

Exam AZ-103: Microsoft Azure Administrator Crash Course



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- MCT since 1997
- MVP since 2017
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- Az Admin badge: [timw.info](#)



Day 1 of 2 Agenda

- Introduction
- Module 1: Manage Azure Subscriptions and Resources
- Module 2 Implement and Manage Storage
- Module 3: Deploy and Manage Virtual Machines
- Synthesis and look ahead to Day 2

Day 2 of 2 Agenda

- Module 3, Continued: Compute, Part 2
 - ~*Diagnostics*~
- Module 4: Configure and Manage Virtual Networks
- Module 5: Manage Identities
- Module 6: Exam AZ-103/104 Exam Strategy

A Different Kind of Training

- Let's avoid slide show fatigue
- We'll learn by doing – at least 80 percent demo
- I'm here to answer your questions – take advantage of this!

Course Materials

timw.info/az103

AZ-103 2020 Changes

- Reference: <https://timw.info/az2020>
- Azure certifications reviewed every 1 year
- AZ-104 is currently in beta testing
 - 80 percent discount
- AZ-103 will retire on or around August 31, 2020



AZ-103 2020 Changes

- Cert update goals:
 - Reduce redundancy between certs
 - Re-align with JTA / job role
- Both AZ-103 and AZ-104 grant the same badge
- I advise you to stay on track with the AZ-103
- Beta exam periods are of variable length
- It will take content creators months to "catch up" to cover AZ-104



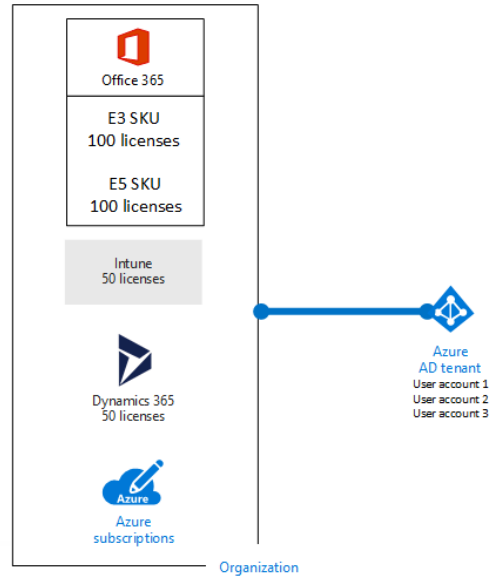


Module 1: Manage Azure Subscriptions and Resources

Module 1 Learning Objectives

- Manage Azure subscriptions
- Analyze resource utilization and consumption
- Manage resource groups
- Manage Role Based Access Control (RBAC)

Azure Subscriptions



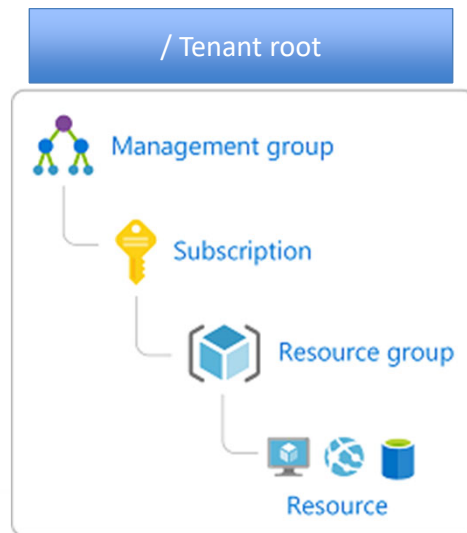
Azure Management Scopes

Inheritance:

- RBAC
- Policy

No inheritance:

- Tags



Module 1 Demo

- Make user Contributor at the subscription scope
- Log into Azure portal as the new Contributor
- Create a deployment:
 - Resource group
 - Storage account
- Grant another user read access to the resource group
 - Verify by attempting to delete the storage account

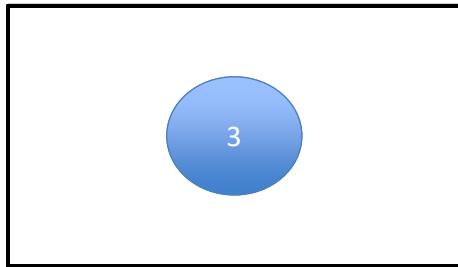


Module 2: Implement and Manage Storage

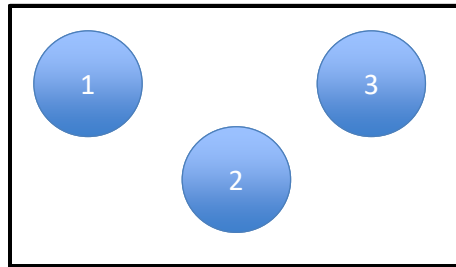
Module 2 Learning Objectives

- Create and configure storage accounts
- Import and export data to Azure
- Configure Azure Files
- Implement Azure backup

Storage Account Replication

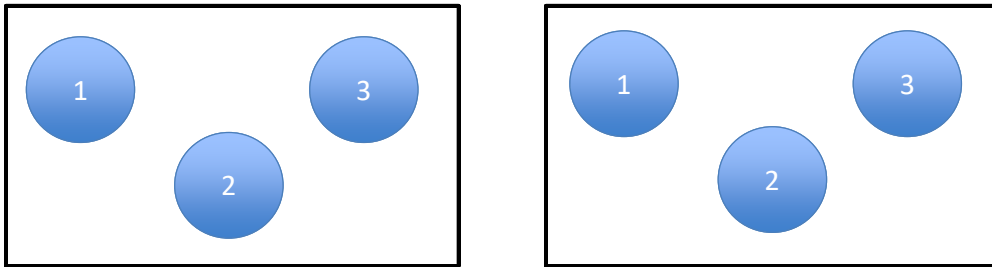


LRS



ZRS

Storage Account Replication



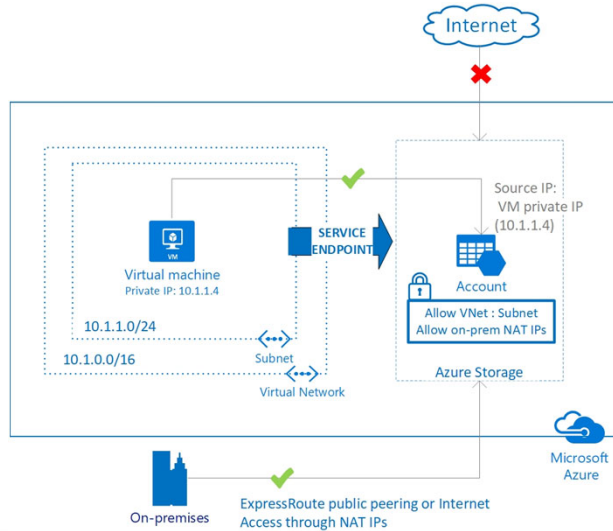
GRS – RA/GRS

Shared Access Signature (SAS)

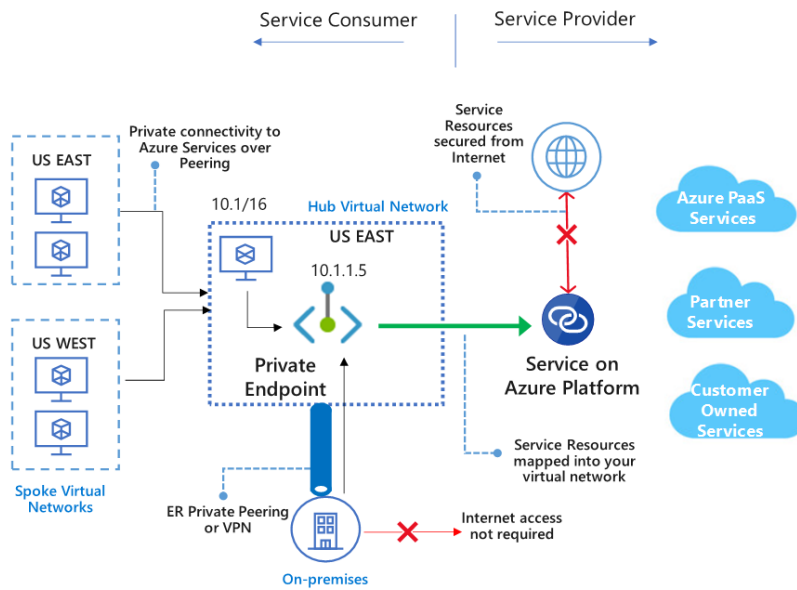
<https://cloudstg704.blob.core.windows.net/test/profile.ps1?st=2020-0114T14%3A34%3A12Z&se=2020-0115T15%3A34%3A00Z&sp=rl&sv=20180328&sr=b&sig=6g7u%2BYUYJ%2BRGtYGmSeh%2Fd7rRGLT9%2FjqO1%2BGDdVDT30o%3D>

[illegible]

Service Endpoints



Private Link



Module 2 Demo

- Connect to storage account from Storage Explorer
 - Upload/download files
 - Create and used a shared access signature
- Connect Azure Cloud Shell
 - Create cloud shell
 - View file share in shell and in Azure portal
- Configure VM backup
 - Create Recovery Services vault

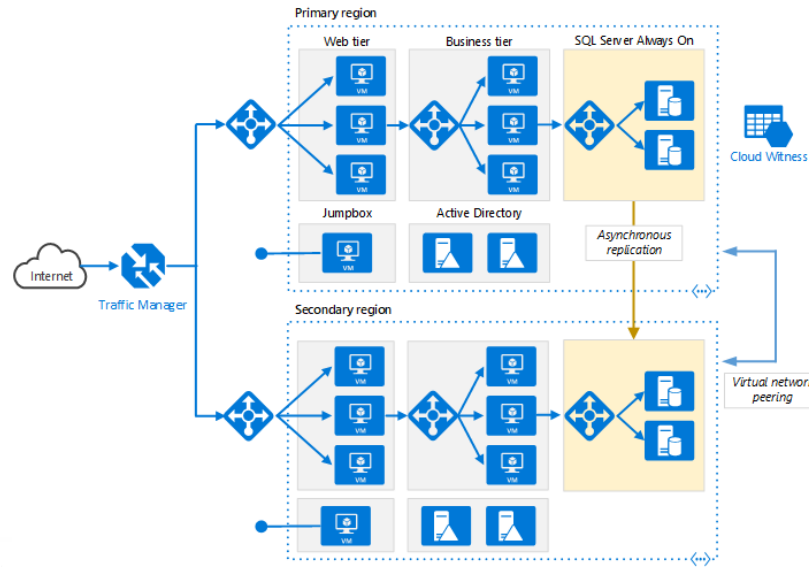


Module 3: Deploy and Manage Virtual Machines

Module 3 Learning Objectives

- Create and configure a VM for Windows and Linux
- Automate VM deployment
- Manage Azure VM configuration
- Manage Azure VM backups

Virtual Machines



Module 3 Demo

- Create a Linux VM with SSH authentication via Azure portal
 - Place on one VNet
- Create a Windows VM from an ARM template
 - Place on a second VNet
- Practice restores from previously backed-up VM
 - Full restore
 - File Recovery



Module 4: Configure and Manage Virtual Networks

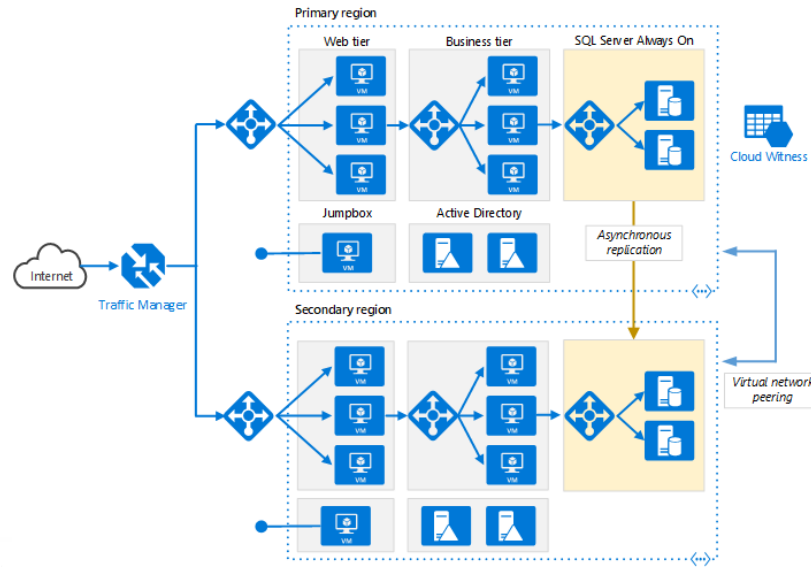
Module 4 Learning Objectives

- Create connectivity between virtual networks
- Implement and manage virtual networking
- Configure name resolution
- Create and configure a Network Security Group (NSG)

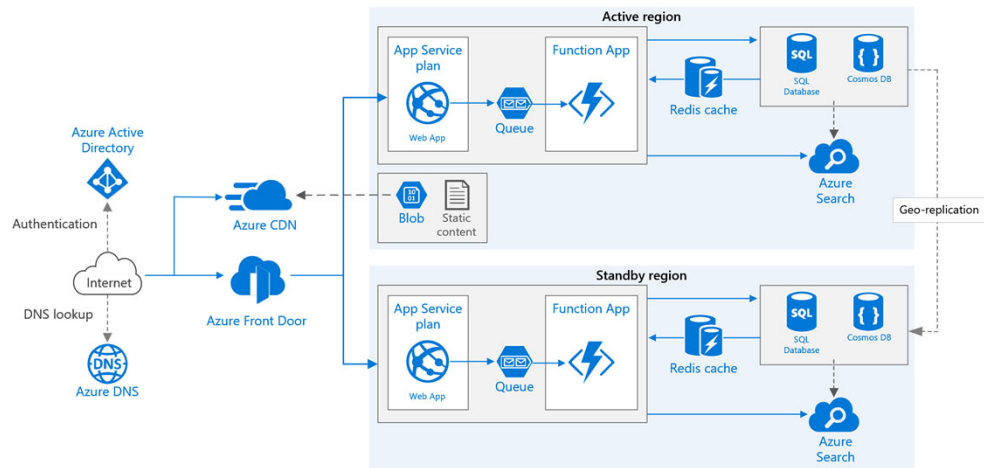
Module 4 Learning Objectives (Cont'd)

- Implement Azure load balancer
- Monitor and troubleshoot virtual networking
- Integrate on-premises network with Azure virtual network

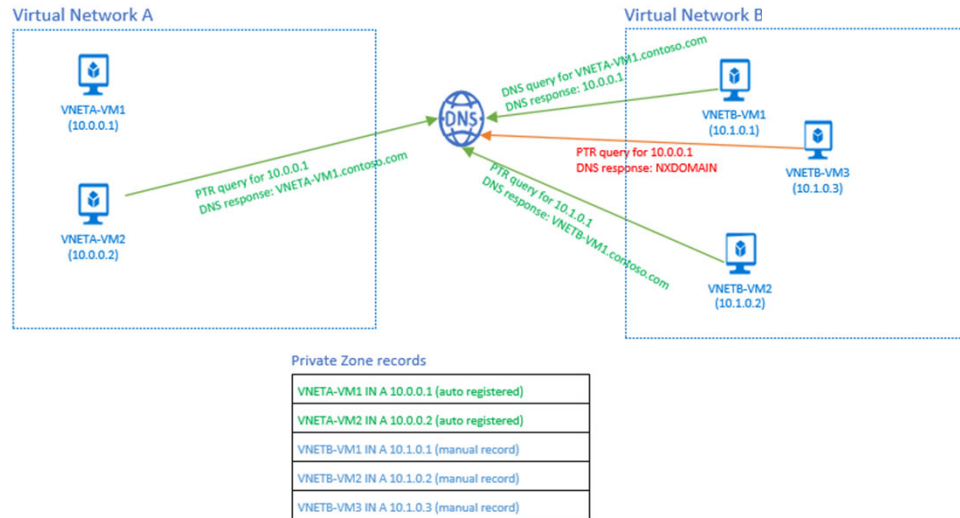
Virtual Networks



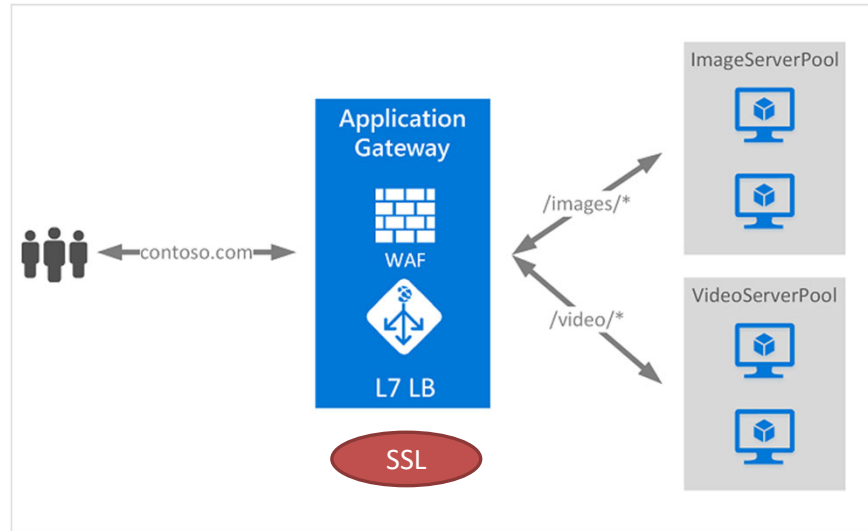
Front Door / CDN



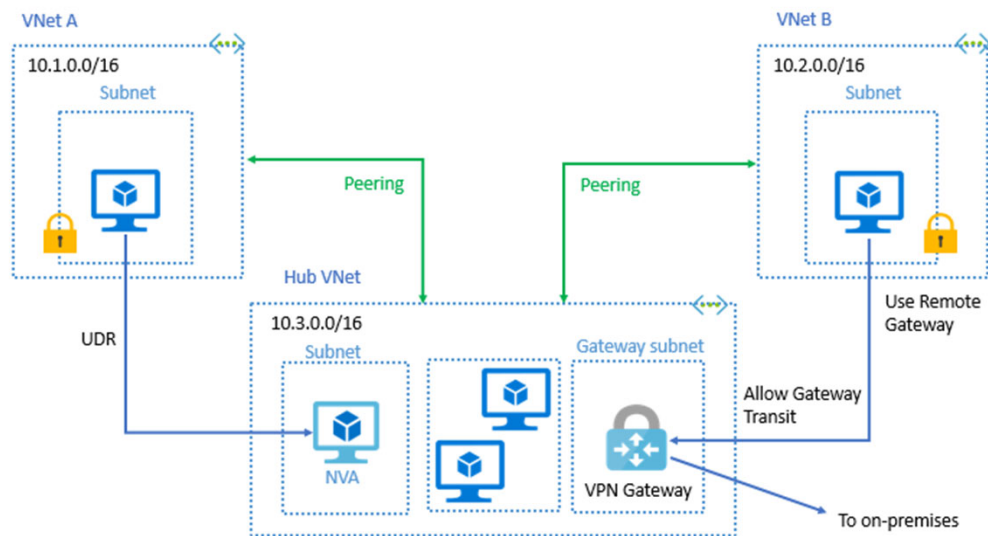
Azure DNS



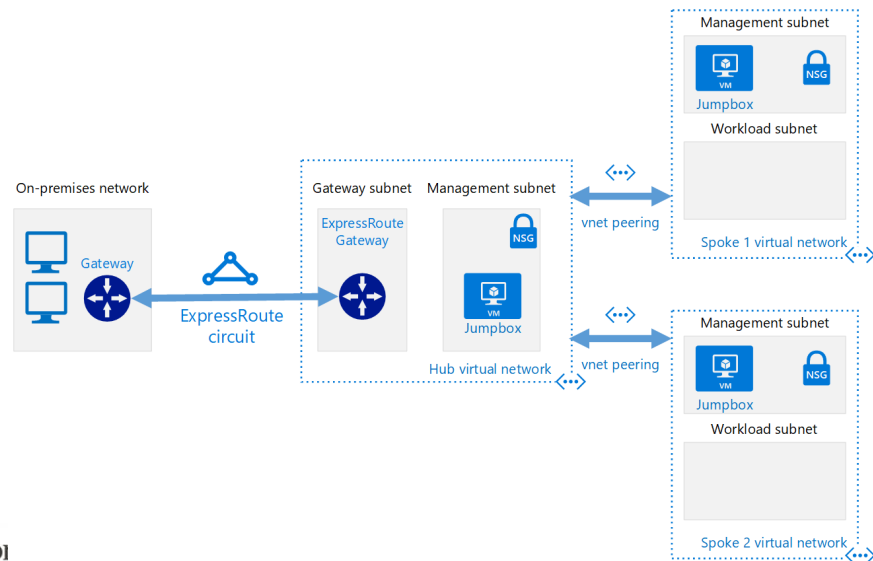
Application Gateway



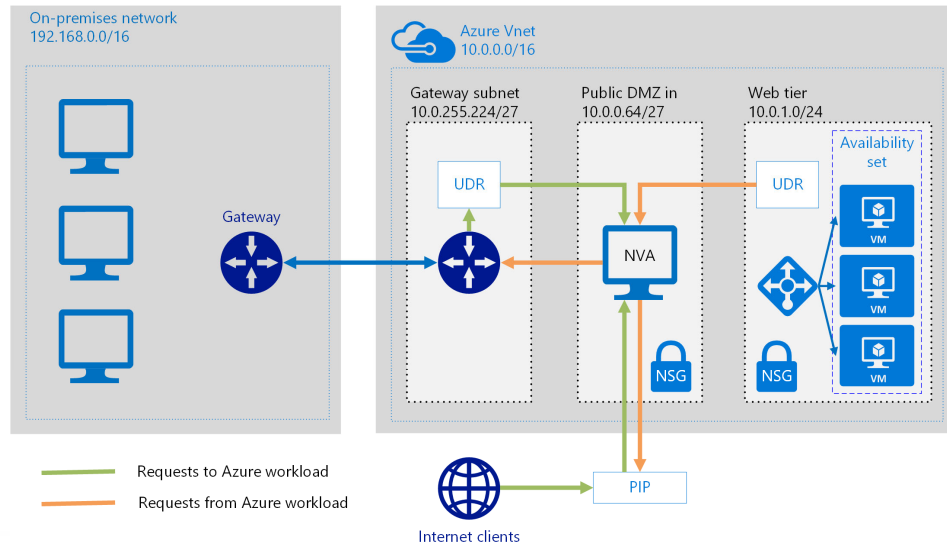
VNet Peering



Hybrid Cloud with Hub/Spoke



Network Virtual Appliance



Module 4 Demo

- Add a custom DNS server address
- Create a VNet peering between the two Vnets
- Use Network Watcher to test connectivity
 - Pay particular attention to NSGs
- Walk through S2S VPN configuration at a high level

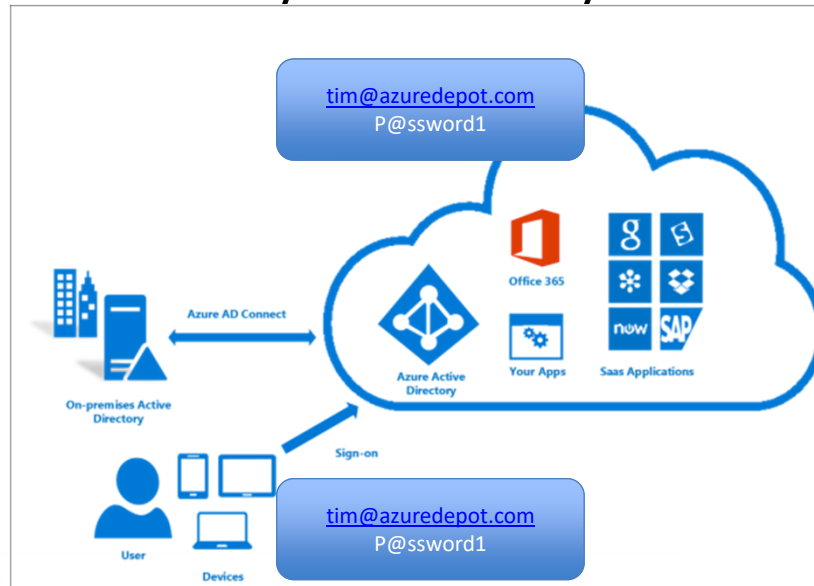


Module 5: Manage Identities

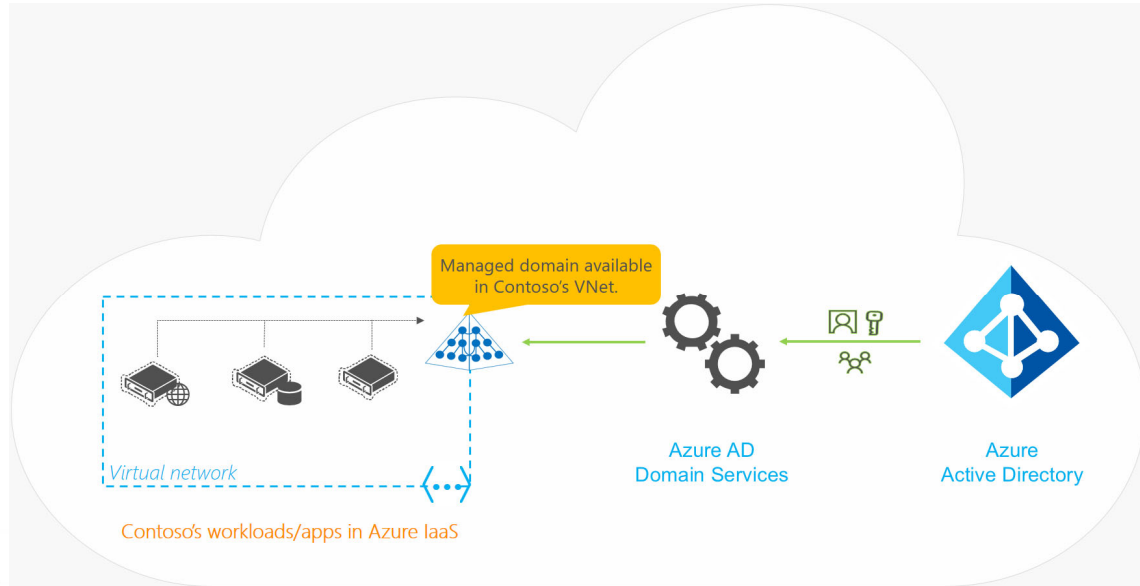
Module 5 Learning Objectives

- Manage Azure Active Directory
- Manage Azure AD objects (users, groups, devices)
- Implement and manage hybrid identities
- Implement multi-factor authentication (MFA)

Hybrid Identity



Azure AD Domain Services



Module 5 Demo

- Create an MFA Users group
- Create MFA conditional access policy
 - Based on Azure AD group membership
- Create an Azure AD user
 - Grant RBAC at resource group level
- Test access
 - MFA registration
 - Resource access



Module 6: Exam AZ-103 Study Strategy

Module 6 Learning Objectives

- Master the concepts
- Master the hands-on skills
- Master test-taking skills
- Know what to expect before, during, and after the exam

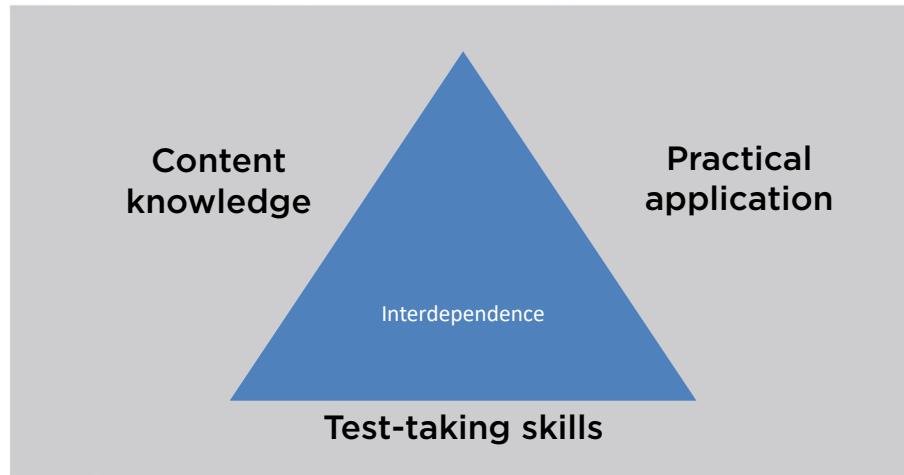
Module 6 Demo

- Tour relevant websites:
 - Exam page(s) with registration workflow
 - Mindhub offers
 - MeasureUp.com
- Work through practice items
- Show MCP dashboard

Microsoft Role-Based Certifications




Tim's Cert Study Pyramid





Exam AZ-103/104 Item Types

Single-Answer Multiple Choice

 Question 4 (of 5)

Time remaining 01:58:22

☐ Review later
☐ Comment later

Your network contains an Active Directory domain named contoso.com. The domain contains two servers named Server1 and Server2 that run Windows Server 2012 R2. Server1 has the Group Policy Management feature installed. Server2 has the Print and Document Services server role installed.


On Server2, you open **Print Management** and you deploy a printer named Printer1 by using a Group Policy object (GPO) named GPO1.


When you open GPO1 on Server1, you discover that the Deployed Printers node does not appear.


You need to view the Deployed Printers node in GPO1.


What should you do?


- ☐ A. On Server1, add and share a printer.
- ☐ B. On Server1, install the Print and Document Services Tools.
- ☐ C. On a domain controller, create a Group Policy central store.
- ☐ D. On Server1, modify the Group Policy filtering options of GPO1.


 Help

 Calculator

 Color scheme

 Reset

 Previous

 Next

Multiple-Answer Multiple Choice

Question 3 of 7

You have a computer that runs Windows 7.

You start the computer and receive the following error message:

BOOTMGR is missing
Press Ctrl+Alt+Del to restart

You then start the computer from the Windows 7 installation media.

You need to ensure that the computer successfully starts Windows 7.

What are two possible ways to achieve this goal? (Each correct answer presents a complete solution. Choose two.)

- ☐ A. Run Startup Repair.
- ☐ B. Run System Restore.
- ☐ C. Run **Bootrec /RebuildBcd**.
- ☐ D. Run **Bcdedit /createstore**.

Reset(T)

Instructions(I)

Repeated Scenario

You need to move an Azure VM to another hardware host.

Solution: You redeploy the VM.

Does this solution meet the goal?

- a. Yes
- b. No

Repeated Scenario


You need to move an Azure VM to another hardware host.

Solution: You restart the VM.

Does this solution meet the goal?

- a. Yes
- b. No

Select and Place

 Question 5 (of 9)

Time remaining 01:38:28


☐ Review later
☐ Comment later


You have a Microsoft SharePoint 2013 Service Pack 1 (SP1) server farm.


You need to recommend which tools should be used to recover deleted SharePoint site groups, deleted document libraries, and deleted SharePoint Designer 2010 workflows. The solution must use the minimum amount of administrative effort.


Which tool should you recommend for each type of content? To answer, drag the appropriate tool to the correct recovery task. Each tool may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.


Tool	Recovery Task
Microsoft SQL Server backups	Document libraries
Recycle Bin	SharePoint Site groups
Windows Server Backups	SharePoint Designer workflows
	Resources


 Help

 Calculator

 Color scheme

 Reset

 Previous

 Next

Build List and Reorder

Question 4 (of 5)

Review later

Comment later

Time remaining 01:56:12

You have a Hyper-V host named Server1.

A technician creates a virtual machine named VM1 on Server1 by using the New Virtual Machine Wizard.

You start VM1 and you discover that there is no option to start by using PXE.

You need to ensure that you can start VM1 by using PXE.

Which three actions should you perform in sequence? (To answer, move the appropriate three actions from the list of actions to the answer area and arrange them in the correct order.)

Actions

Shut down VM1.

Modify the BIOS settings of VM1.

Enable DHCP guard on the legacy network adapter.

Answer Area

1 Modify the virtual switch settings of the legacy network adapter.

2 Add a legacy network adapter to VM1.

3 Install Integration Services on VM1.

?


Calculator

Color scheme

Reset

Previous

Next

 Pearson

54

Active Screen

Question 18 of 32

You configure a SharePoint Server 2010 Service Pack 1 (SP1) server farm.

You need to enable the cache profile for anonymous users on internal collaboration sites for the site collection. You also need to allow administrators to choose a different page output cache profile for page layouts.

What should you do? (To answer, configure the appropriate option or options in the dialog box in the answer area.)

Answer Area

Libraries

Site Pages

Shared Documents

Lists

Calendar

Tasks

Discussions

Team Discussion

Recycle Bin

Output Cache

Select the **Enable output cache** check box to enable output caching in this site collection.

Default Page Output Cache Profile

A cache profile specifies how long items should be held in the cache. It also describes to the caching system how to determine whether a cached page element is in fact valid for other requests for the same element from different users.

You can specify different cache profiles to use for anonymous and authenticated users. This optimizes the use of the cache based on the authentication methods allowed on the site. Page output cache profiles specifically affect portal publishing pages. [Learn more about the default page output cache profile.](#)

☒ Enable output cache

Anonymous Cache Profile

Intranet (Collaboration Site)

Optimized for collaboration sites where authoring, web part customization, and minor version are enabled.

Authenticated Cache Profile

Disabled

Caching is not enabled

Reset(T)

Instructions(I)

Case Study

Case Study

Time remaining 01:56:02

Question

Background

Existing Environment

Business Requirements

Technical Requirements

Problem Statements

Exhibits

This exam includes at least one case study. **Case studies are not timed separately. You can use as much exam time as you would like to complete each case.** However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study

To display the first question in this case study, click the **Next** button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an **All Information** tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the **Question** button to return to the question.



Help



Calculator



Color scheme



Reset



Next

Statement / Code Analysis

```
private void btnEquals_Click(object sender, EventArgs e)
{
    if (plusButtonClicked == true)
    {
        total2 = total1 + double.Parse(txtDisplay.Text);
    }
    else if (minusButtonClicked == true)
    {
        total2 = total1 - double.Parse(txtDisplay.Text);
    }

    txtDisplay.Text = total2.ToString();
    total1 = 0;
}
```

Blah blah blah.

☐ Yes

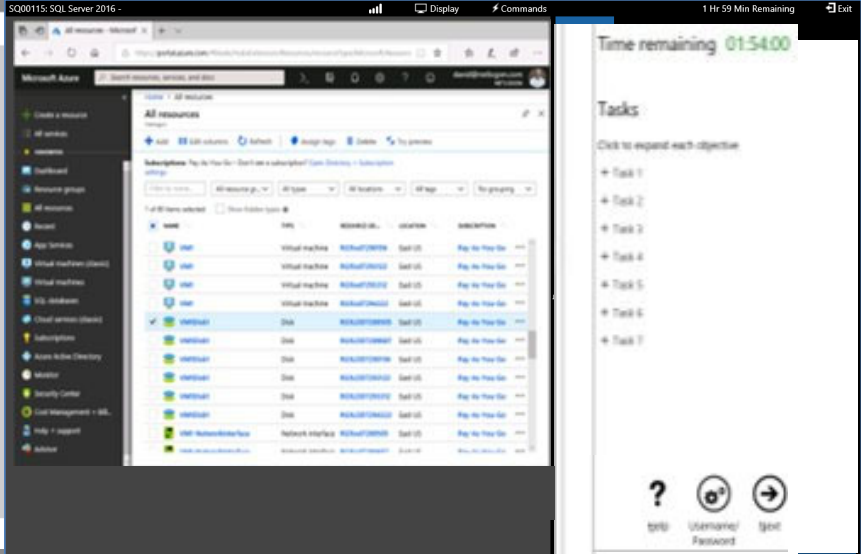
☐ No

Another statement.

☐ Yes

☐ No

Performance-Based Lab



The screenshot displays the Microsoft Azure portal interface. The top navigation bar shows the URL 'https://portal.azure.com', the user's name 'daniel@redgate.com', and the time '1 Hr 59 Min Remaining'. The main content area is titled 'All resources' and shows a list of virtual machines. The table has columns for Name, Location, Size, and Status. The first row is 'vm1' in the 'West' region, with size 'Standard_D2s_v2' and status 'Running'. The second row is 'vm2' in the 'West' region, with size 'Standard_D2s_v2' and status 'Running'. The third row is 'vm3' in the 'West' region, with size 'Standard_D2s_v2' and status 'Running'. The fourth row is 'vm4' in the 'West' region, with size 'Standard_D2s_v2' and status 'Running'. The fifth row is 'vm5' in the 'West' region, with size 'Standard_D2s_v2' and status 'Running'. The sixth row is 'vm6' in the 'West' region, with size 'Standard_D2s_v2' and status 'Running'. The seventh row is 'vm7' in the 'West' region, with size 'Standard_D2s_v2' and status 'Running'. The eighth row is 'vm8' in the 'West' region, with size 'Standard_D2s_v2' and status 'Running'. The ninth row is 'vm9' in the 'West' region, with size 'Standard_D2s_v2' and status 'Running'. The tenth row is 'vm10' in the 'West' region, with size 'Standard_D2s_v2' and status 'Running'. The right sidebar contains a 'Time remaining' section showing '01:54:00' and a 'Tasks' section with a list of tasks: 'Task 1', 'Task 2', 'Task 3', 'Task 4', 'Task 5', 'Task 6', and 'Task 7'. Below the tasks is a login section with fields for 'Username' and 'Password' and a 'Log in' button.



Microsoft Online Testing

 Pearson

Microsoft Online Testing Process

Select Exam Delivery Option

For: VUE-PCA: VUE Demo

All fields are required.

How do you want to take your exam? [Exam delivery option descriptions](#)

☐ At a local test center

☒ At my home or office

☐ I have a Private Access Code

Microsoft Online Testing Process

Select Date
[Why can't I find an available appointment?](#)

< April 2020 >

Su	Mo	Tu	We	Th	Fr	Sa
			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		

Select a date from the calendar. Only available dates can be selected.

Available start times: Wednesday, April 1, 2020
Times shown in: America/Chicago-CDT [Change](#) | [Show 24-hour](#)

Morning Afternoon

12:00 AM 12:00 PM

Microsoft Online Testing Process

Start Exam

1

Click on the "Copy Access Code" button below. This will automatically enter your access code into OnVUE once it is running. This access code will authorize you to start the exam check-in process.

123-456-789


Copy Access Code

2

Click "Download". Once complete, run the OnVUE application from the downloads folder.
Alert! Mac users, if prompted, will need to allow OnVUE within their 'System Preferences: Security & Privacy: Privacy' settings for Microphone, Camera, Automation, and Input Monitoring.

Download

以下の日本語の説明は、ここをクリックするか、下にスクロールしてください

 Enter your unique exam access code and phone number

1. Your access code may have been entered for you

123-456-789

If you do not see the access code, you will need to manually enter it. You can find your access code on the exam launch page.

2. Enter phone number

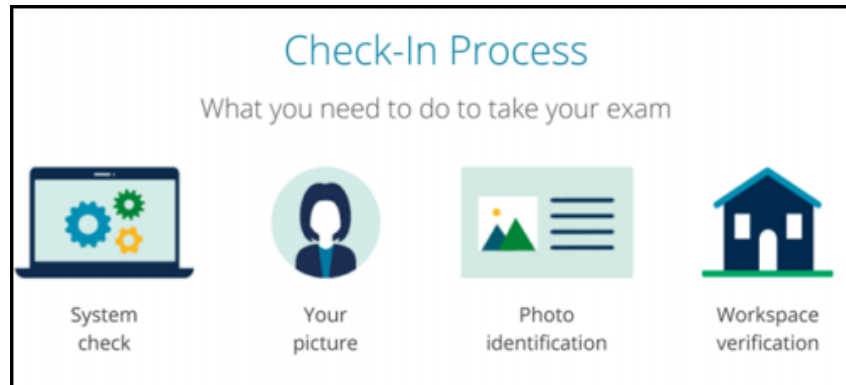
+1

555-555-5555

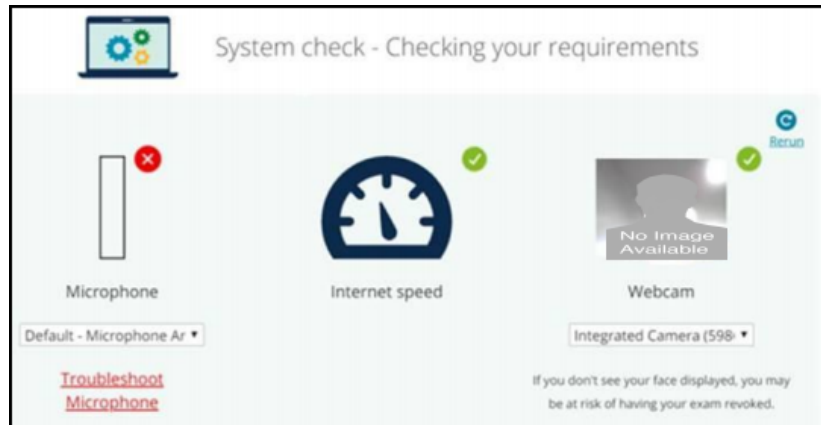
Enter a phone number with country code, example U.S. +1; we will contact you if there's an issue with check-in or exam delivery.

☐ I do not have a phone available at this time.

Microsoft Online Testing Process



Microsoft Online Testing Process



Microsoft Online Testing Process

Use your mobile phone to take your required verification photos



1. Select access method

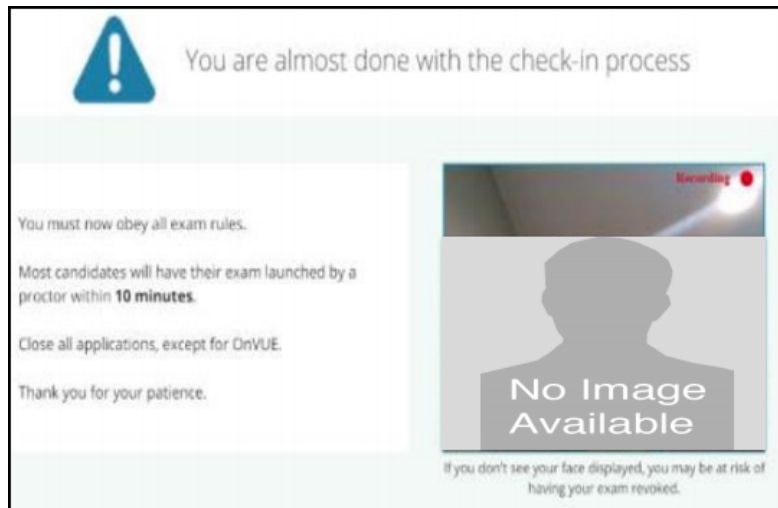
- ☐ Text message
- ☐ Type URL into mobile phone

2. Enter contact information

If you don't have a mobile phone, [use our webcam](#) to take the required photos.

Your picture Photo identification Workspace verification

Microsoft Online Testing Process



Thank You!

- Course materials: timw.info/az103
- Twitter: [@TechTrainerTim](https://twitter.com/TechTrainerTim)
- Website: TechTrainerTim.com

