Course Content

Course Description:
In this course you will cover: different types of servers; identification of hardware and software components used in servers; installation of servers in a network environment; configuring servers and checking and upgrading BIOS and firmware levels; preventative maintenance measures including setting SNMP thresholds; upgrading server hardware and software; exploration of environmental issues surrounding servers; troubleshooting servers & exploring disaster recovery concepts and techniques.

Prerequisites:
Windows Level 1, A+ Hardware Fundamentals, A+ Operating Systems Fundamentals and Network+ Certification

Topics:

Introduction to Servers
- Investigating Different Types of Servers
- Identifying Server Types
- Identifying Server Hardware
- Identifying Parts of Computer Subsystems
- Identifying Components of the System Processing
  Core
- Identifying Drive Types and Implementations
- Identifying Components and Features of the Communications Subsystem
- Identifying UPS Types
- Identifying Server-specific Components Found in
   Other Subsystems
- Identifying Network Operating Systems and Other
  Software
- Identifying Network Operating Systems Features
- Identifying Other Server Software

Installing Servers
- Planning for Server Installation
- Discussing the Planning Process
- Adding Server Hardware
- Installing Server Hardware
- Discussing Rackmount Servers and Physical Installation
- Verifying the Installation
- Verifying the Hardware Installation

Upgrading Server Components
- Creating and Using Upgrade Check Lists
- Discussing Upgrade Check Lists
- Adding and Replacing Hardware
- Upgrading Server Software
- Installing NOS Updates
- Updating Drivers

Exploring Environmental Issues Surrounding Servers
- Evaluating the Physical Security of Servers
- Evaluating the Sever Room Equipment

Configuring Servers

- Checking and Upgrading BIOS and Firmware Levels
- Checking the BIOS Level
- Configuring RAID
- Configuring Hardware RAID
- Installing Network Operating Systems and Other
  Software
- Testing the Server Installation
- Configuring External Peripheral Devices
- Installing System Monitoring Agents and Service
- Tools
- Documenting the Server

Maintaining Servers

- Backing Up Server Data
- Baselining Servers and Monitoring Server Performance
- Setting SNMP Thresholds
- Discussing SNMP
- Keeping the Server Clean
- Discussing the Physical Maintenance of Servers
- Verifying Hardware
- Establishing Remote Notification
- Setting Up and Verifying Remote Notification

Troubleshooting Servers

- Reviewing General Troubleshooting Information
- Reviewing Troubleshooting Concepts
- Discussing Troubleshooting Precautions
- Analyzing the Problem and its Cause
- Discussing Server Troubleshooting
- Using Diagnostic Software
- Investigating Wake-on-LAN Technology
- Identifying Bottlenecks
- Discussing Bottlenecks

Exploring Disaster Recovery Concepts and Techniques

- Ensuring Redundancy and Availability
- Discussing Fault-tolerance
- Backups
- Discussing Backup Strategies
- Creating a Disaster Recovery Plan
- Discussing Professional Data-Recovery Services