

Microsoft Azure Administrator (AZ-103)

Manage Azure subscriptions and resources (15-20%)

Manage Azure subscriptions

- Assign administrator permissions
- Configure cost center quotas and tagging
- Configure Azure subscription policies at Azure subscription level

Analyze resource utilization and consumption

- Configure diagnostic settings on resources
- Create baseline for resources
- Create and rest alerts
- Analyze alerts across subscription
- Analyze metrics across subscription
- Create action groups
- Monitor for unused resources
- Monitor spend
- Report on spend
- Utilize log search query functions
- View alerts in log analytics

Manage resource groups

- Use Azure policies for resource groups
- Configure resource locks
- Configure resource policies
- Identify auditing requirements
- Implement and set tagging on resource groups
- Move resources across resource groups
- Remove resource groups

Managed role-based access control (RBAC)

- Create a custom role
- Configure access to azure resources by assigning roles
- Configure management access to Azure, troubleshoot RBAC, implement RBAC policies, assign RBAC Roles

Implement and manage storage (15-20%)

Create and configure storage accounts

- Configure network access to the storage account
- Create and configure storage account
- Generate shared access signature
- Install and use azure storage explorer
- Manage access keys
- Monitor activity log by using log analytics
- Implement Azure storage replication

Import and export data to Azure

- Create export from Azure job
- Create import into Azure job
- Use Azure Data Box
- Configure and use Azure blob storage
- Configure Azure content delivery network (CDN) endpoints

Configure Azure files

- Create Azure file share
- Create Azure File Sync service
- Create Azure sync group
- Troubleshoot Azure File Sync

Implement Azure backup

- Configure and review backup reports
- Perform backup operation
- Create recovery services vault
- Create and configure backup policy
- Perform a restore operation

Deploy and manage virtual machines (VMs) (15-20%)

Create and configure a VM for Windows and Linux

- Configure high availability
- Configure monitoring, networking, storage, and virtual machine size
- Deploy and configure scale sets

Automate deployment of VMs

- Modify Azure Resource Manager (ARM) template
- Configure location of new vms
- Configure VHD template
- Deploy from template
- Save a deployment as an ARM template
- Deploy Windows and Linux VMs

Manage Azure VM

- Add data discs
- Add network interfaces
- Automate configuration management by using powershell desired state configuration (dsc) and vm agent by using custom script extensions
- Manage vm sizes; move vms from one resource group to another
- Redeploy VMs

Manage VM backups

- Configure VM backup
- Define backup policies
- Implement backup policies
- Perform VM restore
- Azure Site Recovery

Configure and manage virtual networks (30-35%)

Create connectivity between virtual networks

- Create and configure VNET peering
- Create and configure VNET to VNET
- Verify virtual network connectivity
- Create virtual network gateway

Implement and manage virtual networking

- Configure private and public IP addresses, network routes, network interface, subnets, and virtual network

Configure name resolution

- Configure Azure DNS
- Configure custom DNS settings
- Configure private and public DNS zones

Create and configure a Network Security Group (NSG)

- Create security rules
- Associate nsg to a subnet or network interface
- Identify required ports
- Evaluate effective security rules

Implement Azure load balancer

- Configure internal load balancer, configure load balancing rules, configure public load balancer, troubleshoot load balancing

Monitor and troubleshoot virtual networking

- Monitor on-premises connectivity, use Network resource monitoring, use Network Watcher, troubleshoot external networking, troubleshoot virtual network connectivity

Integrate on premises network with Azure virtual network

- Create and configure Azure VPN Gateway, create and configure site to site VPN, configure Express Route, verify on premises connectivity, troubleshoot on premises connectivity with Azure

Manage identities (15-20%)

Manage Azure Active Directory (AD)

- Add custom domains
- Azure ad join
- Configure self-service password reset
- Manage multiple directories

Manage Azure AD objects (users, groups, and devices)

- Create users and groups
- Manage user and group properties
- Manage device settings
- Perform bulk user updates
- Manage guest accounts

Implement and manage hybrid identities

- Install Azure AD Connect, including password hash and pass-through synchronization
- Use Azure AD Connect to configure federation with on-premises Active Directory Domain Services (AD DS)
- Manage Azure AD Connect
- Manage password sync and password writeback

Implement multi-factor authentication (MFA)

- Configure user accounts for MFA, enable MFA by using bulk update, configure fraud alerts, configure bypass options, configure Trusted IPs, configure verification methods

Learning Path: [AZ-103](#)