



**Enterprise Computing Solutions - Education Services**

## **TRAINING OFFERING**

---

**You can reach us at:**

Arrow ECS, Nidderdale House, Beckwith Knowle, Harrogate, HG3 1SA

Email: [educationteam.ecs.uk@arrow.com](mailto:educationteam.ecs.uk@arrow.com)  
Phone: 0870 251 1000



# Microsoft Azure Architect Technologies

**CODE:**

MCS\_AZ-303T00

**LENGTH:**

40 Hours (5 days)

**PRICE:**

£2,895.00

**Description**

This course teaches Solutions Architects how to translate business requirements into secure, scalable, and reliable solutions. Lessons include virtualization, automation, networking, storage, identity, security, data platform, and application infrastructure. This course outlines how decisions in each of these areas affects an overall solution.

**Objectives**

After completing this course, students will be able to:

- Secure identities with Azure Active Directory and users and groups.
- Implement identity solutions spanning on-premises and cloud-based capabilities
- Apply monitoring solutions for collecting, combining, and analyzing data from different sources.
- Manage subscriptions, accounts, Azure policies, and Role-Based Access Control.
- Administer Azure using the Resource Manager, Azure portal, Cloud Shell, and CLI.
- Configure intersite connectivity solutions like VNet Peering, and virtual network gateways.
- Administer Azure App Service, Azure Container Instances, and Kubernetes.

**Audience**

This course is for IT Professionals with expertise in designing and implementing solutions running on Microsoft Azure. They should have broad knowledge of IT operations, including networking, virtualization, identity, security, business continuity, disaster recovery, data platform, budgeting, and governance. Azure Solution Architects use the Azure Portal and as they become more adept they use the Command Line Interface. Candidates must have expert-level skills in Azure administration and have experience with Azure development processes and DevOps processes.. No bullets or lists.

**Prerequisites**

Successful Azure Solution Architects start this role with experience on operating systems, virtualization, cloud infrastructure, storage structures, and networking.

- Understanding of on-premises virtualization technologies, including: VMs, virtual networking, and virtual hard disks.
- Understanding of network configuration, including TCP/IP, Domain Name System (DNS), virtual private networks (VPNs), firewalls, and encryption technologies.
- Understanding of Active Directory concepts, including domains, forests, domain controllers, replication, Kerberos protocol, and Lightweight Directory Access Protocol (LDAP).
- Understanding of resilience and disaster recovery, including backup and restore operations.

**Programme****Course Outline**

**Module 1: Implement VMs for Windows and Linux** In this module, you will learn about Azure virtual machines including planning, creating, availability and extensions. This module includes:

- Lessons
- Select Virtual Machine Size
- Configure High Availability
- Implement Azure Dedicated Hosts
- Deploy and Configure Scale Sets
- Configure Azure Disk Encryption

After completing this module, students will be able to:

- Plan for virtual machine implementations.
- Create virtual machines.
- Configure virtual machine availability, including scale sets.
- Understand High Availability options for VMs in Azure

**Module 2: Automate Deployment and Configuration of Resources** In this module, you will learn about the tools an Azure Administrator uses to manage their infrastructure. This includes the Azure Portal, Cloud Shell, Azure PowerShell, CLI, and Resource Manager Templates. This module includes:

- Lessons
- Azure Resource Manager Templates
- Save a Template for a VM
- Evaluate Location of New Resources
- Configure a Virtual Hard Disk Template
- Deploy from a Template
- Create and Execute an Automation Runbook

After completing this module, students will be able to:

- Leverage Azure Resource Manager to organize resources.

Use ARM Templates to deploy resources. Create and Execute an Automation Runbook Deploy an Azure VM from a VHD Understand Azure encryption technologies

Module 3: Implement Virtual NetworkingIn this module, you will learn about basic virtual networking concepts like virtual networks and subnetting, IP addressing, network security groups, Azure Firewall, and Azure DNS. Lessons  
Virtual Network Peering Implement VNet Peering After completing this module, students will be able to:  
Connect services with Virtual Network Peering Configure VNet Peering Understand Service Chaining  
Modify or delete VNet Peering

Module 4: Implement Load Balancing and Network SecurityIn this module, you will learn about network traffic strategies including network routing and service endpoints, Azure Load Balancer, Azure Application Gateway, and Traffic Manager.Lessons  
Implement Azure Load Balancer Implement an Application Gateway Understand Web Application Firewall  
Implement Azure Firewall Implement Azure Front Door Implementing Azure Traffic Manager  
Implement Network Security Groups and Application Security Groups Implement Azure Bastion  
After completing this module, students will be able to: Select a Load Balancer solution Configure Application Gateway  
Implement Azure Firewall Create an Azure Front Door Understand Traffic Manager routing methods  
Configure Network Security Groups (NSGs)

Module 5: Implement Storage AccountsIn this module, you will learn about basic storage features including storage accounts, blob storage, Azure files and File Sync, storage security, and storage tools. Lessons  
Storage Accounts Blob Storage Storage Security Managing Storage Accessing Blobs and Queues using AAD  
Configure Azure Storage Firewalls and Virtual Networks After completing this module, students will be able to:  
Understand Storage Account services and types Configure Blob storage, accounts, containers, and access tiers  
Implement Shared Access Signatures Understand Azure Storage firewalls and virtual networks

Module 6: Implement Azure Active DirectoryIn this module, you will learn how to secure identities with Azure Active Directory, and implement users and groups. Lessons

Overview of Azure Active Directory Users and Groups Domains and Custom Domains Azure AD Identity Protection  
Implement Conditional Access Configure Fraud Alerts for MFA Implement Bypass Options Configure Trusted IPs  
Configure Guest Users in Azure AD Manage Multiple Directories After completing this module, students will be able to:  
Understand how Multiple AAD organizations interact Add Guest Users to Azure AD Configure Location Condition Configuration  
Configure Azure MFA settings Implement Conditional Access Azure MFA

Module 7: Implement and Manage Azure GovernanceIn this module, you will learn about managing your subscriptions and accounts, implementing Azure policies, and using Role-Based Access Control.Lessons  
Create Management Groups, Subscriptions, and Resource Groups Overview of Role-Based Access Control (RBAC)  
Role-Based Access Control (RBAC) Roles Azure AD Access Reviews Implement and Configure an Azure Policy Azure Blueprints  
After completing this module, students will be able to: Understand Resource Group Organization Understand how RBAC works  
Create an Azure AD access review Create and manage policies to enforce compliance Create a Blueprint

Module 8: Implement and Manage Hybrid IdentitiesIn this module, you will learn how to install and configure Azure AD Connect and implement Azure AD Connect Health.Lessons

Install and Configure Azure AD Connect Configure Password Sync and Password Writeback Configure Azure AD Connect Health  
After completing this module, students will be able to: Implement Azure AD seamless Single Sign-On  
Perform an Azure AD Connect installation Implement Azure AD Connect Health

Module 9: Manage Workloads in AzureIn this module, you will learn how to migrate workloads using Azure Migrate, perform VMware agent-based and agent-less migrations, and perform Azure Backup and Azure Site Recovery.Lessons  
Migrate Workloads using Azure Migrate VMware - Agentless Migration VMware - Agent-Based Migration Implement Azure Backup  
Azure to Azure Site Recovery Implement Azure Update Management After completing this module, students will be able to:  
Understand agent-based migration architecture Prepare for Azure for migration Prepare an on-premises VMware environment  
Understand Azure VM backup architecture Manage updates and patches for Azure VMs

Module 10: Implement Cloud Infrastructure MonitoringIn this module, you will learn about Azure Monitor, Azure Workbooks, Azure Alerts, Network Watcher, Azure Service Health, Azure Application Insights.Lessons

Azure Infrastructure Security Monitoring Azure Monitor Azure Workbooks Azure Alerts Log Analytics Network Watcher  
Azure Service Health Monitor Azure Costs Azure Application Insights Unified Monitoring in Azure

In this module, you will learn how to Module 11: Manage Security for ApplicationsIn this module, you will learn about Azure Key Vault and implementing authentication using Azure Managed Identities.Lessons

Azure Key Vault Azure Managed Identity After completing this module, students will be able to:  
Explain Key Vault uses such as secrets, key, and Certificate management Use Managed Identities with Azure resources

Module 12: Implement an Application InfrastructureIn this module, you will learn how to create an App Service web App for Containers, create and configure an App Service Plan, and create and manage Deployment Slots.Lessons

Create and Configure Azure App Service Create an App Service Web App for Containers  
Create and Configure an App Service Plan Configure Networking for an App Service Create and Manage Deployment Slots  
Implement Logic Apps Implement Azure Functions After completing this module, students will be able to:

Configure an Azure App Service Create an App Service Plan Create a Workflow using Azure Logic Apps Create a Function App

Module 13: Implement Container-Based ApplicationsIn this module, you will learn how to run Azure Container instances and how to deploy Kubernetes with AKS.Lessons

Azure Container Instances Configure Azure Kubernetes Service After completing this module, students will be able to:  
Run Azure Container instances Deploy Kubernetes with AKS

Module 14: Implement NoSQL DatabasesIn this module, you will learn about Azure Table Storage and recommend options for CosmosDB APIs.Lessons

Configure Storage Account Tables Select Appropriate CosmosDB APIs After completing this module, students will be able to:  
Outline the Table Service Data Model Understand options for Azure Cosmos DB Understand high availability using CosmosDB

Module 15: Implement Azure SQL DatabasesIn this module, you will create an Azure SQL Database single database, create an Azure SQL Database Managed Instance, and review high-availability and Azure SQL database.Lessons

Configure Azure SQL Database Settings Implement Azure SQL Database Managed Instances  
High-Availability and Azure SQL Database After completing this module, students will be able to:  
Create an Azure SQL Database single database Create an Azure SQL Database Managed Instance  
Recommend high-availability architectural models used in Azure SQL Database

## **Session Dates**

On request. Please [Contact Us](#)

## **Additional Information**

[This training is also available as onsite training. Please contact us to find out more.](#)