AZ-300
Microsoft Azure Architect Technologies

Exam number: AZ-300

Exam title: Microsoft Azure Architect Technologies

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GUID:

Language(s) this exam will be available in: English

Audience (IT professionals, Developers, Information workers, etc.): IT Professionals

Technology: Microsoft Azure

Credit type (example: MCSA)**:** Microsoft Certified: Azure Solutions Architect Expert

Exam provider (VUE, Certiport, or both)**: VUE**

Exam Design

Audience Profile

Candidates for this exam are Azure Solution Architects who advise stakeholders and translates business requirements into secure, scalable, and reliable solutions.

Candidates should have advanced experience and knowledge across various aspects of IT operations, including networking, virtualization, identity, security, business continuity, disaster recovery, data management, budgeting, and governance. This role requires managing how decisions in each area affects an overall solution.

Candidates must be proficient in Azure administration, Azure development, and DevOps, and have expert-level skills in at least one of those domains.

Skills Measured

Deploy and Configure Infrastructure (25-30%)

Analyze resource utilization and consumption
May include but not limited to: 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

Create and configure storage accounts
May include but not limited to: 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

Create and configure a Virtual Machine (VM) for Windows and Linux
May include but not limited to: Configure high availability; configure monitoring, networking, storage, and virtual machine size; deploy and configure scale sets

Automate deployment of Virtual Machines (VMs)
May include but not limited to: 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

Create connectivity between virtual networks
May include but not limited to: Create and configure VNET peering; create and configure VNET to VNET; verify virtual network connectivity; create virtual network gateway

Implement and manage virtual networking
May include but not limited to: Configure private and public IP addresses, network routes, network interface, subnets, and virtual network

Manage Azure Active Directory (AD)
May include but not limited to: Add custom domains; configure Azure AD Identity Protection, Azure AD Join, and Enterprise State Roaming; configure self-service password reset; implement conditional access policies; manage multiple directories; perform an access review

Implement and manage hybrid identities
May include but not limited to: Install and configure Azure AD Connect; configure federation and single sign-on; manage Azure AD Connect; manage password sync and writeback

Implement Workloads and Security (20-25%)

Migrate servers to Azure
May include but not limited to: Migrate by using Azure Site Recovery (ASR); migrate using P2V; configure storage; create a backup vault; prepare source and target environments; backup and restore data; deploy Azure Site Recovery (ASR) agent; prepare virtual network

Configure serverless computing
May include but not limited to: Create and manage objects; manage a Logic App resource; manage Azure Function app settings; manage Event Grid; manage Service Bus

Implement application load balancing
May include but not limited to: Configure application gateway and load balancing rules; implement front end IP configurations; manage application load balancing

Integrate on premises network with Azure virtual network
May include but not limited to: Create and configure Azure VPN Gateway; create and configure site to site VPN; configure Express Route; verify on premises connectivity; manage on-premise connectivity with Azure

Manage role-based access control (RBAC)
May include but not limited to: 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 Multi-Factor Authentication (MFA)
May include but not limited to: Enable MFA for an Azure tenant; configure user accounts for MFA; configure fraud alerts; configure bypass options; configure trusted IPs; configure verification methods; manage role-based access control (RBAC); implement RBAC policies; assign RBAC Roles; create a custom role; configure access to Azure resources by assigning roles; configure management access to Azure

Create and Deploy Apps (5-10%)

Create web apps by using PaaS
May include but not limited to: Create an Azure App Service Web App; create documentation for the API; create an App Service Web App for containers; create an App Service background task by using WebJobs; enable diagnostics logging

Design and develop apps that run in containers
May include but not limited to: Configure diagnostic settings on resources; create a container image by using a Docker file; create an Azure Container Service (ACS/AKS); publish an image to the Azure Container Registry; implement an application that runs on an Azure Container Instance; manage container settings by using code

Implement Authentication and Secure Data (5-10%)

Implement authentication
May include but not limited to: Implement authentication by using certificates, forms-based authentication, tokens, or Windows-integrated authentication; implement multi-factor

authentication by using Azure AD; implement OAuth2 authentication; implement Managed Service Identity (MSI) Service Principal authentication

Implement secure data solutions
May include but not limited to: Encrypt and decrypt data at rest and in transit; encrypt data with Always Encrypted; implement Azure Confidential Compute and SSL/TLS communications; create, read, update, and delete keys, secrets, and certificates by using the KeyVault API

Develop for the Cloud (20-25%)

Configure a message-based integration architecture
May include but not limited to: Configure an app or service to send emails, Event Grid, and the Azure Relay Service; create and configure Notification Hub, Event Hub, and Service Bus; configure queries across multiple products

Develop for autoscaling
May include but not limited to: Implement autoscaling rules and patterns (schedule, operational/system metrics, code that addresses singleton application instances); implement code that addresses transient state