the new NFS v3.0.

<https://learn.microsoft.com/en-us/azure/storage/blobs/network-file-system-protocol-support>

<https://learn.microsoft.com/en-us/azure/storage/blobs/network-file-system-protocol-support-how-to>

upvoted 3 times

✉  **techrat**  11 months, 2 weeks ago

I think the given answer is correct. I had this question on my exam today, I passed exam with 979. my answer to this question is

Standard general-purpose v2

Hierarchical namespace

upvoted 17 times

✉  **globby118**  1 year, 1 month ago

Exam Question 02/15/2023

upvoted 6 times

✉  **RandomNickname** 1 year, 2 months ago

Given answer looks good

upvoted 3 times

✉  **adamp54** 1 year, 5 months ago

ACLs are not supported with NFSv3 according to:

"The only way to secure the data in your account is by using a VNet and other network security settings. Any other tool used to secure data including account key authorization, Azure Active Directory (AD) security, and access control lists (ACLs) are not yet supported in accounts that have the NFS 3.0 protocol support enabled on them"

<https://learn.microsoft.com/en-us/azure/storage/blobs/network-file-system-protocol-support>

Enabling hierarchical namespace is the right answer :

"Azure Data Lake Storage Gen2 implements an access control model that supports both Azure role-based access control (Azure RBAC) and POSIX-like access control lists (ACLs)."

<https://learn.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-access-control>

upvoted 4 times

✉  **MountainW** 1 year, 5 months ago

If the request is to migrate the third party storage solution which support ACL to Azure, I think the answer is Premium file shares and NFSv3.

Because the App is running on Linux, NFS makes more sense to me. Standard general purpose v2 does not support NFS.

upvoted 1 times

✉  **np2021** 1 year, 1 month ago

The data is not allowed to be on shared hardware tho, as per the requirements.

upvoted 1 times

✉  **FabrytDev** 1 year, 2 months ago

"Azure Data Lake Storage Gen2 implements an access control model that supports both Azure role-based access control (Azure RBAC) and POSIX-like access control lists (ACLs)"

Data Lake means hierarchical namespace. Besides if you want to use NFSv3 you have to have hierarchical namespaces enabled anyway. So in an scenario hierarchical namespaces are correct.

<https://learn.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-access-control>

upvoted 1 times

✉  **bobrina** 1 year, 5 months ago

> Storage account type: " Standard general-purpose v2 "

> Configuration: " NFSv3 "

Source App1 are in a linux server

upvoted 2 times

✉  **MountainW** 1 year, 5 months ago

1. Storage account type: " Standard general-purpose v2 "

Standard general purpose v2 does not support NFS. So 2 is not NFSV3

<https://learn.microsoft.com/en-us/azure/storage/blobs/network-file-system-protocol-support>.

upvoted 2 times

✉  **FabrytDev** 1 year, 2 months ago

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<https://learn.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-access-control>

upvoted 5 times

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### Business Requirements -

Litware identifies the following business requirements:

Minimize administrative effort.

Minimize costs.

### Question

You plan to migrate App1 to Azure.

You need to recommend a network connectivity solution for the Azure Storage account that will host the App1 data. The solution must meet the security and compliance requirements.

What should you include in the recommendation?

- A. Microsoft peering for an ExpressRoute circuit
- B. Azure public peering for an ExpressRoute circuit
- C. a service endpoint that has a service endpoint policy
- D. a private endpoint

**Correct Answer: D**

Private Endpoint securely connect to storage accounts from on-premises networks that connect to the VNet using VPN or ExpressRoutes with private-peering.

Private Endpoint also secure your storage account by configuring the storage firewall to block all connections on the public endpoint for the storage service.

Incorrect Answers:

A: Microsoft peering provides access to Azure public services via public endpoints with public IP addresses, which should not be allowed.

B: Azure public peering has been deprecated.

C: By default, Service Endpoints are enabled on subnets configured in Azure virtual networks. Endpoints can't be used for traffic from your premises to Azure services.

Reference:

<https://docs.microsoft.com/en-us/azure/expressroute/expressroute-circuit-peerings>

*Community vote distribution*

D (100%)

✉️  **WickedMJ** Highly Voted 1 year, 6 months ago

**Selected Answer: D**

D. a private endpoint  
upvoted 16 times

✉️  **SindhuM** Most Recent 6 months, 2 weeks ago

Can this be achieved with the private endpoint?  
On-premises users and services must be able to access the Azure Storage account that will host the data in App1.  
upvoted 1 times

✉️  **sumaju** 5 months, 1 week ago

If the on-prem is connected via expressroute or VPN, then it is possible.  
upvoted 1 times

✉️  **zellck** 1 year, 1 month ago

Same as Topic 12 Question 2.  
<https://www.examtopics.com/discussions/microsoft/view/69317-exam-az-305-topic-12-question-2-discussion>  
upvoted 2 times

✉️  **zellck** 1 year, 1 month ago

**Selected Answer: D**  
D is the answer.

<https://learn.microsoft.com/en-us/azure/storage/common/storage-private-endpoints>

You can use private endpoints for your Azure Storage accounts to allow clients on a virtual network (VNet) to securely access data over a Private Link. The private endpoint uses a separate IP address from the VNet address space for each storage account service. Network traffic between the clients on the VNet and the storage account traverses over the VNet and a private link on the Microsoft backbone network, eliminating exposure from the public internet.

upvoted 3 times

✉️  **janvandermerwer** 1 year, 2 months ago

**Selected Answer: D**  
D - Agreed.  
Private endpoint is the way to go in any cloud provider.  
upvoted 2 times

✉️  **OPT\_001122** 1 year, 2 months ago

**Selected Answer: D**  
private endpoint  
upvoted 1 times

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Minimize costs.

### Question

You need to implement the Azure RBAC role assignments for the Network Contributor role. The solution must meet the authentication and authorization requirements.

What is the minimum number of assignments that you must use?

- A. 1
- B. 2
- C. 5
- D. 10
- E. 15

**Correct Answer: B**

Scenario: The Network Contributor built-in RBAC role must be used to grant permissions to the network administrators for all the virtual networks in all the Azure subscriptions.

RBAC roles must be applied at the highest level possible.

*Community vote distribution*

B (89%)

11%

✉  **darren888**  1 year, 4 months ago

**Selected Answer: B**

Litware has two Azure tenants. One tenant with 10 subscriptions and one tenant with five subscriptions. We can organize the subscriptions of the two tenants in a management group each and assign users to the Network Contributor role or to Role1 at the management group level.

upvoted 23 times

✉  **mscbsl7**  1 year, 3 months ago

**Selected Answer: B**

two tenants two MG

upvoted 7 times

✉  **alexespejoch**  9 months ago

**Selected Answer: A**

2 tareas:

- Permiso de lectura para los blobs
- Permiso de lectura para archivos en Azure Storage

upvoted 1 times

✉  **globby118** 1 year, 1 month ago

Exam Question 02/15/2023

upvoted 5 times

✉  **lolo13698** 1 year, 6 months ago

**Selected Answer: B**

i would say B.2 as root management group is created by default in a Tenant and we have 2 Tenants here.

But as they are not mentionning management group it could also be 15 assigment (one per subscription)

upvoted 2 times

✉  **Mitytskr** 1 year, 3 months ago

The authentication and authorization requirements state: "RBAC roles must be applied to management groups," so I think you were correct with B.

upvoted 4 times

✉  **ayadmaawla** 3 months, 1 week ago

Yes but the question is asking for the "minimum "

upvoted 1 times

✉  **WickedMJ** 1 year, 6 months ago

**Selected Answer: B**

B. 2

<https://www.cert2brain.com/Server/Demo.aspx?exam=AZ-304>

upvoted 2 times

✉  **ezfix** 1 year, 6 months ago

E - 15) There are 2 Tenants with 15 total subscriptions. Medium size company with only 1 office. I can't find anything in the use case stating they have enabled management groups, or anything mentioning a "Tenant Root Group". The RBAC for network contributor would be assigned at the "Tenant Root Group" if management groups were enabled. Otherwise, they would assign it at the next best thing, the 15 subscriptions.

upvoted 4 times

✉  **Mitytskr** 1 year, 3 months ago

It can't be E because the authentication and authorization requirements state: "RBAC roles must be applied to management groups," so it should be B.

upvoted 1 times

✉  **ronsav80** 1 year, 6 months ago

Per <https://learn.microsoft.com/en-us/azure/governance/management-groups/overview#root-management-group-for-each-directory> ... "Each directory is given a single top-level management group called the root management group. The root management group is built into the hierarchy to have all management groups and subscriptions fold up to it. This root management group allows for global policies and Azure role assignments to be applied at the directory level". So from this, a root MG exists for every Azure tenant/directory, so we would only need 2 RBAC assignments to each root MG

upvoted 8 times

✉  **cj00** 1 year, 6 months ago

**Selected Answer: B**

2 tenants, so 2x management groups to assign to  
upvoted 2 times

✉ **ronsav80** 1 year, 6 months ago

Since this states that "Litware has a second Azure AD tenant named dev.litware.com", a tenant is a security boundary, so corp.litware.com AAD tenant has no access to dev.litware.com AAD tenant. Hence, need 2 RBAC roles (one in each tenant)  
upvoted 3 times

✉ **mlounge** 1 year, 6 months ago

**Selected Answer: B**  
The network contains an Active Directory forest named litware.com that is linked to an Azure Active Directory (Azure AD) tenant named litware.com.  
Litware has a second Azure AD tenant named dev.litware.com that is used as a development environment.  
upvoted 3 times

✉ **jellybiscuit** 1 year, 6 months ago

**Selected Answer: A**  
Where would 2 come from? Two domains? Two Tenant's?

You can put both the domains into one Tenant with one management group, where you would assign your role.  
upvoted 2 times

✉ **mufflon** 1 year, 6 months ago

Are you suggesting a multi tenant solution?  
upvoted 1 times

✉ **KarVoid** 1 year, 6 months ago

**Selected Answer: A**  
This should be A. The access should be applied at the root management group level to ensure that it gets applied at all levels.  
upvoted 2 times

✉ **lolo13698** 1 year, 6 months ago

Yes, buts there are 2 tenants, so one root management group per tenant. So answer B.  
upvoted 2 times

✉ **KarVoid** 1 year, 6 months ago

This should be A. The access should be applied at the root management group level to ensure that it gets applied at all levels.  
upvoted 1 times

✉ **FabrytDev** 1 year, 2 months ago

"Management groups give you enterprise-grade management at scale no matter what type of subscriptions you might have. However, all subscriptions within a single management group must trust the same Azure Active Directory (Azure AD) tenant."

Therefore you cannot have a management group that spans AAD tenants and that's why it cannot be A.

<https://learn.microsoft.com/en-us/azure/governance/management-groups/overview>

upvoted 3 times

## Introductory Info

### Case Study -

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### Overview -

Litware, Inc. is a medium-sized finance company that has a main office in Boston.

### Existing Environment -

#### Identity Environment -

The network contains an Active Directory forest named litware.com that is linked to an Azure Active Directory (Azure AD) tenant named litware.com. All users have Azure Active Directory Premium P2 licenses.

Litware has a second Azure AD tenant named dev.litware.com that is used as a development environment.

The litware.com tenant has a Conditional Access policy named Capolicy1. Capolicy1 requires that when users manage the Azure subscription for a production environment by using the Azure portal, they must connect from a hybrid Azure AD-joined device.

#### Azure Environment -

Litware has 10 Azure subscriptions that are linked to the Litware.com tenant and five Azure subscriptions that are linked to the dev.litware.com tenant. All the subscriptions are in an Enterprise Agreement (EA).

The litware.com tenant contains a custom Azure role-based access control (Azure RBAC) role named Role1 that grants the DataActions read permission to the blobs and files in Azure Storage.

#### On-Premises Environment -

The on-premises network of Litware contains the resources shown in the following table.

Name	Type	Configuration
SERVER1 SERVER2 SERVER3	Ubuntu 18.04 virtual machines hosted on Hyper-V	The virtual machines host a third-party app named App1. App1 uses an external storage solution that provides Apache Hadoop-compatible data storage. The data storage supports POSIX access control list (ACL) file-level permissions.
SERVER10	Server that runs Windows Server 2016	The server contains a Microsoft SQL Server instance that hosts two databases named DB1 and DB2.

#### Network Environment -

Litware has ExpressRoute connectivity to Azure.

## Planned Changes and Requirements

### Planned Changes -

Litware plans to implement the following changes:

Migrate DB1 and DB2 to Azure.

Migrate App1 to Azure virtual machines.

Migrate the external storage used by App1 to Azure Storage.

Deploy the Azure virtual machines that will host App1 to Azure dedicated hosts.

### Authentication and Authorization Requirements

Litware identifies the following authentication and authorization requirements:

Only users that manage the production environment by using the Azure portal must connect from a hybrid Azure AD-joined device and authenticate by using

Azure Multi-Factor Authentication (MFA).

The Network Contributor built-in RBAC role must be used to grant permissions to the network administrators for all the virtual networks in all the Azure subscriptions.

To access the resources in Azure, App1 must use the managed identity of the virtual machines that will host the app.

RBAC roles must be applied to management groups.

### Resiliency Requirements -

Litware identifies the following resiliency requirements:

Once migrated to Azure, DB1 and DB2 must meet the following requirements:

- Maintain availability if two availability zones in the local Azure region fail.
- Fail over automatically.
- Minimize I/O latency.

App1 must meet the following requirements:

- Be hosted in an Azure region that supports availability zones.
- Be hosted on Azure virtual machines that support automatic scaling.
- Maintain availability if two availability zones in the local Azure region fail.

### Security and Compliance Requirements

Litware identifies the following security and compliance requirements:

Once App1 is migrated to Azure, you must ensure that new data can be written to the app, and the modification of new and existing data is prevented for a period of three years.

On-premises users and services must be able to access the Azure Storage account that will host the data in App1.

Access to the public endpoint of the Azure Storage account that will host the App1 data must be prevented.

All Azure SQL databases in the production environment must have Transparent Data Encryption (TDE) enabled.

App1 must NOT share physical hardware with other workloads.

### Business Requirements -

Litware identifies the following business requirements:

Minimize administrative effort.

Minimize costs.

### Question

#### DRAG DROP -

You need to configure an Azure policy to ensure that the Azure SQL databases have Transparent Data Encryption (TDE) enabled. The solution must meet the security and compliance requirements.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and

arrange them in the correct order.

Select and Place:

Actions	Answer Area
Create an Azure policy definition that uses the deployIfNotExists effect.	
Invoke a remediation task.	
Create an Azure policy definition that uses the Modify effect	
Create an Azure policy assignment.	
Create a user-assigned managed identity.	

#### Answer Area

#### Correct Answer:

Actions	Answer Area
Create an Azure policy definition that uses the Modify effect	
Create a user-assigned managed identity.	

#### Answer Area

Create an Azure policy definition that uses the deployIfNotExists effect.

Create an Azure policy assignment.

Invoke a remediation task.

#### Step 1: Create an Azure policy definition that uses the deployIfNotExists

The first step is to define the roles that deployIfNotExists and modify needs in the policy definition to successfully deploy the content of your included template.

#### Step 2: Create an Azure policy assignment

When creating an assignment using the portal, Azure Policy both generates the managed identity and grants it the roles defined in roleDefinitionIds.

#### Step 3: Invoke a remediation task.

Resources that are non-compliant to a deployIfNotExists or modify policy can be put into a compliant state through Remediation.

Remediation is accomplished by instructing Azure Policy to run the deployIfNotExists effect or the modify operations of the assigned policy on your existing resources and subscriptions, whether that assignment is to a management group, a subscription, a resource group, or an individual resource.

During evaluation, the policy assignment with deployIfNotExists or modify effects determines if there are non-compliant resources or subscriptions. When non-compliant resources or subscriptions are found, the details are provided on the Remediation page.

#### Reference:

<https://docs.microsoft.com/en-us/azure/governance/policy/how-to/remediate-resources>

 **VBK8579** Highly Voted 1 year, 2 months ago

The three actions you should perform in sequence are:

Create an Azure policy definition that uses the deployIfNotExists effect and specifies TDE as a required setting.

Create an Azure policy assignment and assign the policy definition to the desired scope (e.g. subscription or resource group).

Invoke a remediation task to automatically enforce the policy and enable TDE on existing databases that do not have it enabled.

upvoted 27 times

 **globy118** Highly Voted 1 year, 1 month ago

Exam Question 02/15/2023

upvoted 6 times

 **RandomNickname** Most Recent 1 year, 2 months ago

Answer looks good to me as per article:

<https://learn.microsoft.com/en-us/azure/governance/policy/how-to/remediate-resources?tabs=azure-portal>

upvoted 6 times

 **OPT\_001122** 1 year, 2 months ago

is given ans correct?

upvoted 1 times

✉️  **AHUI** 10 months, 3 weeks ago

yes, ans is correct

upvoted 2 times

✉️  **ronsav80** 1 year, 6 months ago

Per <https://learn.microsoft.com/en-us/azure/governance/policy/how-to/remediate-resources?tabs=azure-portal>, the steps are a) deployIfNoExists, b) create user or system managed identity, c) create remediation task. So shouldn't the 2nd step be "Create user managed identity"?

upvoted 6 times

✉️  **Snownoodles** 1 year, 6 months ago

managed identity is assigned automatically if you create policy by Portal

upvoted 5 times

✉️  **JDKJDKJDK** 1 year, 6 months ago

True deployIfNotExists

<https://learn.microsoft.com/en-us/azure/azure-sql/database/policy-reference?view=azuresql>

upvoted 5 times

**Introductory Info****Case Study -**

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**Overview -**

Fabrikam, Inc. is an engineering company that has offices throughout Europe. The company has a main office in London and three branch offices in Amsterdam,

Berlin, and Rome.

**Existing Environment: Active Directory Environment**

The network contains two Active Directory forests named corp.fabrikam.com and rd.fabrikam.com. There are no trust relationships between the forests.

Corp.fabrikam.com is a production forest that contains identities used for internal user and computer authentication.

Rd.fabrikam.com is used by the research and development (R&D) department only. The R&D department is restricted to using on-premises resources only.

**Existing Environment: Network Infrastructure**

Each office contains at least one domain controller from the corp.fabrikam.com domain. The main office contains all the domain controllers for the rd.fabrikam.com forest.

All the offices have a high-speed connection to the internet.

An existing application named WebApp1 is hosted in the data center of the London office. WebApp1 is used by customers to place and track orders. WebApp1 has a web tier that uses Microsoft Internet Information Services (IIS) and a database tier that runs Microsoft SQL Server 2016. The web tier and the database tier are deployed to virtual machines that run on Hyper-V.

The IT department currently uses a separate Hyper-V environment to test updates to WebApp1.

Fabrikam purchases all Microsoft licenses through a Microsoft Enterprise Agreement that includes Software Assurance.

**Existing Environment: Problem Statements**

The use of WebApp1 is unpredictable. At peak times, users often report delays. At other times, many resources for WebApp1 are underutilized.

**Requirements: Planned Changes -**

Fabrikam plans to move most of its production workloads to Azure during the next few years, including virtual machines that rely on Active Directory for authentication.

As one of its first projects, the company plans to establish a hybrid identity model, facilitating an upcoming Microsoft 365 deployment.

All R&D operations will remain on-premises.

Fabrikam plans to migrate the production and test instances of WebApp1 to Azure.

**Requirements: Technical Requirements**

Fabrikam identifies the following technical requirements:

Website content must be easily updated from a single point.

User input must be minimized when provisioning new web app instances.

Whenever possible, existing on-premises licenses must be used to reduce cost.

Users must always authenticate by using their corp.fabrikam.com UPN identity.

Any new deployments to Azure must be redundant in case an Azure region fails.

Whenever possible, solutions must be deployed to Azure by using the Standard pricing tier of Azure App Service. An email distribution group named IT Support must be notified of any issues relating to the directory synchronization services. In the event that a link fails between Azure and the on-premises network, ensure that the virtual machines hosted in Azure can authenticate to Active Directory.

Directory synchronization between Azure Active Directory (Azure AD) and corp.fabrikam.com must not be affected by a link failure between Azure and the on-premises network.

#### Requirements: Database Requirements

Fabrikam identifies the following database requirements:

Database metrics for the production instance of WebApp1 must be available for analysis so that database administrators can optimize the performance settings.

To avoid disrupting customer access, database downtime must be minimized when databases are migrated.

Database backups must be retained for a minimum of seven years to meet compliance requirements.

#### Requirements: Security Requirements

Fabrikam identifies the following security requirements:

Company information including policies, templates, and data must be inaccessible to anyone outside the company.

Users on the on-premises network must be able to authenticate to corp.fabrikam.com if an internet link fails.

Administrators must be able authenticate to the Azure portal by using their corp.fabrikam.com credentials.

All administrative access to the Azure portal must be secured by using multi-factor authentication (MFA).

The testing of WebApp1 updates must not be visible to anyone outside the company.

#### Question

HOTSPOT -

To meet the authentication requirements of Fabrikam, what should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

#### Answer Area

Minimum number of Azure AD tenants:

0
1
2
3
4

Minimum number of custom domains to add:

0
1
2
3
4

Minimum number of conditional access policies to create:

0
1
2
3
4

Correct Answer:

## Answer Area

Minimum number of Azure AD tenants:

0
1
2
3
4

Minimum number of custom domains to add:

0
1
2
3
4

Minimum number of conditional access policies to create:

0
1
2
3
4

Box 1: 1 -

One single Azure AD tenant is needed as only the Corp tenant is migrated.

Box 2: 1 -

Box 3: 2 -

One conditional access policy for Multi-Factor Authentication (MFA) will be used for administrative access, and a second conditional access policy in order to prevent external access.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/conditional-access/howto-conditional-access-policy-location>

<https://docs.microsoft.com/en-us/azure/active-directory/conditional-access/howto-conditional-access-policy-admin-mfa>

  RandomNickname Highly Voted 1 year, 2 months ago

Given answer looks correct, 1-1-2.

1=1:Single tenant creation required only due to RD restrictions implemented.

2=1:Need to add custom domain due to default .onmicrosoft.com domain on tenant creation

3=2 Two policies required, can't have multiple actions to block + allow on single conditional access policies.

One required for admin MFA, second to block external access as per requirements.

upvoted 24 times

  ronsav80 Highly Voted 1 year, 6 months ago

I think it is 1-1-1 as you can include locations in "Conditions" section of a Conditional Access Policy (and "Grant with MFA" in the Access Control section)

upvoted 24 times

  mikenyga 1 year, 4 months ago

All >ADMINISTRATIVE< only access to the Azure portal must be secured by using multi-factor authentication (MFA). So 1 policy for location and 2 for MFA. 1-1-2

upvoted 16 times

  babakeyfgir Most Recent 4 months, 3 weeks ago

it was a exam Question

upvoted 2 times

  sawanti 7 months, 4 weeks ago

I would say:

1 - only one AD should be migrated, everyone agrees on that

1 - onmicrosoft is default domain, need to add new domain, everyone agrees

0 - If you go to Azure AD -> Security -> Identity Protection -> MFA, you can choose who should use MFA. You don't need to create a conditional access for that. Location - I believe it should be done automatically

upvoted 2 times

✉️ **dave22339** 9 months, 2 weeks ago

"Company information including policies, templates, and data must be inaccessible to anyone outside the company." Ok, now i see what they are saying. You can only access company data if you are in one of the four offices. That would require another conditional access policy. But it's very poorly worded. Initially i read that as meaning you can't access company data unless you have a company identity. Maybe the question seemed less ambiguous when we all worked in an office.

upvoted 4 times

✉️ **Bertmeister** 10 months ago

2-1-1

Minimum Number of Azure AD Tenants:

Fabrikam already has two Active Directory forests: corp.fabrikam.com and rd.fabrikam.com. These forests can be synchronized with Azure AD as separate tenants.

Therefore, the minimum number of Azure AD tenants required would be 2.

Minimum Number of Custom Domains to Add:

Fabrikam wants users to authenticate using their corp.fabrikam.com UPN identity.

For this, you need to add a custom domain to Azure AD that matches the domain used in the on-premises Active Directory forest (corp.fabrikam.com).

Therefore, the minimum number of custom domains to add would be 1.

Minimum Number of Conditional Access Policies to Create:

Fabrikam has a requirement to ensure that users always authenticate using their corp.fabrikam.com UPN identity.

You can create a conditional access policy in Azure AD to enforce this requirement. The policy can be configured to only allow authentication from the corp.fabrikam.com domain and deny access from other domains.

Therefore, the minimum number of conditional access policies to create would be 1.

upvoted 1 times

✉️ **sawanti** 7 months, 4 weeks ago

They do NOT want to move rd to the cloud... So it's 1

upvoted 2 times

✉️ **OPT\_001122** 1 year, 2 months ago

ans is 1-1-2

upvoted 3 times

✉️ **honzar** 1 year, 3 months ago

Appeared 2023/01/04 in the exam

upvoted 11 times

✉️ **CineZorro824** 1 year, 4 months ago

On Conditional Access policies:

The case says "Company information ... must be inaccessible to anyone outside the company." The question is what is meant "outside the company": not on the company network? In that case the second conditional access policy makes sense.

If they just mean external users (non-employees), then you can solve this in a better way than with conditional access.

upvoted 3 times

✉️ **jp\_mcgee** 1 year, 5 months ago

0 Custom Domains since contoso.com should be the primary domain name

<https://learn.microsoft.com/en-us/azure/active-directory/enterprise-users/domains-manage#set-the-primary-domain-name-for-your-azure-ad-organization>

upvoted 1 times

✉️ **Grimstad** 1 year, 3 months ago

Not true. In your link the user has already added a custom domain. "Every new Azure AD tenant comes with an initial domain name, <domainname>.onmicrosoft.com. You can't change or delete the initial domain name, but you can add your organization's names. Adding custom domain names helps you to create user names that are familiar to your users, such as alain@contoso.com."

upvoted 1 times

✉️ **Samko635** 1 year, 5 months ago

2 policies should be correct for the last box. Security defaults are used to enable MFA for ALL users, not just admins. And preventing users from accessing the portal outside the company network needs a separate policy as the policy action cannot be more than 1 per policy, unlike scope.

upvoted 7 times

✉️ **Fidel\_104** 1 month, 1 week ago

I agree with MFA, but I don't see a conditional access policy condition in the docs that might be directly applicable to deny external access to company resources. Conditional access policies are to enforce MFA, filter by location, device, user-risk, and a few other edge cases. Therefore I'd go for 1-1-1.

Here is a list in the docs:

<https://learn.microsoft.com/en-us/entra/identity/conditional-access/concept-conditional-access-conditions>

upvoted 1 times

✉️ 🚩 **existingname** 1 year, 6 months ago

1 tenant, as dev will stay on prep  
1 custom domain, so users can login with their UPN  
0 CA, MFA for adios is already enabled by Security defaults.  
upvoted 1 times

✉️ 🚩 **Borman** 1 year, 3 months ago

There did you see a mention about security defaults? They could be on CA already, it is not clear.  
upvoted 1 times

✉️ 🚩 **Davin0406** 1 year, 6 months ago

I'm confused of the 3rd box...maybe 1?  
upvoted 1 times

✉️ 🚩 **jellybiscuit** 1 year, 6 months ago

Regarding conditional access policies, I could answer 0, or 1. I can't imagine where 2 came from.

0 - If I enable security defaults, I create zero policies and I accomplish the task admin task.  
1 - If I configure a new policy for just the admins (without enabling security defaults)

Preventing public access to your dev/test environment would be handled through your app service. <https://learn.microsoft.com/en-us/azure/app-service/app-service-ip-restrictions>

But maybe I'm missing something.

upvoted 12 times

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The IT department currently uses a separate Hyper-V environment to test updates to WebApp1.

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Fabrikam plans to migrate the production and test instances of WebApp1 to Azure.

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An email distribution group named IT Support must be notified of any issues relating to the directory synchronization services.

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All administrative access to the Azure portal must be secured by using multi-factor authentication (MFA).

The testing of WebApp1 updates must not be visible to anyone outside the company.

#### Question

You need to recommend a notification solution for the IT Support distribution group.

What should you include in the recommendation?

- A. a SendGrid account with advanced reporting
- B. an action group
- C. Azure Network Watcher
- D. Azure AD Connect Health

#### Correct Answer: D

An email distribution group named IT Support must be notified of any issues relating to the directory synchronization services.

Note: You can configure the Azure AD Connect Health service to send email notifications when alerts indicate that your identity infrastructure is not healthy. This occurs when an alert is generated, and when it is resolved.

The screenshot shows the Azure Active Directory Connect (Sync) Alerts blade. The 'Notifications' tab is selected. It displays a summary of 2 Azure Active Directory Connect Servers: FABVM03 (Unhealthy) and FABVM02 (Healthy). The 'ACTIVE ALERTS' section shows one alert: 'Azure AD Connect Sync Service is not r...' (Error, FABVM03). The 'NOTIFICATIONS' section includes a switch for 'Use the notification to get notified when there are new alerts.' which is set to 'ON'. Below it, there are sections for 'Notify All Global Administrators' (unchecked) and 'ADDITIONAL EMAIL RECIPIENTS' with entries for varun@fabtoso.com and idadmins@fabtoso.com.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-health-operations>

Community vote distribution

D (100%)

WickedMJ Highly Voted 1 year, 6 months ago

Selected Answer: D

Azure AD Connect Health

upvoted 12 times

zellck Highly Voted 1 year, 1 month ago

Selected Answer: D

D is the answer.

<https://learn.microsoft.com/en-us/azure/active-directory/hybrid/whatis-azure-ad-connect#what-is-azure-ad-connect-health>  
Azure Active Directory (Azure AD) Connect Health provides robust monitoring of your on-premises identity infrastructure. It enables you to maintain a reliable connection to Microsoft 365 and Microsoft Online Services. This reliability is achieved by providing monitoring capabilities for your key identity components. Also, it makes the key data points about these components easily accessible.

upvoted 6 times

✉ **babakeyfgir** Most Recent ⓘ 4 months, 3 weeks ago

it was a exam Question

upvoted 3 times

✉ **honzar** 1 year, 3 months ago

Appeared 2023/01/04 in the exam

upvoted 4 times

✉ **Alanckhhh** 1 year, 4 months ago

**Selected Answer: D**

Correct, D

upvoted 3 times

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Rd.fabrikam.com is used by the research and development (R&D) department only. The R&D department is restricted to using on-premises resources only.

#### Existing Environment: Network Infrastructure

Each office contains at least one domain controller from the corp.fabrikam.com domain. The main office contains all the domain controllers for the rd.fabrikam.com forest.

All the offices have a high-speed connection to the internet.

An existing application named WebApp1 is hosted in the data center of the London office. WebApp1 is used by customers to place and track orders. WebApp1 has a web tier that uses Microsoft Internet Information Services (IIS) and a database tier that runs Microsoft SQL Server 2016. The web tier and the database tier are deployed to virtual machines that run on Hyper-V.

The IT department currently uses a separate Hyper-V environment to test updates to WebApp1.

Fabrikam purchases all Microsoft licenses through a Microsoft Enterprise Agreement that includes Software Assurance.

#### Existing Environment: Problem Statements

The use of WebApp1 is unpredictable. At peak times, users often report delays. At other times, many resources for WebApp1 are underutilized.

#### Requirements: Planned Changes -

Fabrikam plans to move most of its production workloads to Azure during the next few years, including virtual machines that rely on Active Directory for authentication.

As one of its first projects, the company plans to establish a hybrid identity model, facilitating an upcoming Microsoft 365 deployment.

All R&D operations will remain on-premises.

Fabrikam plans to migrate the production and test instances of WebApp1 to Azure.

#### Requirements: Technical Requirements

Fabrikam identifies the following technical requirements:

Website content must be easily updated from a single point.

User input must be minimized when provisioning new web app instances.

Whenever possible, existing on-premises licenses must be used to reduce cost.

Users must always authenticate by using their corp.fabrikam.com UPN identity.

Any new deployments to Azure must be redundant in case an Azure region fails.

Whenever possible, solutions must be deployed to Azure by using the Standard pricing tier of Azure App Service.

An email distribution group named IT Support must be notified of any issues relating to the directory synchronization services.

In the event that a link fails between Azure and the on-premises network, ensure that the virtual machines hosted in Azure can authenticate

to Active Directory.

Directory synchronization between Azure Active Directory (Azure AD) and corp.fabrikam.com must not be affected by a link failure between Azure and the on-premises network.

#### Requirements: Database Requirements

Fabrikam identifies the following database requirements:

Database metrics for the production instance of WebApp1 must be available for analysis so that database administrators can optimize the performance settings.

To avoid disrupting customer access, database downtime must be minimized when databases are migrated.

Database backups must be retained for a minimum of seven years to meet compliance requirements.

#### Requirements: Security Requirements

Fabrikam identifies the following security requirements:

Company information including policies, templates, and data must be inaccessible to anyone outside the company.

Users on the on-premises network must be able to authenticate to corp.fabrikam.com if an internet link fails.

Administrators must be able to authenticate to the Azure portal by using their corp.fabrikam.com credentials.

All administrative access to the Azure portal must be secured by using multi-factor authentication (MFA).

The testing of WebApp1 updates must not be visible to anyone outside the company.

#### Question

You need to recommend a solution to meet the database retention requirements.

What should you recommend?

- A. Configure a long-term retention policy for the database.
- B. Configure Azure Site Recovery.
- C. Use automatic Azure SQL Database backups.
- D. Configure geo-replication of the database.

#### Correct Answer: A

Scenario: Database backups must be retained for a minimum of seven years to meet compliance requirements.

Many applications have regulatory, compliance, or other business purposes that require you to retain database backups beyond the 7-35 days provided by Azure

SQL Database and Azure SQL Managed Instance automatic backups. By using the long-term retention (LTR) feature, you can store specified SQL Database and

SQL Managed Instance full backups in Azure Blob storage with configured redundancy for up to 10 years. LTR backups can then be restored as a new database.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/long-term-retention-overview>

*Community vote distribution*

A (100%)

Eltooth Highly Voted 2 years, 4 months ago

**Selected Answer: A**

Correct answer - A

upvoted 20 times

jkklim 2 years, 2 months ago

<https://docs.microsoft.com/en-us/azure/azure-sql/database/long-term-retention-overview>

CORRECT - A

upvoted 10 times

wsrudmen Highly Voted 2 years, 1 month ago

You can process by elimination:

Site recovery and geo-replication are out of scope

We can think that automatic backup can be sufficient but Microsoft recommendation for Long Term Retention is to use LTR feature:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/automated-backups-overview?tabs=single-database>

Then A is correct

upvoted 12 times

babakeyfgir Most Recent 4 months, 3 weeks ago

it was a exam Question  
upvoted 2 times

✉  **malcubierre** 5 months, 3 weeks ago

**Selected Answer: A**

Not B .-> Is backup recovery, not retention  
Not C -> from 1 to 35 days (<https://learn.microsoft.com/en-us/azure/azure-sql/database/long-term-retention-overview?view=azuresql>)  
Not D -> This is recovery, not backup  
upvoted 3 times

✉  **zellck** 1 year, 1 month ago

**Selected Answer: A**

A is the answer.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/long-term-retention-overview?view=azuresql>  
Many applications have regulatory, compliance, or other business purposes that require you to retain database backups beyond the 7-35 days provided by Azure SQL Database and Azure SQL Managed Instance automatic backups. By using the long-term retention (LTR) feature, you can store specified SQL Database and SQL Managed Instance full backups in Azure Blob storage with configured redundancy for up to 10 years. LTR backups can then be restored as a new database.

upvoted 4 times

✉  **honzar** 1 year, 3 months ago

Appeared 2023/01/04 in the exam  
upvoted 5 times

✉  **Gor** 1 year, 10 months ago

**Selected Answer: A**

Correct answer: A  
<https://docs.microsoft.com/en-us/azure/azure-sql/database/long-term-retention-overview?view=azuresql>  
upvoted 1 times

✉  **Teringzooi** 1 year, 11 months ago

**Selected Answer: A**

Correct answer: A  
<https://docs.microsoft.com/en-us/azure/azure-sql/database/long-term-retention-overview?view=azuresql>  
upvoted 1 times

✉  **Justin0020** 2 years, 1 month ago

Was in my exam om March. 10  
upvoted 5 times

✉  **Paulwryan** 2 years, 3 months ago

It is not clear that idea is that the customer migrates to Azure SQL Database. Assuming that is the idea then answer is correct. Otherwise, long term retention policy is not available to SQL on Azure VM. But I can't see answer that fits if SQL remains hosted on a VM.  
upvoted 4 times

I agree, one of the requirements is to leverage licensing, the company has SA, they could use hybrid licensing for their SQL. This suggests to me they migrate the SQL instance as a VM, I'd say Azure VM backup (if it was a possible answer!)

upvoted 2 times

✉  **DoolyMilly** 2 years, 2 months ago

I'm not a DBA by any means.  
But as per the following article, you can use hybrid benefits for V-CORE based SQL databases ( and can be done without any downtime )  
So, Answer A should be correct.

<https://docs.microsoft.com/en-us/azure/azure-sql/azure-hybrid-benefit?view=azuresql&tabs=azure-portal>

upvoted 4 times

**Introductory Info****Case Study -**

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**Overview -**

Contoso, Ltd. is a research company that has a main office in Montreal.

**Existing Environment: Technical Environment**

The on-premises network contains a single Active Directory domain named contoso.com.

Contoso has a single Azure subscription.

**Existing Environment: Business Partnerships**

Contoso has a business partnership with Fabrikam, Inc. Fabrikam users access some Contoso applications over the internet by using Azure Active Directory

(Azure AD) guest accounts.

**Requirements: Planned Changes -**

Contoso plans to deploy two applications named App1 and App2 to Azure.

**Requirements: App1 -**

App1 will be a Python web app hosted in Azure App Service that requires a Linux runtime. Users from Contoso and Fabrikam will access App1. App1 will access several services that require third-party credentials and access strings. The credentials and access strings are stored in Azure Key Vault.

App1 will have six instances: three in the East US Azure region and three in the West Europe Azure region.

App1 has the following data requirements:

Each instance will write data to a data store in the same availability zone as the instance.

Data written by any App1 instance must be visible to all App1 instances.

App1 will only be accessible from the internet. App1 has the following connection requirements:

Connections to App1 must pass through a web application firewall (WAF).

Connections to App1 must be active-active load balanced between instances.

All connections to App1 from North America must be directed to the East US region. All other connections must be directed to the West Europe region.

Every hour, you will run a maintenance task by invoking a PowerShell script that copies files from all the App1 instances. The PowerShell script will run from a central location.

**Requirements: App2 -**

App2 will be a .NET app hosted in App Service that requires a Windows runtime. App2 has the following file storage requirements:

Save files to an Azure Storage account.

Replicate files to an on-premises location.

Ensure that on-premises clients can read the files over the LAN by using the SMB protocol.

You need to monitor App2 to analyze how long it takes to perform different transactions within the application. The solution must not require

changes to the application code.

#### Application Development Requirements

Application developers will constantly develop new versions of App1 and App2. The development process must meet the following requirements:

A staging instance of a new application version must be deployed to the application host before the new version is used in production.

After testing the new version, the staging version of the application will replace the production version.

The switch to the new application version from staging to production must occur without any downtime of the application.

#### Identity Requirements -

Contoso identifies the following requirements for managing Fabrikam access to resources:

Every month, an account manager at Fabrikam must review which Fabrikam users have access permissions to App1. Accounts that no longer need permissions must be removed as guests.

The solution must minimize development effort.

#### Security Requirement -

All secrets used by Azure services must be stored in Azure Key Vault.

Services that require credentials must have the credentials tied to the service instance. The credentials must NOT be shared between services.

#### Question

HOTSPOT -

What should you implement to meet the identity requirements? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

#### Answer Area

Service:

Azure AD Identity Governance
Azure AD Identity Protection
Azure AD Privilege Access Management (PIM)
Azure Automation

Feature:

Access packages
Access reviews
Approvals
Runbooks

## Answer Area

Service:

Azure AD Identity Governance
Azure AD Identity Protection
Azure AD Privilege Access Management (PIM)
Azure Automation

Correct Answer:

Feature:

Access packages
Access reviews
Approvals
Runbooks

Requirements: Identity Requirements

Contoso identifies the following requirements for managing Fabrikam access to resources:

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- \* The solution must minimize development effort.

Box 1: Azure AD Identity Governance

Incorrect:

Not PIM: Life Cycle Requirements must be met.

Box 2: Access reviews -

Azure Active Directory (Azure AD) access reviews enable organizations to efficiently manage group memberships, access to enterprise applications, and role assignments. User's access can be reviewed on a regular basis to make sure only the right people have continued access.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/governance/access-reviews-overview>

✉  **jellybiscuit** Highly Voted  1 year, 6 months ago

correct

Azure AD Identity Governance

Access reviews

upvoted 27 times

✉  **kay000001** Highly Voted  1 year, 7 months ago

1. Azure AD Identity Governance

2. Access reviews

upvoted 13 times

✉  **joesatriani** Most Recent  6 months, 2 weeks ago

What is different? <https://www.examtopics.com/discussions/microsoft/view/67629-exam-az-305-topic-7-question-1-discussion/>

upvoted 1 times

✉  **NotMeAnyWay** 9 months, 1 week ago

Answer:

Service:

A. Azure AD Identity Governance

Feature:

B. Access reviews

Explanation:

Azure AD Identity Governance service allows organizations to manage, control, and monitor access to resources, which is necessary for the management of Fabrikam users' access to resources.

Access reviews is a feature of Azure AD Identity Governance that allows for periodic review of access permissions, fulfilling the requirement for the monthly review of Fabrikam users' access permissions to App1.

upvoted 4 times

✉️  **leoletopic** 1 year, 3 months ago

I think this is also the reason do not choose PIM  
<https://learn.microsoft.com/en-us/azure/active-directory/governance/create-access-review>  
upvoted 1 times

✉️  **sawanti** 7 months, 4 weeks ago

PIM is about access reviews for administrators only, not basic users  
upvoted 2 times

✉️  **Fidel\_104** 1 month, 1 week ago

Well, I think the correct way to look at this is that Azure AD (now Entra) ID Governance is the product, which has multiple tiers (per licence), and both Access Reviews and PIM are features. But I agree that the correct answer is Access Reviews.

Here is the features by licence comparison: <https://learn.microsoft.com/en-us/entra/id-governance/licensing-fundamentals>  
upvoted 1 times

✉️  **CineZorro824** 1 year, 4 months ago

Correct. Azure AD Identity Governance. Access reviews.  
I initially thought the first one was PIM, but that's for reviewing other types of access.  
<https://learn.microsoft.com/en-us/azure/active-directory/governance/create-access-review>  
upvoted 1 times

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#### Security Requirement -

All secrets used by Azure services must be stored in Azure Key Vault.

Services that require credentials must have the credentials tied to the service instance. The credentials must NOT be shared between services.

#### Question

What should you recommend to meet the monitoring requirements for App2?

- A. VM insights
- B. Azure Application Insights
- C. Microsoft Sentinel
- D. Container insights

#### Correct Answer: B

Scenario: You need to monitor App2 to analyze how long it takes to perform different transactions within the application. The solution must not require changes to the application code.

Unified cross-component transaction diagnostics.

The unified diagnostics experience automatically correlates server-side telemetry from across all your Application Insights monitored components into a single view. It doesn't matter if you have multiple resources. Application Insights detects the underlying relationship and allows you to easily diagnose the application component, dependency, or exception that caused a transaction slowdown or failure.

Note: Components are independently deployable parts of your distributed/microservices application. Developers and operations teams have code-level visibility or access to telemetry generated by these application components.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/app/transaction-diagnostics>

*Community vote distribution*

B (100%)

✉  **kay000001** Highly Voted 1 year, 7 months ago

**Selected Answer: B**

B. Azure Application Insights  
upvoted 11 times

✉  **zellck** Highly Voted 1 year, 1 month ago

**Selected Answer: B**

B is the answer.

<https://learn.microsoft.com/en-us/azure/azure-monitor/app/app-insights-overview?tabs=net>

Application Insights is an extension of Azure Monitor and provides Application Performance Monitoring (also known as "APM") features. APM tools are useful to monitor applications from development, through test, and into production in the following ways:

- Proactively understand how an application is performing.
  - Reactively review application execution data to determine the cause of an incident.
- upvoted 5 times

✉  **ubdubdoo** Most Recent 8 hours, 29 minutes ago

you need to update the code to include the insights SDK. not sure how that aligns with "no code changes", but its the only option that works.  
upvoted 1 times

✉  **TiredofTesting** 6 months, 3 weeks ago

B.  
Can't be A -> VM Insight as it is not running on a VM.

Can't be C -> Microsoft sentinel which is a SIEM  
Can't be D -> Not running in a container.

upvoted 2 times

✉️👤 **NotMeAnyWay** 9 months, 1 week ago

Answer:

B. Azure Application Insights

Explanation:

Azure Application Insights is an extensible Application Performance Management (APM) service for web developers. It provides real-time, detailed insights into application performance and failures, making it a suitable choice for analyzing the performance of different transactions within App2, as required. Plus, it doesn't require changes to the application code. Other options are either not relevant or not specifically geared towards application performance monitoring.

upvoted 5 times

✉️👤 **SilverFox22** 1 year, 3 months ago

**Selected Answer: B**

Application Insights provides this.

upvoted 1 times

✉️👤 **Born\_Again** 1 year, 4 months ago

**Selected Answer: B**

b it is!

upvoted 1 times

✉️👤 **Snownoodles** 1 year, 5 months ago

**Selected Answer: B**

Application Insight

upvoted 2 times

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Any new deployments to Azure must be redundant in case an Azure region fails.

Whenever possible, solutions must be deployed to Azure by using the Standard pricing tier of Azure App Service. An email distribution group named IT Support must be notified of any issues relating to the directory synchronization services. In the event that a link fails between Azure and the on-premises network, ensure that the virtual machines hosted in Azure can authenticate to Active Directory.

Directory synchronization between Azure Active Directory (Azure AD) and corp.fabrikam.com must not be affected by a link failure between Azure and the on-premises network.

#### Requirements: Database Requirements

Fabrikam identifies the following database requirements:

Database metrics for the production instance of WebApp1 must be available for analysis so that database administrators can optimize the performance settings.

To avoid disrupting customer access, database downtime must be minimized when databases are migrated.

Database backups must be retained for a minimum of seven years to meet compliance requirements.

#### Requirements: Security Requirements

Fabrikam identifies the following security requirements:

Company information including policies, templates, and data must be inaccessible to anyone outside the company.

Users on the on-premises network must be able to authenticate to corp.fabrikam.com if an internet link fails.

Administrators must be able to authenticate to the Azure portal by using their corp.fabrikam.com credentials.

All administrative access to the Azure portal must be secured by using multi-factor authentication (MFA).

The testing of WebApp1 updates must not be visible to anyone outside the company.

#### Question

You need to recommend a data storage strategy for WebApp1.

What should you include in the recommendation?

- A. an Azure virtual machine that runs SQL Server
- B. a fixed-size DTU Azure SQL database
- C. an Azure SQL Database elastic pool
- D. a vCore-based Azure SQL database

#### Correct Answer: D

The use of WebApp1 is unpredictable. At peak times, users often report delays. At other times, many resources for WebApp1 are underutilized.

Database metrics for the production instance of WebApp1 must be available for analysis so that database administrators can optimize the performance settings.

Note: A virtual core (vCore) represents a logical CPU and offers you the option to choose between generations of hardware and the physical characteristics of the hardware (for example, the number of cores, the memory, and the storage size). The vCore-based purchasing model gives you flexibility, control, transparency of individual resource consumption, and a straightforward way to translate on-premises workload requirements to the cloud. This model optimizes price, and allows you to choose compute, memory, and storage resources based on your workload needs.

Incorrect:

Not C: Azure SQL Database elastic pools are a simple, cost-effective solution for managing and scaling multiple databases, not for a single database.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/service-tiers-sql-database-vcore>

#### Community vote distribution

D (79%)      C (16%)      5%

 **jellybiscuit** Highly Voted 1 year, 6 months ago

vCore-based Azure SQL database -- because the case states they want to use Azure Hybrid Benefit licensing. You cannot utilize that with the DTU model.

upvoted 27 times

 **chair123** Most Recent 4 weeks, 1 day ago

Anyone to save us here with consistent answers for this case study? answers are confusing!

upvoted 1 times

 **ayadmaawla** 3 months, 1 week ago

**Selected Answer: C**

Two issues

- use of own licenses wherever possible is available for sql elastic pool. See SQL Database Hybrid Benefits Calculator (drop down database to elastic pool) <https://azure.microsoft.com/en-gb/pricing/hybrid-benefit/#features>
- unpredictable usage pattern which necessitates an elastic pool

Just my two pennies

upvoted 2 times

✉ **ayadmaawla** 3 months, 1 week ago

Of course the problem is that elastic pool is meant to pool resources amongst many databases and not a single one. So in order to deal with the second issue of unpredictability we can go for vCore with Dynamic scaling - see: <https://learn.microsoft.com/en-us/azure/azure-sql/database/single-database-scale?view=azuresql&tabs=azure-portal>

So I am changing my answer to D

upvoted 2 times

✉ **ziggy1117** 4 months ago

**Selected Answer: D**

D. vCore-based SQL

Requirement: Use existing on-premises licenses whenever possible

You can only apply the Azure Hybrid licensing model when you choose a vCore-based purchasing model and the provisioned compute tier for your Azure SQL Database. Azure Hybrid Benefit isn't available for service tiers under the DTU-based purchasing model or for the serverless compute tier.

upvoted 2 times

✉ **babakeyfgir** 4 months, 3 weeks ago

it was a exam Question

upvoted 2 times

✉ **xxavimr** 7 months ago

**Selected Answer: A**

In my opinion is A because of the migration. It has to be ONLINE. As Far as I know we have several tool to migrate DB. DMA, ADS, DMS and Azure Migrate. DMA only supports OFFLINE, ADS supports ONLINE and OFFLINE but does not work with Azure SQL DB, DMS supports ONLINE and OFFLINE but for Azure SQL DB only OFFLINE and Azure Migrate normally uses ADS or DMS depending on requirements.

To make the long story short, it cannot be Azure SQL DB. It could be Azure SQL MI but I do not see that option. So it is SQL in Azure VM.

upvoted 1 times

✉ **sawanti** 7 months, 4 weeks ago

**Selected Answer: C**

Why the hell you choose D? You can use Azure Hybrid Benefit for Azure SQL Database elastic pool + they have high and low utilization scenarios, hence elastic pool will be the best option. Answer C IMHO is correct

upvoted 1 times

✉ **sjb666** 11 months, 3 weeks ago

**Selected Answer: D**

D because of Azure Hybrid Benefit licensing requirement

upvoted 2 times

✉ **pkkalra** 1 year, 2 months ago

**Selected Answer: D**

Hyperscale service tier is available for single databases that are using the vCore-based purchasing model.

Rapid scale out and scale up options are available for unpredictable load.

A Hyperscale database grows as needed - and you're billed only for the capacity you use. For read-intensive workloads, the Hyperscale service tier provides rapid scale-out by provisioning additional replicas as needed for offloading read workloads.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/service-tier-hyperscale?view=azuresql>

upvoted 1 times

✉ **RandomNickname** 1 year, 2 months ago

**Selected Answer: D**

Given answer looks correct as per article, which discusses auto-scale with serverless compute tier

<https://learn.microsoft.com/en-us/azure/azure-sql/database/service-tiers-sql-database-vcore?view=azuresql>

upvoted 2 times

✉ **honzar** 1 year, 3 months ago

Appeared 2023/01/04 in the exam

upvoted 4 times

✉ **Snownoodles** 1 year, 5 months ago

**Selected Answer: D**

Hybrid benefit - vCore-Based Azure SQL Database

upvoted 3 times

✉️  **WickedMJ** 1 year, 6 months ago

**Selected Answer: D**

vCore-based Azure SQL database  
upvoted 1 times

✉️  **ezfix** 1 year, 6 months ago

C. Elastic Pool. Perfectly matches the description of the answer listed. The use case also mentioned databases plural being migrated and unpredictable usage. Also you can setup regional auto failover groups for SQL Database and Elastic Pools, so that would cover the geo-redundancy requirement. <https://learn.microsoft.com/en-us/azure/azure-sql/database/elastic-pool-overview?view=azuresql>

upvoted 2 times

✉️  **FabrytDev** 1 year, 2 months ago

Elastic Pool makes sense only when you have multiple databases.  
upvoted 2 times

✉️  **Jay\_2pt0** 1 year, 5 months ago

I certainly would agree with you if multiple databases, but I'm not seeing that reference.  
upvoted 5 times

✉️  **kodathedog** 5 months ago

It does state in the case study blurb : "To avoid disrupting customer access, database downtime must be minimized when \*databases\* are migrated." Because it says "databases", I think Elastic Pools is a viable option here.  
upvoted 1 times

✉️  **HTEC** 1 year, 6 months ago

Why not A? "To avoid disrupting customer access, database downtime must be minimized when databases are migrated."  
upvoted 1 times

✉️  **scottn26** 1 year, 6 months ago

I think there is always a preference to migrate to a cloud native solution rather than VMs. There is a migration tool within SQL Server to Azure SQL Database which wouldn't take any longer than migrating the VM from on-premises (using Migrate, for example)  
upvoted 2 times

✉️  **kay000001** 1 year, 7 months ago

**Selected Answer: D**  
D. a vCore-based Azure SQL database  
upvoted 4 times

**Introductory Info**

## Case Study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case.

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## To start the case study -

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## Overview -

Litware, Inc. is a medium-sized finance company that has a main office in Boston.

## Existing Environment -

## Identity Environment -

The network contains an Active Directory forest named litware.com that is linked to an Azure Active Directory (Azure AD) tenant named litware.com. All users have Azure Active Directory Premium P2 licenses.

Litware has a second Azure AD tenant named dev.litware.com that is used as a development environment.

The litware.com tenant has a Conditional Access policy named Capolicy1. Capolicy1 requires that when users manage the Azure subscription for a production environment by using the Azure portal, they must connect from a hybrid Azure AD-joined device.

## Azure Environment -

Litware has 10 Azure subscriptions that are linked to the Litware.com tenant and five Azure subscriptions that are linked to the dev.litware.com tenant. All the subscriptions are in an Enterprise Agreement (EA).

The litware.com tenant contains a custom Azure role-based access control (Azure RBAC) role named Role1 that grants the DataActions read permission to the blobs and files in Azure Storage.

## On-Premises Environment -

The on-premises network of Litware contains the resources shown in the following table.

Name	Type	Configuration
SERVER1 SERVER2 SERVER3	Ubuntu 18.04 virtual machines hosted on Hyper-V	The virtual machines host a third-party app named App1. App1 uses an external storage solution that provides Apache Hadoop-compatible data storage. The data storage supports POSIX access control list (ACL) file-level permissions.
SERVER10	Server that runs Windows Server 2016	The server contains a Microsoft SQL Server instance that hosts two databases named DB1 and DB2.

## Network Environment -

Litware has ExpressRoute connectivity to Azure.

## Planned Changes and Requirements

### Planned Changes -

Litware plans to implement the following changes:

Migrate DB1 and DB2 to Azure.

Migrate App1 to Azure virtual machines.

Migrate the external storage used by App1 to Azure Storage.

Deploy the Azure virtual machines that will host App1 to Azure dedicated hosts.

▪

### Authentication and Authorization Requirements

Litware identifies the following authentication and authorization requirements:

Only users that manage the production environment by using the Azure portal must connect from a hybrid Azure AD-joined device and authenticate by using

Azure Multi-Factor Authentication (MFA).

The Network Contributor built-in RBAC role must be used to grant permissions to the network administrators for all the virtual networks in all the Azure subscriptions.

To access the resources in Azure, App1 must use the managed identity of the virtual machines that will host the app.

RBAC roles must be applied to management groups.

### Resiliency Requirements -

Litware identifies the following resiliency requirements:

Once migrated to Azure, DB1 and DB2 must meet the following requirements:

- Maintain availability if two availability zones in the local Azure region fail.
- Fail over automatically.
- Minimize I/O latency.

App1 must meet the following requirements:

- Be hosted in an Azure region that supports availability zones.
- Be hosted on Azure virtual machines that support automatic scaling.
- Maintain availability if two availability zones in the local Azure region fail.

### Security and Compliance Requirements

Litware identifies the following security and compliance requirements:

Once App1 is migrated to Azure, you must ensure that new data can be written to the app, and the modification of new and existing data is prevented for a period of three years.

On-premises users and services must be able to access the Azure Storage account that will host the data in App1.

Access to the public endpoint of the Azure Storage account that will host the App1 data must be prevented.

All Azure SQL databases in the production environment must have Transparent Data Encryption (TDE) enabled.

App1 must NOT share physical hardware with other workloads.

### Business Requirements -

Litware identifies the following business requirements:

Minimize administrative effort.

Minimize costs.

▪

### Question

#### HOTSPOT -

You plan to migrate DB1 and DB2 to Azure.

You need to ensure that the Azure database and the service tier meet the resiliency and business requirements.

What should you configure? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Database:

- A single Azure SQL database
- Azure SQL Managed Instance
- An Azure SQL Database elastic pool

Service tier:

- Hyperscale
- Business Critical
- General Purpose

Correct Answer:

## Answer Area

Database:

- A single Azure SQL database
- Azure SQL Managed Instance
- An Azure SQL Database elastic pool

Service tier:

- Hyperscale
- Business Critical
- General Purpose

Box 1: An Azure SQL Database elastic pool

Scenario:

\* Resiliency Requirements. Once migrated to Azure, DB1 and DB2 must meet the following requirements:

Maintain availability if two availability zones in the local Azure region fail.

Fail over automatically.

Minimize I/O latency.

\* Litware identifies the following business requirements:

Minimize administrative effort.

Minimize costs.

Box 2: Business Critical

✉  **WickedMJ** Highly Voted  1 year, 6 months ago

- > Database: "An Azure SQL Database elastic pool"
- > Service Tier: "Business Critical"

Reference & explanations:

<https://www.examtopics.com/discussions/microsoft/view/68044-exam-az-305-topic-9-question-1-discussion/>  
upvoted 23 times

✉  **tfulanchan** 1 year, 2 months ago

The reference you provided suggests that "SQL Managed Instance" is the answer  
upvoted 5 times

✉  **techrat** Highly Voted  11 months, 2 weeks ago

The given answer is correct:

1. Azure SQL Database elastic pool
2. Business Critical

I had this case study on my exam today, and I passed it with 979

upvoted 11 times

✉  **BShelat** Most Recent ⓘ 4 months ago

Today (14-DEC-2023) I took the AZ-305 exam and passed. Thanks to Examtopics and all members who participated in discussing AZ-305 Questionnaire and answers. This site has helped me greatly. Majority questions I had in the exam are in this set. I had Litware Test case in the exam Thanks.

upvoted 8 times

✉  **joesatriani** 6 months, 2 weeks ago

What is different? <https://www.examtopics.com/discussions/microsoft/view/68044-exam-az-305-topic-9-question-1-discussion/>

upvoted 1 times

✉  **Darkeh** 8 months ago

Elastic and Business Critical for both questions... you should never use preview in prod, so you cannot choose managed instance!

upvoted 2 times

✉  **NotMeAnyWay** 9 months, 1 week ago

1. Database: c. An Azure SQL Database elastic pool
2. Service tier: b. Business Critical

Explanation:

An Azure SQL Database Elastic Pool is a shared resource model that enables higher resource utilization efficiency. It allows multiple databases to share the same resources, which will be beneficial in this case where there are two databases, DB1 and DB2, to be migrated.

Business Critical service tier provides high availability and low latency, and it is fully managed, which aligns with the business requirement to minimize administrative effort and the technical requirement to maintain availability if two availability zones fail. As you pointed out, the zone redundancy is still in preview for Managed Instances which can't guarantee the desired level of stability and reliability.

upvoted 9 times

✉  **firedog2023** 10 months ago

any thoughts on this please as zone redundancy is not supported for Azure SQL General Purpose. This would make it the most cost effective option above business critical.

<https://techcommunity.microsoft.com/t5/azure-sql-blog/zone-redundancy-for-azure-sql-database-general-purpose-tier/ba-p/3280376>

upvoted 1 times

✉  **Tr619899** 10 months, 3 weeks ago

1. Azure SQL Managed Instance for the database
2. Business Critical service tier

Azure SQL Managed Instance provides automatic failover within an availability zone and can be configured with auto-failover groups for cross-region disaster recovery. The Business Critical service tier provides high availability with several readable secondary replicas and fast failover within an availability zone. This configuration meets Litware's requirements for maintaining availability if two availability zones in the local Azure region fail, failing over automatically, and minimizing I/O latency.

An Azure SQL Database Elastic Pool is a cost-effective solution for managing and scaling multiple databases that have varying and unpredictable resource demands. However, based on the information provided in the case study, it does not appear to be the best option for meeting Litware's resiliency requirements for DB1 and DB2. Azure SQL Managed Instance would be a better choice for meeting these requirements.

upvoted 4 times

✉  **zellck** 1 year, 1 month ago

1. Azure SQL DB elastic pool
2. Business Critical

<https://learn.microsoft.com/en-us/azure/azure-sql/database/service-tiers-sql-database-vcore?view=azuresql#when-to-choose-this-service-tier-1>

The Business Critical service tier is designed for applications that require low-latency responses from the underlying SSD storage (1-2 ms in average) faster recovery if the underlying infrastructure fails, or need to off-load reports, analytics, and read-only queries to the free of charge readable secondary replica of the primary database.

The key reasons why you should choose Business Critical service tier instead of General Purpose tier are:

- Low I/O latency requirements – workloads that need a consistently fast response from the storage layer (1-2 milliseconds in average) should use Business Critical tier.

upvoted 3 times

✉  **zellck** 1 year, 1 month ago

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#premium-and-business-critical-service-tier-zone-redundant-availability>

With the introduction of Azure Availability Zones, SQL Database can place different replicas of the Business Critical database to different availability zones in the same region. To eliminate a single point of failure, the control ring is also duplicated across multiple zones as three gateway rings (GW). The routing to a specific gateway ring is controlled by Azure Traffic Manager (ATM). Because the zone-redundant configuration in the Premium or Business Critical service tiers doesn't create additional database redundancy, you can enable it at no extra cost. By selecting a zone-redundant configuration, you can make your Premium or Business Critical databases resilient to a much larger set of failures, including catastrophic datacenter outages, without any changes to the application logic.

upvoted 2 times

✉  **\_fvt** 1 year, 1 month ago

Database: "An Azure SQL Database elastic pool"

- Zone Redundancy still in Preview for Managed Instance so it's a no go

- You could have deployed two Azure Databases but here it is written "A SINGLE" so it's not working as you have two databases to migrate

Service Tier: "Business Critical"  
- as you need to minimize I/O latency  
upvoted 2 times

✉ **testgm** 1 year, 2 months ago

Answer:

Database: SQL Managed Instances  
Service Tier: Business Critical

SQL Managed Instance now supports zone redundancy  
upvoted 1 times

✉ **np2021** 1 year, 1 month ago

As at today, documentation still says its in PREVIEW only on BusCritical tier. I think its been raised before its not reliable as answer.  
upvoted 1 times

✉ **fodocel235** 4 months, 2 weeks ago

Today MI & Business Critical is General Available. MI & General Purpose is now in Public Preview.

Answer is MI Business Critical. It's cheaper than SQL Database Elastic Pool.

<https://learn.microsoft.com/en-us/azure/azure-sql/managed-instance/high-availability-sla?view=azuresql>  
upvoted 3 times

✉ **dagomo** 1 year, 2 months ago

Hello guys,  
I guess should be the following:  
> Database: "AZURE SQL MANAGED INSTANCE" - it can provide AUTO-FAILOVER  
> Service Tier: "Business Critical"  
upvoted 1 times

✉ **Lu5ck** 1 year, 2 months ago

The scenario ask for availability zone and I wanted to opt for MI Business Critical but zone redundant feature is in preview. Single Azure SQL Database doesn't make sense because we got two databases.

So the only option is actually elastic pool. So the answer is correct.  
upvoted 1 times

✉ **pkkalra** 1 year, 2 months ago

Single Azure SQL Database  
Business Critical

A single azure sql db for each db would meet the requirements.

You can't use an elastic pool unless you are aware of the load pattern of each db to make it worthwhile to use elastic db. There is no indication in the question to hint pool will be useful.

also there is no indication in the answer that single azure db has to be for both dbs. It can a single db for each - db1 and db2. Therefore Multi DB is question doesn't rule out a single azure db as potential answer.

upvoted 2 times

✉ **RandomNickname** 1 year, 2 months ago

SQL MI with Business critical seems to meet the resiliency and business requirement.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

<https://techcommunity.microsoft.com/t5/azure-sql-blog/zone-redundancy-for-azure-sql-managed-instance-business-critical/ba-p/3677646>  
upvoted 2 times

✉ **OPT\_001122** 1 year, 2 months ago

Database: "An Azure SQL Database elastic pool"  
Service Tier: "Business Critical"  
Reason as per my understanding -  
Zone-redundant configuration is not available in SQL Managed Instances  
Scenario:  
\* Resiliency Requirements. Once migrated to Azure, DB1 and DB2 must meet the following requirements:  
Maintain availability if two availability zones in the local Azure region fail.  
Fail over automatically.  
upvoted 2 times

✉ **gabmancuso** 11 months, 4 weeks ago

You are wrong in 2023... it seems ZRS is available and you can see how here: <https://techcommunity.microsoft.com/t5/azure-sql-blog/zone-redundancy-for-azure-sql-managed-instance-business-critical/ba-p/3677646#:~:text=1%20Step%201%3A%20Select%20Configure%20Managed%20Instance%20in,of%20the%20compatible%20redundancy%20options%20for%20backup%20storage%3A>  
upvoted 1 times

✉️  **StixxNSnares** 4 months, 2 weeks ago

Correct it is MI

<https://learn.microsoft.com/en-us/azure/reliability/migrate-sql-managed-instance?tabs=portal>

upvoted 1 times

✉️  **rpalanivel83** 1 year, 2 months ago

Answer:

Database : "Azure SQL Managed Instance"

Service Tier: "Business Critical"

Refer the benefits and Service tier sections here

<https://learn.microsoft.com/en-us/azure/azure-sql/managed-instance/sql-managed-instance-paas-overview?view=azuresql>

upvoted 2 times

**Introductory Info****Case Study -**

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**Overview -**

Contoso, Ltd. is a research company that has a main office in Montreal.

**Existing Environment: Technical Environment**

The on-premises network contains a single Active Directory domain named contoso.com.

Contoso has a single Azure subscription.

**Existing Environment: Business Partnerships**

Contoso has a business partnership with Fabrikam, Inc. Fabrikam users access some Contoso applications over the internet by using Azure Active Directory

(Azure AD) guest accounts.

**Requirements: Planned Changes -**

Contoso plans to deploy two applications named App1 and App2 to Azure.

**Requirements: App1 -**

App1 will be a Python web app hosted in Azure App Service that requires a Linux runtime. Users from Contoso and Fabrikam will access App1. App1 will access several services that require third-party credentials and access strings. The credentials and access strings are stored in Azure Key Vault.

App1 will have six instances: three in the East US Azure region and three in the West Europe Azure region.

App1 has the following data requirements:

Each instance will write data to a data store in the same availability zone as the instance.

Data written by any App1 instance must be visible to all App1 instances.

App1 will only be accessible from the internet. App1 has the following connection requirements:

Connections to App1 must pass through a web application firewall (WAF).

Connections to App1 must be active-active load balanced between instances.

All connections to App1 from North America must be directed to the East US region. All other connections must be directed to the West Europe region.

Every hour, you will run a maintenance task by invoking a PowerShell script that copies files from all the App1 instances. The PowerShell script will run from a central location.

**Requirements: App2 -**

App2 will be a .NET app hosted in App Service that requires a Windows runtime. App2 has the following file storage requirements:

Save files to an Azure Storage account.

Replicate files to an on-premises location.

Ensure that on-premises clients can read the files over the LAN by using the SMB protocol.

You need to monitor App2 to analyze how long it takes to perform different transactions within the application. The solution must not require

changes to the application code.

#### Application Development Requirements

Application developers will constantly develop new versions of App1 and App2. The development process must meet the following requirements:

A staging instance of a new application version must be deployed to the application host before the new version is used in production.

After testing the new version, the staging version of the application will replace the production version.

The switch to the new application version from staging to production must occur without any downtime of the application.

#### Identity Requirements -

Contoso identifies the following requirements for managing Fabrikam access to resources:

Every month, an account manager at Fabrikam must review which Fabrikam users have access permissions to App1. Accounts that no longer need permissions must be removed as guests.

The solution must minimize development effort.

#### Security Requirement -

All secrets used by Azure services must be stored in Azure Key Vault.

Services that require credentials must have the credentials tied to the service instance. The credentials must NOT be shared between services.

#### Question

DRAG DROP -

You need to recommend a solution that meets the file storage requirements for App2.

What should you deploy to the Azure subscription and the on-premises network? To answer, drag the appropriate services to the correct locations. Each service may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

#### Services

Azure Blob Storage

Azure Data Box

Azure Data Box Gateway

Azure Data Lake Storage

Azure File Sync

Azure Files

#### Answer Area

Azure subscription:

Service

On-premises network:

Service

**Correct Answer:**

**Services**

Azure Blob Storage

Azure Data Box

Azure Data Box Gateway

Azure Data Lake Storage

**Answer Area**

Azure subscription:

Azure Files

On-premises network:

Azure File Sync

Box 1: Azure Files -

Scenario: App2 has the following file storage requirements:

- Save files to an Azure Storage account.
- Replicate files to an on-premises location.
- Ensure that on-premises clients can read the files over the LAN by using the SMB protocol.

Box 2: Azure File Sync -

Use Azure File Sync to centralize your organization's file shares in Azure Files, while keeping the flexibility, performance, and compatibility of an on-premises file server. Azure File Sync transforms Windows Server into a quick cache of your Azure file share. You can use any protocol that's available on Windows Server to access your data locally, including SMB, NFS, and FTPS. You can have as many caches as you need across the world.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/file-sync/file-sync-deployment-guide>

✉  **airmancompsci** Highly Voted 1 year, 4 months ago

Took the AZ-305 on 12/7 and passed with a 935 only using this question bank (I have the Contributor access). I did not use AZ-304 or any other question bank.

I had this specific case study actually, in case knowing that helps anyone.

upvoted 43 times

✉  **OPT\_001122** 1 year, 2 months ago

Thanks for mentioning this!!!

upvoted 4 times

✉  **WickedMJ** Highly Voted 1 year, 6 months ago

> Azure Subscription: "Azure Files"  
> On-premises network: "Azure File Sync"

Reference:

<https://www.examtopics.com/discussions/microsoft/view/67817-exam-az-305-topic-8-question-1-discussion/>

upvoted 12 times

✉  **NotMeAnyWay** Most Recent 9 months, 1 week ago

Answer:

Azure subscription:  
- Azure Files

On-Premises network:  
- Azure File Sync

Explanation:

Azure Files would be suitable for saving files to an Azure Storage account as mentioned in the requirements for App2.

Azure File Sync will sync the Azure Files to the on-premises location, ensuring that on-premises clients can read the files over the LAN using the SMB protocol, which is also a requirement for App2. It extends on-premises systems into Azure storage while maintaining a local cache of the data on-premises.

upvoted 5 times

## Introductory Info

### Case Study -

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### Overview -

Contoso, Ltd. is a research company that has a main office in Montreal.

#### Existing Environment: Technical Environment

The on-premises network contains a single Active Directory domain named contoso.com.

Contoso has a single Azure subscription.

#### Existing Environment: Business Partnerships

Contoso has a business partnership with Fabrikam, Inc. Fabrikam users access some Contoso applications over the internet by using Azure Active Directory

(Azure AD) guest accounts.

### Requirements: Planned Changes -

Contoso plans to deploy two applications named App1 and App2 to Azure.

### Requirements: App1 -

App1 will be a Python web app hosted in Azure App Service that requires a Linux runtime. Users from Contoso and Fabrikam will access App1. App1 will access several services that require third-party credentials and access strings. The credentials and access strings are stored in Azure Key Vault.

App1 will have six instances: three in the East US Azure region and three in the West Europe Azure region.

App1 has the following data requirements:

Each instance will write data to a data store in the same availability zone as the instance.

Data written by any App1 instance must be visible to all App1 instances.

App1 will only be accessible from the internet. App1 has the following connection requirements:

Connections to App1 must pass through a web application firewall (WAF).

Connections to App1 must be active-active load balanced between instances.

All connections to App1 from North America must be directed to the East US region. All other connections must be directed to the West Europe region.

Every hour, you will run a maintenance task by invoking a PowerShell script that copies files from all the App1 instances. The PowerShell script will run from a central location.

### Requirements: App2 -

App2 will be a .NET app hosted in App Service that requires a Windows runtime. App2 has the following file storage requirements:

Save files to an Azure Storage account.

Replicate files to an on-premises location.

Ensure that on-premises clients can read the files over the LAN by using the SMB protocol.

You need to monitor App2 to analyze how long it takes to perform different transactions within the application. The solution must not require changes to the application code.

### Application Development Requirements

Application developers will constantly develop new versions of App1 and App2. The development process must meet the following

requirements:

A staging instance of a new application version must be deployed to the application host before the new version is used in production.

After testing the new version, the staging version of the application will replace the production version.

The switch to the new application version from staging to production must occur without any downtime of the application.

#### Identity Requirements -

Contoso identifies the following requirements for managing Fabrikam access to resources:

Every month, an account manager at Fabrikam must review which Fabrikam users have access permissions to App1. Accounts that no longer need permissions must be removed as guests.

The solution must minimize development effort.

#### Security Requirement -

All secrets used by Azure services must be stored in Azure Key Vault.

Services that require credentials must have the credentials tied to the service instance. The credentials must NOT be shared between services.

#### Question

You need to recommend a solution that meets the data requirements for App1.

What should you recommend deploying to each availability zone that contains an instance of App1?

- A. an Azure Cosmos DB that uses multi-region writes
- B. an Azure Data Lake store that uses geo-zone-redundant storage (GZRS)
- C. an Azure Storage account that uses geo-zone-redundant storage (GZRS)

#### Correct Answer: A

Scenario: App1 has the following data requirements:

- Each instance will write data to a data store in the same availability zone as the instance.
- Data written by any App1 instance must be visible to all App1 instances.

Azure Cosmos DB: Each partition across all the regions is replicated. Each region contains all the data partitions of an Azure Cosmos container and can serve reads as well as serve writes when multi-region writes is enabled.

Incorrect Answers:

B, D: GZRS protects against failures. Geo-redundant storage (with GRS or GZRS) replicates your data to another physical location in the secondary region to protect against regional outages. However, that data is available to be read only if the customer or Microsoft initiates a failover from the primary to secondary region.

C: Active geo-replication is designed as a business continuity solution that lets you perform quick disaster recovery of individual databases in case of a regional disaster or a large scale outage. Once geo-replication is set up, you can initiate a geo-failover to a geo-secondary in a different Azure region. The geo-failover is initiated programmatically by the application or manually by the user.

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/high-availability>

*Community vote distribution*

A (100%)

✉  **WickedMJ**  1 year, 6 months ago

**Selected Answer: A**

A. an Azure Cosmos DB that uses multi-region writes

Reference

<https://www.examtopics.com/discussions/microsoft/view/69314-exam-az-305-topic-8-question-2-discussion/>  
upvoted 12 times

✉  **NotMeAnyWay**  9 months, 1 week ago

**Selected Answer: A**

A. an Azure Cosmos DB that uses multi-region writes

Explanation:

The data requirements for App1 specify that each instance will write data to a data store in the same availability zone, and that data written by any App1 instance must be visible to all App1 instances.

Azure Cosmos DB with multi-region writes is a globally distributed database service. It allows you to read and write data (with automatic failover) in the region closest to the users, providing both low latency and high availability. This meets the requirements of App1, as it ensures that data written by any instance is visible to all instances regardless of the region.

Azure Data Lake and Azure Storage with GZRS do not natively support this type of active-active data replication across multiple regions.  
upvoted 6 times

**OPT\_001122** Most Recent ⓘ 1 year, 2 months ago

**Selected Answer: A**

A. an Azure Cosmos DB that uses multi-region writes  
upvoted 4 times

**Introductory Info****Case Study -**

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App2 will be a .NET app hosted in App Service that requires a Windows runtime. App2 has the following file storage requirements:

Save files to an Azure Storage account.

Replicate files to an on-premises location.

Ensure that on-premises clients can read the files over the LAN by using the SMB protocol.

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The solution must minimize development effort.

#### Security Requirement -

All secrets used by Azure services must be stored in Azure Key Vault.

Services that require credentials must have the credentials tied to the service instance. The credentials must NOT be shared between services.

#### Question

HOTSPOT -

You are evaluating whether to use Azure Traffic Manager and Azure Application Gateway to meet the connection requirements for App1.

What is the minimum numbers of instances required for each service? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Azure Traffic Manager:

1
2
3
6

Azure Application Gateway:

1
2
3
6

### Answer Area

Azure Traffic Manager:

1
2
3
6

Correct Answer:

Azure Application Gateway:

1
2
3
6

Box 1: 1 -

App1 will only be accessible from the internet. App1 has the following connection requirements:

Connections to App1 must be active-active load balanced between instances.  
All connections to App1 from North America must be directed to the East US region. All other connections must be directed to the West Europe region.  
App1 will have six instances: three in the East US Azure region and three in the West Europe Azure region.  
Note: Azure Traffic Manager is a DNS-based traffic load balancer. This service allows you to distribute traffic to your public facing applications across the global Azure regions.

Box 2: 2 -

For production workloads, run at least two gateway instances.

A single Application Gateway deployment can run multiple instances of the gateway.

Use one Application Gateway in East US Region, and one in the West Europe region.

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/high-availability/reference-architecture-traffic-manager-application-gateway>

✉  **WickedMJ** Highly Voted 1 year, 6 months ago

> Azure Traffic Manager: " 1 "  
> Azure Application Gateway: " 2 "  
upvoted 30 times

✉  **Dudulle** Highly Voted 1 year, 4 months ago

1  
2  
of course since:  
- traffic mgr is global  
- app GW is regional

2 regions imply: 1 TM and 2 app GW  
upvoted 20 times

✉  **johnD16** Most Recent 1 year ago

Showed in exam 18.03.2023. correct  
passed 940/1000  
upvoted 7 times

✉  **RandomNickname** 1 year, 2 months ago

Given answer is correct  
upvoted 2 times

✉  **heero** 1 year, 6 months ago

should be  
2  
1  
upvoted 1 times

✉  **ronsav80** 1 year, 6 months ago

From <https://learn.microsoft.com/en-us/azure/architecture/high-availability/reference-architecture-traffic-manager-application-gateway>, that has 1 traffic manager (for DNS responses) and 2 app gateways, so 1-2 seems right  
upvoted 9 times

✉  **StixxNShares** 4 months, 2 weeks ago

You are confusing the people with your answer. The correct one is 1,2  
upvoted 1 times

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**Overview -**

Litware, Inc. is a medium-sized finance company that has a main office in Boston.

**Existing Environment -****Identity Environment -**

The network contains an Active Directory forest named litware.com that is linked to an Azure Active Directory (Azure AD) tenant named litware.com. All users have Azure Active Directory Premium P2 licenses.

Litware has a second Azure AD tenant named dev.litware.com that is used as a development environment.

The litware.com tenant has a Conditional Access policy named Capolicy1. Capolicy1 requires that when users manage the Azure subscription for a production environment by using the Azure portal, they must connect from a hybrid Azure AD-joined device.

**Azure Environment -**

Litware has 10 Azure subscriptions that are linked to the Litware.com tenant and five Azure subscriptions that are linked to the dev.litware.com tenant. All the subscriptions are in an Enterprise Agreement (EA).

The litware.com tenant contains a custom Azure role-based access control (Azure RBAC) role named Role1 that grants the DataActions read permission to the blobs and files in Azure Storage.

**On-Premises Environment -**

The on-premises network of Litware contains the resources shown in the following table.

Name	Type	Configuration
SERVER1 SERVER2 SERVER3	Ubuntu 18.04 virtual machines hosted on Hyper-V	The virtual machines host a third-party app named App1. App1 uses an external storage solution that provides Apache Hadoop-compatible data storage. The data storage supports POSIX access control list (ACL) file-level permissions.
SERVER10	Server that runs Windows Server 2016	The server contains a Microsoft SQL Server instance that hosts two databases named DB1 and DB2.

## Network Environment -

Litware has ExpressRoute connectivity to Azure.

## Planned Changes and Requirements

### Planned Changes -

Litware plans to implement the following changes:

Migrate DB1 and DB2 to Azure.

Migrate App1 to Azure virtual machines.

Migrate the external storage used by App1 to Azure Storage.

Deploy the Azure virtual machines that will host App1 to Azure dedicated hosts.

▪

### Authentication and Authorization Requirements

Litware identifies the following authentication and authorization requirements:

Only users that manage the production environment by using the Azure portal must connect from a hybrid Azure AD-joined device and authenticate by using

Azure Multi-Factor Authentication (MFA).

The Network Contributor built-in RBAC role must be used to grant permissions to the network administrators for all the virtual networks in all the Azure subscriptions.

To access the resources in Azure, App1 must use the managed identity of the virtual machines that will host the app.

RBAC roles must be applied to management groups.

### Resiliency Requirements -

Litware identifies the following resiliency requirements:

Once migrated to Azure, DB1 and DB2 must meet the following requirements:

- Maintain availability if two availability zones in the local Azure region fail.
- Fail over automatically.
- Minimize I/O latency.

App1 must meet the following requirements:

- Be hosted in an Azure region that supports availability zones.
- Be hosted on Azure virtual machines that support automatic scaling.
- Maintain availability if two availability zones in the local Azure region fail.

### Security and Compliance Requirements

Litware identifies the following security and compliance requirements:

Once App1 is migrated to Azure, you must ensure that new data can be written to the app, and the modification of new and existing data is prevented for a period of three years.

On-premises users and services must be able to access the Azure Storage account that will host the data in App1.

Access to the public endpoint of the Azure Storage account that will host the App1 data must be prevented.

All Azure SQL databases in the production environment must have Transparent Data Encryption (TDE) enabled.

App1 must NOT share physical hardware with other workloads.

### Business Requirements -

Litware identifies the following business requirements:

Minimize administrative effort.

Minimize costs.

▪

### Question

#### HOTSPOT -

How should the migrated databases DB1 and DB2 be implemented in Azure?

Hot Area:

## Answer Area

Database:

A single Azure SQL database
Azure SQL Managed Instance
An Azure SOL Database elastic pool

Service tier:

Hyperscale
Business Critical
General Purpose

## Answer Area

Database:

A single Azure SQL database
Azure SQL Managed Instance
An Azure SOL Database elastic pool

Correct Answer:

Service tier:

Hyperscale
Business Critical
General Purpose

Box 1: SQL Managed Instance -

Scenario: Once migrated to Azure, DB1 and DB2 must meet the following requirements:

- Maintain availability if two availability zones in the local Azure region fail.
- Fail over automatically.
- Minimize I/O latency.

The auto-failover groups feature allows you to manage the replication and failover of a group of databases on a server or all databases in a managed instance to another region. It is a declarative abstraction on top of the existing active geo-replication feature, designed to simplify deployment and management of geo-replicated databases at scale. You can initiate a geo-failover manually or you can delegate it to the Azure service based on a user-defined policy. The latter option allows you to automatically recover multiple related databases in a secondary region after a catastrophic failure or other unplanned event that results in full or partial loss of the SQL Database or SQL Managed Instance availability in the primary region.

Box 2: Business critical -

SQL Managed Instance is available in two service tiers:

General purpose: Designed for applications with typical performance and I/O latency requirements.

Business critical: Designed for applications with low I/O latency requirements and minimal impact of underlying maintenance operations on the workload.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/auto-failover-group-overview> <https://docs.microsoft.com/en-us/azure/azure-sql/managed-instance/sql-managed-instance-paas-overview>

Elastic Pool.

Managed instance does not support zone redundancy

Zone-redundant configuration is not available in SQL Managed Instance. In SQL Database this feature is only available when the Gen5 hardware is selected.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

upvoted 38 times

✉  **DeBoer** 1 year, 1 month ago

We're talking about 2 DBs, so a single DB won't cut it. Managed Instances support zone redundancy in preview - so that's not something we'd want in production yet. Only option left: elastic pool. Makes sense since we're using 2 DBs.

Regarding the tier:

General Purpose fits the bill for zone redundancy - you can turn on Zone Redundancy in GP. However... they also want high IOPS (requirement 3). So that means Business Critical or Hyperscale (500 IOPS per vCore with 7,000 maximum IOPS in GP, 8,000 IOPS per vCore with 200,000 maximum in BC and Hyperscale has 327,680 IOPS with max local SSD).

I'm not sure if you can use Hyperscale with elastic pools (portal won't let me select it in my lab), so I'd go for Business Critical.

upvoted 10 times

✉  **StixxNSnares** 4 months, 2 weeks ago

Update - MI now supports ZR

<https://learn.microsoft.com/en-us/azure/reliability/migrate-sql-managed-instance?tabs=portal>

upvoted 4 times

✉  **GarryK** 1 year, 2 months ago

Updating my comment: now the feature is in preview, but for production and reduce administrative effort, i would still go with elastic pool:

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

This feature is currently in Preview for SQL Managed Instance. In SQL Database, when using the Business Critical tier, zone-redundant configuration is only available when the standard-series (Gen5) hardware is selected. For up to date information about the regions that support zone-redundant databases, see Services support by region.

upvoted 6 times

✉  **joesatriani** Highly Voted  6 months, 2 weeks ago

The following answer is right.

Database: An Azure SQL Database elastic pool

Service Tier: Business Critical

upvoted 5 times

✉  **kodjoa2024** Most Recent  3 weeks, 1 day ago

Elastic pool because the cost should be minimum. MI will be more expensive

upvoted 2 times

✉  **joesatriani** 6 months, 2 weeks ago

This is the same question. <https://www.examtopics.com/discussions/microsoft/view/82084-exam-az-305-topic-12-question-1-discussion/>

upvoted 2 times

✉  **Darkeh** 8 months ago

Elastic pool / business critical for both of the case study questions purely due to the redundancy requirement. You should NEVER use preview in prod!

upvoted 5 times

✉  **bd1234** 1 year, 1 month ago

1.SQL Managed Instance

2. Business Critical service tier

"Zone-redundant configuration is currently in preview for SQL Managed Instance, and only available for the Business Critical service tier."

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

upvoted 2 times

✉  **dagomo** 1 year, 2 months ago

Hello guys,

I guess is correct, should be the following:

> Database: "AZURE SQL MANAGED INSTANCE" - it can provide AUTO-FAILOVER

> Service Tier: "Business Critical"

upvoted 3 times

✉  **OPT\_001122** 1 year, 2 months ago

Question #1-Page47 - this question looks similar

for this question the answer is Elastic Pool now Why Single Azure SQL Database here?

I think GarryK is correct

upvoted 1 times

✉  **pkkalra** 1 year, 2 months ago

Single Azure SQL Database  
Business Critical

Indeed a repeated question IMHO

A single azure sql db for each db would meet the requirements.

You can't use an elastic pool unless you are aware of the load pattern of each db to make it worthwhile to use elastic db. There is no indication in the question to hint pool will be useful.

also there is no indication in the answer that single azure db has to be for both dbs. It can a single db for each - db1 and db2. Therefore Multi DB is question doesn't rule out a single azure db as potential answer.

upvoted 3 times

✉️  **EXzw** 1 year ago

in most of the answer it use Azure SQL Database. only this question it use "A Single Azure SQL Database". so I don't think it imply 1 SQL DB for each.

upvoted 1 times

✉️  **Madball** 1 year, 2 months ago

SQL Managed Instance does support zone redundancy, however you need to choose Gen5 hardware, so it all depends on when this question was released. One of the business requirements is to minimize cost, so elastic pool would be the preferred choice to minimize cost, however MI would work too.

upvoted 2 times

✉️  **Madball** 1 year, 2 months ago

Additional comments, General Purpose has zone redundancy on elastic pool too, so so the answer should be Elastic Pool and General Purpose.

upvoted 3 times

✉️  **Ghoshy** 1 year, 3 months ago

Yes, Azure SQL Managed Instance supports Zone Redundancy. Zone Redundancy is a feature that provides additional resiliency and availability for Azure SQL Managed Instance by replicating the data to a secondary region within the same geography. This allows you to maintain availability in the event of a region-wide failure or disaster.

To enable Zone Redundancy for your Azure SQL Managed Instance, you can specify the zone redundancy option when you create the instance. You can also enable or disable this feature later on by modifying the instance's properties.

It's important to note that Zone Redundancy is only available for Azure SQL Managed Instance in the General Purpose and Business Critical service tiers. It is not available for the Hyperscale service tier.

upvoted 2 times

✉️  **[Removed]** 1 year, 3 months ago

I think you are getting confused.

"Zone Redundancy is a feature that provides additional resiliency and availability for Azure SQL Managed Instance by replicating the data to a secondary region within the same geography" - Wrong.

See below correction:

Zone Redundancy is a feature that provides additional resiliency and availability for Azure SQL Managed Instance by replicating the data across multiple physical locations within an Azure region.

Note - "Physical Locations"

Meaning, your data is replicated to other availability zones within the same region. Hence "ZONE" Redundancy.

An availability zone consists of one or more data centers (physical locations).

upvoted 4 times

✉️  **RandomNickname** 1 year, 4 months ago

Agree with others.

Elastic Pool

Multi DB so not Azure SQL and as per below not SQL MI either

Business Critical

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell>

From above URL;

Premium and Business Critical service tier zone redundant availability

This feature is not available in SQL Managed Instance. In SQL Database, when using the Business Critical tier, zone-redundant configuration is only available when the standard-series (Gen5) hardware is selected. For up to date information about the regions that support zone-redundant databases, see Services support by region.

upvoted 4 times

✉️  **RandomNickname** 1 year, 2 months ago

Correction.

After a further look given answer looks correct.

SQL MI does support zone redundancy.

<https://techcommunity.microsoft.com/t5/azure-sql-blog/zone-redundancy-for-azure-sql-managed-instance-business-critical/ba-p/3677646>  
upvoted 3 times

✉️ **testtaker13** 1 year, 2 months ago

According to official docs <https://learn.microsoft.com/en-us/azure/azure-sql/database/features-comparison?view=azuresql#platform-capabilities> it is still in Preview. This means it is not official for the general public. Also I doubt that the test questions are updated on monthly basis for the latest feature updates. Not sure though, question is a bit tricky.

upvoted 2 times

✉️ **RandomNickname** 1 year, 2 months ago

Great point regarding preview mode, and the frequency of when the questions are updated.

There are usually assumptions with Microsoft.

I think I'll see which way the wind blows on the big day if this crops up :)

upvoted 2 times

✉️ **Fidel\_104** 1 month ago

As of today, zone-redundant config is generally available for the Business Critical tier:

"Zone-redundant configuration is in public preview for the General Purpose service tier and generally (sic) available for the Business Critical service tier."

Source: <https://learn.microsoft.com/en-us/azure/azure-sql/managed-instance/high-availability-sla?view=azuresql-mi&preserve-view=true>

upvoted 1 times

✉️ **Ravi1383** 1 year, 4 months ago

Questions is when DB1 and Db2 are already migrated to Azure! The given answers are correct and it's not a repeated question.

upvoted 2 times

✉️ **A\_GEE** 1 year, 4 months ago

The zone redundant availability is not available for SQL Managed Instance. So one of the requirements is not met

upvoted 2 times

✉️ **A\_GEE** 1 year, 4 months ago

Repeat questions

upvoted 3 times

✉️ **ezfix** 1 year, 6 months ago

"Azure SQL Database elastic pool" in the Premium and Business Critical service tiers of the Premium Availability model support both locally redundant and zone redundant availability. Premium and Business Critical service tier zone redundant availability is not available for SQL Managed Instance. Azure SQL Database with General Purpose supports zone redundant availability, but, the answer calls for "Single Azure SQL database", which won't work for this use case.

<https://azure.microsoft.com/en-gb/blog/azure-sql-database-now-offers-zone-redundant-premium-databases-and-elastic-pools/#:~:text=To%20take%20advantage%20of%20this%20capability%2C%20you%20simply,reconfigure%20the%20database%20or%20pool%20without%20any%20downtime.>

<https://learn.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla?view=azuresql&tabs=azure-powershell#premium-and-business-critical-service-tier-locally-redundant-availability>

upvoted 2 times

✉️ **Wolviet7** 1 year, 6 months ago

Business Critical service is available for managed instance with zone redundancy and auto failover. It is also cheaper than elastic pool...

upvoted 1 times

✉️ **Wolviet7** 1 year, 6 months ago

Sorry not zone redundant ... zone redundancy backup

upvoted 3 times

✉️ **ntobars** 1 year, 6 months ago

"Zone-redundant configuration is not available in SQL Managed Instance. In SQL Database this feature is only available when the Gen5 hardware is selected."

upvoted 3 times

**Introductory Info****Case Study -**

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

**To start the case study -**

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

**Overview -**

Fabrikam, Inc. is an engineering company that has offices throughout Europe. The company has a main office in London and three branch offices in Amsterdam, Berlin, and Rome.

**Existing Environment: Active Directory Environment**

The network contains two Active Directory forests named corp.fabrikam.com and rd.fabrikam.com. There are no trust relationships between the forests.

Corp.fabrikam.com is a production forest that contains identities used for internal user and computer authentication.

Rd.fabrikam.com is used by the research and development (R&D) department only. The R&D department is restricted to using on-premises resources only.

**Existing Environment: Network Infrastructure**

Each office contains at least one domain controller from the corp.fabrikam.com domain. The main office contains all the domain controllers for the rd.fabrikam.com forest.

All the offices have a high-speed connection to the internet.

An existing application named WebApp1 is hosted in the data center of the London office. WebApp1 is used by customers to place and track orders. WebApp1 has a web tier that uses Microsoft Internet Information Services (IIS) and a database tier that runs Microsoft SQL Server 2016. The web tier and the database tier are deployed to virtual machines that run on Hyper-V.

The IT department currently uses a separate Hyper-V environment to test updates to WebApp1.

Fabrikam purchases all Microsoft licenses through a Microsoft Enterprise Agreement that includes Software Assurance.

**Existing Environment: Problem Statements**

The use of WebApp1 is unpredictable. At peak times, users often report delays. At other times, many resources for WebApp1 are underutilized.

**Requirements: Planned Changes -**

Fabrikam plans to move most of its production workloads to Azure during the next few years, including virtual machines that rely on Active Directory for authentication.

As one of its first projects, the company plans to establish a hybrid identity model, facilitating an upcoming Microsoft 365 deployment.

All R&D operations will remain on-premises.

Fabrikam plans to migrate the production and test instances of WebApp1 to Azure.

**Requirements: Technical Requirements**

Fabrikam identifies the following technical requirements:

Website content must be easily updated from a single point.

User input must be minimized when provisioning new web app instances.

Whenever possible, existing on-premises licenses must be used to reduce cost.

Users must always authenticate by using their corp.fabrikam.com UPN identity.

Any new deployments to Azure must be redundant in case an Azure region fails.

Whenever possible, solutions must be deployed to Azure by using the Standard pricing tier of Azure App Service. An email distribution group named IT Support must be notified of any issues relating to the directory synchronization services. In the event that a link fails between Azure and the on-premises network, ensure that the virtual machines hosted in Azure can authenticate to Active Directory.

Directory synchronization between Azure Active Directory (Azure AD) and corp.fabrikam.com must not be affected by a link failure between Azure and the on-premises network.

#### Requirements: Database Requirements

Fabrikam identifies the following database requirements:

Database metrics for the production instance of WebApp1 must be available for analysis so that database administrators can optimize the performance settings.

To avoid disrupting customer access, database downtime must be minimized when databases are migrated.

Database backups must be retained for a minimum of seven years to meet compliance requirements.

#### Requirements: Security Requirements

Fabrikam identifies the following security requirements:

Company information including policies, templates, and data must be inaccessible to anyone outside the company.

Users on the on-premises network must be able to authenticate to corp.fabrikam.com if an internet link fails.

Administrators must be able authenticate to the Azure portal by using their corp.fabrikam.com credentials.

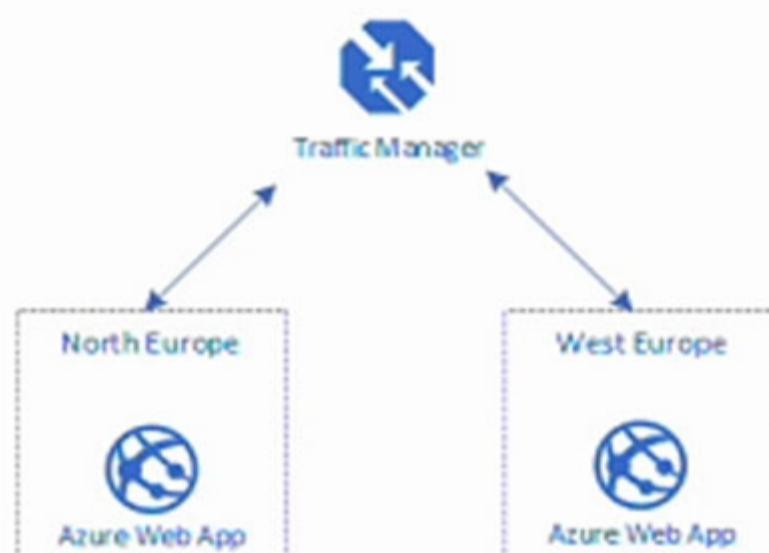
All administrative access to the Azure portal must be secured by using multi-factor authentication (MFA).

The testing of WebApp1 updates must not be visible to anyone outside the company.

#### Question

HOTSPOT -

You design a solution for the web tier of WebApp1 as shown in the exhibit.



For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Statements	Yes	No
<b>The design supports the technical requirements for redundancy.</b>	<input type="radio"/>	<input type="radio"/>
<b>The design supports autoscaling.</b>	<input type="radio"/>	<input type="radio"/>
<b>The design requires a manual configuration if an Azure region fails.</b>	<input type="radio"/>	<input type="radio"/>

Statements	Yes	No
<b>The design supports the technical requirements for redundancy.</b>	<input checked="" type="radio"/>	<input type="radio"/>
<b>Correct Answer:</b> <b>The design supports autoscaling.</b>	<input type="radio"/>	<input checked="" type="radio"/>
<b>The design requires a manual configuration if an Azure region fails.</b>	<input type="radio"/>	<input checked="" type="radio"/>

Box 1: Yes -  
Any new deployments to Azure must be redundant in case an Azure region fails.  
Traffic Manager is resilient to failure, including the failure of an entire Azure region.

Box 2: No -  
Traffic Manager provides load balancing, but not auto-scaling.

Box 3: No -  
Automatic failover using Azure Traffic Manager: when you have complex architectures and multiple sets of resources capable of performing the same function, you can configure Azure Traffic Manager (based on DNS) to check the health of your resources and route the traffic from the non-healthy resource to the healthy resource.

Reference:  
<https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-overview> <https://docs.microsoft.com/en-us/azure/networking/disaster-recovery-dns-traffic-manager>

✉  **ezfix** Highly Voted  1 year, 6 months ago

Should be Y,Y,N

(Yes) Traffic manager distributes load to two sites (redundancy). (Yes) The graphic clearly shows an "Azure Web App", which is production. By default, production web apps support auto scale. (No) Azure Traffic manager does automatic failover, so no manual configuration is necessary.

upvoted 56 times

✉  **Bartolo** Highly Voted  1 year, 6 months ago

YYN

"In this way, the App Service plan is the scale unit of the App Service apps. If the plan is configured to run five VM instances, then all apps in the plan run on all five instances. If the plan is configured for autoscaling, then all apps in the plan are scaled out together based on the autoscale settings."

<https://learn.microsoft.com/en-us/azure/app-service/overview-hosting-plans>

upvoted 10 times

✉  **Galon** 1 year, 5 months ago

YYN, with Std Web App plan you get autoscale vertical and horizontal.

<https://learn.microsoft.com/en-us/azure/app-service/manage-scale-up>

<https://azure.microsoft.com/en-us/pricing/details/app-service/windows/>

upvoted 3 times

✉  **manemanevski123** Most Recent  1 month ago

Y,Y,N

Autoscale now is working for webapps <https://learn.microsoft.com/nl-nl/azure/app-service/manage-automatic-scaling?tabs=azure-portal>

upvoted 1 times

✉  **SDiwan** 1 month, 2 weeks ago

Y, N,N

Auto scaling is only supported in Premium, also it is a preview feature (Feb 2024)

upvoted 1 times

✉  **ziggy1117** 4 months ago

Y,Y,N

"Whenever possible, solutions must be deployed to Azure by using the Standard pricing tier of Azure App Service."

- Standard Plan supports auto-scaling up to 10 instances.

upvoted 1 times

✉  **babakeyfgir** 4 months, 3 weeks ago

it was a exam Question

upvoted 2 times

✉  **jojorabbit2021** 7 months, 3 weeks ago

YNN , let's end the discussion guys:

1. Y for obvious reasons I can't bother explaining

2. N autoscaling web apps are in preview mode so you absolutely should not use this in production as of August 2023, PERIOD!  
3. N it will auto fail-over same behavior as with AWS route 53

upvoted 3 times

✉️ **sawanti** 7 months, 4 weeks ago

Should be Y N N:

Y - Redundancy is okay, we have two regions

N - Azure Web App means nothing. There are different plans in Azure App Plan. Plans Standard and above provides autoscale. Basic plan does not We can't assume they have Standard or Premium plan.

No - No auto failover

upvoted 1 times

✉️ **rishisoft1** 2 weeks, 5 days ago

Its std plan -- Standard pricing tier of Azure App Service. given in the case study. And it supports autoscaling

upvoted 1 times

✉️ **xRiot007** 4 weeks ago

"We can't assume they have Standard or Premium plan" - you don't need to.

You just need to read the actual problem and you will find out you are told specifically to deploy using Standard whenever possible.

upvoted 1 times

✉️ **marcellov** 6 months, 2 weeks ago

Yes, we can assume it is Standard plan.

"Whenever possible, solutions must be deployed to Azure by using the Standard pricing tier of Azure App Service."

upvoted 3 times

✉️ **sawanti** 7 months, 4 weeks ago

By third I meant that it should automatically failover

upvoted 1 times

✉️ **InvalidNickname** 8 months, 1 week ago

This Case Study was in Exam Aug 5th, 2023. For all questions go through the discussions. I got only 1 question from outside. Only 1 case study.

upvoted 5 times

✉️ **yonie** 11 months, 3 weeks ago

I think YYN

Same question as AZ-304

<https://www.examtopics.com/discussions/microsoft/view/49469-exam-az-304-topic-13-question-2-discussion/>

And the answer provided is YYN and all comment sections agrees.

So the problem is with the wording of the question? We all agree TM doesn't provide auto scale and webapp does, so its a question of whether you are looking at the design as a whole or only at TM. I am inclined towards design as a whole.

upvoted 1 times

✉️ **AdventureChick** 6 months, 3 weeks ago

All 3 statements specifically state "The design ... blah". The entire picture = the design. No problem here, and it's not ""a question of whether you look at the design as a whole or only TM".

upvoted 1 times

✉️ **Rogercampos** 1 year, 1 month ago

gentlemen I have counted the questions of this dump, from the first of the topic 1 to the last of T16 - 1 There are 202 questions and not 209, moderator at least tell the questions.

upvoted 4 times

✉️ **abxc** 1 year, 1 month ago

It should YYN.

Statement is asking if design supports autoscaling not if traffic manager supports it and in design they have Azure webapp that support autoscale.

upvoted 1 times

✉️ **RandomNickname** 1 year, 2 months ago

Y,Y,N.

1:Y - Traffic manager regional redundancy

2: Y - Sure traffic manager doesn't offer auto-scaling but Azure web app does offer Auto-scaling.

<https://learn.microsoft.com/en-us/azure/azure-monitor/autoscale/autoscale-get-started>

3: N - Traffic manager auto fails over.

upvoted 4 times

✉️ **dimsok** 1 year, 2 months ago

They are talking about the design though, and traffic manager doesn't support autoscale

upvoted 3 times

✉️ **honzar** 1 year, 3 months ago

Appeared 2023/01/04 in the exam

upvoted 6 times

✉️ **Ghoshy** 1 year, 3 months ago

The answer should be Y,Y,N . For Azure App Service, the requirement is talking about standard ones.

Yes, the Standard pricing tier of Azure App Service supports autoscaling. Autoscaling is a feature that automatically increases or decreases the number of instances of an app based on demand. This can help you to optimize the performance and cost of your app by ensuring that it has the right number of instances to handle the current workload.

To enable autoscaling for an Azure App Service app, you can use the Azure portal, Azure PowerShell, or the Azure CLI. You can specify the criteria that should trigger an increase or decrease in the number of instances, as well as the minimum and maximum number of instances that should be maintained. You can also specify the scale-out and scale-in rules, which determine how the number of instances should be changed in response to demand.

It's important to note that autoscaling is only available for the Standard and Premium pricing tiers of Azure App Service. It is not available for the Free, Shared, or Basic tiers.

upvoted 4 times

✉️ **Kay04** 1 year, 3 months ago

Y,Y,N

<https://azure.microsoft.com/en-gb/products/app-service/web/>

WebApp Built-in autoscale and load balancing

upvoted 3 times