

Networking with Windows Server («55349A»)

This five-day Windows Server course is intended for IT professionals who are interested in managing and configuring Windows Server networking components. The course provides the skills required to deploy, configure and support Windows Server networking.

Duration: 5 days

Price: 3'950.–

Course documents: Digital Courseware

Content

IMPORTANT NOTICE

This is not an official Microsoft course. The content of this training is based on the retired legacy MOC 20741B of Microsoft and is developed by the Microsoft Community.

Module 1: Plan and implement IPv4

This module details how to plan and implement an IPv4 addressing scheme to support your organization's needs. The module also explains how to use fundamental networking tools and techniques to configure and troubleshoot IPv4-based networks.

Lessons

- Plan IPv4 addressing
- Configure IPv4
- Manage and troubleshoot IPv4

Lab: Plan an IPv4 addressing scheme

- Plan the IPv4 address assignments
- Verify IPv4 communication
- Troubleshoot IPv4

Module 2: Implement DHCP

Automatic IP configuration makes it easier to manage IP hosts. In this module, students learn how to deploy and manage the DHCP server role, select a high-availability option for DHCP, and configure DHCP failover.

Lessons

- What is DHCP?
- Deploy DHCP
- Manage DHCP high availability
- Manage and troubleshoot DHCP

Lab: Implement DHCP

- Plan a DHCP server implementation
- Implement the DHCP configuration
- Implement DHCP failover
- Validate the DHCP implementation

Module 3: Plan and implement IPv6

This module details how to plan and implement an IPv6 addressing scheme to support your organization's needs. It also includes specifics about configuring coexistence between IPv4 and IPv6 and explains options for transitioning to IPv6.

Lessons

- Implement IPv6
- Manage IPv4 and IPv6 Coexistence
- Migrate to IPv6

Lab: Configure and evaluate IPv6 transition technologies

- Review the default IPv6 configuration
- Implement DHCPv6
- Configure network integration by using ISATAP
- Configure native IPv6 connectivity
- Configure 6to4 connectivity

Module 4: Implement name resolution with DNS

This module explains the fundamentals of using Domain Name System (DNS) for simple name resolution, and then details more advanced topics, such as the GlobalNames zone, Domain Name System Security Extensions (DNSSEC), and split-brain syndrome. These modules detail how you can install, configure, and troubleshoot DNS within an organization's network.

Lessons

- Deploy DNS servers
- Configure zones in DNS server
- Configure nameresolution between DNS zones
- Configure DNS integration with AD DS
- Configure advanced DNS settings

Lab 1: Plan and implement DNS name resolution

- Plan DNS name resolution
- Implement DNS servers and zones

Lab 2: Integrate DNS with AD DS

- Integrate DNS with AD DS

Lab 3: Configure advanced DNS settings

- Configure DNS policies
- Validate a DNS implementation
- Troubleshoot DNS

Module 5: Implement and manage IPAM

This module introduces IPAM functionality, explains how to deploy IPAM, and shows student how to manage DNS and DHCP functionality by using IPAM.

Lessons

- What is IPAM?
- Deploy IPAM
- Manage IP address spaces with IPAM

- Install the IPAM Server feature
- Provision the IPAM Server
- Manage IP address spaces by using IPAM

Module 6: Implement remote access

In this module, students learn how to implement remote access technologies in Windows Server. You will also learn about different implementation scenarios for small or medium-sized organizations and enterprise organizations. In Windows Server, four component technologies—virtual private network (VPN), DirectAccess, Routing, and Web Application Proxy—integrate into a single, unified server role called Remote Access.

Lessons

- Overview of remote access options
- Implement WAP
- Plan VPNs

Lab 1: Implement a Web Application Proxy

- Implement Web Application Proxy
- Validate a Web Application Proxy deployment

Lab 2: Implement a VPN

- Implement VPN
- Validate the VPN deployment
- Troubleshoot VPN access

Module 7: Implement branch office networking

In this module, students learn several ways in which to use Windows Server to overcome the limitations of branch-office scenarios. They'll learn about using Distributed File System (DFS) and Windows BranchCache.

Lessons

- Networking features and considerations for branch offices
- Implement DFSR
- Implement BranchCache for branch offices

Lab 1: Implement DFS for branch offices

- Implement DFS
- Validate the deployment

Lab 2: Implement BranchCache

- Implement BranchCache
- Validate the deployment

Module 8: Implement advanced networking

Windows Server includes advanced high-performance networking features, such as server message block (SMB) 3.1.1, Quality of Service (QoS) options, and several enhancements on the receiving end of network packet processing. Additionally, high-performance networking features are available to the Microsoft Hyper-V role and the virtual machines (VMs) that are running under Hyper V, such as expanded virtual-switch functionality and extensibility, single-root I/O virtualization (SR-IOV), dynamic

virtual-machine queuing, and NIC Teaming for VMs. In this module, you will learn how to deploy and configure advanced networking in Windows Server and the new Hyper-V networking features.

Lessons

- Overview of high-performance networking features
- Configure advanced Hyper-V networking features

Lab: Configure advanced Hyper-V networking features

- Create and use Hyper-V virtual switches
- Configure and use the advanced features of a virtual switch

Key Learnings

- Planning and implementing IPv4
- Implementing Dynamic Host Configuration Protocol (DHCP)
- Planning and implementing IPv6
- Implementing name resolution with Domain Name System (DNS)
- Implementing and managing IP Address Management (IPAM)
- Planning and implementing remote access
- Implementing networking for branch offices
- Configuring advanced networking features

Target audience

This course is for IT pros that have some networking knowledge and experience, and who are looking for a single course that provides insight into core and advanced Windows Server networking technologies. This audience typically includes network administrators and system and infrastructure administrators.

Any questions?

We are happy to advise you on +41 44 447 21 21 or info@digicomp.ch. You can find detailed information about dates on www.digicomp.ch/courses-microsoft-technology/microsoft-server/course-networking-with-windows-server