
CLS006: Implementing Microsoft Azure Infrastructure Solutions**COURSE DESCRIPTION :**

This course teaches IT professionals how to provision and manage services in Microsoft Azure. Students will learn how to implement infrastructure components such as virtual networks, virtual machines, containers, web and mobile apps, and storage in Azure. Students also will learn how to plan for and manage Azure AD, and configure Azure AD integration with on-premises Active Directory domains

AUDIENCE PROFILE :

This course is intended for IT professionals who are familiar with managing on-premises IT deployments that include Active Directory Domain Services (AD DS), virtualization technologies, and applications. 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 Microsoft 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 configure cross-premises connectivity.
- Plan and create Azure VMs.
- Configure, manage, and monitor Azure VMs to optimize availability and reliability.
- Implement Azure App Service.
- Plan and implement storage, backup, and recovery services.
- Implement container-based workloads in Azure.
- Deploy, configure, monitor, and diagnose cloud services.
- Implement Azure AD.
- Manage an Active Directory infrastructure in a hybrid environment.
- Automate operations in Azure by using Azure Automation runbooks.

PREREQUISITES :

Before attending this course, students must have the following technical knowledge:

- Completed the Microsoft Certified Systems Administrator (MCSA) certification in Windows Server 2012 or Windows Server 2016.
- 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 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 resilience and disaster recovery, including backup and restore operations.

WHO SHOULD ATTEND

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

- IT professionals who want to deploy, configure, and administer services and virtual machines in Microsoft Azure.
- IT professional who have used Microsoft System Center to manage and orchestrate a Microsoft 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 web sites and mobile app back-end services.
- IT professionals who are experienced in other non-Microsoft cloud technologies, who meet the course prerequisites, and are looking to cross-train on Microsoft Azure.
- IT professionals who want to take the Microsoft Certification exam, 70-533, Implementing Microsoft Azure Infrastructure Solutions.

This course can also be used by Engineers who have used DevOps approaches to optimize the management and lifecycle of the software in their organization.

COURSE OUTLINE :**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 the Azure PowerShell modules and Azure Command Line Interface (CLI) as scripting technologies for managing Azure. Finally, the module provides explanations and guidance for the use of the classic and Azure Resource Manager deployment models.

Lessons

- Cloud technology overview
- Overview of Azure
- Managing Azure with the Azure portal
- Managing Azure with Windows PowerShell
- Managing Azure with Azure CLI
- Overview of Azure deployment models
- Managing and monitoring Azure resources

Module 2: Implementing and managing Azure networking

This module explains how to plan virtual networks in Azure and implement and manage virtual networks. It also explains how to configure cross-premises connectivity and connectivity between virtual networks in Azure. Additionally, it explains how to configure an Azure virtual network and provides an overview of Azure classic networking.

Lessons

- Overview of Azure networking
- Implementing and managing virtual networks
- Configuring an Azure virtual network
- Configuring virtual network connectivity
- Overview of Azure classic networking

Module 3: Implementing Virtual Machines

This module introduces the fundamentals of Azure VMs, and discusses the different ways in which you can deploy and manage them.

Lessons

- Overview of Azure VMs
- Planning deployment of Azure VMs
- Deploying Azure VMs
- Overview of classic Azure VMs

Module 4: Managing Azure VMs

This module explains how to configure and manage Azure VMs, including configuring virtual machine disks and monitoring Azure VMs.

Lessons

- Configuring Azure VMs
- Managing disks of Azure VMs
- Managing and monitoring Azure VMs
- Managing classic Azure VMs

Module 5: Implementing Azure App Service

This module explains the different types of apps that you can create by using the Azure App Service, and how you can select an App Service plan and deployment method for apps in Azure. It also explains how to use Microsoft Visual Studio, File Transfer Protocol (FTP) clients, Azure PowerShell, and Azure CLI to deploy Azure web and mobile apps. Additionally, the module explains how to configure web apps and use the Azure WebJobs feature to run custom tasks. It also explains how to monitor the performance of web apps and create and configure mobile apps. Lastly, this module explains how to use Azure Traffic Manager to distribute requests between two or more 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
- Implementing 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. It explains how to choose appropriate Azure Storage options to address business needs and how to implement and manage Azure Storage. It also explains how to improve web-application performance by implementing Azure Content Delivery Networks (CDNs). Lastly, this module explains how to protect cloud-resident and on-premises workloads by using Azure Backup and Azure Site Recovery.

Lessons

- Planning storage
- Implementing and managing Azure Storage
- Implementing Azure CDNs
- Implementing Azure Backup
- Planning and implementing Azure Site Recovery

Module 7: Implementing containers in Azure

This module explains how to implement containers in Azure. It starts by introducing the concept of containers and presents different options for implementing containers on Windows and Linux Azure VMs. Next, it explains container orchestration in the context of Azure Container Service (ACS) and describes how to use ACS to deploy Docker Swarm, Kubernetes, and DC/OS clusters.

Lessons

- Implementing Windows and Linux containers in Azure
- Implementing Azure Container Service

Module 8: Implementing Azure Cloud Services

This module explains how to plan and deploy Azure Cloud Services. It also explains how to manage and maintain Azure Cloud Services.

Lessons

- Planning and deploying Azure Cloud Services
- Managing and maintaining Azure Cloud Services

Module 9: Implementing Azure Active Directory

This module explains how to implement Azure AD. It explains how to create and manage Azure AD tenants. It also explains how to configure single sign-on (SSO) for cloud applications and resources, and implement Azure Role-Based Access Control (RBAC) for cloud resources. Lastly, it explains the functionality of Azure AD Premium, and how to implement Azure Multi-Factor Authentication.

Lessons

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

Module 10: Managing an Active Directory infrastructure in a hybrid environment

This module explains how to manage Active Directory in a hybrid environment. It explains how to extend an on-premises Active Directory domain to Azure infrastructure as a service (IaaS) environments and synchronize user, group, and computer accounts between on-premises AD DS and Azure AD. This module also explains how to set up SSO by using federation and pass-through authentication between on-premises Active Directory and Azure AD.

Lessons

- Extending an on-premises Active Directory domain to Azure IaaS
- Implementing directory synchronization by using Azure AD Connect
- Implementing SSO in hybrid scenarios

Module 11: Implementing Azure-based management and automation

This module explains how to implement Azure-based management and automation. It explains how to implement Microsoft Operations Management Suite (OMS) solutions and Azure Automation. The module also describes how to create different types of Azure Automation runbooks and implement Azure Automation-based management by using runbooks.

Lessons

- Implementing OMS
- Implementing Azure Automation
- Implementing Automation runbooks
- Implementing Azure Automation-based management

วิทยากร :



อาจารย์เอกฤทธิ์ ธรรมสกลิต

- Microsoft Certified professional (MCP)
- Microsoft Certified Systems Administrator (MSCA)
- Microsoft Certified Systems Engineer (MSCE)
- Cisco Certified Network Associate (CCNA)
- Certificate of CompTIA Security+
- Certified Ethical Hacker
- Certified Wireless Network Administrator
- Certified Wireless Security Professional

จำนวนชั่วโมงในการฝึกอบรม : 5 วัน (30 ชั่วโมง)

ช่วงเวลาฝึกอบรม : 9.00 - 16.00 น.

สถานที่ฝึกอบรม :

สถาบันวิทยาการ สวทช.

เลขที่ 73/1 อาคารสำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ (สวทช.)

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วิธีการสำรองที่นั่ง :

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