

Purpose

- The purpose of this document is to highlight the significant changes to the AZ-103T00: Microsoft Azure Administrator course from the previous release. This document is for Microsoft Certified Trainers and Instructors to use before they deliver the class or during preparation for teaching the class.
- This is not an error log or a supplement to the Course Materials. This document just provides additional context so that you can understand the major changes to the course content. Other changes such as fixing typos, broken links, formatting, and minor technical corrections, are not documented. We recommend you always download the latest course materials from the MCT Download Center.

Update – 18 October 2019

All Modules

- Per compliance, removed all video references in the materials.

Module 00 - Welcome

- Added a Microsoft Certification (Optional) slide. This can be used to discuss the value of certification and the different levels of certification that Microsoft offers.

Microsoft Certifications (Optional)

- Certifications give you a professional edge by providing globally recognized industry endorsed evidence of skills mastery, demonstrating your abilities and willingness to embrace new technologies.

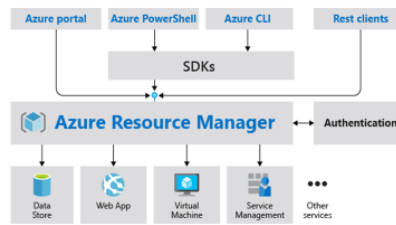


Module 01 – Azure Administration

- Lesson 03, Resource Manager. Changed the graphic.

Resource Manager

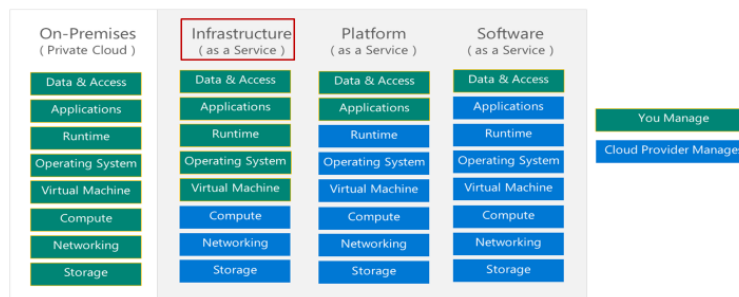
- Provides a consistent management layer
- Enables you to work with the resources in your solution as a group
- Deploy, update, or delete in a single, coordinated operation
- Provides security, auditing, and tagging features
- Choose the tools and APIs that work best for you



Module 02 – Virtual Machines

- **Lesson 01, IaaS Cloud Services.** Changed the graphic on the **IaaS Cloud Services** topic to allow for a more complete discussion of On-Premises, IaaS, PaaS, and SaaS services. Depending on your audience, these discussions are optional.

IaaS Cloud Services

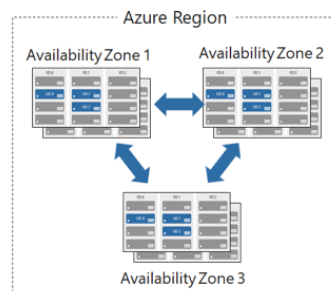


- Test and development, website hosting, storage, backup, recovery, high-performance computing, big data analysis, and extended data center

- **Lesson 02, Availability Zones.** Added a student topic with associated slide to discuss Availability Zones.

Availability Zones

- Unique physical locations in a region
- Includes datacenters with independent power, cooling, and networking
- Protects from datacenter failures
- Combines update and fault domains



Module 03 – Azure Storage

- **Lesson 02, Storage Account Types.** Updated the content with new storage accounts (Block blob storage and File Storage). Also, consolidated the standard and premium information onto the first overview topic.

Storage Account Types

Storage account type	Supported services	Supported tiers	Replication options
Blob storage	Blob (block blobs and append blobs only)	Standard	LRS, GRS, RA-GRS
General-purpose V2	Blob, File, Queue, Table, and Disk	Standard, Premium	LRS, GRS, RA-GRS, ZRS, ZGRS (preview), RA-ZGRS (preview)
General-purpose V1	Blob, File, Queue, Table, and Disk	Standard, Premium	LRS, GRS, RA-GRS
Block blob storage	Blob (block blobs and append blobs only)	Premium	LRS
File Storage	Files only	Premium	LRS

✓ All storage accounts are encrypted using Storage Service Encryption (SSE) for data at rest

Module 07 - Data Protection

- **Lesson 01, Geo-zone-redundant Storage.** Added a topic to review GZRS/RA-GZRS which at the time of this writing is in Preview. Also, in this lesson, removed the Overview slide and streamlined the wording in the other topics.

Geo-zone-redundant Storage

Replication	Strategy
Geo-zone-redundant storage (GZRS)	Data is replicated across three Azure availability zones in the primary region and replicated to a secondary geographic region for protection from regional disasters.
Read access geo-zone-redundant storage (RA-GZRS)	Enables read access to data in the secondary GZRS region.

- Combines the features of ZRS with GRS
 - Consistency, durability, high availability, excellent performance, and resilience for disaster recovery
- **Lesson 01, Comparing Replication Strategies.** Added Geo-zone-redundant-storage (GZRS) and Read-access Geo-zone-redundant-storage (RA-GZRS). Both features are in Preview at the time of this release.

Comparing Replication Strategies

Replication Option	LRS	ZRS	GRS/RA-GRS	GZRS/RA-GZRS
Node unavailability within a data center	Yes	Yes	Yes	Yes
An entire data center (zonal or non-zonal) becomes unavailable	No	Yes	Yes	Yes
A region-wide outage	No	No	Yes	Yes
Read access to your data (in a remote, geo-replicated region) for region-wide unavailability	No	No	Yes (with RA-GRS)	Yes (with RA-GZRS)
Available in storage account types	GPv1, GPv2, Blob	GPv2	GPv1, GPv2, Blob	GPv1, GPv2, Blob

Module 08 – Network Traffic Management

- **Lesson 01, Create a Routing Table.** BGP route propagation is now called Virtual Network Gateway route propagation. Updated the content.

Create a Routing Table

- A standard routing protocol is used to exchange routing and reachability information between two or more networks
- Routes are automatically added to the route table of all subnets with virtual network gateway route propagation enabled
- In most situations you will want to enable route propagation

Create route table

You can add routes to this table after it's created.

* Name: myRouteTablePublic ✓

* Subscription: Visual Studio Enterprise

* Resource group: myRGWest

Create new

* Location: (US) West US

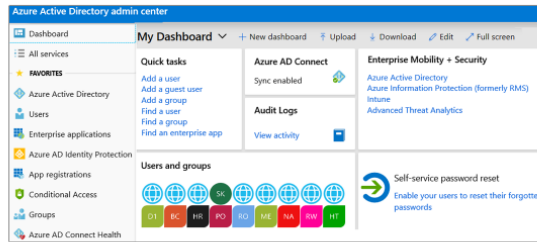
Virtual network gateway route propagation: Disabled **Enabled**

Create Automation options

Module 09 – Active Directory

- **Lesson 01, Azure Active Directory.** Changed the Azure Active Directory graphic to show the Azure AD Admin Center dashboard. This can be used to introduce the Azure AD features. Added a student note on the dashboard URL.

Azure Active Directory



- A full suite of identity management capabilities including multi-factor authentication, device registration, self-service password management, privileged account management, RBAC, monitoring, auditing, and alerting

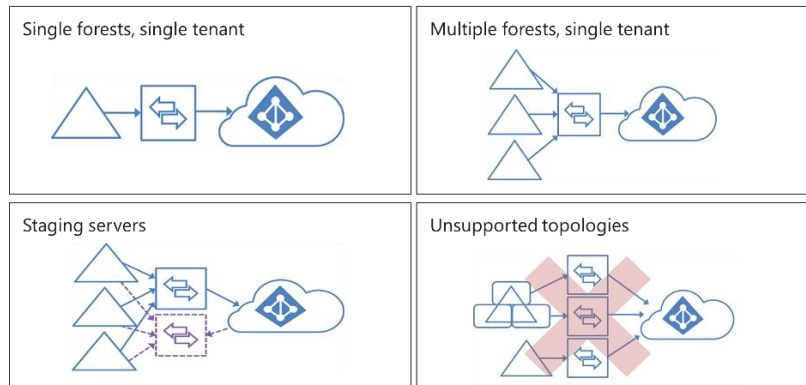
- **Lesson 01, Azure Active Directory Editions.** The Azure Active Directory Editions have changed. There is now Office 365 instead of Basic. Changed the slide to use a features table. Also, updated the student content.

Azure Active Directory Editions

Feature	Free	Office 365 Apps	Premium P1	Premium P2
Directory Objects	500,000 objects	No object limit	No object limit	No object limit
Single Sign-On	Up to 10 apps	Up to 10 apps	Unlimited	Unlimited
Core Identity and Access	X	X	X	X
B2B Collaboration	X	X	X	X
Identity & Access for O365		X	X	X
Premium Features			X	X
Hybrid Identities			X	X
Advanced Group Access			X	X
Conditional Access			X	X
Identity Protection				X
Identity Governance				X

- **Lesson 02, Azure AD Connect.** Added a topic on Connect Topologies. This topic covers supported and unsupported topologies.

AD Connect Topologies



Module 10 – Securing Identities

- Lesson 01, Multi-Factor Authentication.** Removed the last topic on pricing.

Update – 23 August 2019

All Modules

- Reformatted code that was running together on a single line.

Module 00 - Welcome

- **Lesson 01, Start Here.** Added an optional slide for using the Microsoft Learning Azure Pass.

Module 02 – Virtual Machines

- **Lesson 02, Creating Virtual Machines.** Reworked the two slides, PowerShell Example (Part 1) and PowerShell Example (Part 2). Changed the code on the slides to match what is in the Demonstration. Code snippets referencing virtual networks (not covered yet) were removed.
- **Lesson 05 – Lab - Virtual Machines and Scale Sets.** Removed this lab since it repeats what is in the first lab for this module.

Module 03 – Storage

- **Lesson 03, File Shares.** Reworked the Demonstration on File Shares. Steps were added to ensure the PowerShell values were correctly retrieved.

Module 04 – Virtual Networking

- **Lesson 01, Virtual Networks.** Reworked the Demonstration to Create VMs with Multiple NICs. Steps were added to create the second NIC.

Module 05 – Intersite Connectivity

- **Lesson 01, VNet Peering.** Reworked the lesson to include new student content and updated the slides. Also, added a VNet Peering demonstration.

Update – June 2019

- Replaced non-inclusive terms, such as *see* and *hear*.
- Recolored graphics that did not meet readability color contrast standards.