

Course Description

This Hands-On 5-day course is to teach students the basic fundamentals of networking, security, and server administration with Windows Server 2008. It is intended to provide the foundational knowledge needed to prepare for the Microsoft Technology Associate (MTA) exams (if desired) and begin building a career in Microsoft technologies.

This course is geared to gain fundamental knowledge and skills around security, networking, and administration in Windows Server 2008 R2. It can apply to home computer users, academic, information workers, developers, or help desk technicians wishing to begin a new skills path or up-skill to Windows Server technologies.

Students Will Learn

- Describe fundamental network components and terminology thus enabling you to select an appropriate network component in a particular scenario.
- 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.
- Select appropriate storage technologies and configure storage on Windows Server.
- Perform a local media-based installation of Windows Server 2008 R2.
- Describe server roles.
- Implement and configure an Active Domain Directory 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 you network.
- Identify and implement additional software components to enhance your organizations security.
- Monitor a server to determine the performance level.
- Identify the Windows Server tools available to maintain and troubleshoot Windows Server.
- Create and configure a virtual machine with Hyper-V.

Prerequisites

A good fundamental knowledge of general computing equivalent with the CompTIA A+ Certification

An ability to understand basic security, networking and administration concepts

Some previous knowledge and experience with desktop operating systems, although this is not mandatory.

Course Outline

Fundamentals of Network Infrastructure

- Network Communication Standards
- Physical Network Infrastructure
- Logical Network Organization
- Overview of Active Directory
- Server Roles

Connecting Network Components

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

Configuring Basic TCP/IPv4

- Overview of the TCP/IP Protocol Suite
- Overview of TCP/IP Addressing
- Name Resolution
- Dynamic IP Addressing
- TCP/IPv4 Tools

Implementing Storage in Windows Server

- Identifying Storage Technologies
- Managing Disks and Volumes
- Implementing RAID

Installing and Configuring Windows Server

- Installing Windows Server
- Managing Services
- Managing Peripherals and Devices

Windows Server Roles

- Role-Based Deployment
- Deploying Role-Specific Servers

Implementing Active Directory Domain Services

- Introducing AD DS
- Implementing AD DS
- Managing Users, Groups, and Computers
- Implementing Organizational Units
- Implementing Group Policy

Implementing IT Security Layers
 Overview of Defense-in-Depth
 Physical Security
 Internet Security

Implementing Windows Server Security
 Overview of Windows Security
 Securing Files and Folders
 Implementing Encryption

Implementing Network Security
 Overview of Network Security
 Implementing Firewall
 Network Access Protection

Implementing Security Software
 Client Protection Features
 E-Mail Protection
 Server Protection

Monitoring Server Performance
 Overview of Server Components
 Performance Monitoring

Maintaining Windows Server
 Troubleshooting Windows Server Startup
 Server Availability and Data Recovery
 Applying Updates to Windows Server
 Troubleshooting Windows Server

Configuring Print Resources and Printing Pools
 Printing Overview
 Configuring Network Printers
 Using Print Management
 Managing Printers
 Troubleshooting Network Printing

Implementing Virtualization
 Overview of Virtualization Technologies
 Implementing Hyper-V Role

Delivery Method

Instructor-Led with numerous Hands-On exercises.

Equipment Requirements

(This apply's to our hands-on courses only)

BTS always provides equipment to have a very successful Hands-On course. BTS also encourages all attendees to bring their own equipment to the course. This will provide attendees the opportunity to incorporate their own gear into the labs and gain valuable training using their specific equipment.

Course Length

5 Days