

Course overview

CompTIA Server+ Certification Support Skills

(G600eng)



Overview and objectives

This practical 3-day hands-on course is intended for students wishing to qualify with CompTIA Server+ Certification. This course will teach students advanced-level technical competency of server issues and technology, including installation, configuration, upgrading, maintenance, environment, troubleshooting and disaster recovery.

On course completion, students will be able to:

- Identify the features of server hardware and software.
- Plan for the installation and upgrade of servers.
- Know the features of server-level hardware (such as multiprocessing, RAID, and SCSI).
- Install and upgrade server hardware.
- Know basic network concepts and install network devices.
- Install and upgrade server OS, tools, and applications software on Windows, NetWare, and Linux.
- Understand network services (such as File & Print, DHCP, DNS, Web, and Email).
- Develop and implement a server management plan.
- Monitor and optimize a server system.
- Perform basic hardware, software, and network troubleshooting.
- Understand Disaster Recovery concepts and plan effectively

Certification track

This course will prepare students to take the SK0-002 CompTIA Server+ Certification exam, for the objectives released in February 2005.

CompTIA Server+ Certification is internationally recognized by many corporations. Indeed, Server+ is a prerequisite qualification for employment (and is endorsed) by many leading computer manufacturers and vendors on a global basis. The qualification is endorsed by HP, Compaq, IBM, Novell, Intel, 3Com, and Adaptec, among other leading vendors. This qualification is particularly recommended for students who wish to progress to completing vendor server qualifications and training programs.



Target audience

This course is intended for students wishing to qualify with CompTIA Server+ Certification for advanced level technical competency of server issues and technology. It is also suitable for PC support technicians wanting to improve their skills in support and administration. Study of the course can also help to prepare for other, similar technical support qualifications and act as a groundwork for more advanced training.

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Course prerequisites

Ideally, students should have successfully completed the CompTIA A+ Certification and have around 12 months' experience of PC support. It is not *necessary* that students pass the A+ exams before completing Server+ certification, but this is *recommended*.

Regardless of whether students have passed A+, it is recommended that they have the following skills and knowledge before starting this course:

- Know the function and basic features of the components of a PC.
- Know the PC startup process.
- Use Windows to create and manage files and use basic administrative features (Explorer, Control Panel, Management Consoles).
- Basic network terminology (such as OSI Model, Topology, Ethernet, TCP/IP).

Course contents

The course consists of two volumes, with a study volume, containing indexed notes and review questions, and a companion volume, containing exam objectives mapping, exam information, practical labs, answers to review questions, and a comprehensive glossary. The course also comes with an online practice exam.

An instructor edition of the course is available with margin notes and tips for the trainer. Access to course resources on gtslearning's trainer portal (www.gtstrainer.com) is also available, subject to meeting minimum order requirements. gtstrainer hosts setup guides and data, PowerPoint slides, timetables, and extra exam information.

Module 1 - Planning Servers

- **Server Hardware** • Server as Hardware • Servers and Networks • Features of Servers
- **Server Software** • Server as Software • Types of Servers • Workstation OS versus NOS • Windows NT • The Windows 2000 Family • The Windows 2003 Family • The Windows 2008 Family • Windows Administration Tools • Windows Licensing • Novell NetWare • UNIX • Linux • Apple Mac OS X
- **Networking Concepts** • Network Components • Network Topologies • The OSI Model • IEEE 802 Standards • Network Devices • Network Transport Protocols
- **Planning Installations and Upgrades** • Project Planning Concepts • Server Installation Plans • Server Upgrade Plans • Implementing the Plan • Verifying the Plan

Module 2 - Server Hardware and Components

- **Form Factors and Racks** • Server Form Factors • Racks
- **Motherboards, Processors, and Memory** • Bus Architecture • Motherboard Components • Expansion Bus Standards • Features of Processors • Intel Pentium and Xeon Processors • Intel Itanium Processor • AMD Processors • Random Access Memory (RAM) Types • Memory Packaging • Memory Characteristics

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- **Storage Devices** • Hard Drives • The SCSI Interface • SCSI Connectors and Cabling • Setting Up a SCSI Bus • ATA (IDE) Interface • Drive Arrays (RAID) • Formatting a Disk • Network Storage

Module 3 - Installing and Upgrading Servers

- **Installing and Upgrading Hardware** • Static Electricity • Adding and Removing Components • Accessing the Case • CPU • Memory • Power Supply Unit • Adapter Cards • Storage Devices • BIOS, CMOS, and Firmware
- **Installing Peripherals, Racks, and Network Devices** • Rack Installation • Peripheral Devices • Uninterruptible Power Supplies (UPS) • Installing Network Components • Structured Wiring Systems
- **Installing and Upgrading Software** • Windows Installation • NetWare Installation • Linux Installation • Configuration
- **Configuring Network Services** • Directory Services • File and Print Services • Network Routing Services • Dynamic Host Configuration Protocol • Name Resolution Using DNS • Microsoft Networking Host Names • Firewalls and Proxy Servers • Remote Access Services • SNA Services
- **Configuring Web Services** • Email (SMTP Protocol) • Shared Fax Systems • Web and FTP Servers

Module 4 - Maintenance and Optimization

- **Proactive Maintenance** • Developing a Server Management Plan • Security • Passwords and Accounts • Encryption • Virus Prevention • Server Environment • Storage and Transportation
- **Monitoring and Optimization** • Network Management Protocols • Server Monitoring • Measuring Performance in Windows • Measuring Performance in NetWare • Measuring Performance in Linux • Interpreting the Output • Logging User Activity • Network Monitoring • Protocol Analyzer • Remote Monitoring and Notification

Module 5 - Troubleshooting and Disaster Recovery

- **Troubleshooting • Troubleshooting Procedures** • Troubleshooting Techniques • Perform Shut Down • Error Logs • Recovery Options • Management Utilities • Troubleshooting Windows Software • Troubleshooting Power and POST Problems • Troubleshooting Other Hardware Issues • Troubleshooting RAID • Troubleshooting Networks
- **Disaster Recovery** • Fault Tolerance and Redundancy • Backup Strategies