

IMPLEMENTING MICROSOFT AZURE INFRASTRUCTURE SOLUTIONS

Course Code:
20533C

Duration
5 days

Introduction

This course is intended for IT professionals who are familiar with managing on-premises IT deployments that include AD DS, virtualization technologies, and applications. The students typically work for organizations that are planning to locate some or all of their infrastructure services on Azure. This course also is intended for IT professionals who want to take the Microsoft Certification exam, 70-533, Implementing Azure Infrastructure Solutions.

Target Audience

This course is intended for IT professionals who have some knowledge of cloud technologies and want to learn more about Azure.

- IT professionals who want to deploy, configure, and administer services and virtual machines (VMs) in Azure.
- IT professional who use Microsoft System Center to manage and orchestrate server infrastructure.
- Windows Server administrators who are looking to evaluate and migrate on-premises Active Directory roles and services to the cloud.
- IT professionals who want to use Windows Azure to host websites and mobile app backend services.
- IT professionals who are experienced in other non-Microsoft cloud technologies, meet the course prerequisites, and want to cross-train on Azure.
- IT professionals who want to take the Microsoft Certification exam 70-533, Implementing Azure Infrastructure Solutions.

At Course Completion

After completing this course, students will be able to:

- Describe Azure architecture components, including infrastructure, tools, and portals.
- Implement and manage virtual networking within Azure and connect to on-premises environments.
- Plan and create Azure virtual machines.
- Configure, manage, and monitor Azure virtual machines to optimize availability and reliability.
- Deploy and configure web apps and mobile apps.
- Implement, manage, backup, and monitor storage solutions.
- Plan and implement data services based on SQL Database to support applications.
- Deploy, configure, monitor, and diagnose cloud services.
- Create and manage Azure AD tenants, and configure application integration with Azure AD.
- Integrate on-premises Windows AD with Azure AD.
- Automate operations in Azure management by using automation.

Prerequisites

Before attending this course, students must have:

- Completed the Microsoft Certified Systems Administrator (MCSA) certification in Windows Server 2012.
- Understanding of on-premises virtualization technologies, including: virtual machines, virtual networking, and virtual hard disks (VHDs).
- Understanding of network configuration, including: TCP/IP, Domain Name System (DNS), virtual private networks (VPNs), firewalls, and encryption technologies.
- Understanding of websites, including: how to create, configure, monitor and deploy a website on Internet Information Services (IIS).
- Understanding of Active Directory concepts, including: domains, forests, domain controllers, replication, Kerberos protocol, and Lightweight Directory Access Protocol (LDAP).
- Understanding of database concepts, including: tables, queries, Structured Query Language (SQL), and database schemas.
- Understanding of resilience and disaster recovery, including backup and restore operations.

COURSE CONTENT

Module 1: Introduction to Azure

This module introduces cloud solutions in general and then focuses on the services that Azure offers. The module goes on to describe the portals that you can use to manage Azure subscriptions and services before introducing Windows PowerShell as a scripting solution for managing Azure. Finally, the module provides explanations and guidance for the use of Azure Resource Manager and Azure management services.

Lessons

- Cloud technology overview
- Overview of Azure
- Managing Azure with the Azure portal
- Managing Azure with Windows PowerShell
- Overview of Azure Resource Manager
- Azure management services

Module 2: Implementing and managing Azure networking

This module explains how virtual networking provides the glue that brings together VMs, web apps, and storage to enable you to publish a service onto the Internet.

Lessons

- Overview of Azure networking
- Implementing and managing Azure virtual networks
- Configuring Azure virtual networks
- Configuring Azure virtual network connectivity
- Overview of Azure networking in an infrastructure as a service (IaaS) version 1 (v1)

Module 3: Implementing virtual machines

This module explains how to implement virtual machines.

Lessons

- Overview of IaaS v2 virtual machines
- Planning for Azure virtual machines
- Deploying Azure IaaS v2 virtual machines
- Authoring Azure Resource Manager templates
- Overview of IaaS v1 virtual machines

Module 4: Managing virtual machines

This module explains how to manage virtual machines.

Lessons

- Configuring virtual machines
- Configuring virtual machine disks
- Managing and monitoring Azure virtual machines
- Managing IaaS v1 virtual machines

Module 5: Implementing Azure App services

This module explains how to implement Azure Web App services.

Lessons

- Introduction to App Service
- Planning app deployment in App Service
- Implementing and maintaining web apps
- Configuring web apps
- Monitoring web apps and WebJobs
- Implementing mobile apps
- Traffic Manager

Module 6: Planning and implementing storage, backup, and recovery services

This module explains how to plan and implement storage, backup, and recovery services.

Lessons

- Planning storage
- Implementing and managing storage
- Implementing Azure Content Delivery Networks
- Implementing Azure Backup
- Planning for and implementing Azure Site Recovery

Module 7: Planning and implementing Azure SQL Database

This module explains how to plan and implement Azure SQL Database.

Lessons

- Planning and deploying Azure SQL Database
- Implementing and managing Azure SQL Database
- Managing Azure SQL Database security
- Monitoring Azure SQL Database
- Managing Azure SQL Database business continuity

Module 8: Implementing PaaS cloud services

This module explains how to implement platform as a service (PaaS) cloud services.

Lessons

- Planning and deploying PaaS cloud services
- Managing and maintaining cloud services

Module 9: Implementing Azure Active Directory

This module explains how to implement Azure AD.

Lessons

- Creating and managing Azure AD tenants
- Configuring application and resource access with Azure AD
- Overview of Azure AD Premium

Module 10: Managing Active Directory in a hybrid environment

This module explains how to manage Active Directory in a hybrid environment.

Lessons

- Extending on-premises Active Directory domain to Azure
- Implementing directory synchronization by using Azure AD Connect
- Implementing federation

Module 11: Implementing Azure-based management and automation

This module explains how to implement Azure-based management and automation.

Lessons

- Implementing Microsoft Operations Management Suite (OMS)
- Implementing Azure Automation
- Implementing Automation runbooks