Implementing Microsoft Azure Infrastructure Solutions Training

Duration: 5 Days   Course Code: M20533   Version: D

Overview:

This training 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.

Objectives:

- 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 the following technical knowledge:

- 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.

Content:

Module 1: Introduction to Azure

- 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
- Lab : Managing Microsoft Azure
- Use the Azure portals.
- Use Azure Resource Manager features via the Azure portal.
- Use Azure PowerShell.

Module 2: Implementing and managing Azure networking

- 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)
- Lab : Using a deployment template to implement Azure virtual networks
- Creating an Azure virtual network by using a deployment template
- Creating a virtual network by using PowerShell
- Configure virtual networks
- Lab : Configuring connectivity between the IaaS v1 and IaaS version 2 (v2)
- Using a PowerShell script to Connect IaaS v1 VNet and IaaS v2 VNet
- Configuring a point-to-site VPN
- Using a PowerShell script to connect IaaS v1 VNet and IaaS v2 VNet

Module 3: Implementing virtual machines

- 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
- Lab : Creating IaaS v2 virtual machines in Azure
- Creating virtual machines by using the Azure portal and Azure PowerShell
- Validating virtual machine creation
- Lab : Deploying IaaS v2 virtual machines by using Azure Resource Manager templates
- Using Visual Studio and an Azure Resource Manager template to deploy IaaS v2 virtual machines
- Using Azure PowerShell and an Azure Resource Manager template to deploy virtual machines

Module 4: Managing virtual machines

Module 5: Implementing Azure App services

- 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
- Lab : Implementing websites
- Creating web apps
- Deploying a web app
- Managing web apps
- Implementing Traffic Manager

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

- Planning storage
- Implementing and managing storage
- Implementing Azure Content Delivery Networks
- Implementing Azure Backup
- Planning for and implementing Azure Site Recovery
- Lab : Planning and implementing storage
- Creating and configuring storage
- Using Azure file storage
- Protecting data with Microsoft Azure Backup

Module 7: Planning and implementing Azure SQL Database

- 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
- Lab : Planning and implementing Azure SQL Database
- Creating, securing, and monitoring an Azure SQL Database
- Migrating a Microsoft SQL Server database to Azure SQL Database
- Restoring a database

Module 8: Implementing PaaS cloud services

- Planning and deploying PaaS cloud services
- Managing and maintaiing cloud services
- Lab : Implementing PaaS cloud services
- Deploying a PaaS cloud services
- Configuring deployment slots and Remote Desktop Protocol (RDP)
- Monitoring cloud services

Module 9: Implementing Azure Active Directory

- Creating and managing Azure AD tenants
- Configuring application and resource access with Azure AD
- Overview of Azure AD Premium
- Lab : Implementing Azure AD
- Administering Active AD
- Configuring SSO
- Configuring Mlti-FactorAauthentication
- Configuring SSO from a Windows 10–based computer that is joined to Azure AD

Module 10: Managing Active Directory in a hybrid environment

- Extending on-premises Active Directory domain to Azure
- Implementing directory synchronization by usig Azure AD Connect
- Implementing federation
- Lab : Implementing and managing Azure AD synchronization
- Configuring directory synchronization
- Synchronizing directories

Module 11: Implementing Azure-based management and automation

- Implementing Microsoft Operations Management Suite (OMS)
- Implementing Azure Automation
- Implementing Automation runbooks
- Managing Azur Automation
- Lab : Implementing Automation
- Configuring Automation accounts
- Creating runbooks

- Configuring virtual machines
- Configuring virtual machine disks
- Managing and monitoring Azure virtual machines
- Managing IaaS v1 virtual machines
- Lab : Managing Azure virtual machines
- Configuring availability
- Implementing desired state configuration (DSC)
- Implementing storage space–based volumes

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

info@globalknowledge.co.uk

www.globalknowledge.com/en-gb/

Global Knowledge, Mulberry Business Park, Fishponds Road, Wokingham Berkshire RG41 2GY UK