

FRIENDSHIP DAY SALE IS ON 🔥 | FEW HOURS LEFT | BUY 2 & GET ADDITIONAL 25% OFF | Use Coupon - FRIENDS



SKILLCERTPRO

IT CERTIFICATION TRAININGS



Microsoft Azure / By SkillCertPro

AZ-305 Designing Microsoft Azure Infrastructure

Solutions Full Practice Sets

Total Questions: 1107 – 17 Mock Exams & 1

Master Cheat Sheet

Practice Set 1

Your results are here!! for " Microsoft Azure AZ-305 Practice Test 1 "

39 of 70 questions answered correctly

Your time: 04:24:03

Your Final Score is : 39

You have attempted : 70

Number of Correct Questions : 39 and scored 39

Number of Incorrect Questions : 31 and Negative marks 0

Average score

54.79%

Your score

55.71%

You can review your answers by clicking view questions.

Important Note : Open Reference Documentation Links in New Tab (Right Click and Open in New Tab).

[Restart Test](#)[View Answers](#)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68
69	70															

█ Answered █ Review

1. Question

You have an Azure subscription that contains below resources.

Name	Type
RG1	Resource Group
Store1	Azure Storage Account
Sync1	Azure File Sync

Store1 contains a file share named Data. Data contains 5,000 files. You need to synchronize the files in Data to an on-premises server named Server1. Which three actions should you perform?

Create a sync group and a cloud endpoint

Download an automation script

Register Server1

Install the Azure File Sync agent on Server1

Create a container instance

Correct

Step 1 : Install the Azure File Sync agent on Server1 The Azure File Sync agent is a downloadable package that enables Windows Server to be synced with an Azure file share

<https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide?tabs=azure-portal#install-the-azure-file-sync-agent> Step 2 : Register Server1. Register Windows Server with Storage Sync Service Registering your Windows Server with a Storage Sync Service establishes a trust relationship between your server (or cluster) and the Storage Sync Service.

<https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide?tabs=azure-portal#register-windows-server-with-storage-sync-service> Step 3 (B): Create a sync group and a cloud endpoint. A sync group defines the sync topology for a set of files. Endpoints within a sync group are kept in sync with each other. A sync group must contain one cloud endpoint, which represents an Azure file share and one or more server endpoints. A server endpoint represents a path on registered server.

<https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide?tabs=azure-portal#create-a-sync-group-and-a-cloud-endpoint>

2. Question

You have an Azure subscription that contains 10 virtual networks. The virtual networks are hosted in separate resource groups. Another administrator plans to create several network security groups (NSGs) in the subscription. You need to ensure that when an NSG is created, it automatically blocks TCP port 8080 between the virtual networks. You create a resource lock, and then you assign the lock to the subscription. Does this meet the goal?

Yes

No

Correct

There is way to do this with both ASM and ARM resources using Azure resource lock.

<https://blogs.msdn.microsoft.com/azureedu/2016/04/27/using-azure-resource-manager-policy-and-azure-lock-to-control-your-azure-resources/>

3. Question

You are developing a web app that uses a REST interface to connect to Azure Storage with HTTPS. This app uploads and streams video content that can be accessed from anywhere in the world. Below are the storage requirements for the app. – Stream video Content – Perform randomRead/Write Operations – Access application data from anywhere A hierarchical namespace must be created. Which storage services should you implement?

Azure Blobs

Azure File shares

Azure Table Storage

- Azure HDInsight

Correct

4. Question

You have an Azure subscription named Subscription1 that contains two Azure networks named VNet1 and VNet2. VNet1 contains a VPN gateway named VPNGW1 that uses static routing. There is a site-to-site VPN connection between your on-premises network and VNet1. On a computer named Client1 that runs Windows 10, you configure a point-to-site VPN connection to VNet1. You configure virtual network peering between VNet1 and VNet2. You verify that you can connect to VNet2 from the on-premises network. Client1 is unable to connect to VNet2. You need to ensure that you can connect Client1 to VNet2. How can you do this?

- Enable BGP on VPNGW1.
- Select Allow gateway transit on VNet1.
- Select Allow gateway transit on VNet2.
- Download and re-install the VPN client configuration package on Client1.

Correct

Point-to-Site certificate authentication connections require the following prerequisites: A Dynamic VPN gateway. The public key (.cer file) for a root certificate, which is uploaded to Azure. This key is considered a trusted certificate and is used for authentication. A client certificate generated from the root certificate, and installed on each client computer that will connect. This certificate is used for client authentication. A VPN client configuration package must be generated and installed on every client computer that connects. The client configuration package configures the native VPN client that's already on the operating system with the necessary information to connect to the VNet. <https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-about-point-to-site-routing>

5. Question

Your network contains an Active Directory forest named fabrikam.com. The forest contains two child domains named corp.fabrikam.com and research.fabrikam.com. You have an Azure subscription that contains an Azure Active Directory (Azure AD) tenant named contoso.com. You install Azure AD Connect and sync all the on-premises user accounts to the Azure AD tenant. You implement seamless single sign-on (SSO). You plan to change the source of authority for all the user accounts in research.fabrikam.com to Azure AD. You need to prevent research.fabrikam.com from resyncing to Azure AD. What should you do?

- You use the Azure AD Connect wizard.

You should customize the default synchronization rule.

From the Azure Active Directory admin center, you delete a custom domain.

You use Active Directory Domains and Trusts from a computer joined to fabrikam.com.

Correct

<https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-create-custom-sync-rule#recommended-steps>

6. Question

Kloudviva subscription has 250 virtual machines.

Kloudviva asks you to assist them in reducing their Azure spend by identifying idle and underutilized resources.

Which one of these would you use?

Metrics

Advisor

Customer insights

Monitor

Correct

Advisor helps you optimize and reduce your overall Azure spend by identifying idle and underutilized resources. You can get cost recommendations from the Cost tab on the Advisor dashboard.

<https://docs.microsoft.com/en-us/azure/advisor/advisor-cost-recommendations>

7. Question

You have an Azure subscription named Subscription1 that contains two Azure networks named VNet1 and VNet2. VNet1 contains a VPN gateway named VPNGW1 that uses static routing. There is a site-to-site VPN connection between your on-premises network and VNet1. On a computer named Client1 that runs Windows 10, you configure a point-to-site VPN connection to VNet1. You configure virtual network peering between VNet1 and VNet2. You verify that you can connect to VNet2 from the on-premises network. Client1 is unable to connect to VNet2. You need to ensure that you can connect Client1 to VNet2. What should you do?

Select Allow gateway transit on VNet2.

Enable BGP on VPNGW1.

Download and re-install the VPN client configuration package on Client1

- Select Allow gateway transit on VNet1

Correct

If you make a change to the topology of your network and have Windows VPN clients, the VPN client package for Windows clients must be downloaded and installed again in order for the changes to be applied to the client. <https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-about-point-to-site-routing>

8. Question

You have an Azure Active Directory (Azure AD) tenant named fabrikam.onmicrosoft.com. Your company has a public DNS zone for contoso.com. You add contoso.com as a custom domain name to Azure AD. You need to ensure that Azure can verify the domain name. Which type of DNS record should you create?

- SOA
- TXT
- PTR
- NSEC3

Correct

Adding custom domain names helps you to create user names that are familiar to your users, such as arun@kloudviva.com. <https://docs.microsoft.com/bs-latn-ba/azure/active-directory/fundamentals/add-custom-domain#add-your-custom-domain-name-to-azure-ad> The propagation from your domain registrar to Azure AD can be instantaneous or it can take a few days, depending on your domain registrar. To verify your custom domain name, follow the steps mentioned in below article
<https://docs.microsoft.com/bs-latn-ba/azure/active-directory/fundamentals/add-custom-domain#verify-your-custom-domain-name>

9. Question

Case Study

Overview

ProtectLives Insurance is an insurance company that has three offices in Berlin, Tokyo and Bangkok. Each office has 5,000 users.

Existing Environment

Active Directory Environment

ProtectLives Insurance has a single-domain Active Directory forest named ProtectLivesinsurance.com. The functional level of the forest is Windows Server 2012.

You recently provisioned an Azure Active Directory (Azure AD) tenant.

Network Infrastructure

Each office has a local data center that contains all the servers for that office. Each office has a dedicated connection to the Internet.

Each office has several link load balancers that provide access to the servers.

Active Directory Issue

Several users in ProtectLivesinsurance.com have UPNs that contain special characters.

You suspect that some of the characters are unsupported in Azure AD.

Licensing Issue

You attempt to assign a license in Azure to several users and receive the following error message:

“Licenses not assigned. License agreement failed for one user.”

You verify that the Azure subscription has the available licenses.

Requirements

Planned Changes

ProtectLives Insurance plans to open a new office in Paris. The Paris office will contain 1,000 users who will be hired during the next 12 months. All the resources used by the Paris office users will be hosted in Azure.

Planned Azure AD Infrastructure

The on-premises Active Directory domain will be synchronized to Azure AD.

All client computers in the Paris office will be joined to an Azure AD domain.

Planned Azure Networking Infrastructure

You plan to create the following networking resources in a resource group named All_Resources:

- Default Azure system routes that will be the only routes used to route traffic
- A virtual network named Paris-VNet that will contain two subnets named Subnet1 and Subnet2
- A virtual network named ClientResources-VNet that will contain one subnet named ClientSubnet
- A virtual network named AllOffices-VNet that will contain two subnets named Subnet3 and Subnet4

You plan to enable peering between Paris-VNet and AllOffices-VNet. You will enable the Use remote gateways setting for the Paris-VNet peerings.

You plan to create a private DNS zone named ProtectLivesinsurance.local and set the registration network to the ClientResources-VNet virtual network.

Planned Azure Computer Infrastructure

Each subnet will contain several virtual machines that will run either Windows Server 2012 R2, Windows Server 2016, or Red Hat Linux.

Department Requirements

ProtectLives Insurance identifies the following requirements for the company's departments:

- Web administrators will deploy Azure web apps for the marketing department. Each web app will be added to a separate resource group. The initial configuration of the web apps will be identical. The web administrators have permission to deploy web apps to resource groups.
- During the testing phase, auditors in the finance department must be able to review all Azure costs from the past week.

Authentication Requirements

Users in the Berlin office must use Azure Active Directory Seamless Single Sign-on (Azure AD Seamless SSO) when accessing resources in Azure.

Which blade should you instruct the finance department auditors to use?

Cost analysis

Partner information

Resource providers

Invoices

Correct

Invoices are available for a billing period and auditors may not be able to review Azure costs if the bill hasn't been generated yet. Therefore, Answer is A – Cost analysis

10. Question

You have an Azure Active Directory (Azure AD) tenant. You are the global administrator. You need to ensure that users accessing azure portal are only required to pass additional authentications after 14 days of their additional authentication from the devices they trust. How can you achieve this?

Define user risk policy on Azure AD Identity Protection

Define trusted IP from MFA Service settings

Configure Azure AD Identity Protection sign-in risk policy

Define remember Multi-factor authentication from MFA Service Settings

Incorrect

Defining remember Multi-factor authentication from MFA Service Settings will help you to achieve this.

<https://docs.microsoft.com/en-us/azure/active-directory/authentication/howto-mfa-mfasettings#remember-multi-factor-authentication>

11. Question

You have an Azure Active Directory (Azure AD) tenant. You have an existing Azure AD conditional access policy named Policy1. Policy1 enforces the use of Azure AD-joined devices when members of the Global Administrators group authenticate to Azure AD from untrusted locations. You need to ensure that members of the Global Administrators group will also be forced to use multi-factor authentication when authenticating from untrusted locations. What should you do?

- From the Azure portal, modify grant control of Policy1.
- From multi-factor authentication page, modify the service settings.
- From the Azure portal, modify session control of Policy1.
- From multi-factor authentication page, modify the user settings.

Incorrect

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview>
<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview#how-a-system-assigned-managed-identity-works-with-an-azure-vm>

12. Question

kloudviva has an Azure subscription that contains an Azure Active Directory (Azure AD) tenant named kloudviva.com. You are the global administrator. You are asked to enable Enterprise State Roaming for 10 privileged users of the organization. You observe that the options for Enterprise State Roaming are unavailable from Azure AD. You need to ensure that you can enable Enterprise State Roaming. How can you achieve this?

- Purchase an Azure AD Premium P1 license for 10 identified users
- Purchase an Azure Rights Management (Azure RMS) license for identified users
- Assign an Azure AD Privileged Identity Management (PIM) role to Global Admins
- Enforce Azure Multi-Factor Authentication (MFA) for all Global Admins

Correct

Enterprise State Roaming is available to any organization with an Azure AD Premium or Enterprise Mobility + Security (EMS) license. <https://docs.microsoft.com/bs-latn-ba/azure/active-directory/devices/enterprise-state-roaming-enable>

13. Question

You have an Azure subscription that contains a resource group named RG1. RG1 contains 150 virtual machines. Your company has three cost centers named Manufacturing, Sales, and Finance. You need to associate each virtual machine to a specific cost center. How can you achieve this?

- Add an extension to the virtual machines
- Modify the inventory settings of the virtual machine
- Assign tags to the virtual machines
- Configure locks for the virtual machine

Correct

Applying tags to Azure resources will help in logically organizing them into a taxonomy. Each tag consists of a name and a value pair. After you apply tags, you can retrieve all the resources in your subscription with that tag name and value. Tags enable you to retrieve related resources from different resource groups. This approach is helpful when you need to organize resources for billing or management.

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/tag-resources>

14. Question

You are the global administrator for an Azure Active Directory (Azure AD) tenant named adatum.com. You need to enable time-based and approval-based role activation to mitigate the risks of excessive, unnecessary, or misused access permissions on resources. How can you achieve this?

- Enable RBAC
- Distribute Secure hard tokens for admins
- Define conditional access policy
- Enable Azure Active Directory (Azure AD) Privileged Identity Management (PIM)

Incorrect

Azure Active Directory (Azure AD) Privileged Identity Management (PIM) is a service 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 like Office 365 or Microsoft Intune. <https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-configure> <https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-configure#what-does-it-do>

15. Question

You have an Azure subscription. You are planning data security for Azure resources. You need to ensure that the confidentiality of code on virtual machines must be protected while the code is being processed. Which feature should you use?

- Azure Container Service
- Azure Batch
- Azure Disk Encryption
- Azure Confidential Compute

Incorrect

Azure confidential computing protects your data while it's in use. It is the final piece to enable data protection through its lifecycle whether at rest, in transit, or in use. It is the cornerstone of Microsoft's 'Confidential Cloud' vision, which aims to make data and code opaque to the cloud provider.

<https://azure.microsoft.com/en-us/blog/protect-data-in-use-with-the-public-preview-of-azure-confidential-computing/>

16. Question

You have an Azure tenant that contains two subscriptions named Subscription1 and Subscription2. In Subscription1, you deploy a virtual machine named Server1 that runs Windows Server 2016. Server1 uses managed disks. You need to move Server1 to Subscription2. The solution must minimize administration effort. What should you do first?

- From Azure PowerShell, run the `Move-AzureRmResource` cmdlet
- In Subscription2, create a copy of the virtual disk
- Create a snapshot of the virtual disk
- Create a new virtual machine in Subscription2

Correct

To move existing resources to another resource group or subscription, use the `Move-AzureRmResource` cmdlet.

<https://docs.microsoft.com/en-in/azure/azure-resource-manager/resource-group-move-resources#move-resources>

17. Question

You are developing a speech-enabled home automation control bot. The bot interprets some spoken words incorrectly. You need to improve the spoken word recognition for the bot. What should you implement?

- The Cortana Channel and use scorable dialogs for improving conversation flow.
- The Skype for Business Channel and use scorable dialogs for improving conversation flow.
- The Skype Channel and use scorable dialogs for improving conversation flow.
- The Web Chat Channel and Speech priming using a Bing Speech Service and LUIS app.

Incorrect

18. Question

A company is migrating an existing on-premises third-party website to Azure. The website is stateless. The company does not have access to the source code for the website. They do not have the original installer. The number of visitors at the website varies throughout the year. The on-premises infrastructure was resized to accommodate peaks but the extra capacity was not used. You need to implement a virtual machine scale set instance. What should you do?

- Use an autoscale setting to scale instances vertically
- Use Azure Monitor to create autoscale settings using custom metrics
- Use a webhook to log autoscale failures
- Scale out by one instance when the average CPU usage of one of the instances is over 80 percent
- Use an autoscale setting with unlimited maximum number of instances
- Create 100 autoscale settings per resource

Incorrect

Azure Monitor autoscale can be used on Virtual Machine Scale Sets. <https://docs.microsoft.com/en-us/azure/azure-monitor/platform/autoscale-custom-metric>

19. Question

You have two Azure Active Directory (Azure AD) tenants named contoso.com and fabrikam.com. You have a Microsoft account that you use to sign in to both tenants. You need to configure the default sign-in tenant for the Azure portal. What should you do?

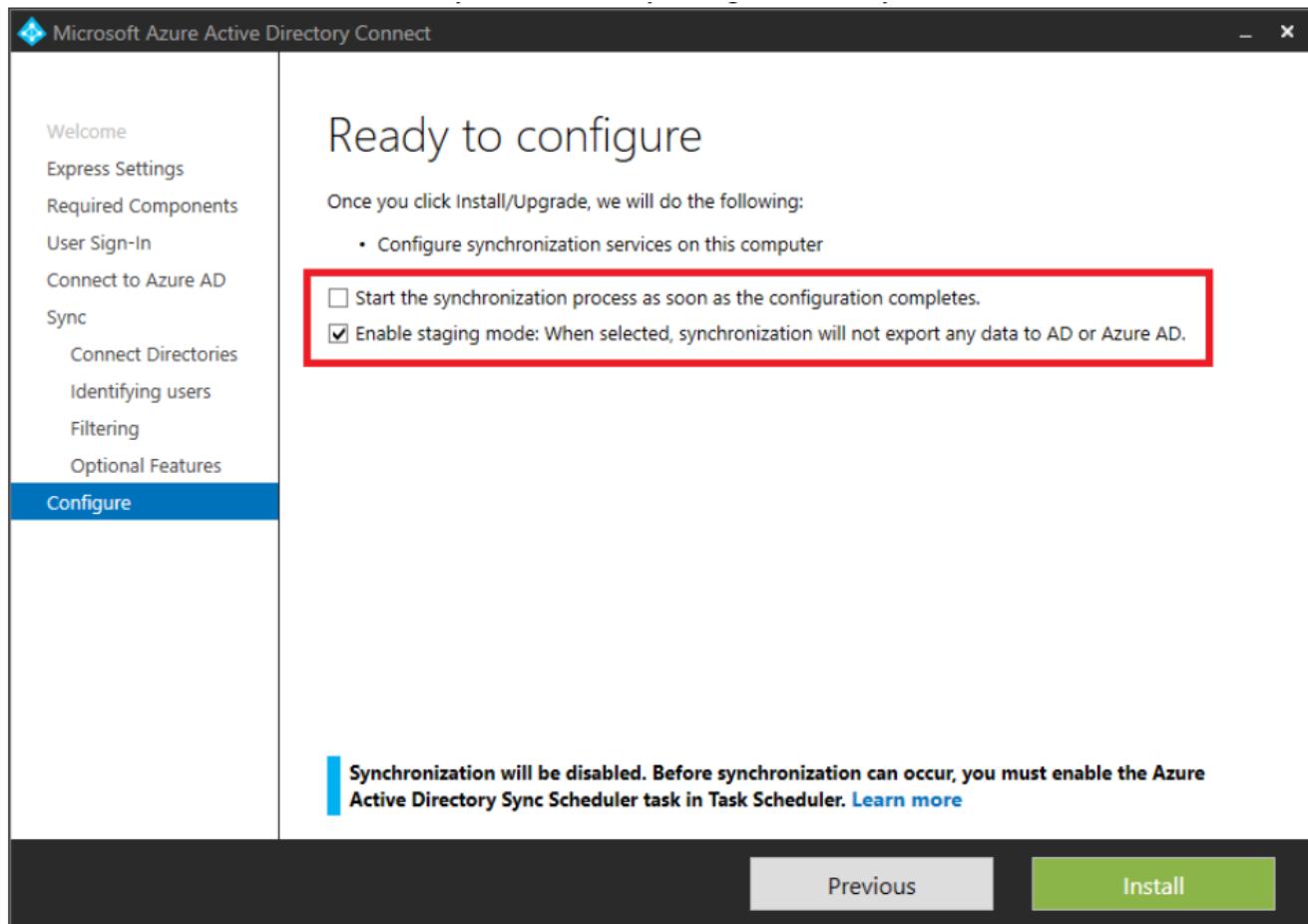
- From the Azure portal, change the directory
- From Azure Cloud Shell, run Set-AzureRmContext
- From Azure Cloud Shell, run Set-AzureRmSubscription
- From the Azure portal, configure the portal settings

Incorrect

Change the subscription directory in the Azure portal. The classic portal feature Edit Directory, that allows you to associate an existing subscription to your Azure Active Directory (AAD), is now available in Azure portal. It used to be available only to Service Admins with Microsoft accounts, but now it's available to users with AAD accounts as well. To get started: 1. Go to Subscriptions. 2. Select a subscription. 3. Select Change directory. <https://azure.microsoft.com/en-us/updates/edit-directory-now-in-new-portal/>

20. Question

You have an Active Directory forest named contoso.com. You install and configure AD Connect to use password hash synchronization as the single sign-on(SSO) method. Azure Ad Connect configuration shows below configs.



You review the synchronization results and discover that the Synchronization Service Manager does not display any sync jobs. You need to ensure that the synchronization completes successfully. What should you do?

- From Azure PowerShell, run Start-AdSyncSyncCycle -policyType Initial.
- Run Azure AD Connect and disable staging mode.
- From Synchronization Service Manager, run a full import.

- Run Azure AD Connect and set the SSO method to Pass-through Authentication

Correct

Run the installation wizard on the server in staging mode and disable staging mode.

<https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-sync-staging-server#switch-active-server>

21. Question

Your company has offices in New York and Los Angeles. You have an Azure subscription that contains an Azure virtual network named VNet1. Each office has a site-to-site VPN connection to VNet1. Each network uses the address spaces shown below

Location	IP Address space
VNet1	192.168.0.0/20
New York	10.0.0.0/16
Los Angeles	10.10.0.0/16

You need to ensure that all Internet-bound traffic from VNet1 is routed through the New York office. What cmdlet do you choose to run?

- New-AzureRmVirtualNetworkGatewayConnection
- New-AzureRmLocalNetworkGatewayConnection
- New-AzureRmLocalNetworkGateway
- Set-AzureRmVirtualNetworkGatewayDefaultSite

Incorrect

The Set-AzureRmVirtualNetworkGatewayDefaultSite cmdlet assigns a forced tunneling default site to a virtual network gateway. Forced tunneling provides a way for you to redirect Internet-bound traffic from Azure virtual machines to your on-premises network; this enables you to inspect and audit traffic before releasing it. Forced tunneling is carried out by using a virtual private network (VPN) tunnel; this tunnel requires a default site, a local gateway where all the Azure Internet-bound traffic is redirected. Set-AzureRmVirtualNetworkGatewayDefaultSite provides a way to change the default site assigned to a gateway. <https://docs.microsoft.com/en-us/powershell/module/azurerm.network/set-azurermvirtualnetworkgatewaydefaultsite?view=azurermps-6.13.0#description>

22. Question

You plan to use the Azure Import/Export service to copy files to a storage account. Which two files should you create before you prepare the drives for the import job?

a PowerShell PS1 file

a driveset CSV file

a JSON configuration file

an XML manifest file

a dataset CSV file

Correct

<https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-data-to-files#step-1-prepare-the-drives> Modify the dataset.csv file in the root folder where the tool resides. Depending on whether you want to import a file or folder or both, add entries in the dataset.csv file. Modify the driveset.csv file in the root folder where the tool resides. The driveset file has the list of disks and corresponding drive letters so that the tool can correctly pick the list of disks to be prepared.

23. Question

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

Name	Address space	Location	Number of Azure virtual machines
VNET1	10.1.0.0/16	West US	100
VNET2	172.16.0.0/16	East US	400

You need to recommend a connectivity solution that will enable the virtual machines on VNET1 and VNET2 to communicate through the Microsoft backbone infrastructure. What should you include in the recommendation?

A Point-to-Site VPN

Azure ExpressRoute

A Site-to-Site VPN

Peering

Incorrect

Peering enables you to seamlessly connect Azure virtual networks. Once peered, the virtual networks appear as one, for connectivity purposes. The traffic between virtual machines in the peered virtual networks is routed through the Microsoft backbone infrastructure, much like traffic is routed between virtual machines in the same virtual network, through private IP addresses only. Azure supports: VNet

peering – connecting VNets within the same Azure region Global VNet peering – connecting VNets across Azure regions <https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-peering-overview#connectivity>

24. Question

Case Study

Overview

ADatum Corporation is a financial company that has two main offices in New York and Los Angeles.

ADatum has a subsidiary named Fabrikam, Inc. that shares the Los Angeles office.

ADatum is conducting an initial deployment of Azure services to host new line-of-business applications and is preparing to migrate its existing on-premises workloads to Azure.

ADatum uses Microsoft Exchange Online for email.

Existing Environment

On-Premises Environment

The on-premises workloads run on virtual machines hosted in a VMware vSphere 6 infrastructure. All the virtual machines are members of an Active Directory forest named adatum.com and run Windows Server 2016.

The New York office uses an IP address space of 10.0.0.0/16. The Los Angeles office uses an IP address space of 10.10.0.0/16.

The offices connect by using a VPN provided by an ISP. Each office has one Azure ExpressRoute circuit that provides access to Azure services and Microsoft Online Services. Routing is implemented by using Microsoft peering.

The New York office has a virtual machine named VM1 that has the vSphere console installed.

Azure Environment

You provision the Azure infrastructure by using the Azure portal. The infrastructure contains the resources shown in the following table.

Name	Type	Azure Region
ASRV1	Azure Site Recovery vault	East US
ASRV2	Azure Site Recovery vault	West US
ASE1	Azure App Service Environment	East US
AG1	Azure Application Gateway (internal)	East US
AG2	Azure Application Gateway (Internet-facing)	West US
ER1	ExpressRoute circuit	East US
ER2	ExpressRoute circuit	West US

AG1 has two backend pools named Pool11 and Pool12. AG2 has two backend pools named Pool21 and Pool22.

Requirements

Planned Changes

ADatum plans to migrate the virtual machines from the New York office to the East US Azure region by using Azure Site Recovery.

Infrastructure Requirements

ADatum identifies the following infrastructure requirements:

- A new web app named App1 that will access third-parties for credit card processing must be deployed.
- A newly developed API must be implemented as an Azure function named App2. App2 will use a blob storage trigger. App2 must process new blobs immediately.
- The Azure infrastructure and the on-premises infrastructure must be prepared for the migration of the VMware virtual machines to Azure.
- The sizes of the Azure virtual machines that will be used to migrate the on-premises workloads must be identified.
- All migrated and newly deployed Azure virtual machines must be joined to the adatum.com domain.
- AG1 must load balance incoming traffic in the following manner:
 - http://corporate.adatum.com/video/* will be load balanced across Pool11.
 - http://corporate.adatum.com/images/* will be load balanced across Pool12.
- AG2 must load balance incoming traffic in the following manner:
 - <http://www.adatum.com> will be load balanced across Pool21.
 - <http://fabrikam.com> will be load balanced across Pool22.
- ER1 must route traffic between the New York office and platform as a service (PaaS) services in the East US Azure region, as long as ER1 is available.
- ER2 must route traffic between the Los Angeles office and the PaaS services in the West US region, as long as ER2 is available.
- ER1 and ER2 must be configured to fail over automatically.

Application Requirements

App2 must be available to connect directly to the private IP addresses of the Azure virtual machines. App2 will be deployed directly to an Azure virtual network.

Inbound and outbound communications to App1 must be controlled by using NSGs.

Pricing Requirements

ADatum identifies the following pricing requirements:

- The cost of App1 and App2 must be minimized
- The transactional charges of Azure Storage accounts must be minimized

You need to identify the appropriate sizes for the Azure virtual machines.

Which five actions should you perform in sequence?

- From VM1, connect to the collector virtual machine and run the Azure Site Recovery deployment planner.
- From the Azure portal, create an Azure Migrate project.
- From the Azure portal, download an OVA file.
- From the Azure portal, create an Azure Migrate assessment.
- From VM1, connect to the collector virtual machine and run the Azure Migrate Collector.
- From VM1, run the Deploy OVF Template wizard.

Incorrect

25. Question

Your network contains an Active Directory domain that is synced to Azure Active Directory (Azure AD) as shown below

Microsoft Azure Active Directory Connect

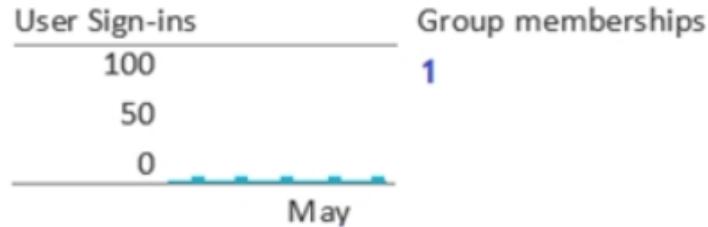
Welcome	Synchronized Directories
Tasks	DIRECTORY Adatum.com
Review your solution	ACCOUNT ADATUM.COM\MSOL_f14cd290d9f55
Synchronization Settings	
SOURCE ANCHOR	USER PRINCIPAL NAME
mS-DS-ConsistencyGuid	userPrincipalName
SYNC CRITERIA	FILTER OBJECTS TO SYNCHRONIZE BY GROUP
AlwaysProvision	Disabled
AZURE AD APP AND ATTRIBUTE FILTERING	DEVICE WRITEBACK
Disabled	Disabled
DIRECTORY EXTENSION ATTRIBUTE SYNC	EXCHANGE HYBRID DEPLOYMENT
Disabled	Disabled
GROUP WRITEBACK	PASSWORD HASH SYNCHRONIZATION
Disabled	Enabled
PASSWORD WRITEBACK	USER WRITEBACK
Disabled	Disabled
AUTO UPGRADE	EXCHANGE MAIL PUBLIC FOLDERS
Enabled	Disabled
SQL SERVER NAME (localdb)	SQL SERVER INSTANCE NAME .\\ADSync

[Previous](#) [Exit](#)

Adam hobbs is a Manager. Adam's configurations are below for your reference.

Adam Hobbs

Adam@sk181125.onmicrosoft.com



Identity

Name	First name	Last name
Adam Hobbs	Adam	Hobbs
User name	User type	
Adam@sk181125.onm...	Member	
Object ID	Source	
10ba919a-e02e...		Windows Server AD

Job info

Job title	Department	Manager
---	Managers	

Settings edit

Block sign in	Usage location
No	

Contact info

Street address	State or province	Country or region	Office
---	---	---	---
City	ZIP or postal code	Office phone	Mobile phone
London	---	---	---

Can an Administrator modify Adam's job title from Azure Portal?

No

Yes

Correct

26. Question

You have an Azure subscription that contains the storage accounts shown below.

Name	Contains
StorageContoso1	A Blob Service and a table service
StorageContoso2	A Blob Service and a file service
StorageContoso3	A queue Service
StorageContoso4	A file service and a queue service
StorageContoso5	A table service

You enable Azure Advanced Threat Protection (ATP) for all the storage accounts. Which two storage accounts will generate Azure ATP alerts.

- StorageContoso4
- StorageContoso3
- StorageContoso5
- StorageContoso1
- StorageContoso2

Incorrect

Advanced threat protection for Azure Storage provides an additional layer of security intelligence that detects unusual and potentially harmful attempts to access or exploit storage accounts. Advanced threat protection for Azure Storage is currently available only for Blob storage. It is not available in Azure government and sovereign cloud regions. <https://docs.microsoft.com/en-us/azure/storage/common/storage-advanced-threat-protection?tabs=azure-portal>

27. Question

You plan to deploy an Azure virtual machine named VM1 by using an Azure Resource Manager template. You need to complete the template. Fill in the missing spaces of template?

```
{  
  "type": "Microsoft.Compute/virtualMachines",  
  "apiVersion": "2018-10-01",  
  "name": "VM1",  
  "location": "[parameters('location')]",  
  "dependsOn": [  
    "[resourceId('Microsoft.Storage/storageAccounts/', variables('Name3'))]",  
    "[resourceId(_____, variables('Name4'))]"  
  ],  
  
{  
  "type": "Microsoft.Network/networkInterfaces",  
  "apiVersion": "2018-11-01",  
  "name": "[variables('nicName')]",  
  "location": "[parameters('location')]",  
  "dependsOn": [  
    "[resourceId('Microsoft.Network/publicIPAddresses/', variables('Name1'))]",  
    "[resourceId(_____, variables('Name2'))]"  
  ],
```

- Microsoft.Network/publicIPAddresses/
- Microsoft.Storage/storageAccounts/
- Microsoft.Network/virtualNetworks/
- Microsoft.Network/networkInterfaces/

Correct

Refer below ARM template to deploy a virtual machine <https://docs.microsoft.com/en-us/azure/virtual-machines/windows/ps-template#create-a-virtual-machine> Virtual Machine depends on two resources

Microsoft.Storage/storageAccounts Microsoft.Network/networkInterfaces { “type”: “Microsoft.Compute/virtualMachines”, “apiVersion”: “2018-10-01”, “name”: “VM1”, “location”: “[parameters('location')]”, “dependsOn”: [“[resourceId(‘Microsoft.Storage/storageAccounts/’, variables(‘Name3’))”, “[resourceId(‘Microsoft.Network/networkInterfaces/’, variables(‘Name4’))]”] }, The dependsOn element enables you to define one resource as a dependent on one or more resources. The resource depends on two other resources: Microsoft.Network/publicIPAddresses Microsoft.Network/virtualNetworks { “type”: “Microsoft.Network/networkInterfaces”, “apiVersion”: “2018-11-01”, “name”: “[variables(‘nicName’)]”, “location”: “[parameters(‘location’)]”, “dependsOn”: [“[resourceId(‘Microsoft.Network/publicIPAddresses/’, variables(‘Name1’))”, “[resourceId(‘Microsoft.Network/virtualNetworks/’, variables(‘Name2’))]”] }, <https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/template-tutorial-create-templates-with-dependent-resources>

28. Question

You have an Azure subscription that contains 10 virtual machines. You need to ensure that you receive an email message when any virtual machines are powered off, restarted, or deallocated. What is the minimum number of rules and action groups that you require?

- one rule and three action groups
- Three rules and one action group
- Three rules and three action groups
- one rule and one action group

Correct

We need a separate rule for each condition. We also need a separate action group for each action type that we want to fire when the rule is met. In this scenario we have three conditions (when any virtual machines are powered off, restarted, or deallocated) and one action type (you are sent an email message). <https://docs.microsoft.com/en-us/azure/azure-monitor/platform/alerts-action-rules>
<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/alerts-metric-overview>
<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/action-groups>

29. Question

Your company has offices in New York and Los Angeles. You have an Azure subscription that contains an Azure virtual network named VNet1. Each office has a site-to-site VPN connection to VNet1. Each network uses the address spaces shown below

Location	IP Address space
VNet1	192.168.0.0/20
New York	10.0.0.0/16
Los Angeles	10.10.0.0/16

You need to ensure that all Internet-bound traffic from VNet1 is routed through the New York office. What traffic selectors do you set in New York office's VPN device?

- 10.10.0.0/16
- 10.0.0.0/16
- 0.0.0.0/0
- 192.168.0.0/20

Incorrect

The Set-AzureRmVirtualNetworkGatewayDefaultSite cmdlet assigns a forced tunneling default site to a virtual network gateway. Forced tunneling provides a way for you to redirect Internet-bound traffic from Azure virtual machines to your on-premises network; this enables you to inspect and audit traffic before releasing it. Forced tunneling is carried out by using a virtual private network (VPN) tunnel; this tunnel requires a default site, a local gateway where all the Azure Internet-bound traffic is redirected. Set-AzureRmVirtualNetworkGatewayDefaultSite provides a way to change the default site assigned to a gateway. <https://docs.microsoft.com/en-us/powershell/module/azurerm.network/set-azurermvirtualnetworkgatewaydefaultsite?view=azurermps-6.13.0#description>

30. Question

You have configured Azure AD Connect for Azure Active Directory Seamless Single Sign-On (Azure AD Seamless SSO) for an on-premises network. Users report that when they attempt to access myapps.microsoft.com, they are prompted multiple times to sign in and are forced to use an account name that ends with onmicrosoft.com. You discover that there is a UPN mismatch between Azure AD and the on-premises Active Directory. You need to ensure that the users can use single-sign on (SSO) to access Azure resources. What should you do first?

- From Azure AD, add and verify a custom domain name
- From the on-premises network, deploy Active Directory Federation Services (AD FS)
- From the server that runs Azure AD Connect, modify the filtering options
- From the on-premises network, request a new certificate that contains the Active Directory domain name.

Incorrect

Verify your domain name under custom domain names registered. Propagation from your domain registrar to Azure AD can be instantaneous or it can take a few days, depending on your domain registrar. Follow the steps mentioned in below article <https://docs.microsoft.com/bs-latn-ba/azure/active-directory/fundamentals/add-custom-domain#verify-your-custom-domain-name>

31. Question

You have an Azure subscription named Subscription1. In Subscription1, you create an alert rule named Alert1. The Alert1 action group is configured as shown below

```
PS Azure:> Get-AzureRmActionGroup
```

```
ResourceGroupName: default-activitylogalerts
GroupShortName: AG1
Enabled: True
EmailReceivers: {Action1_-EmailAction-}
SmsReceivers: {Action1_-SMSAction-}
WebhookReceivers: {}
Id: /subscriptions/a4fde29b-d56a-4f6c-8298-6c53cd0b720c/resourceGroups/default-activitylogalerts/providers/microsoft.insights/actionGroups/ActionGroup1
Name: ActionGroup1
Type: Microsoft.Insights/ActionGroups
Location: Global
Tags: {}
```

Alert1 alert criteria is triggered every minute. How many SMS notifications are sent by Alert1 in an hour?

- 60
- 4
- 6
- 12

Incorrect

No more than 1 SMS every 5 minutes can be send, which equals 12 per hour. Rate limiting is a suspension of notifications that occurs when too many are sent to a particular phone number, email address or device. Rate limiting ensures that alerts are manageable and actionable. The rate limit thresholds are: SMS: No more than 1 SMS every 5 minutes. Voice: No more than 1 Voice call every 5 minutes. Email: No more than 100 emails in an hour. <https://docs.microsoft.com/en-us/azure/azure-monitor/platform/alerts-rate-limiting>

32. Question

You have an Azure subscription that contains below resources

Name	Type	Address space
VNET1	Virtual network	10.1.1.0/24
Subnet1	Subnet	10.1.1.0/24
VM1	Virtual machine	Not applicable

Subnet1 is on VNET1. VM1 connects to Subnet1.

You plan to create a virtual network gateway on VNET1.

You need to prepare the environment for the planned virtual network gateway.

What are two ways to achieve this goal?

Modify the address space used by VNET1.

Modify the address space used by Subnet1.

Create a subnet named GatewaySubnet on VNET1.

Create a local network gateway.

Delete Subnet1.

Incorrect

A. Modify the address space used by VNET1 >>> an option

B. Modify the address space used by Subnet1 >>> not an option as you can't modify subnet address after creating it, you can only delete the whole subnet.

C. Create a subnet named GatewaySubnet on VNET1 >>> this is an implementation step for the GW and the question asking for preparation steps, not implementation steps.

D. Create a local network gateway. >>> >> this is an implementation step for the GW and the question asking for preparation steps, not implementation steps

E. Delete Subnet1. >> an option (as then you have free space to create the GatewaySubnet and also you can later create small subnet for the VMs)

33. Question

You have a resource group named RG1. RG1 contains an Azure Storage account named storageaccount1 and a virtual machine named VM1 that runs Windows Server 2016. Storageaccount1 contains the disk files for VM1. You apply a ReadOnly lock to RG1. What can you do from the Azure portal?

generate an automation script for RG1

Start VM1

Upload a blob to storageaccount1

View the keys of storageaccount1

Correct

Well, if the question ReadOnly lock is working on RG1, then here need automation script. So option A is correct. But if the question is ReadOnly lock to Storageaccount1, option D is correct. Therefore, check the question carefully when doing the exam.

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/lock-resources#how-locks-are-applied>

34. Question

You have an Azure subscription that contains the resources shown below

Name	Type	Size
ILB1	Internal Load Balancer	Basic
ELB1	External Load Balancer	Standard
AGW1	Azure Application Gateway that has Web Application Firewall (WAF) enabled	Standard
AGW2	Azure Application Gateway	Standard_v2

You need to deploy a load-balancing solution for Azure web app named App2 to meet the following requirements: App2 must be able to use a static public IP address. Which resource should you use as the load-balancing solution for App2?

- AGW1
- AGW2
- ELB1
- ILB1

Correct

Public IP addresses allow Internet resources to communicate inbound to Azure resources. Public IP addresses also enable Azure resources to communicate outbound to Internet and public-facing Azure services with an IP address assigned to the resource. Note: In Azure Resource Manager, a public IP address is a resource that has its own properties. Some of the resources you can associate a public IP address resource with are: Virtual machine network interfaces Internet-facing load balancers VPN gateways Application gateways <https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-ip-addresses-overview-arm>

35. Question

You have an Azure subscription named Subscription1. Subscription1 contains a virtual machine named VM1. You install and configure a web server and a DNS server on VM1. VM1 has the effective network

security rules shown below

Network Interface: vm1900		Effective security rules	Topology	Virtual network/subnet: VMRG-vnet/default	Public IP: 104.40.215.211	Private IP: 10.0.0.5	Accelerated networking: Disabled
----------------------------------	--	--------------------------	----------	--	----------------------------------	-----------------------------	---

INBOUND PORT RULES 1

Network security group VM1-nsg (attached to network interface: vm1900)	Add inbound port rule
Impacts 0 subnets, 1 network interfaces	

PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINATION	ACTION	...
900	Rule2	50-60	Any	Any	Any	✖ Deny	...
1000	default-allow-rdp	3389	TCP	Any	Any	✓ Allow	...
1010	Rule1	50-500	TCP	Any	Any	✓ Allow	...
65000	AllowVnetInBound	Any	Any	VirtualNet...	VirtualNet...	✓ Allow	...
65001	AllowAzureLoadBalanc...	Any	Any	AzureLoad...	Any	✓ Allow	...
65500	DenyAllInBound	Any	Any	Any	Any	✖ Deny	...

OUTBOUND PORT RULES 1

Network security group VM1-nsg (attached to network interface: vm1900)	Add outbound port
Impacts 0 subnets, 1 network interfaces	

PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINATION	ACTION	...
1000	Rule3	80	Any	Any	Any	✖ Deny	...
65000	AllowVnetOutBound	Any	Any	VirtualNet...	VirtualNet...	✓ Allow	...
65001	AllowInternetOutBou...	Any	Any	Any	Internet	✓ Allow	...
65500	DenyAllOutBound	Any	Any	Any	Any	✖ Deny	...

Which service on VM1 is accessible to users from internet?

<input checked="" type="radio"/> Web Server
<input type="radio"/> DNS
<input type="radio"/> Users cannot connect to any services of VM1
<input type="radio"/> WINS

Correct

Users from internet can connect to Web Server Rule2 blocks ports 50-60, which includes port 53, the DNS port. Internet users can reach to the Web server, since it uses port 80.

36. Question

You create the following Azure role definition. { Name: "Role1", Id: "80808080-8080-8080-8080-808080808080", IsCustom : false, Description: "", Actions : [Microsoft.Storage/*/read, Microsoft.Network/*/read, Microsoft.Compute/*/read, Microsoft.Compute/virtualMachines/start/action, Microsoft.Compute/virtualMachines/restart/action, Microsoft.Authorization/*/read], NotActions: [], DataActions: [], NotDataActions: [] }, AssignableScopes: [] } You need to create Role1 by using the role definition. Which two values should you modify before you create Role1?

 ID Description AssignableScopes IsCustom DataActions

Incorrect

You are creating a custom role hence IsCustom and AssignableScopes need to be defined while creating custom roles. Below is a quick example for reference.

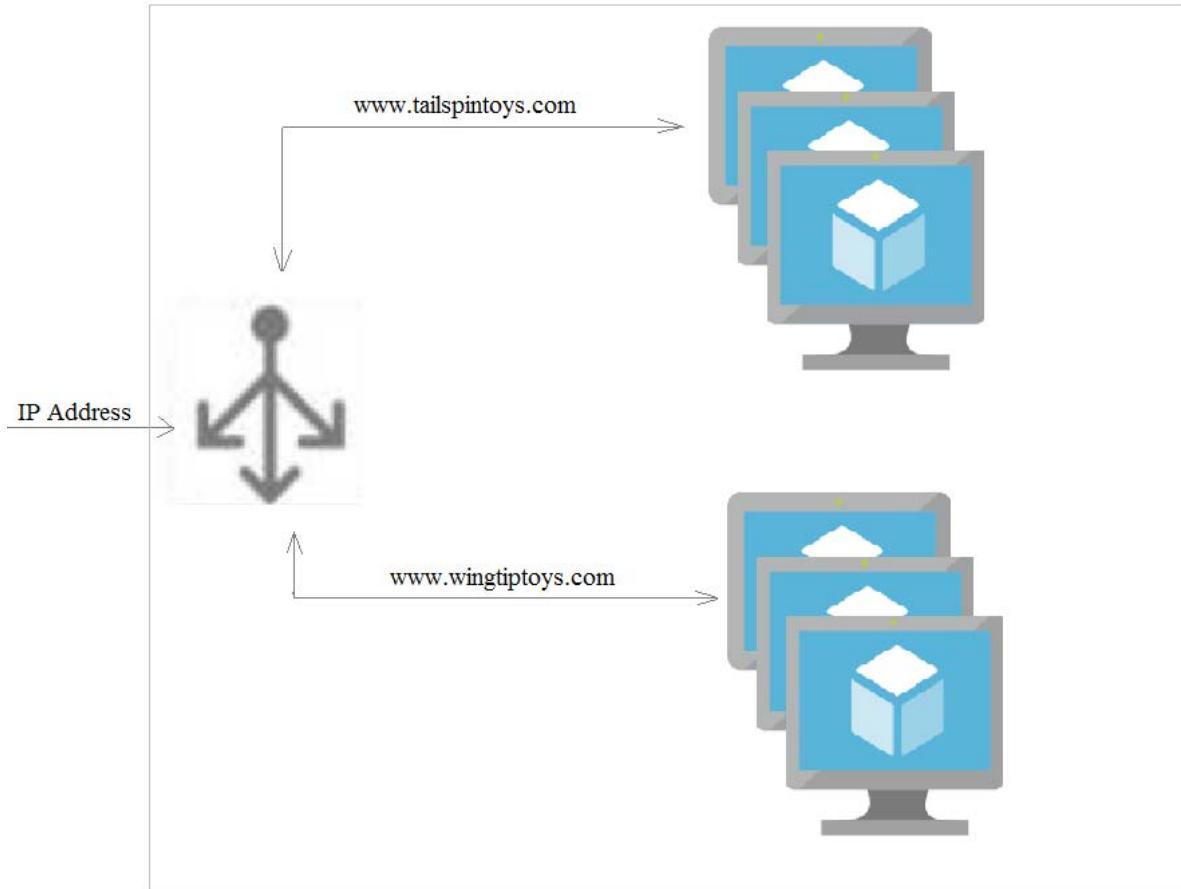
```
{ "Name": "Virtual Machine Operator", "Id": "88888888-8888-8888-8888-888888888888", "IsCustom": true, "Description": "Can monitor and restart virtual machines.", "Actions": [ "Microsoft.Storage/*/read", "Microsoft.Network/*/read", "Microsoft.Compute/*/read", "Microsoft.Compute/virtualMachines/start/action", "Microsoft.Compute/virtualMachines/restart/action", "Microsoft.Authorization/*/read", "Microsoft.ResourceHealth/availabilityStatuses/read", "Microsoft.Resources/subscriptions/resourceGroups/read", "Microsoft.Insights/alertRules/*", "Microsoft.Insights/diagnosticSettings/*", "Microsoft.Support/*" ], "NotActions": [], "DataActions": [], "NotDataActions": [], "AssignableScopes": [ "/subscriptions/{subscriptionId1}", "/subscriptions/{subscriptionId2}", "/providers/Microsoft.Management/managementGroups/{groupId1}" ] }
```

<https://docs.microsoft.com/en-us/azure/role-based-access-control/custom-roles#custom-role-example>

37. Question

Your company hosts multiple websites by using Azure virtual machine scale sets (VMSS) that run Internet Information Server (IIS). All network communications must be secured by using end-to-end Secure Socket Layer (SSL) encryption. User sessions must be routed to the same server by using cookie-based session

affinity. The image shown depicts the network traffic flow for the web sites to the VMSS.



What should you configure to make sure web traffic arrives at the appropriate server in the VMSS?

- Path-based redirection and WebSockets
- Routing method and DNS time to live (TTL)
- Routing rules and backend listeners
- CNAME and A records

Incorrect

Path based redirection is to redirect certain content of a particular site (e.g. images, video for contoso.com), not between hostnames. Answer is “Routing rules and backend listeners”.

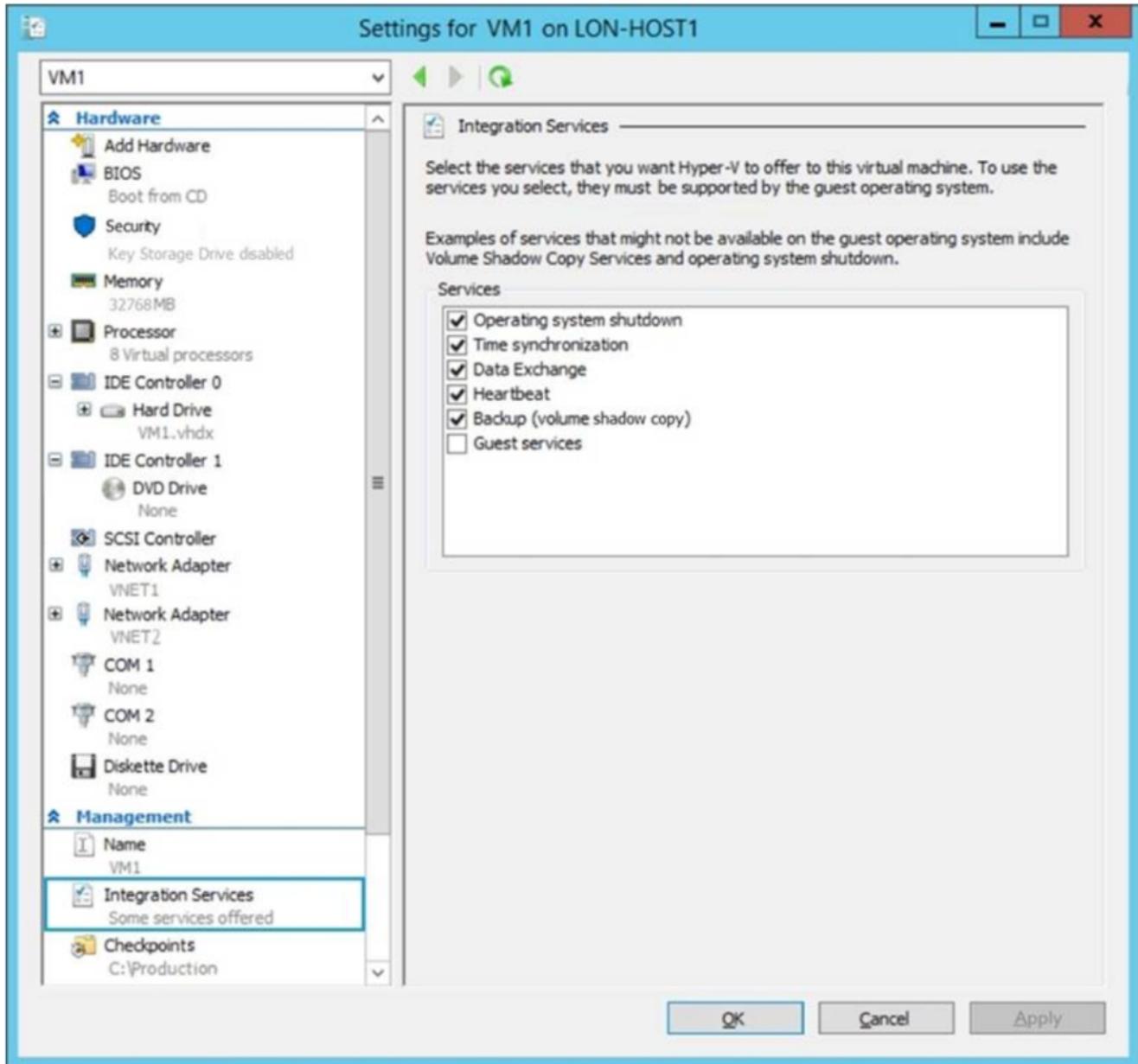
References:

<https://docs.microsoft.com/en-us/azure/application-gateway/multiple-site-overview>

<https://docs.microsoft.com/en-us/azure/application-gateway/tutorial-multiple-sites-powershell>

38. Question

You have an on-premises virtual machine named VM1 configured as shown below



VM is started. You need to create a new virtual machine image in Azure from VM1. Which three actions should you perform before you create the new image?

- Run Add-AzureRmVhd and specify a file share as the destination
- Generalize VM1
- Reduce the amount of memory to 16 GB
- Run Add-AzureRmVhd and specify a blob service container as the destination
- Remove the Backup (volume shadow copy) integration service

Incorrect

Sysprep removes all your personal account and security information, and then prepares the machine to be used as an image. <https://docs.microsoft.com/en-us/azure/virtual-machines/windows/capture-image-resource> The Add-AzureRmVhd cmdlet uploads on-premises virtual hard disks, in .vhdx file format, to a

blob storage account as fixed virtual hard disks. <https://docs.microsoft.com/en-us/powershell/module/azurerm.compute/add-azurermvhd?view=azurermps-6.13.0>

39. Question

You have an Azure subscription named Subscription1. Subscription1 contains a virtual machine named VM1. You have a computer Computer1 that runs Windows 10. Computer1 is connected to the Internet. You add a network interface named Interface1 to VM1 as shown below.

Network Interface: Interface1

Effective security rules Topology

Virtual network/subnet: VMRD-vnet/default Public IP: IP2 Private IP: **10.0.0.6**

Accelerated networking: **Disabled**

INBOUND PORT RULES

PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINA...	ACTION	...
1000	default-allow-...	3389	TCP	Any	Any	Allow	...
65000	AllowVnetInBound	Any	Any	VirtualN...	VirtualN...	Allow	...
65001	AllowAzureLoadB...	Any	Any	AzureLo...	Any	Allow	...
65500	DenyAllInBound	Any	Any	Any	Any	Deny	...

OUTBOUND PORT RULES

PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINA...	ACTION	...
65000	AllowVnetOutBo...	Any	Any	VirtualN...	VirtualN...	Allow	...
65001	AllowInternetOut...	Any	Any	Any	Internet	Allow	...
65500	DenyAllOutBound	Any	Any	Any	Any	Deny	...

From Computer1, you attempt to connect to VM1 by using Remote Desktop, but the connection fails. You need to establish a Remote Desktop connection to VM1. What should you do first?

- Delete the DenyAllOutBound outbound port rule
- Attach a network interface
- Delete the DenyAllInBound inbound port rule

Start VM1**Correct**

Network interface is already attached and 3389 is explicitly allowed. Hence starting the VM would be the right answer. The exclamation icon next to the inbound port rule for port 3389, which is used for Remote Desktop, indicates an underlying problem. Restart the VM to correct any underlying issues the VM itself is having. Rules are processed in priority order, with lower numbers processed before higher numbers, because lower numbers have higher priority. Processing stops once traffic matches a rule, as a result, any rules that exist with lower priorities (higher numbers) that have the same attributes as rules with higher priorities are not processed. <https://docs.microsoft.com/en-us/azure/virtual-network/security-overview#security-rules>

40. Question

You are designing an Azure solution. The solution must meet the following requirements: Distribute traffic to different pools of dedicated virtual machines (VMs) based on rules. Provide SSL offloading capabilities. You need to recommend a solution to distribute network traffic. Which technology should you recommend?

- server-level firewall rules
- Azure Application Gateway
- Azure Load Balancer
- Azure Traffic Manager

Incorrect

If you require “SSL offloading”, application layer treatment, or wish to delegate certificate management to Azure, you should use Azure’s layer 7 load balancer Application Gateway instead of the Load Balancer. <https://docs.microsoft.com/en-us/azure/application-gateway/features>

41. Question

You have an Azure subscription named Subscription1 that contains the below resources

Name	Type
VM1	Virtual Machine
VM2	Virtual Machine
LB1	Load Balancer

A web server runs on VM1 and VM2.

When you request a webpage named Page1.htm from the Internet, LB1 balances the web requests to

VM1 and VM2., and you receive a response.

On LB1, you have a rule named Rule1 as shown in the Rule1 snippet below

*Name
Rule1

* IP Version
 IPv4 IPv6

*Frontend IP address
51.144.82.206 (LoadBalancerFrontEnd) ▾

Protocol
 TCP UDP

*Port
80

*Backend port
80

Backend pool
BackEnd1 (2 virtual machines) ▾

Health probe
Probe1(HTTP:80/Probe1.htm) ▾

Session persistence
None ▾

Idle timeout (minutes)
 4

Floating IP (direct server return)
Disabled

You have a health probe named Probe1 as shown in the Probe1 snippet

*Name
Probe1

* IP Version
IPv4

Protocol
 HTTP TCP

*Port
80

*Path
/Probe1.htm

*Interval
20

*Unhealthy threshold
2

Used by
Rule1

Page1.htm is served by VM1. Where would the page be served by if user refreshes the web browser?

- Page1.htm can be served by either of the VM's, VM1 or VM2
- Page1.htm is always served by VM1 as VM2 has never served the page
- Page1.htm is always served by VM1 as VM1 knows what to be served
- Page1.htm is always served by VM1 as the initial page was loaded by VM1

Correct

Session Persistence is None. <https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-custom-probe-overview>

42. Question

Case Study

Overview

ADatum Corporation is a financial company that has two main offices in New York and Los Angeles.

ADatum has a subsidiary named Fabrikam, Inc. that shares the Los Angeles office.

ADatum is conducting an initial deployment of Azure services to host new line-of-business applications and is preparing to migrate its existing on-premises workloads to Azure.

ADatum uses Microsoft Exchange Online for email.

Existing Environment

On-Premises Environment

The on-premises workloads run on virtual machines hosted in a VMware vSphere 6 infrastructure. All the virtual machines are members of an Active Directory forest named adatum.com and run Windows Server 2016.

The New York office uses an IP address space of 10.0.0.0/16. The Los Angeles office uses an IP address space of 10.10.0.0/16.

The offices connect by using a VPN provided by an ISP. Each office has one Azure ExpressRoute circuit that provides access to Azure services and Microsoft Online Services. Routing is implemented by using Microsoft peering.

The New York office has a virtual machine named VM1 that has the vSphere console installed.

Azure Environment

You provision the Azure infrastructure by using the Azure portal. The infrastructure contains the resources shown in the following table.

Name	Type	Azure Region
ASRV1	Azure Site Recovery vault	East US
ASRV2	Azure Site Recovery vault	West US
ASE1	Azure App Service Environment	East US
AG1	Azure Application Gateway (internal)	East US
AG2	Azure Application Gateway (Internet-facing)	West US
ER1	ExpressRoute circuit	East US
ER2	ExpressRoute circuit	West US

AG1 has two backend pools named Pool11 and Pool12. AG2 has two backend pools named Pool21 and Pool22.

Requirements

Planned Changes

ADatum plans to migrate the virtual machines from the New York office to the East US Azure region by using Azure Site Recovery.

Infrastructure Requirements

ADatum identifies the following infrastructure requirements:

- A new web app named App1 that will access third-parties for credit card processing must be deployed.
- A newly developed API must be implemented as an Azure function named App2. App2 will use a blob storage trigger. App2 must process new blobs immediately.
- The Azure infrastructure and the on-premises infrastructure must be prepared for the migration of the VMware virtual machines to Azure.
- The sizes of the Azure virtual machines that will be used to migrate the on-premises workloads must be identified.
- All migrated and newly deployed Azure virtual machines must be joined to the adatum.com domain.
- AG1 must load balance incoming traffic in the following manner:
 - http://corporate.adatum.com/video/* will be load balanced across Pool11.
 - http://corporate.adatum.com/images/* will be load balanced across Pool12.
- AG2 must load balance incoming traffic in the following manner:
 - <http://www.adatum.com> will be load balanced across Pool21.
 - <http://fabrikam.com> will be load balanced across Pool22.
- ER1 must route traffic between the New York office and platform as a service (PaaS) services in the East US Azure region, as long as ER1 is available.
- ER2 must route traffic between the Los Angeles office and the PaaS services in the West US region, as long as ER2 is available.
- ER1 and ER2 must be configured to fail over automatically.

Application Requirements

App2 must be available to connect directly to the private IP addresses of the Azure virtual machines. App2 will be deployed directly to an Azure virtual network.

Inbound and outbound communications to App1 must be controlled by using NSGs.

Pricing Requirements

ADatum identifies the following pricing requirements:

- The cost of App1 and App2 must be minimized
- The transactional charges of Azure Storage accounts must be minimized

What should you create to configure AG2?

URL path-based routing rules

Multi-site listeners

Basic routing rules

An additional public IP address

- Basic listeners

Correct

AG2 must load balance incoming traffic in the following manner: – <http://www.adatum.com> will be load balanced across Pool21. – <http://fabrikam.com> will be load balanced across Pool22. You need to configure an Azure Application Gateway with multi-site listeners to direct different URLs to different pools. <https://docs.microsoft.com/en-us/azure/application-gateway/multiple-site-overview>

43. Question

You have a Recovery Service vault that you use to test backups. The test backups contain two protected virtual machines. You need to delete the Recovery Services vault. What should you do first?

- Modify the locks of each virtual machine
- From the Recovery Service vault, delete the backup data
- From the Recovery Service vault, stop the backup of each backup item
- Modify the disaster recovery properties of each virtual machines

Incorrect

You can't delete a Recovery Services vault if it is registered to a server and holds backup data. If you try to delete a vault, but can't, the vault is still configured to receive backup data. Remove vault dependencies and delete vault In the vault dashboard menu, scroll down to the Protected Items section, and click Backup Items. In this menu, you can stop and delete Azure File Servers, SQL Servers in Azure VM, and Azure virtual machines. <https://docs.microsoft.com/en-us/azure/backup/backup-azure-delete-vault#before-you-start>

44. Question

You are designing a virtual network to support a web application. The web application uses Blob storage to store large images. The web application will be deployed to an Azure App Service Web App. You have the following requirements: – Secure all communications by using Secured Socket layer (SSL) – SSL encryption and decryption must be processed efficiently to support high traffic load on the web application – Protect the web application from web vulnerabilities and attacks without modification to backend code – Optimize web application responsiveness and reliability by routing HTTP request and responses to the endpoint with the lowest network latency for the client. You need to optimize responsiveness and reliability. What Azure component do you recommend?

- Azure Traffic Manager
- Azure Security Center

- Azure Monitor
- Azure Application gateway

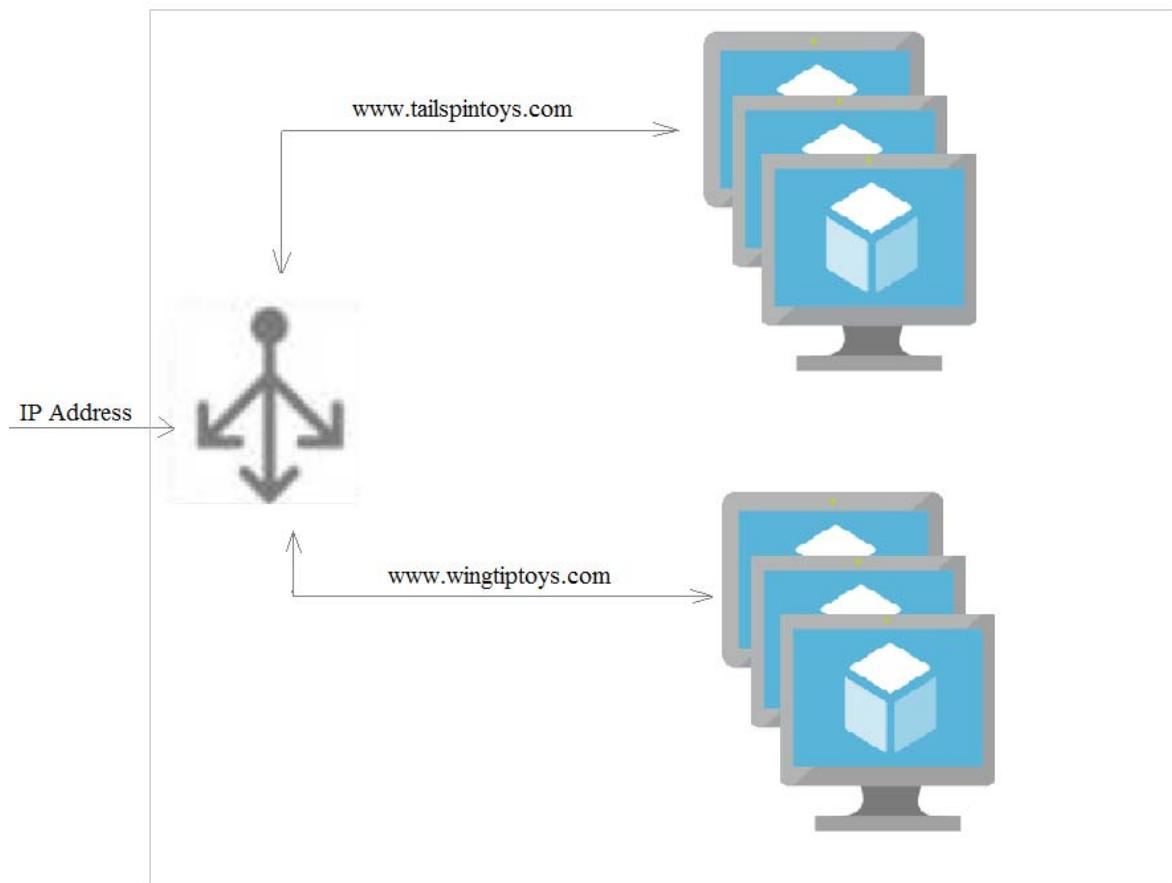
Correct

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.

<https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-overview>

45. Question

Your company hosts multiple websites by using Azure virtual machine scale sets (VMSS) that run Internet Information Server (IIS). All network communications must be secured by using end to end Secure Socket Layer (SSL) encryption. User sessions must be routed to the same server by using cookie-based session affinity. The image shown depicts the network traffic flow for the web sites to the VMSS.



Which Internet Protocol (IP) address type should you use?

- Public

- Private

- Hybrid

Incorrect

46. Question

Case Study

Overview

Contoso, Ltd. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

The Montreal office has 2,000 employees. The Seattle office has 1,000 employees. The New York office has 200 employees.

All the resources used by Contoso are hosted on-premises.

Contoso creates a new Azure subscription. The Azure Active Directory (Azure AD) tenant uses a domain named contoso.onmicrosoft.com. The tenant uses the P1 pricing tier.

Existing Environment

The network contains an Active Directory forest named contoso.com. All domain controllers are configured as DNS servers and host the contoso.com DNS zone.

Contoso has finance, human resources, sales, research, and information technology departments. Each department has an organizational unit (OU) that contains all the accounts of that respective department. All the user accounts have the department attribute set to their respective department. New users are added frequently.

Contoso.com contains a user named User1.

All the offices connect by using private links.

Contoso has data centers in the Montreal and Seattle offices. Each data center has a firewall that can be configured as a VPN device.

All infrastructure servers are virtualized. The virtualization environment contains the servers in the following table.

Name	Role	Contains Virtual Machine
Server1	VMWare vCenter Server	VM1
Server2	Hyper-V Host	VM2

Contoso uses two web applications named App1 and App2. Each instance on each web application requires 1GB of memory.

The Azure subscription contains the resources in the following table.

Name	Type
VNet1	Virtual Network
VM3	Virtual Machine
VM4	Virtual Machine

The network security team implements several network security groups (NSGs).

Planned Changes

Contoso plans to implement the following changes:

- Deploy Azure ExpressRoute to the Montreal office.
- Migrate the virtual machines hosted on Server1 and Server2 to Azure.
- Synchronize on-premises Active Directory to Azure Active Directory (Azure AD).
- Migrate App1 and App2 to two Azure web apps named WebApp1 and WebApp2.

Technical Requirements

Contoso must meet the following technical requirements:

- Ensure that WebApp1 can adjust the number of instances automatically based on the load and can scale up to five instances.
- Ensure that VM3 can establish outbound connections over TCP port 8080 to the applications servers in the Montreal office.
- Ensure that routing information is exchanged automatically between Azure and the routers in the Montreal office.
- Enable Azure Multi-Factor Authentication (MFA) for the users in the finance department only.
- Ensure that webapp2.azurewebsites.net can be accessed by using the name app2.contoso.com
- Connect the New York office to VNet1 over the Internet by using an encrypted connection.
- Create a workflow to send an email message when the settings of VM4 are modified.
- Create a custom Azure role named Role1 that is based on the Reader role.
- Minimize costs whenever possible. You sign up for Azure Active Directory (Azure AD) Premium. You need to add a user named [admin1@contoso.com](#) as an administrator on all the computers that will be joined to the Azure AD domain. What should you configure in Azure AD?

Providers from the MFA Server blade

User settings from the Users blade

General settings from the Groups blade

Device settings from the Devices blade

Incorrect

When you connect a Windows device with Azure AD using an Azure AD join, Azure AD adds the following security principles to the local administrators group on the device:

The Azure AD global administrator role

The Azure AD device administrator role

The user performing the Azure AD join

In the Azure portal, you can manage the device administrator role on the Devices page.

To open the Devices page:

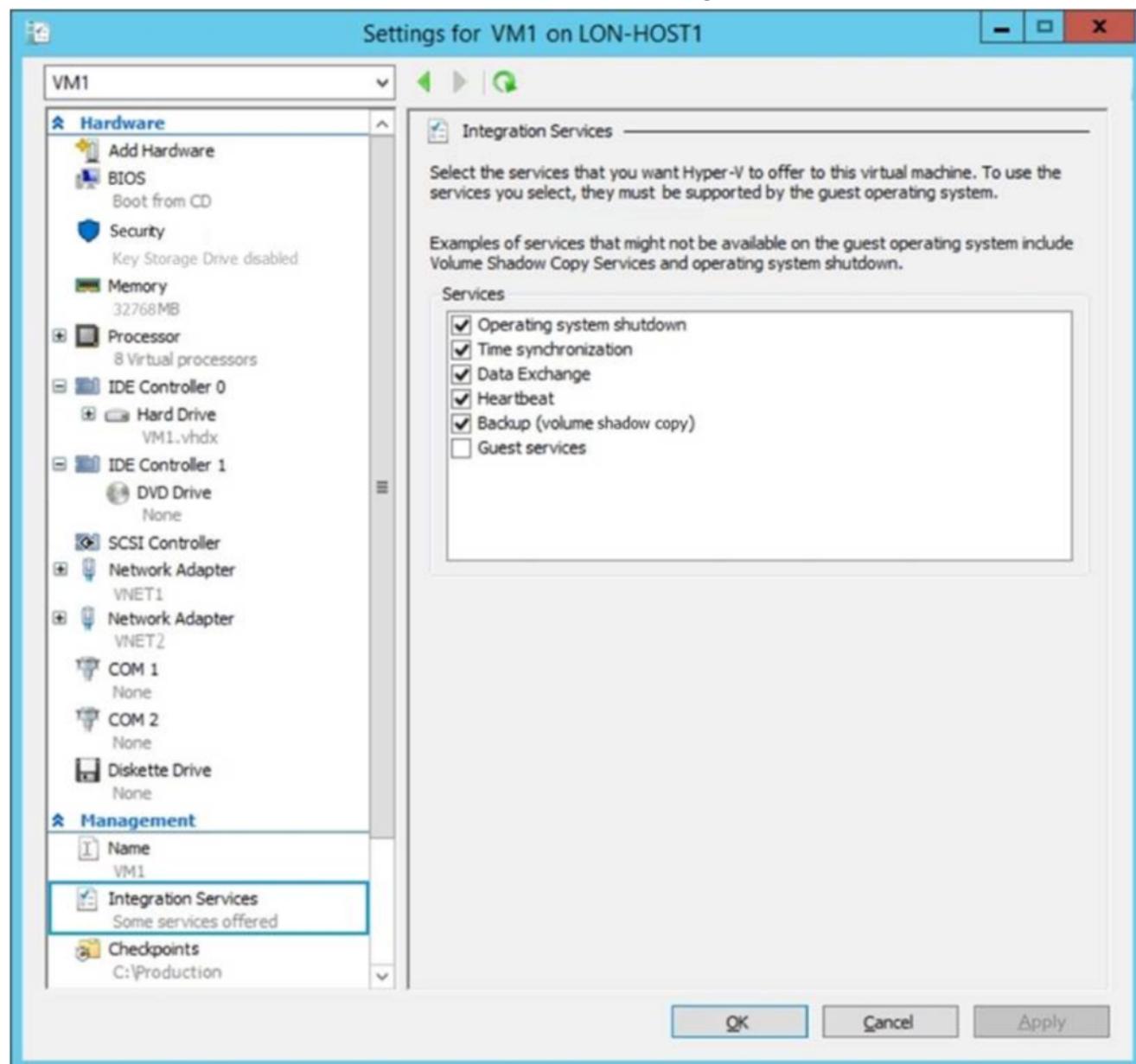
1. Sign in to your Azure portal as a global administrator or device administrator.

2. On the left navbar, click Azure Active Directory.
3. In the Manage section, click Devices.
4. On the Devices page, click Device settings.
5. To modify the device administrator role, configure Additional local administrators on Azure AD joined devices.

<https://docs.microsoft.com/en-us/azure/active-directory/devices/assign-local-admin>

47. Question

You have an on-premises virtual machine named VM1. The settings for VM1 are shown below



You need to ensure that you can use the disks attached to VM1 as a template for Azure virtual machines.

What should you modify on VM1?

- The processor
- The Network Adapters

The Hard Drive The Memory**Correct**

The disk is in the VHDX format. Before you upload a Windows virtual machines (VM) from on-premises to Microsoft Azure, you must prepare the virtual hard disk (VHD or VHDX). Azure supports only generation 1 VMs that are in the VHD file format and have a fixed sized disk. The maximum size allowed for the VHD is 1,023 GB. You can convert a generation 1 VM from the VHDX file system to VHD and from a dynamically expanding disk to fixed-sized. <https://docs.microsoft.com/en-us/azure/virtual-machines/windows/prepare-for-upload-vhd-image?toc=azure%20virtual-machines%20windows%20toc.json>

48. Question

You are designing a solution to secure a company's Azure resources. The environment hosts 10 teams. Each team manages a project and has a project manager, a virtual machine (VM) operator, developers, and contractors. Project managers must be able to manage everything except access and authentication for users. VM operators must be able to manage VMs, but not the virtual network or storage account to which they are connected. Developers and contractors must be able to manage storage accounts. You recommend below roles for based employee type. Project Manager – Contributor VM Operators – Virtual Machine Contributor Developers – Storage Account Contributor Contractors – Storage Account Contributor Does this meet the requirement?

 No Yes**Incorrect****49. Question**

Case Study

Overview

Contoso, Ltd. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

The Montreal office has 2,000 employees. The Seattle office has 1,000 employees. The New York office has 200 employees.

All the resources used by Contoso are hosted on-premises.

Contoso creates a new Azure subscription. The Azure Active Directory (Azure AD) tenant uses a domain named contoso.onmicrosoft.com. The tenant uses the P1 pricing tier.

Existing Environment

The network contains an Active Directory forest named contoso.com. All domain controllers are configured as DNS servers and host the contoso.com DNS zone.

Contoso has finance, human resources, sales, research, and information technology departments. Each department has an organizational unit (OU) that contains all the accounts of that respective department. All the user accounts have the department attribute set to their respective department. New users are added frequently.

Contoso.com contains a user named User1.

All the offices connect by using private links.

Contoso has data centers in the Montreal and Seattle offices. Each data center has a firewall that can be configured as a VPN device.

All infrastructure servers are virtualized. The virtualization environment contains the servers in the following table.

Name	Role	Contains Virtual Machine
Server1	VMWare vCenter Server	VM1
Server2	Hyper-V Host	VM2

Contoso uses two web applications named App1 and App2. Each instance on each web application requires 1GB of memory.

The Azure subscription contains the resources in the following table.

Name	Type
VNet1	Virtual Network
VM3	Virtual Machine
VM4	Virtual Machine

The network security team implements several network security groups (NSGs).

Planned Changes

Contoso plans to implement the following changes:

- Deploy Azure ExpressRoute to the Montreal office.
- Migrate the virtual machines hosted on Server1 and Server2 to Azure.
- Synchronize on-premises Active Directory to Azure Active Directory (Azure AD).
- Migrate App1 and App2 to two Azure web apps named WebApp1 and WebApp2.

Technical Requirements

Contoso must meet the following technical requirements:

- Ensure that WebApp1 can adjust the number of instances automatically based on the load and can

scale up to five instances.

- Ensure that VM3 can establish outbound connections over TCP port 8080 to the applications servers in the Montreal office.
- Ensure that routing information is exchanged automatically between Azure and the routers in the Montreal office.
- Enable Azure Multi-Factor Authentication (MFA) for the users in the finance department only.
- Ensure that webapp2.azurewebsites.net can be accessed by using the name app2.contoso.com
- Connect the New York office to VNet1 over the Internet by using an encrypted connection.
- Create a workflow to send an email message when the settings of VM4 are modified.
- Create a custom Azure role named Role1 that is based on the Reader role.
- Minimize costs whenever possible. You need to implement Role1. Which command should you run before you create Role1?

- Get-AzureADDirectoryRole - Name "Reader" | ConvertFrom-String
- Get-AzureRmRoleAssignment -Name "Reader" | ConvertTo-Json
- Find-RoleCapability -Name "Reader" | ConvertFrom-Json
- Get-AzureRmRoleDefinition -Name "Reader" | ConvertTo-Xml

Correct

Technical Requirements : Create a custom Azure role named Role1 that is based on the Reader role.

<https://docs.microsoft.com/en-us/powershell/module/azurerm.resources/get-azurermroledefinition?view=azurermps-6.13.0#examples>

50. Question

Case Study

Overview

Best For You Organics Company is a global restaurant franchise that has multiple locations. The company wants to enhance user experiences and vendor integrations. The company plans to implement automated mobile ordering and delivery services.

Best For You Organics hosts an Azure web app at the URL <https://www.bestforyouorganics.com>. Users can use the web app to browse restaurant location, menu items, nutritional information, and company information. The company developed and deployed a cross-platform mobile app.

Requirements

Chatbot

You must develop a chatbot by using the Bot Builder SDK and Language Understanding Intelligence Service (LUIS). The chatbot must allow users to order food for pickup or delivery.

The chatbot must meet the following requirements:

- Ensure that chatbot is secure by using the Bot Framework connector.

- Use natural language processing and speech recognition so that users can interact with the chatbot by using text and voice. Processing must be server-based.
- Alert users about promotions at local restaurants.
- Enable users to place an order for delivery or pickup by using their voice.
- Greet the user upon sign-in by displaying a graphical interface that contains action buttons.
- The chatbot greeting interface must match the formatting of the following example:

Welcome to the Restaurant



John Doe
Sun, Aug 26,2018

Welcome to Best For You Organics Company!
How can we help you today?

Specials: Chicken Masala

Order Pickup Order Delivery

Vendor API

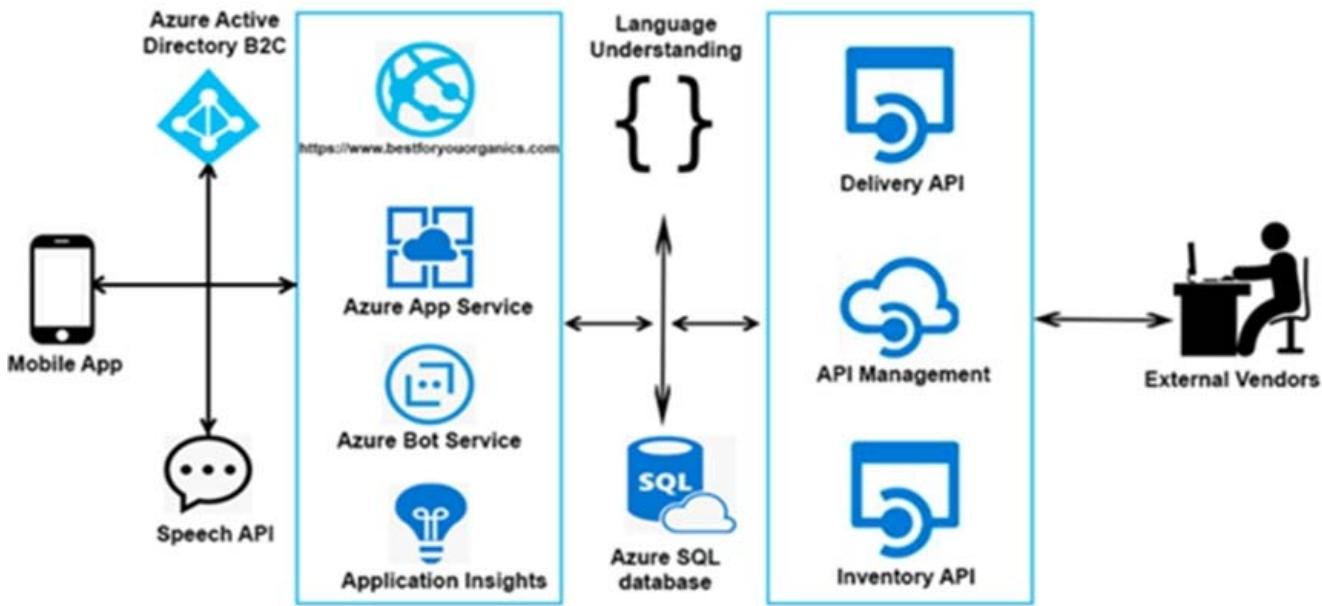
Vendors receive and provide updates for the restaurant inventory and delivery services by using Azure API Management hosted APIs. Each vendor uses their own subscription to access each of the APIs.

APIs must meet the following conditions:

- API usage must not exceed 5,000 calls and 50,000 kilobytes of bandwidth per hour per vendor.
- If a vendor is nearing the number of calls or bandwidth limit, the API must trigger email notifications to the vendor.
- API must prevent API usage spikes on a per-subscription basis by limiting the call rate to 100 calls per minute.
- The Inventory API must be written by using ASP.NET Core and Node.js.
- The API must be updated to provide an interface to Azure SQL Database objects must be managed by using code.

- The Delivery API must be protected by using the OAuth 2.0 protocol with Azure Active Directory (Azure AD) when called from the Azure web app. You register the Delivery API and web app in Azure AD. You enable OAuth 2.0 in the web app.
- The delivery API must update the Products table, the Vendor transactions table, and the Billing table in a single transaction.

The Best For You Organics Company architecture team has created the following diagram depicting the expected deployments into Azure:



Architecture

Issues

Delivery API

The Delivery API intermittently throws the following exception:

"System.Data.Entity.Core.EntityCommandExecutionException: An error occurred while executing the command definition. See the inner exception for details. –>System.Data.SqlClient.SqlException: A transport-level error has occurred when receiving results from the server. (provider: Session Provider, error: 19 –Physical connection is not usable)"

Chatbot greeting

The chatbot's greeting does not show the user's name. You need to debug the chatbot locally.

Language processing

Users report that the bot fails to understand when a customer attempts to order dishes that use Italian names.

App code

Relevant portions of the app files are shown below. Line numbers are included for reference only and

include a two-character prefix that denotes the specific file to which they belong.

Startup.cs

```
SU01 namespace DeliveryApi
SU02 {
SU03     public class Startup
SU04     {
SU05         public Startup(IConfiguration configuration)
SU06         {
SU07             Configuration = configuration;
SU08         }
SU09         public IConfiguration Configuration { get; }
SU10         public void ConfigureServices(IServiceCollection services)
SU11         {
SU12             services.AddDbContext<RestaurantsContext>(opt =>
SU13                 opt.UseSqlServer(Configuration.GetSection("ConnectionStrings")
["RestaurantDatabase"]),
SU14                 sqlServerOptionsAction: sqlOptions =>
SU15                 {
SU16                     . .
SU17                 }));
SU18             services.AddMvc()
SU19                 .SetCompatibilityVersion(CompatibilityVersion.Version_2_1);
SU20         }
SU21         public void Configure(IApplicationBuilder app)
SU22         {
SU23             app.UseMvc();
SU24         }
SU25     }
SU26 }
```

You need to implement the purchase requirement. What should you do?

- Use the Bot Framework REST API conversation operations to send the user's voice and the Speech Service API to recognize intents.
- Use the Direct Line REST API to send the user's voice and the Speech Service API to recognize intents.
- Use the Bot Framework REST API attachment operations to send the user's voice and the Speech Service API to recognize intents.
- Use the Speech Service API to send the user's voice and the Bot Framework REST API conversation operations to recognize intents.

Incorrect

Using Direct Line API 3.0, a client can receive messages from your bot either via WebSocket stream or by issuing HTTP GET requests. Using either of these techniques, a client may receive multiple messages

from the bot at a time as part of an ActivitySet.

<https://docs.microsoft.com/en-us/azure/bot-service/rest-api/bot-framework-rest-direct-line-3-0-concepts?view=azure-bot-service-4.0#receiving-messages>

<https://docs.microsoft.com/bs-latn-ba/azure/bot-service/rest-api/bot-framework-rest-direct-line-3-0-concepts?view=azure-bot-service-4.0>

51. Question

You have an Azure subscription named Subscription1 that contains the below resources

Name	Type
VM1	Virtual Machine
VM2	Virtual Machine
LB1	Load Balancer

A web server runs on VM1 and VM2.

When you request a webpage named Page1.htm from the Internet, LB1 balances the web requests to VM1 and VM2., and you receive a response.

On LB1, you have a rule named Rule1 as shown in the Rule1 snippet below

*Name
Rule1

* IP Version
 IPv4 IPv6

*Frontend IP address
51.144.82.206 (LoadBalancerFrontEnd) ▼

Protocol
 TCP UDP

*Port
80

*Backend port
80

Backend pool
BackEnd1 (2 virtual machines) ▼

Health probe
Probe1(HTTP:80/Probe1.htm) ▼

Session persistence
None ▼

Idle timeout (minutes)
 4

Floating IP (direct server return)
Disabled

You have a health probe named Probe1 as shown in the Probe1 snippet

*Name	Probe1
* IP Version	IPv4
Protocol	HTTP TCP
*Port	80
*Path	/Probe1.htm
*Interval	20
*Unhealthy threshold	2
Used by	Rule1

Page1.htm is served by VM1. What happens if you change the protocol of Rule1?

- All the web requests will fail
- Page1.htm is served by VM2
- Page1.htm is always served as before
- Page1.htm can be served by either of the VM's, VM1 or VM2

Correct

Web requests uses the HTTP protocol, not the TCP protocol. <https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-custom-probe-overview>

52. Question

Case Study

Overview

Contoso, Ltd. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

The Montreal office has 2,000 employees. The Seattle office has 1,000 employees. The New York office has 200 employees.

All the resources used by Contoso are hosted on-premises.

Contoso creates a new Azure subscription. The Azure Active Directory (Azure AD) tenant uses a domain named contoso.onmicrosoft.com. The tenant uses the P1 pricing tier.

Existing Environment

The network contains an Active Directory forest named contoso.com. All domain controllers are configured as DNS servers and host the contoso.com DNS zone.

Contoso has finance, human resources, sales, research, and information technology departments. Each department has an organizational unit (OU) that contains all the accounts of that respective department. All the user accounts have the department attribute set to their respective department. New users are added frequently.

Contoso.com contains a user named User1.

All the offices connect by using private links.

Contoso has data centers in the Montreal and Seattle offices. Each data center has a firewall that can be configured as a VPN device.

All infrastructure servers are virtualized. The virtualization environment contains the servers in the following table.

Name	Role	Contains Virtual Machine
Server1	VMWare vCenter Server	VM1
Server2	Hyper-V Host	VM2

Contoso uses two web applications named App1 and App2. Each instance on each web application requires 1GB of memory.

The Azure subscription contains the resources in the following table.

Name	Type
VNet1	Virtual Network
VM3	Virtual Machine
VM4	Virtual Machine

The network security team implements several network security groups (NSGs).

Planned Changes

Contoso plans to implement the following changes:

- Deploy Azure ExpressRoute to the Montreal office.
- Migrate the virtual machines hosted on Server1 and Server2 to Azure.
- Synchronize on-premises Active Directory to Azure Active Directory (Azure AD).
- Migrate App1 and App2 to two Azure web apps named WebApp1 and WebApp2.

Technical Requirements

Contoso must meet the following technical requirements:

- Ensure that WebApp1 can adjust the number of instances automatically based on the load and can scale up to five instances.
- Ensure that VM3 can establish outbound connections over TCP port 8080 to the applications servers in the Montreal office.
- Ensure that routing information is exchanged automatically between Azure and the routers in the Montreal office.
- Enable Azure Multi-Factor Authentication (MFA) for the users in the finance department only.
- Ensure that webapp2.azurewebsites.net can be accessed by using the name app2.contoso.com
- Connect the New York office to VNet1 over the Internet by using an encrypted connection.
- Create a workflow to send an email message when the settings of VM4 are modified.
- Create a custom Azure role named Role1 that is based on the Reader role.
- Minimize costs whenever possible.

You need to meet the connection requirements for the New York office. What should you do in the New York Office?

Configure a site-to-site VPN Connection

Implement a web application Proxy

Deploy ExpressRoute

Deploy a DirectAccess server

Create a virtual network gateway and an on-premises data gateway

Incorrect

On premises create a site-to-site connection for the virtual network gateway and the local network gateway. Scenario: Connect the New York office to VNet1 over the Internet by using an encrypted connection. <https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/hybrid-networking/vpn>

53. Question

You have an Azure subscription that contains the resources shown below

Name	Type	Size
ILB1	Internal Load Balancer	Basic
ELB1	External Load Balancer	Standard
AGW1	Azure Application Gateway that has Web Application Firewall (WAF) enabled	Standard
AGW2	Azure Application Gateway	Standard_v2

You need to deploy a load-balancing solution for Azure web app named App1 to meet the following requirements: App1 must support command injection protection. App1 must have a Service Level Agreement (SLA) of 99.99 percent. Which resource should you use as the load-balancing solution for App1?

- AGW2
- ILB1
- ELB1
- AGW1

Correct

Azure Application Gateway offers a web application firewall (WAF) that provides centralized protection of your web applications from common exploits and vulnerabilities. Web applications are increasingly targeted by malicious attacks that exploit commonly known vulnerabilities. SQL injection and cross-site scripting are among the most common attacks. <https://docs.microsoft.com/en-us/azure/application-gateway/waf-overview>

54. Question

Case Study

Overview

ADatum Corporation is a financial company that has two main offices in New York and Los Angeles.

ADatum has a subsidiary named Fabrikam, Inc. that shares the Los Angeles office.

ADatum is conducting an initial deployment of Azure services to host new line-of-business applications and is preparing to migrate its existing on-premises workloads to Azure.

ADatum uses Microsoft Exchange Online for email.

Existing Environment

On-Premises Environment

The on-premises workloads run on virtual machines hosted in a VMware vSphere 6 infrastructure. All the virtual machines are members of an Active Directory forest named adatum.com and run Windows Server 2016.

The New York office uses an IP address space of 10.0.0.0/16. The Los Angeles office uses an IP address space of 10.10.0.0/16.

The offices connect by using a VPN provided by an ISP. Each office has one Azure ExpressRoute circuit that provides access to Azure services and Microsoft Online Services. Routing is implemented by using Microsoft peering.

The New York office has a virtual machine named VM1 that has the vSphere console installed.

Azure Environment

You provision the Azure infrastructure by using the Azure portal. The infrastructure contains the resources shown in the following table.

Name	Type	Azure Region
ASRV1	Azure Site Recovery vault	East US
ASRV2	Azure Site Recovery vault	West US
ASE1	Azure App Service Environment	East US
AG1	Azure Application Gateway (internal)	East US
AG2	Azure Application Gateway (Internet-facing)	West US
ER1	ExpressRoute circuit	East US
ER2	ExpressRoute circuit	West US

AG1 has two backend pools named Pool11 and Pool12. AG2 has two backend pools named Pool21 and Pool22.

Requirements

Planned Changes

ADatum plans to migrate the virtual machines from the New York office to the East US Azure region by using Azure Site Recovery.

Infrastructure Requirements

ADatum identifies the following infrastructure requirements:

- A new web app named App1 that will access third-parties for credit card processing must be deployed.
- A newly developed API must be implemented as an Azure function named App2. App2 will use a blob storage trigger. App2 must process new blobs immediately.
- The Azure infrastructure and the on-premises infrastructure must be prepared for the migration of the VMware virtual machines to Azure.
- The sizes of the Azure virtual machines that will be used to migrate the on-premises workloads must be identified.
- All migrated and newly deployed Azure virtual machines must be joined to the adatum.com domain.

- AG1 must load balance incoming traffic in the following manner:
- http://corporate.adatum.com/video/* will be load balanced across Pool11.
- http://corporate.adatum.com/images/* will be load balanced across Pool12.
- AG2 must load balance incoming traffic in the following manner:
- <http://www.adatum.com> will be load balanced across Pool21.
- <http://fabrikam.com> will be load balanced across Pool22.
- ER1 must route traffic between the New York office and platform as a service (PaaS) services in the East US Azure region, as long as ER1 is available.
- ER2 must route traffic between the Los Angeles office and the PaaS services in the West US region, as long as ER2 is available.
- ER1 and ER2 must be configured to fail over automatically.

Application Requirements

App2 must be available to connect directly to the private IP addresses of the Azure virtual machines. App2 will be deployed directly to an Azure virtual network.

Inbound and outbound communications to App1 must be controlled by using NSGs.

Pricing Requirements

ADatum identifies the following pricing requirements:

- The cost of App1 and App2 must be minimized
- The transactional charges of Azure Storage accounts must be minimized

You need to configure AG1. What should you create?

- Basic routing rules
- Multi-site listeners
- An additional public IP address
- URL path-based routing rules
- Basic listeners

Correct

URL Path Based Routing allows you to route traffic to back-end server pools based on URL Paths of the request. One of the scenarios is to route requests for different content types to different backend server pools. <https://docs.microsoft.com/en-us/azure/application-gateway/url-route-overview>

<https://docs.microsoft.com/en-us/azure/application-gateway/create-url-route-portal>

55. Question

Case Study

Overview

Contoso, Ltd. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

The Montreal office has 2,000 employees. The Seattle office has 1,000 employees. The New York office has 200 employees.

All the resources used by Contoso are hosted on-premises.

Contoso creates a new Azure subscription. The Azure Active Directory (Azure AD) tenant uses a domain named contoso.onmicrosoft.com. The tenant uses the P1 pricing tier.

Existing Environment

The network contains an Active Directory forest named contoso.com. All domain controllers are configured as DNS servers and host the contoso.com DNS zone.

Contoso has finance, human resources, sales, research, and information technology departments. Each department has an organizational unit (OU) that contains all the accounts of that respective department. All the user accounts have the department attribute set to their respective department. New users are added frequently.

Contoso.com contains a user named User1.

All the offices connect by using private links.

Contoso has data centers in the Montreal and Seattle offices. Each data center has a firewall that can be configured as a VPN device.

All infrastructure servers are virtualized. The virtualization environment contains the servers in the following table.

Name	Role	Contains Virtual Machine
Server1	VMWare vCenter Server	VM1
Server2	Hyper-V Host	VM2

Contoso uses two web applications named App1 and App2. Each instance on each web application requires 1GB of memory.

The Azure subscription contains the resources in the following table.

Name	Type
VNet1	Virtual Network
VM3	Virtual Machine
VM4	Virtual Machine

The network security team implements several network security groups (NSGs).

Planned Changes

Contoso plans to implement the following changes:

- Deploy Azure ExpressRoute to the Montreal office.
- Migrate the virtual machines hosted on Server1 and Server2 to Azure.
- Synchronize on-premises Active Directory to Azure Active Directory (Azure AD).
- Migrate App1 and App2 to two Azure web apps named WebApp1 and WebApp2.

Technical Requirements

Contoso must meet the following technical requirements:

- Ensure that WebApp1 can adjust the number of instances automatically based on the load and can scale up to five instances.
- Ensure that VM3 can establish outbound connections over TCP port 8080 to the applications servers in the Montreal office.
- Ensure that routing information is exchanged automatically between Azure and the routers in the Montreal office.
- Enable Azure Multi-Factor Authentication (MFA) for the users in the finance department only.
- Ensure that webapp2.azurewebsites.net can be accessed by using the name app2.contoso.com
- Connect the New York office to VNet1 over the Internet by using an encrypted connection.
- Create a workflow to send an email message when the settings of VM4 are modified.
- Create a custom Azure role named Role1 that is based on the Reader role.
- Minimize costs whenever possible.

You need to meet the connection requirements for the New York office. What should you do from Azure portal?

- Create a virtual network gateway only
- Create an ExpressRoute circuit only
- Create an ExpressRoute circuit and an on-premises data gateway
- Create a virtual network gateway and a local network gateway
- Create a virtual network gateway and an on-premises data gateway

Incorrect

Azure VPN gateway. The VPN gateway service enables you to connect the VNet to the on-premises network through a VPN appliance. For more information, see Connect an on-premises network to a Microsoft Azure virtual network. The VPN gateway includes the following elements:

Virtual network gateway. A resource that provides a virtual VPN appliance for the VNet. It is responsible for routing traffic from the on-premises network to the VNet.

Local network gateway. An abstraction of the on-premises VPN appliance. Network traffic from the cloud

application to the on-premises network is routed through this gateway.

Connection: The connection has properties that specify the connection type (IPSec) and the key shared with the on-premises VPN appliance to encrypt traffic.

Gateway subnet. The virtual network gateway is held in its own subnet, which is subject to various requirements, described in the Recommendations section below.

56. Question

You have an Azure subscription named Subscription1 that contains the below resources

Name	Type
VM1	Virtual Machine
VM2	Virtual Machine
LB1	Load Balancer

A web server runs on VM1 and VM2.

When you request a webpage named Page1.htm from the Internet, LB1 balances the web requests to VM1 and VM2., and you receive a response.

On LB1, you have a rule named Rule1 as shown in the Rule1 snippet below

*Name
Rule1

* IP Version
 IPv4 IPv6

*Frontend IP address
51.144.82.206 (LoadBalancerFrontEnd) 

Protocol
 TCP UDP

*Port
80

*Backend port
80

Backend pool
BackEnd1 (2 virtual machines) 

Health probe
Probe1(HTTP:80/Probe1.htm) 

Session persistence
None 

Idle timeout (minutes)
 4

Floating IP (direct server return)
Disabled

You have a health probe named Probe1 as shown in the Probe1 snippet

*Name
Probe1

* IP Version
IPv4

Protocol
 HTTP TCP

*Port
80

*Path
/Probe1.htm

*Interval
20 seconds

*Unhealthy threshold
2 consecutive failures

Used by
Rule1

What happens if you delete Probe1.htm from VM2?

- Load Balancer will seize to route traffic to VM2 as it checks both VM's every second
- Load Balancer will route all the traffic to VM1
- Load Balancer will route all the traffic to VM2
- Load Balancer will route the traffic to both VM's until VM2 sends back a custom response to probe.

Correct

Azure Load Balancer provides health probes for use with load-balancing rules. Health probe configuration and probe responses determine which backend pool instances will receive new flows. You can use health probes to detect the failure of an application on a backend instance. You can also generate a custom response to a health probe and use the health probe for flow control to manage load or planned downtime. When a health probe fails, Load Balancer stops sending new flows to the respective unhealthy instance.

Ref: <https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-custom-probe-overview>

57. Question

Case Study

Overview

ProtectLives Insurance is an insurance company that has three offices in Berlin, Tokyo and Bangkok. Each office has 5,000 users.

Existing Environment

Active Directory Environment

ProtectLives Insurance has a single-domain Active Directory forest named ProtectLivesinsurance.com. The functional level of the forest is Windows Server 2012.

You recently provisioned an Azure Active Directory (Azure AD) tenant.

Network Infrastructure

Each office has a local data center that contains all the servers for that office. Each office has a dedicated connection to the Internet.

Each office has several link load balancers that provide access to the servers.

Active Directory Issue

Several users in ProtectLivesinsurance.com have UPNs that contain special characters.

You suspect that some of the characters are unsupported in Azure AD.

Licensing Issue

You attempt to assign a license in Azure to several users and receive the following error message: “Licenses not assigned. License agreement failed for one user.”

You verify that the Azure subscription has the available licenses.

Requirements

Planned Changes

ProtectLives Insurance plans to open a new office in Paris. The Paris office will contain 1,000 users who will be hired during the next 12 months. All the resources used by the Paris office users will be hosted in Azure.

Planned Azure AD Infrastructure

The on-premises Active Directory domain will be synchronized to Azure AD.

All client computers in the Paris office will be joined to an Azure AD domain.

Planned Azure Networking Infrastructure

You plan to create the following networking resources in a resource group named All_Resources:

- Default Azure system routes that will be the only routes used to route traffic
- A virtual network named Paris-VNet that will contain two subnets named Subnet1 and Subnet2
- A virtual network named ClientResources-VNet that will contain one subnet named

ClientSubnet

- A virtual network named AllOffices-VNet that will contain two subnets named Subnet3 and Subnet4

You plan to enable peering between Paris-VNet and AllOffices-VNet. You will enable the Use remote gateways setting for the Paris-VNet peerings.

You plan to create a private DNS zone named ProtectLivesinsurance.local and set the registration network to the ClientResources-VNet virtual network.

Planned Azure Computer Infrastructure

Each subnet will contain several virtual machines that will run either Windows Server 2012 R2, Windows Server 2016, or Red Hat Linux.

Department Requirements

ProtectLives Insurance identifies the following requirements for the company's departments:

- Web administrators will deploy Azure web apps for the marketing department. Each web app will be added to a separate resource group. The initial configuration of the web apps will be identical. The web administrators have permission to deploy web apps to resource groups.
- During the testing phase, auditors in the finance department must be able to review all Azure costs from the past week.

Authentication Requirements

Users in the Berlin office must use Azure Active Directory Seamless Single Sign-on (Azure AD Seamless SSO) when accessing resources in Azure.

You are evaluating the connectivity between the virtual machines after the planned implementation of the Azure networking infrastructure.

Can Virtual Machines on Subnet1 connect to the virtual machines on Subnet3?

No

Yes

Correct

Once the VNets are peered, all resources on one VNet can communicate with resources on the other peered VNets. You plan to enable peering between Paris-VNet and AllOffices-VNet. Therefore VMs on Subnet1, which is on Paris-VNet and VMs on Subnet3, which is on AllOffices-VNet will be able to connect to each other. All Azure resources connected to a VNet have outbound connectivity to the Internet by default. Therefore VMs on ClientSubnet, which is on ClientResources-VNet will have access to the Internet; and VMs on Subnet3 and Subnet4, which are on AllOffices-VNet will have access to the

Internet. <https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-peering-overview>
<https://docs.microsoft.com/en-us/azure/networking/networking-overview#internet-connectivity>

58. Question

You have an Azure subscription. You plan to deploy an app that has a web front end and an application tier. You need to recommend a load balancing solution that meets the following requirements: Internet to web tier:
– Provides URL-based routing
– Supports connection draining
– Prevents SQL injection attacks
Which load balancing solution should you recommend for internet to web tier?

An Azure Application Gateway that has a web application firewall (WAF)

- A private Azure Basic Load Balancer
- An internal Azure Standard Load Balancer
- A public Azure Basic Load Balancer

Correct

Azure Application Gateway offers a web application firewall (WAF) that provides centralized protection of your web applications from common exploits and vulnerabilities. Web applications are increasingly targeted by malicious attacks that exploit commonly known vulnerabilities. SQL injection and cross-site scripting are among the most common attacks. Application Gateway operates as an application delivery controller (ADC). It offers Secure Sockets Layer (SSL) termination, cookie-based session affinity, round-robin load distribution, content-based routing, ability to host multiple websites, and security enhancements. <https://docs.microsoft.com/en-us/azure/application-gateway/waf-overview>

59. Question

You have two Azure virtual machines named VM1 and VM2. You have two Recovery Services vaults named RSV1 and RSV2. VM2 is protected by RSV1. You need to use RSV2 to protect VM2. What should you do first?

From the RSV1 blade, click Backup Jobs and export the VM2 job

From the VM2 blade, click Disaster recovery, click Replication settings, and then select RSV2 as the Recovery Services vault

From the RSV1 blade, click Backup items and stop the VM2 backup

From the RSV2 blade, click Backup. From the Backup blade, select the backup for the virtual machine, and then click Backup

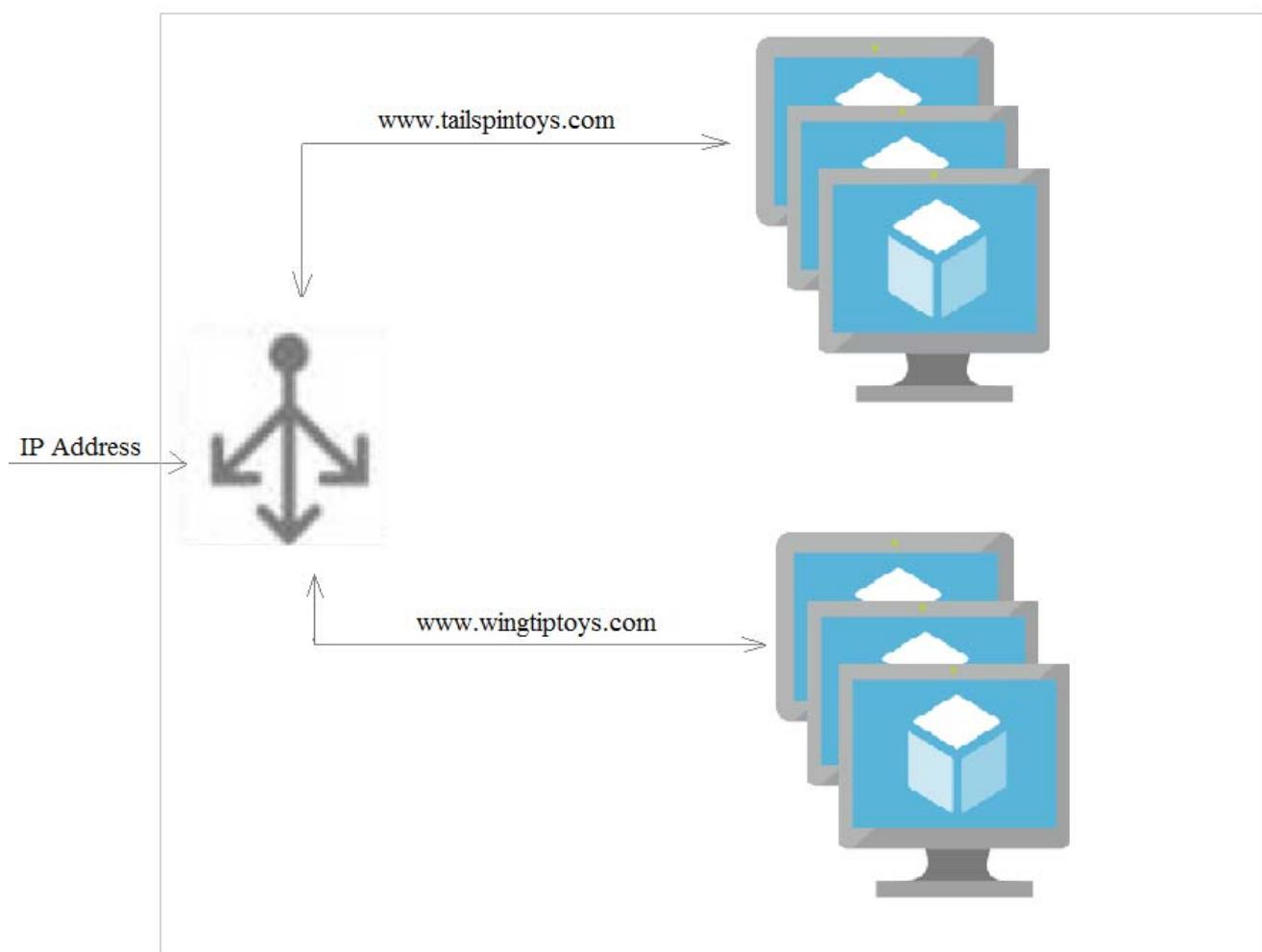
Correct

In order to back up Azure VMs, Azure Backup installs an extension on the VM agent running on the machine. If your VM was created from an Azure marketplace image, the agent will be running.

<https://docs.microsoft.com/en-us/azure/backup/backup-azure-vms-first-look-arm#back-up-from-azure-vm-settings>

60. Question

Your company hosts multiple website by using Azure virtual machine scale sets (VMSS) that run Internet Information Server (IIS). All network communications must be secured by using end to end Secure Socket Layer (SSL) encryption. User sessions must be routed to the same server by using cookie-based session affinity. The image shown depicts the network traffic flow for the web sites to the VMSS.



Which Azure Solution should you create to route the web application traffic to the VMSS?

- Azure Network Watcher
- Azure VPN Gateway
- Azure ExpressRoute
- Azure Application Gateway

Correct

You can create an application gateway with URL path-based redirection using Azure PowerShell.

Reference: https://docs.microsoft.com/en-us/powershell/module/azurerm.applicationgateway/tutorial-url-redirect-powershell?view=azurermp-ps&WT.mc_id=AZ-MVP-5003754

61. Question

You have an Azure subscription. You have an on-premises file server named Server1 that runs Windows Server 2019. You manage Server1 by using Windows Admin Center. You need to ensure that if Server1 fails, you can recover the data from Azure.

- You register Windows Admin Center in Azure and configure Azure Backup.
- From the Azure portal, you create a Recovery Services vault. On VM1, you install the Azure Backup agent and you schedule a backup.
- You create an Azure Storage account and an Azure Storage Sync service. You configure Azure File Sync for Server1.
- You create a Recovery Services vault and configure a backup by using Windows Server Backup.

Correct

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. <https://docs.microsoft.com/en-us/azure/storage/files/storage-files-introduction#why-azure-files-is-useful> <https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide?tabs=azure-portal>

62. Question

Case Study

Overview

LabelMaker app – Coho Winery produces bottles, and distributes a variety of wines globally. You are developer implementing highly scalable and resilient applications to support online order processing by using Azure solutions.

Coho Winery has a LabelMaker application that prints labels for wine bottles. The application sends data to several printers. The application consists of five modules that run independently on virtual machines (VMs). Coho Winery plans to move the application to Azure and continue to support label creation.

External partners send data to the LabelMaker application to include artwork and text for custom label designs.

Data –

You identify the following requirements for data management and manipulation:

Order data is stored as nonrelational JSON and must be queried using Structured Query Language (SQL). Changes to the Order data must reflect immediately across all partitions. All reads to the Order data must fetch the most recent writes.

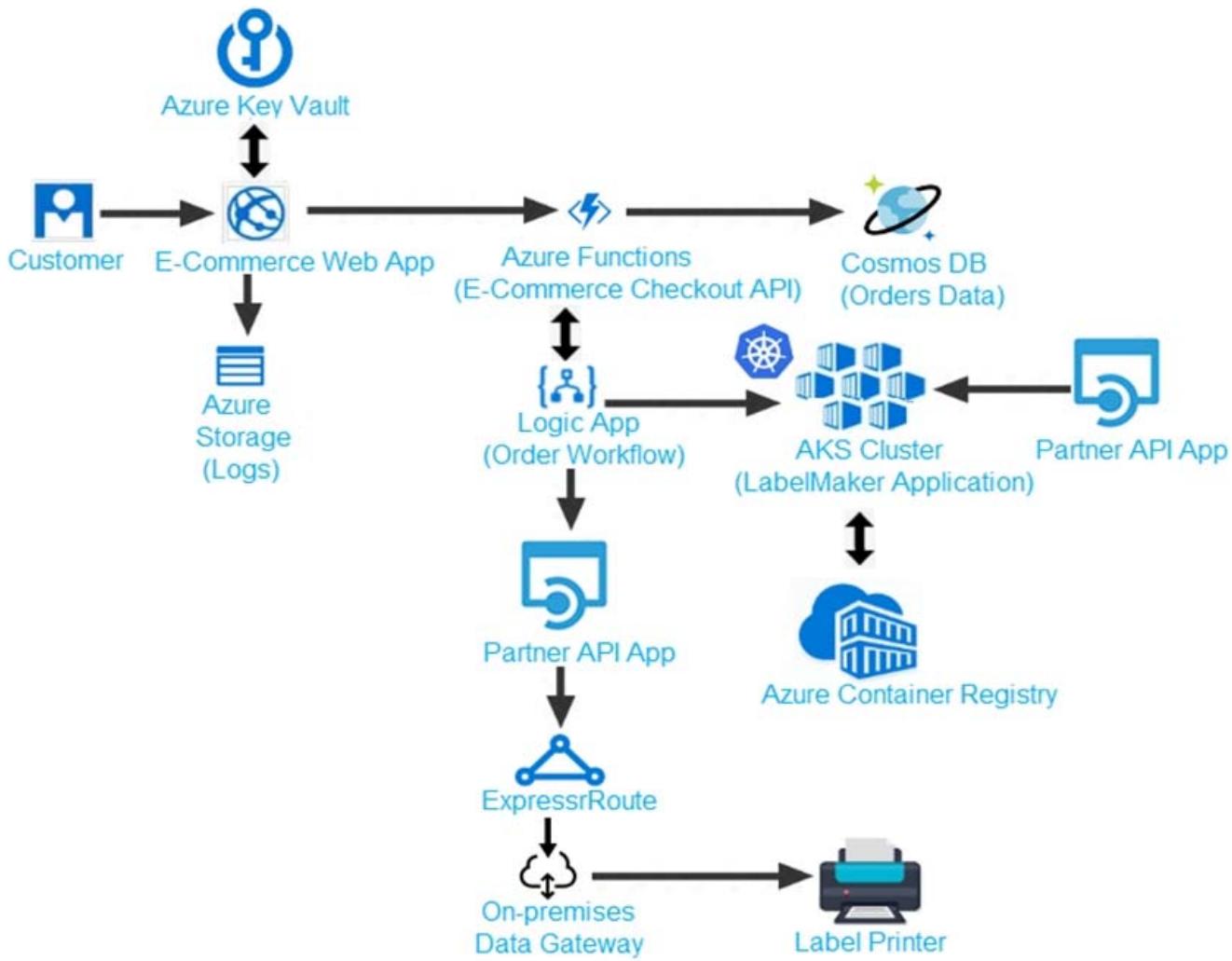
You have the following security requirements:

- Users of Coho Winery applications must be able to provide access to documents, resources, and applications to external partners.
- External partners must use their own credentials and authenticate with their organization's identity management solution.
- External partner logins must be audited monthly for application use by a user account administrator to maintain company compliance.
- Storage of e-commerce application settings must be maintained in Azure Key Vault.
- E-commerce application sign-ins must be secured by using Azure App Service authentication and Azure Active Directory (AAD).
- Conditional access policies must be applied at the application level to protect company content
- The LabelMaker applications must be secured by using an AAD account that has full access to all namespaces of the Azure Kubernetes Service (AKS) cluster.

LabelMaker app –

Azure Monitor Container Health must be used to monitor the performance of workloads that are deployed to Kubernetes environments and hosted on Azure Kubernetes Service (AKS).

You must use Azure Container Registry to publish images that support the AKS deployment.



Calls to the Printer API App fail periodically due to printer communication timeouts.

Printer communications timeouts occur after 10 seconds. The label printer must only receive up to 5 attempts within one minute.

The order workflow fails to run upon initial deployment to Azure.

Order json. Relevant portions of the app files are shown below. Line numbers are included for reference only. This JSON file contains a representation of the data for an order that includes a single item.

Order .json –

```
01 {  
02   "id": 1,  
03   "customers": [  
04     {  
05       "familyName": "Doe",  
06       "givenName": "John",  
07       "customerid": 5  
08     }  
09   ],  
10   "line_items": [  
11     {  
12       "fulfillable_quantity": 1,  
13       "id": 6,  
14       "price": "199.99",  
15       "product_id": 7513594,  
16       "quantity": 1,  
17       "requires_shipping": true,  
18       "sku": "SFC-342-N",  
19       "title": "Surface Go",  
20     }  
21   ]  
22 }  
23 
```

```
23 "tax_lines" : [
24 {
25   "title" : "State Tax",
26   "price" : "3.98",
27   "rate" : 0.06
28 }
29 ],
30 "total_discount" : "5.00"
31 "discount_allocations" : [
32 {
33   "amount" : "5.00",
34   "discount_application_index" : 2
35 }
36 ]
37 }
38 ],
39 "address" : {
40   "state" : "NY",
41   "country" : "Manhattan",
42   "city" : "NY"
43 }
44 }
```

You need to meet the LabelMaker application security requirement. You recommend to add the Azure Active Directory account into an Azure AD group. Create a ClusterRoleBinding and assign it to the group. Does the solution meet the goal?

No

Yes

Correct

Scenario: The LabelMaker applications must be secured by using an AAD account that has full access to all namespaces of the Azure Kubernetes Service (AKS) cluster. Permissions can be granted within a namespace with a RoleBinding, or cluster-wide with a ClusterRoleBinding.

<https://kubernetes.io/docs/reference/access-authn-authz/rbac/>

63. Question

You are designing a virtual network to support a web application. The web application uses Blob storage to store large images. The web application will be deployed to an Azure App Service Web App. You have the following requirements:

- Secure all communications by using Secured Socket layer (SSL) – SSL encryption and decryption must be processed efficiently to support high traffic load on the web application
- Protect the web application from web vulnerabilities and attacks without modification to backend code
- Optimize web application responsiveness and reliability by routing HTTP request and responses to the endpoint with the lowest network latency for the client. You need to protect webapp from vulnerabilities.

What Azure component do you recommend?

Azure Security Center

Azure Application gateway

Azure Monitor

Azure Traffic Manager

Incorrect

Azure Security Center is a unified infrastructure security management system that strengthens the security posture of your data centers, and provides advanced threat protection across your hybrid workloads in the cloud – whether they're in Azure or not – as well as on premises.

<https://docs.microsoft.com/en-us/azure/security-center/security-center-intro>

64. Question

Below is a policy excerpt for your reference. What could be the impact of defining this policy?

SCOPE

* Scope (Learn more about setting the scope)

Subscription 1

Exclusions

Subscription 1/ContosoRG1

BASICS

* Policy definition

Not allowed resource types

* Assignment name

Not allowed resource types

Assignment ID

/subscriptions/5eb8d0b6-ce3b-4ce0-a631-9f5321bedabb/providers/Microsoft.Authorization/policyAssignments/0e6fb866bf854f54accae2a9

Description

Assigned by

admin1@contoso.com

PARAMETERS

* Not allowed resource types

Microsoft.Sql/servers

You are prevented from creating Azure SQL Servers in ContosoRG1 only.

You are prevented from creating Azure SQL servers anywhere in Subscription 1

You can create Azure SQL servers in ContosoRG1 only.

You can create Azure SQL servers in any resource group within Subscription 1

Incorrect

You are prevented from creating Azure SQL servers anywhere in Subscription 1 excluding ContosoRG1

Impacts of defining Scope and Exclusions is covered below Scope: The management group or subscription you saved the initiative to becomes the default. You can change scope to assign the initiative to a subscription or resource group within the save location. Exclusions: Configure any resources within the scope to prevent the initiative assignment from being applied to them.

65. Question

Case Study

Overview

Best For You Organics Company is a global restaurant franchise that has multiple locations. The company wants to enhance user experiences and vendor integrations. The company plans to implement automated mobile ordering and delivery services.

Best For You Organics hosts an Azure web app at the URL <https://www.bestforyouorganics.com>. Users

can use the web app to browse restaurant location, menu items, nutritional information, and company information. The company developed and deployed a cross-platform mobile app.

Requirements

Chatbot

You must develop a chatbot by using the Bot Builder SDK and Language Understanding Intelligence Service (LUIS). The chatbot must allow users to order food for pickup or delivery.

The chatbot must meet the following requirements:

- Ensure that chatbot is secure by using the Bot Framework connector.
- Use natural language processing and speech recognition so that users can interact with the chatbot by using text and voice. Processing must be server-based.
- Alert users about promotions at local restaurants.
- Enable users to place an order for delivery or pickup by using their voice.
- Greet the user upon sign-in by displaying a graphical interface that contains action buttons.
- The chatbot greeting interface must match the formatting of the following example:

Welcome to the Restaurant



John Doe
Sun, Aug 26,2018

Welcome to Best For You Organics Company!
How can we help you today?

Specials: Chicken Masala

Order Pickup Order Delivery

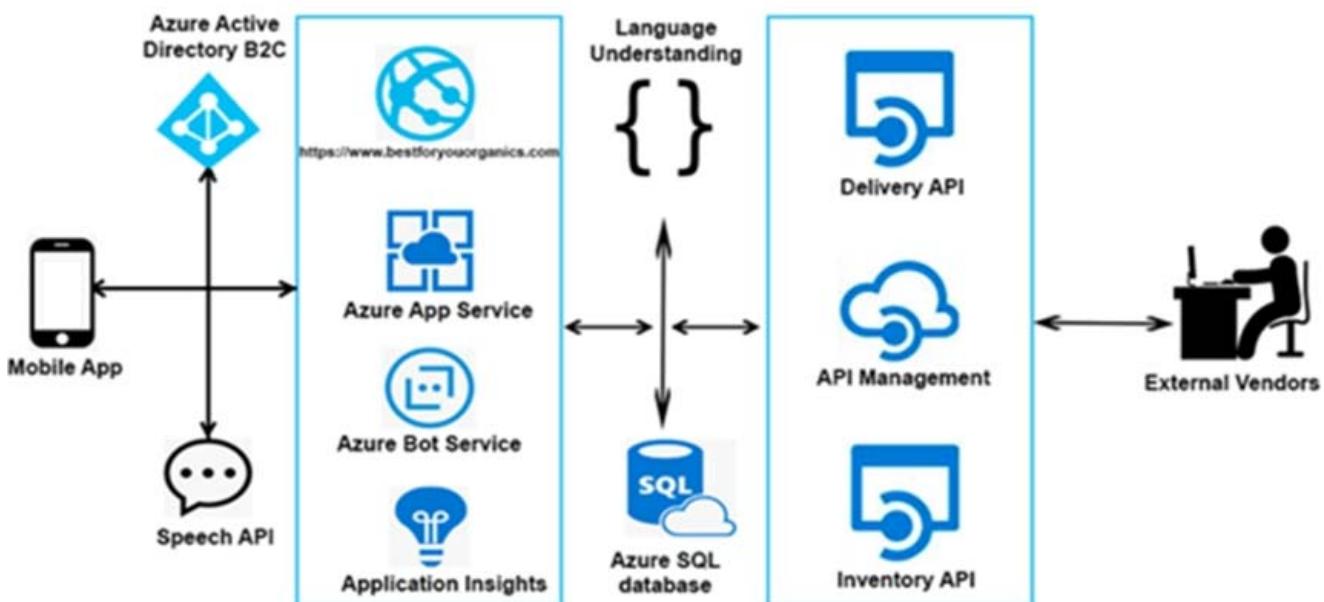
Vendor API

Vendors receive and provide updates for the restaurant inventory and delivery services by using Azure API Management hosted APIs. Each vendor uses their own subscription to access each of the APIs.

APIs must meet the following conditions:

- API usage must not exceed 5,000 calls and 50,000 kilobytes of bandwidth per hour per vendor.
- If a vendor is nearing the number of calls or bandwidth limit, the API must trigger email notifications to the vendor.
- API must prevent API usage spikes on a per-subscription basis by limiting the call rate to 100 calls per minute.
- The Inventory API must be written by using ASP.NET Core and Node.js.
- The API must be updated to provide an interface to Azure SQL Database objects must be managed by using code.
- The Delivery API must be protected by using the OAuth 2.0 protocol with Azure Active Directory (Azure AD) when called from the Azure web app. You register the Delivery API and web app in Azure AD. You enable OAuth 2.0 in the web app.
- The delivery API must update the Products table, the Vendor transactions table, and the Billing table in a single transaction.

The Best For You Organics Company architecture team has created the following diagram depicting the expected deployments into Azure:



Architecture

Issues

Delivery API

The Delivery API intermittently throws the following exception:

“System.Data.Entity.Core.EntityCommandExecutionException: An error occurred while executing the command definition. See the inner exception for details. –>System.Data.SqlClient.SqlException: A transport-level error has occurred when receiving results from the server. (provider: Session Provider, error: 19 –Physical connection is not usable)”

Chatbot greeting

The chatbot's greeting does not show the user's name. You need to debug the chatbot locally.

Language processing

Users report that the bot fails to understand when a customer attempts to order dishes that use Italian names.

App code

Relevant portions of the app files are shown below. Line numbers are included for reference only and include a two-character prefix that denotes the specific file to which they belong.

Startup.cs

```
SU01 namespace DeliveryApi
SU02 {
SU03     public class Startup
SU04     {
SU05         public Startup(IConfiguration configuration)
SU06         {
SU07             Configuration = configuration;
SU08         }
SU09         public IConfiguration Configuration { get; }
SU10         public void ConfigureServices(IServiceCollection services)
SU11         {
SU12             services.AddDbContext<RestaurantsContext>(opt =>
SU13                 opt.UseSqlServer(Configuration.GetSection("ConnectionStrings")
["RestaurantDatabase"]),
SU14                 sqlServerOptionsAction: sqlOptions =>
SU15                 {
SU16                     . .
SU17                 }));
SU18             services.AddMvc()
SU19                 .SetCompatibilityVersion(CompatibilityVersion.Version_2_1);
SU20         }
SU21         public void Configure(IApplicationBuilder app)
SU22         {
SU23             app.UseMvc();
SU24         }
SU25     }
SU26 }
```

You need to meet the security requirements. What should you use?

HTTP Strict Transport Security (HSTS)

Bot Framework Portal

Bot Framework authentication

Multi-Factor Authentication (MFA)

- Direct Line API

Correct

The Azure Bot Service v4 SDK facilitates the development of bots that can access online resources that require authentication. Your bot does not need to manage authentication tokens. Azure does it for you using OAuth2 to generate a token, based on each user's credentials. Your bot uses the token generated by Azure to access those resources. In this way, the user does not have to provide ID and password to the bot to access a secured resource but only to a trusted identity provider.

The Bot Framework Token Service is responsible for:

Facilitating the use of the OAuth protocol with a wide variety of external services.

Securely storing tokens for a particular bot, channel, conversation, and user.

Acquiring user tokens.

<https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-authentication?view=azure-bot-service-4.0&tabs=aadv1%2Ccssharp>

<https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-concept-authentication?view=azure-bot-service-4.0>

66. Question

You plan to migrate an on-premises Hyper-V environment to Azure by using Azure Site Recovery. The Hyper-V environment is managed by using Microsoft System Center Virtual Machine Manager (VMM). The Hyper-V environment contains the virtual machines in the following table:

Name	Operating system (OS)	OS disk size	BitLocker Drive Encryption (BitLocker) enabled on OS disks.	Generation
DC1	Windows Server 2016	500 GB	No	2
FS1	Ubuntu 16.04 LTS	200 GB	No	2
CA1	Windows Server 2012 R2	1 TB	Yes	1
SQL1	Windows Server 2016	200 GB	No	1

Which virtual machine can be migrated by using Azure Site Recovery?

- DC1

- SQL1

CA1 FS1**Incorrect**

Supported components and settings for disaster recovery of on-premises Hyper-V VMs to Azure by using Azure Site Recovery are mentioned in below article <https://docs.microsoft.com/en-us/azure/site-recovery/hyper-v-azure-support-matrix#azure-vm-requirements>

67. Question

Case Study

Overview

ADatum Corporation is a financial company that has two main offices in New York and Los Angeles.

ADatum has a subsidiary named Fabrikam, Inc. that shares the Los Angeles office.

ADatum is conducting an initial deployment of Azure services to host new line-of-business applications and is preparing to migrate its existing on-premises workloads to Azure.

ADatum uses Microsoft Exchange Online for email.

Existing Environment

On-Premises Environment

The on-premises workloads run on virtual machines hosted in a VMware vSphere 6 infrastructure. All the virtual machines are members of an Active Directory forest named adatum.com and run Windows Server 2016.

The New York office uses an IP address space of 10.0.0.0/16. The Los Angeles office uses an IP address space of 10.10.0.0/16.

The offices connect by using a VPN provided by an ISP. Each office has one Azure ExpressRoute circuit that provides access to Azure services and Microsoft Online Services. Routing is implemented by using Microsoft peering.

The New York office has a virtual machine named VM1 that has the vSphere console installed.

Azure Environment

You provision the Azure infrastructure by using the Azure portal. The infrastructure contains the resources

shown in the following table.

Name	Type	Azure Region
ASRV1	Azure Site Recovery vault	East US
ASRV2	Azure Site Recovery vault	West US
ASE1	Azure App Service Environment	East US
AG1	Azure Application Gateway (internal)	East US
AG2	Azure Application Gateway (Internet-facing)	West US
ER1	ExpressRoute circuit	East US
ER2	ExpressRoute circuit	West US

AG1 has two backend pools named Pool11 and Pool12. AG2 has two backend pools named Pool21 and Pool22.

Requirements

Planned Changes

ADatum plans to migrate the virtual machines from the New York office to the East US Azure region by using Azure Site Recovery.

Infrastructure Requirements

ADatum identifies the following infrastructure requirements:

- A new web app named App1 that will access third-parties for credit card processing must be deployed.
- A newly developed API must be implemented as an Azure function named App2. App2 will use a blob storage trigger. App2 must process new blobs immediately.
- The Azure infrastructure and the on-premises infrastructure must be prepared for the migration of the VMware virtual machines to Azure.
- The sizes of the Azure virtual machines that will be used to migrate the on-premises workloads must be identified.
- All migrated and newly deployed Azure virtual machines must be joined to the adatum.com domain.
- AG1 must load balance incoming traffic in the following manner:
 - http://corporate.adatum.com/video/* will be load balanced across Pool11.
 - http://corporate.adatum.com/images/* will be load balanced across Pool12.
- AG2 must load balance incoming traffic in the following manner:
 - <http://www.adatum.com> will be load balanced across Pool21.
 - <http://fabrikam.com> will be load balanced across Pool22.
- ER1 must route traffic between the New York office and platform as a service (PaaS) services in the

East US Azure region, as long as ER1 is available.

- ER2 must route traffic between the Los Angeles office and the PaaS services in the West US region, as long as ER2 is available.
- ER1 and ER2 must be configured to fail over automatically.

Application Requirements

App2 must be available to connect directly to the private IP addresses of the Azure virtual machines. App2 will be deployed directly to an Azure virtual network.

Inbound and outbound communications to App1 must be controlled by using NSGs.

Pricing Requirements

ADatum identifies the following pricing requirements:

- The cost of App1 and App2 must be minimized
- The transactional charges of Azure Storage accounts must be minimized

You need to configure the Azure ExpressRoute circuits. You recommend to configure routing Adatum to Azure and vice versa following below approach.

Routing from ADatum to Azure – Use BGP to append the private AS numbers to the advertised prefixes.

Routing from Microsoft Online services to Azure – Use BGP to append public AS numbers to the advertised prefixes.

Does this meet the requirement?

Yes

No

Incorrect

Azure compute services, namely virtual machines (IaaS) and cloud services (PaaS), that are deployed within a virtual network can be connected through the private peering domain. The private peering domain is considered to be a trusted extension of your core network into Microsoft Azure. Services such as Azure Storage, SQL databases, and Websites are offered on public IP addresses. You can privately connect to services hosted on public IP addresses, including VIPs of your cloud services, through the public peering routing domain. You can connect the public peering domain to your DMZ and connect to all Azure services on their public IP addresses from your WAN without having to connect through the internet. <https://docs.microsoft.com/en-us/azure/expressroute/expressroute-circuit-peering>

68. Question

Case Study

Overview

LabelMaker app – Coho Winery produces bottles, and distributes a variety of wines globally. You are

developer implementing highly scalable and resilient applications to support online order processing by using Azure solutions.

Coho Winery has a LabelMaker application that prints labels for wine bottles. The application sends data to several printers. The application consists of five modules that run independently on virtual machines (VMs). Coho Winery plans to move the application to Azure and continue to support label creation.

External partners send data to the LabelMaker application to include artwork and text for custom label designs.

Data –

You identify the following requirements for data management and manipulation:

Order data is stored as nonrelational JSON and must be queried using Structured Query Language (SQL).

Changes to the Order data must reflect immediately across all partitions. All reads to the Order data must fetch the most recent writes.

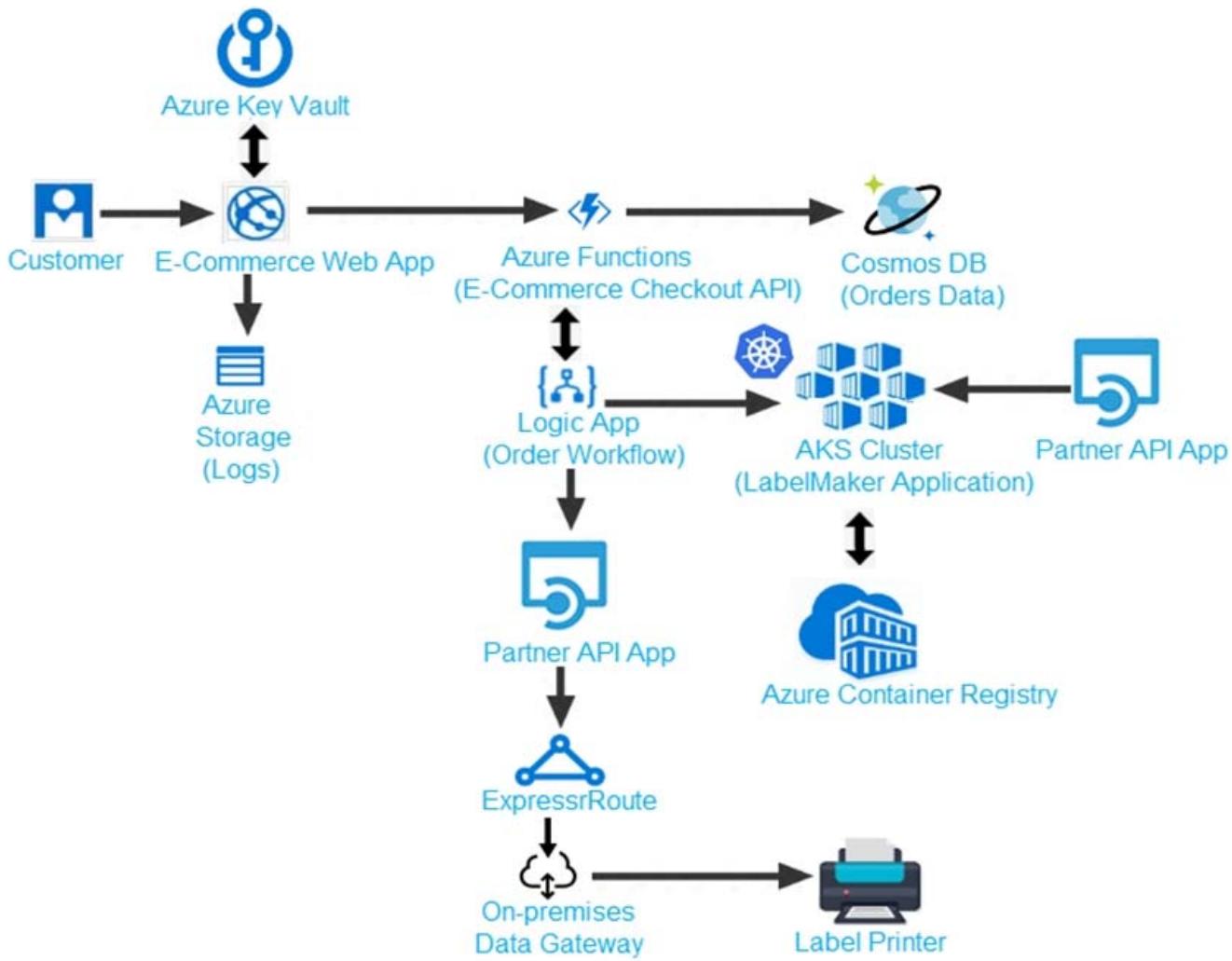
You have the following security requirements:

- Users of Coho Winery applications must be able to provide access to documents, resources, and applications to external partners.
- External partners must use their own credentials and authenticate with their organization's identity management solution.
- External partner logins must be audited monthly for application use by a user account administrator to maintain company compliance.
- Storage of e-commerce application settings must be maintained in Azure Key Vault.
- E-commerce application sign-ins must be secured by using Azure App Service authentication and Azure Active Directory (AAD).
- Conditional access policies must be applied at the application level to protect company content
- The LabelMaker applications must be secured by using an AAD account that has full access to all namespaces of the Azure Kubernetes Service (AKS) cluster.

LabelMaker app –

Azure Monitor Container Health must be used to monitor the performance of workloads that are deployed to Kubernetes environments and hosted on Azure Kubernetes Service (AKS).

You must use Azure Container Registry to publish images that support the AKS deployment.



Calls to the Printer API App fail periodically due to printer communication timeouts.

Printer communications timeouts occur after 10 seconds. The label printer must only receive up to 5 attempts within one minute.

The order workflow fails to run upon initial deployment to Azure.

Order json. Relevant portions of the app files are shown below. Line numbers are included for reference only. This JSON file contains a representation of the data for an order that includes a single item.

Order .json –

```
01 {  
02   "id": 1,  
03   "customers": [  
04     {  
05       "familyName": "Doe",  
06       "givenName": "John",  
07       "customerid": 5  
08     }  
09   ],  
10   "line_items": [  
11     {  
12       "fulfillable_quantity": 1,  
13       "id": 6,  
14       "price": "199.99",  
15       "product_id": 7513594,  
16       "quantity": 1,  
17       "requires_shipping": true,  
18       "sku": "SFC-342-N",  
19       "title": "Surface Go",  
20     }  
21   ]  
22 }  
23 
```

```
23 "tax_lines" : [
24 {
25   "title" : "State Tax",
26   "price" : "3.98",
27   "rate" : 0.06
28 }
29 ],
30 "total_discount" : "5.00"
31 "discount_allocations" : [
32 {
33   "amount" : "5.00",
34   "discount_application_index" : 2
35 }
36 ]
37 }
38 ],
39 "address" : {
40   "state" : "NY",
41   "country" : "Manhattan",
42   "city" : "NY"
43 }
44 }
```

You need to meet the LabelMaker application security requirement. You recommend to Create a conditional access policy and assign it to the Azure Kubernetes Service cluster. Does the solution meet the goal?

No

Yes

Correct

Scenario: The LabelMaker applications must be secured by using an AAD account that has full access to all namespaces of the Azure Kubernetes Service (AKS) cluster. Before an Azure Active Directory account can be used with the AKS cluster, a role binding or cluster role binding needs to be created.

<https://docs.microsoft.com/en-us/azure/aks/aad-integration>

69. Question

Case Study

Overview

ProtectLives Insurance is an insurance company that has three offices in Berlin, Tokyo and Bangkok. Each office has 5.000 users.

Existing Environment

Active Directory Environment

ProtectLives Insurance has a single-domain Active Directory forest named ProtectLivesinsurance.com. The functional level of the forest is Windows Server 2012.

You recently provisioned an Azure Active Directory (Azure AD) tenant.

Network Infrastructure

Each office has a local data center that contains all the servers for that office. Each office has a dedicated connection to the Internet.

Each office has several link load balancers that provide access to the servers.

Active Directory Issue

Several users in ProtectLivesinsurance.com have UPNs that contain special characters.

You suspect that some of the characters are unsupported in Azure AD.

Licensing Issue

You attempt to assign a license in Azure to several users and receive the following error message: "Licenses not assigned. License agreement failed for one user."

You verify that the Azure subscription has the available licenses.

Requirements

Planned Changes

ProtectLives Insurance plans to open a new office in Paris. The Paris office will contain 1,000 users who will be hired during the next 12 months. All the resources used by the Paris office users will be hosted in Azure.

Planned Azure AD Infrastructure

The on-premises Active Directory domain will be synchronized to Azure AD.

All client computers in the Paris office will be joined to an Azure AD domain.

Planned Azure Networking Infrastructure

You plan to create the following networking resources in a resource group named All_Resources:

- Default Azure system routes that will be the only routes used to route traffic
- A virtual network named Paris-VNet that will contain two subnets named Subnet1 and Subnet2
- A virtual network named ClientResources-VNet that will contain one subnet named ClientSubnet

ClientSubnet

- A virtual network named AllOffices-VNet that will contain two subnets named Subnet3 and Subnet4

You plan to enable peering between Paris-VNet and AllOffices-VNet. You will enable the Use remote gateways setting for the Paris-VNet peerings.

You plan to create a private DNS zone named ProtectLivesinsurance.local and set the registration network to the ClientResources-VNet virtual network.

Planned Azure Computer Infrastructure

Each subnet will contain several virtual machines that will run either Windows Server 2012 R2, Windows Server 2016, or Red Hat Linux.

Department Requirements

ProtectLives Insurance identifies the following requirements for the company's departments:

- Web administrators will deploy Azure web apps for the marketing department. Each web app will be added to a separate resource group. The initial configuration of the web apps will be identical. The web administrators have permission to deploy web apps to resource groups.
- During the testing phase, auditors in the finance department must be able to review all Azure costs from the past week.

Authentication Requirements

Users in the Berlin office must use Azure Active Directory Seamless Single Sign-on (Azure AD Seamless SSO) when accessing resources in Azure.

You are evaluating the connectivity between the virtual machines after the planned implementation of the Azure networking infrastructure.

Will Virtual Machines on ClientSubnet be able to connect to the internet?

No

Yes

Correct

Once the VNets are peered, all resources on one VNet can communicate with resources on the other peered VNets. You plan to enable peering between Paris-VNet and AllOffices-VNet. Therefore VMs on

Subnet1, which is on Paris-VNet and VMs on Subnet3, which is on AllOffices-VNet will be able to connect to each other. All Azure resources connected to a VNet have outbound connectivity to the Internet by default. Therefore VMs on ClientSubnet, which is on ClientResources-VNet will have access to the Internet; and VMs on Subnet3 and Subnet4, which are on AllOffices-VNet will have access to the Internet. <https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-peering-overview>
<https://docs.microsoft.com/en-us/azure/networking/networking-overview#internet-connectivity>

70. Question

You have an Azure subscription named Subscription1. Subscription1 contains a virtual machine named VM1. You install and configure a web server and a DNS server on VM1. VM1 has the effective network security rules shown below

Network Interface: **vm1900** Effective security rules Topology

Virtual network/subnet: **VMRG-vnet/default** Public IP: **104.40.215.211** Private IP: **10.0.0.5** Accelerated networking: **Disabled**

INBOUND PORT RULES

Network security group **VM1-nsg** (attached to network interface: **vm1900**) **Add inbound port rule**
 Impacts 0 subnets, 1 network interfaces

PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINATION	ACTION
900	⚠ Rule2	50-60	Any	Any	Any	Deny ...
1000	⚠ default-allow-rdp	3389	TCP	Any	Any	Allow ...
1010	Rule1	50-500	TCP	Any	Any	Allow ...
65000	AllowVnetInBound	Any	Any	VirtualNet...	VirtualNet...	Allow ...
65001	AllowAzureLoadBalanc...	Any	Any	AzureLoad...	Any	Allow ...
65500	DenyAllInBound	Any	Any	Any	Any	Deny ...

OUTBOUND PORT RULES

Network security group **VM1-nsg** (attached to network interface: **vm1900**) **Add outbound port**
 Impacts 0 subnets, 1 network interfaces

PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINATION	ACTION
1000	Rule3	80	Any	Any	Any	Deny ...
65000	AllowVnetOutBound	Any	Any	VirtualNet...	VirtualNet...	Allow ...
65001	AllowInternetOutBou...	Any	Any	Any	Internet	Allow ...
65500	DenyAllOutBound	Any	Any	Any	Any	Deny ...

Which service on VM1 is accessible to users from internet if Rule 2 is deleted?

DNS WINS Users cannot connect to any services of VM1 Web Server**Incorrect**

Users from internet can connect to both DNS & Web Server Rules are processed in priority order, with lower numbers processed before higher numbers, because lower numbers have higher priority.

Processing stops once traffic matches a rule, as a result, any rules that exist with lower priorities (higher numbers) that have the same attributes as rules with higher priorities are not processed.

<https://docs.microsoft.com/en-us/azure/virtual-network/security-overview#security-rules>

Use Page numbers below to navigate to other
practice tests

Pages: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [11](#) [12](#) [13](#) [14](#) [15](#) [16](#) [17](#) [18](#)

[← Previous Post](#)[Next Post →](#)

We help you to succeed in your certification exams

We have helped over thousands of working professionals to achieve their certification goals with our practice tests.

Skillcertpro



Quick Links

ABOUT US

FAQ

BROWSE ALL PRACTICE TESTS

CONTACT FORM

Important Links

[REFUND POLICY](#)

[REFUND REQUEST](#)

[TERMS & CONDITIONS](#)

[PRIVACY POLICY](#)