

(10967A) – Fundamentals of a Windows Server Infrastructure

OBJECTIVE

Learn the fundamental knowledge and skills that you need to build a Windows Server infrastructure with Windows Server 2012. This course provides the networking, security, and system administration information that you need to implement a Windows Server infrastructure. It covers the basics of installation and configuration, storage, network infrastructure, network components, network protocols, server roles, Active Directory Domain Services (AD DS), Group Policy, IT security, server security, network security, security software, monitoring server performance, and maintaining a Windows Server. This course includes the foundational level knowledge to prepare students to start a career or cross train in Microsoft Windows Server technologies.

COURSE TOPICS

Module 1: Installing and Configuring Windows Server 2012

- Windows Server Architecture.
- Installing Windows Server.
- Configuring Services.
- Configuring Devices and Device Drivers.

Module 2: Implementing Storage in Windows Server

- Identifying Storage Technologies.
- Managing Disks and Volumes.
- Fault Tolerance.

Module 3: Understanding Network Infrastructure

- Network Architecture Standards.
- Local Area Networking.
- Wide Area Networking.
- Wireless Networking.
- Connecting to the Internet.
- Remote Access.

Module 4: Connecting Network Components

- Understanding the OSI Model.
- Understanding Media Types.
- Understanding Adapters, Hubs, and Switches.
- Understanding Routing.

Module 5: Implementing TCP/IP

- Overview of TCP/IP.

- IPv4 Addressing.
- IPv6 Addressing.
- Name Resolution.

Module 6: Implementing Windows Server Roles

- Role-Based Deployment.
- Deploying Role-Specific Services.
- Considerations for Provisioning Roles.

Module 7: Implementing Active Directory

- Introducing Active Directory Domain Services (AD DS).
- Implementing AD DS.
- Managing Users, Groups, and Computers.
- Implementing Group Policy

Module 8: Implementing IT Security Layers

- Overview of Defense-in-Depth.
- Physical Security.
- Internet Security.

Module 9: Implementing Security in Windows Server

- Overview of Windows Security.
- Securing Files and Folders.
- Implementing Encryption.

Module 10: Implementing Network Security

- Overview of Network Security.
- Implementing Firewalls.
- Internet Protocol Security (IPsec)

Module 11: Implementing Security Software

- Client Software Protection Features.
- E-Mail Protection.
- Server Protection.

Module 12: Monitoring Server Performance

- Event Logging.
- Performance Monitoring.

Module 13: Maintaining Windows Server

- Troubleshooting Windows Server Startup.

- Server Availability and Data Recovery.
- Applying Updates to Windows Server.
- Troubleshooting Windows Server.

After completing this course, students will be able to:

- Perform a local media-based installation of Windows Server 2012.
- Select appropriate storage technologies and configure storage on a Windows Server.
- Describe fundamental network components and terminology so you can select an appropriate network component.
- Implement a network by selecting network hardware components and technologies and determine the appropriate network hardware and wiring components for a given situation.
- Describe the protocols and services within the Transmission Control Protocol/Internet Protocol (TCP/IP) suite of protocols and implement IPv4 within a Windows Server environment.
- Describe and implement server roles.
- Implement and configure an Active Directory Domain Service (AD DS) forest.
- Describe the concept of defense-in-depth and determine how to implement this approach with Windows Server.
- Identify the security features in Windows Server that help to provide defense-in-depth.
- Identify the network-related security features in Windows Server to mitigate security threats to your network.
- Identify and implement additional software components to enhance your organization's security.
- Monitor a server to determine the performance level.
- Identify the Windows Server tools available to maintain and troubleshoot Windows Server.

PREREQUISITES

Before attending this course, students must have:

- A basic knowledge of general computing concepts.
- Some experience working with Windows Client operating systems such as Windows 7 or Windows 8

TRAINING APPROACH

This course includes lectures, course notes, exercises and hands-on practice.

COURSE DURATION

24 Hours (in 3 days)

CERTIFICATION COMPLETION

A certificate of completion is provided for all trainees attending the course