Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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Windows Server 2019 Administration

CODE:	LENGTH:	PRICE:
MCS_WS-011T00	40 Hours (5 days)	Request Price

Description

This five-day instructor-led course is designed primarily for IT professionals who have some experience with Windows Server. It is designed for professionals who will be responsible for managing identity, networking, storage and compute by using Windows Server 2019, and who need to understand the scenarios, requirements, and options that are available and applicable to Windows Server 2019. The course teaches IT professionals the fundamental administration skills required to deploy and support Windows Server 2019 in most organizations.

Objectives

After completing this course, students will be able to:
Use administrative techniques and tools in Windows Server 2019.
Implement identity Services.
Manage network infrastructure services.
Configure file servers and storage.
Manage virtual machines using Hyper-V virtualization and containers
Implement high availability and disaster recovery solutions.
Apply security features to protect critical resources.
Configure Remote Desktop Services.
Configure a virtual machine-based desktop infrastructure deployment.
Implement remote access and web services.
Implement service monitoring and performance monitoring, and apply troubleshooting.
Perform upgrades and migration related to AD DS, and storage.

Audience

This course is intended for Information Technology (IT) Professionals who have some experiencing working with Windows Server and are looking for a single five-day course that covers core administration components and technologies in Windows Server 2019. This course also helps server administrators from previous Windows Server versions to update their knowledge and skills related to Windows Server 2019. Additionally, this course can help individuals looking for preparation materials to pass exams related to Windows Server. The course is also to individuals from a service desk role who wish to transition into server maintenance.

Prerequisites

Some exposure to and experience with Active Directory Domain Services (AD DS) concepts and technologies in Windows Server 2012 or Windows Server 2016.
Some exposure to and experience with Active Directory Domain Services (AD DS) concepts and technologies in Windows Server 2012 or Windows Server 2016.
Experience and an understanding of core networking technologies such as IP addressing, name resolution, and Dynamic Host Configuration Protocol (DHCP).
Experience working with and an understanding of Microsoft Hyper-V and basic server virtualization concepts. An awareness of basic security best practices.
Experience working hands-on with Windows client operating systems such as Windows 8, Windows 8.1 or Windows 10.
Basic experience with Windows PowerShell.

Programme

Module 1: Windows Server Administration OverviewThis module describes how to distinguish different Windows Server 2019 editions and techniques for deployment, servicing and activation. The module also introduces Windows Server Core and compares it with the Desktop Experience version. The module describes tools and concepts for adminstering Windows Server, such as

Windows Admin Center, PowerShell, and delegation of privileges.Lessons
Introducing Windows Server 2019
Windows Server Core Overview
Windows Server administration principles and tools overview
Lab : Deploying and configuring Windows Server
Deploying and configuring Server Core
Implementing and using remote server administration
After completing this module, students will be able to:
Describe Windows Server as well as techniques for deployment, servicing and activation.
Describe Windows Server Core, its specifics and ways to administer it.
Module 2: Identity Services in Windows ServerThis module introduces identity services and describes Active Directory Domain Services (AD DS) in a Windows Server environment. The module describes how to deploy domain controllers in AD DS, as well as the Azure Active Directory (AD) and the benefits of integrating Azure AD with AD DS. The module also covers Group Policy basics and how to configure group policy objects (GPOs) in a domain environment. Finally, the modules describes the role of Active Directory certificate services and certificate usage.Lessons
AD DS Overview
Deploying Windows Server domain controllers
Azure AD overview
Implementing Group Policy
Active Directory Certificate Services overview
Lab : Implementing Identity Services and Group Policy
Deploying new domain controller on Server Core
Configuring Group Policy
Deploying and using certificate services
Explain Group Policy basics and configure GPOs in a domain environment
Describe the role of Active Directory certificate services and certificate usage
After completing this module, students will be able to:
Describe AD DS in a Windows Server environment.
Deploy domain controllers in AD DS.
Describe Azure AD and benefits of integrating Azure AD with AD DS.
Module 3: Network Infrastructure services in Windows ServerThis module describes how to implement core network infrastructure services in Windows Server. The modules covers how to deploy, configure and manage DNS and IPAM. The modules also describes how to use Remote Access Services.Lessons
Deploying and managing DHCP
Deploying and managing DNS service
Deploying and managing IPAM
Remote Access Services in Windows Server
Lab : Implementing and configuring network infrastructure services in Windows Server
Deploying and configuring DHCP
Deploying and configuring DNS
Implementing Web Application Proxy
After completing this module, students will be able to:
Describe, deploy and configure DHCP service.
Deploy, configure and manage DNS.
Describe, deploy and manage IPAM.
Module 4: File Servers and Storage management in Windows ServerThis modules describes how to configure file servers and storage in Windows Server. The module covers file sharing and deployment of Storage Spaces technology. The module describes how to implement data deduplication, iSCSI based storage in Windows Server, and finally, how to deploy DFS.Lessons
Volumes and File Systems in Windows Server
Implementing sharing in Windows Server
Implementing Storage Spaces in Windows Server
Implementing Data Deduplication
Implementing iSCSI
Deploying Distributed File System
Lab : Implementing storage solutions in Windows Server
Implementing Data Deduplication
Configuring iSCSI storage
Configuring redundant storage spaces
Implementing Storage Spaces Direct
After completing this module, students will be able to:
Implement sharing in Windows Server
Deploy Storage Spaces technology
Implement the data deduplication feature
Implement iSCSI based storage
Deploy and manage Distributed File System (DFS)
Module 5: Hyper-V virtualization and containers in Windows ServerThis modules describes how to implement and configure Hyper-V VMs and containers. The module covers key features of Hyper-V in Windows Server, describes VM settings, and how to configure VMs in Hyper-V. The module also covers security technologies used with virtualization, such as shielded VMs, Host Guardian Service, admin-trusted and TPM-trusted attestation, and KPS.Lessons

Hyper-V in Windows Server
Configuring VMs
Securing virtualization in Windows Server
Containers in Windows Server
Overview of Kubernetes
Lab : Implementing and configuring virtualization in Windows Server
Creating and configuring VMs
Installing and configuring containers
After completing this module, students will be able to:
Describe the key features of Hyper-V in Windows Server.
Describe VM settings and deploy and configure VMs in Hyper-V.
Explain the use of security technologies for virtualization.
Describe and deploy containers in Windows Server.
Explain the use of Kubernetes on Windows.
Module 6: High Availablity in Windows ServerThis module describes current high availability technologies in Windows Server. The module describes failover clustering and considerations for implementing it, and how to create and configure failover clustering. The module also explains stretch clusters and options for achieving high availability with Hyper-V VMs.Lessons
Planning for failover clustering implementation
Creating and configuring failover cluster
Overview of stretch clusters
High availability and disaster recovery solutions with Hyper-V VMs
Lab : Implementing failover clustering
Configuring storage and creating a cluster
Deploying and configuring a highly available file server
Validating the deployment of the highly available file server
After completing this module, students will be able to:
Describe failover clustering and the considerations for implementing it.
Create and configure failover clusters.
Describe stretch clusters.
Describe options to achieve high availability with Hyper-V VMs.
Module 7: Disaster recovery in Windows ServerThis module describes disaster recovery technologies in Windows Server and how to implement them. The module covers how to configure and use Hyper-V Replica and describes Azure Site Recovery. The module also covers how to implement Windows Server backup and describes the Azure Backup service.Lessons
Hyper-V Replica
Backup and restore infrastructure in Windows Server
Lab : Implementing Hyper-V Replica and Windows Server Backup
Implementing Hyper-V Replica
Implementing backup and restore with Windows Server Backup
After completing this module, students will be able to:
Describe and implement Hyper-V Replica.
Describe Azure Site Recovery.
Describe and implement Windows Server backup.
Describe the Azure Backup service.
Module 8: Windows Server securityThis module describes Windows Server security features and how to implement them. The module covers credentials used in Windows Server and explains how to implement privileged access protection. In addition to describing methods and technologies for hardening Windows Server security, the module explains how to configure Just Enough Administration (JEA) and how to secure SMB traffic. Finally, the module covers Windows Update, its deployment and management options.Lessons
Credentials and privileged access protection
Hardening Windows Server
JEA in Windows Server
Securing and analyzing SMB traffic
Windows Server update management
Lab : Configuring security in Windows Server
Configuring Windows Defender Credential Guard
Locating problematic accounts
Implementing LAPS
After completing this module, students will be able to:
Describe credentials used in Windows Server.
Explain how to implement privileged access protection.
Describe methods and technologies to harden security in Windows Server.
Describe and configure Just Enough Administration (JEA).
Secure SMB traffic in Windows Server.
Describe Windows Update and its deployment and management options.
Module 9: RDS in Windows ServerThis module describes key Remote Desktop Protocol (RDP) and Virtual Desktop Infrastructure (VDI) features in Windows Server. The modules covers how to deploy session-based desktops and describes personal and poled virtual desktops.Lessons
Overview of RDS
Configuring a session-based desktop deployment

Overview of personal and pooled virtual desktops
Lab : Implementing RDS in Windows Server
Implementing RDS
Configuring Session Collection Settings and using RDC
Configuring a virtual desktop template
After completing this module, students will be able to:
Describe Remote Desktop Services (RDS) in Windows Server.
Describe and deploy session-based desktops.
Describe personal and pooled virtual desktops.
Module 10: Remote access and web services in Windows ServerThis module describes how to implement virtual private networks (VPNs), Network Policy Server (NPS), and Microsoft Internet Information Services (IIS). The module describes Always On VPN functionality, as well as how to configure NPS and Web Server (IIS) in Windows Server.Lessons
Implementing VPNs
Implementing Always On VPN
Implementing NPS
Implementing Web Server in Windows Server
Lab : Deploying network workloads
Implementing VPN in Windows Server
Deploying and Configuring Web Server
After completing this module, students will be able to:
Describe VPN options in Windows Server.
Describe Always On VPN functionality.
Describe and configure NPS.
Describe and configure Web Server (IIS).
Module 11: Server and performance monitoring in Windows ServerThis module describes how to implement service and performance monitoring, and apply troubleshooting in Windows Server. The module highlights monitoring tools and describes how to monitor performance, including event logging and how to perform event logging monitoring for troubleshooting purposes.Lessons
Overview of Windows Server monitoring tools
Using Performance Monitor
Monitoring event logs for troubleshooting
Lab : Monitoring and troubleshooting Windows Server
Establishing a performance baseline
Identifying the source of a performance problem
Identifying the source of a performance problem
Identifying the source of a performance problem
Describe monitoring tools in Windows Server.
Describe performance monitoring and use it in Windows Server.
Describe event logging and perform event logging monitoring for troubleshooting purposes.
Module 12: Upgrade and migration in Windows ServerThis module describes how to perform upgrades and migrations for AD DS, Storage, and Windows Server. The module covers tools to use for AD DS migration. The module also covers the Storage Migration Service, and finally, Windows Server migration tools and usage scenarios.Lessons
AD DS migration
Storage Migration Service
Windows Server migration tools
Lab : Migrating Server workloads
Implementing Storage Migration Service
After completing this module, students will be able to:
Describe tools to use for AD DS migration.
Describe the Storage Migration Service.
Describe Windows Server migration tools and their usage scenarios.

Session Dates

Su richiesta. Contattaci al n.ro +39 0471 099134 oppure via mail a training.ecs.it@arrow.com

Informazioni aggiuntive

Questa formazione è disponibile anche come formazione in loco. Per favore, contattaci per saperne di più.