

# HP Education Services

## HP NonStop TCP/IP System Management (U4176S)



This 5-day course provides the knowledge and skills needed to incorporate the HP NonStop servers into your TCP/IP environment and perform system configuration. Upon completion of the course, you will be familiar with the products and utilities that allow you to configure, monitor, modify, and control your system.

### Audience

- System Managers
- Network Managers
- System Analysts
- Network technical support personnel

### Prerequisites

- NonStop NS-series Server Administration I (U8528S) or
- NonStop S-series Server Administration Training (U5449S) and familiarity with TCP/IP or
- NonStop S-series Field Support Training (U4170S) or
- Six months experience managing NonStop servers

### Course Objective

Perform system configuration and management of HP NonStop servers:

- TCP/IP
- TCP/IP /PL (TCP/IP /parallel library)
- TCP/IPv6 (parallel library and IPv6 support)
- ServerNet LAN Systems Access (SLSA) Subsystem
- Expand-over-IP
- ServerNet WAN (SWAN) concentrator and WAN subsystem

## Benefits to You

- Install, configure, and verify an E4SA, FESA, or G4SA adapter
- Gain hands-on experience configuring and testing NonStop TCP/IP /PL and TCP/IPv6
- Know how to troubleshoot TCP/IP subsystem failures
- Determine the proper configuration and operation of an existing SWAN concentrator and WAN subsystem
- Ensure maximum utilization of your current hardware to achieve a greater ROI

## Why education services from HP?

- Focus on job-specific skills
- Hands-on practice
- Experienced and best-in-the-field HP instructors
- Comprehensive student materials
- More than 80 training locations worldwide
- Customized on-site delivery

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**Course Title:** HP NonStop TCP/IP System Management

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**HP Product Number:** U4176S

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**Category/Subcategory:** NonStop Systems and Operations Management

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**Course Length:** 5 Days

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**Level:** Intermediate

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**Delivery Language:** English

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**To Order:** You can order this course online at [www.hp.com/learn](http://www.hp.com/learn). At the site, select a country, then choose "registration" or "Book a course" and fill out the online registration form.

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**Next Steps:** NonStop S-series SWAN Troubleshooting and Maintenance Workshop (U4175S), NonStop S-series Communications Products (U4166S), NonStop S-series ServerNet Cluster Workshop (U4174S)

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## Detailed Course Outline

### Course Introduction

#### Introduction to HP NonStop Networking

- Introduction to HP NonStop communications subsystems
- Network overview

#### The TCP/IP Protocol Suite

- NonStop TCP/IP products suite overview
- TCP/IP addressing
- TCP/IPv6 addressing and mechanisms

#### ServerNet LAN Systems Access (SLSA)

##### Subsystem

- SLSA overview
- SLSA configuration and management
- SLSA LAN configuration for NonStop TCP/IP
- Lab exercise: configuring an E4SA, FESA, or GESA
- Lab exercise: configuring and testing NonStop TCP/IP

#### Parallel TCP/IP Stacks - NonStop TCP/IP /PL and TCP/IPv6

- NonStop parallel TCP/IP stacks overview
- NonStop TCP/IP /PL and TCP/IPv6 configuration
- NonStop TCP/IP /PL and TCP/IPv6 management and operations
- NonStop TCP/IP /PL and TCP/IPv6 applications
- NonStop TCP/IPv6 in IPv6 or dual mode
- Lab exercise: configuring and testing NonStop TCP/IPv6 or TCP/IP /PL in IPv4 mode
- Lab exercise: configuring and testing NonStop TCP/IP /PL and TCP/IPv6 for applications
- Lab exercise: configuring and testing NonStop TCP/IPv6 in IPv6 and dual mode

#### Supporting the WAN Subsystem

- WAN and SWAN overview
- TCP/IP support for the WAN subsystem
- Lab exercise: WAN and SWAN subsystem status

#### Expand and TCP/IP Networking

- Expand overview
- Expand-over-IP
- Lab exercise: expand-over-IP installation and configuration

#### Onsite Delivery Equipment Requirements

- A minimum of two servers as listed below is required for the class (or comparable larger server with equivalent capability)
- The class can run on NonStop S-Series servers or on NonStop NS-Series servers or a mixture of these systems
- Each group of three students requires a minimum of one of the following configurations:
- One 2-processor NonStop S7x002 server with G06.22 or later version of the NonStop kernel operating system
- One I/O expansion enclosure with cables
- One 3861 Ethernet 4-port ServerNet adapter with cables, two recommended
- Or two 3863 Fast Ethernet ServerNet adapter with cables
- Or two 3865 GESA-C Gigabit Ethernet ServerNet adapter (copper version) with cables
- One 3880 SWAN concentrator, or 3881 SWAN II per system
- Two 8-port 10/100 switched hubs, including cables (for a four-group lab environment)
- Two RS-232-C cable hoods, part number U11670, per SWAN
- Loopback test connector, part number U11674, per SWAN
- SLSA subsystem and TCP/IP products
- Expand product
- X.25AM product or AT6100 product

- Or
- One 2-processor NonStop NS-16002 with an IOAME and H06.03 or later version of the NonStop kernel operating system
- Or one 2-processor NonStop NS-1002 or NS-14002 server with VIOs and H06.08 or later version of the NonStop kernel operating system
- For the NS-16000, two Multiport Ethernet ServerNet Adapters (M8800, G4SA) with cables, four recommended
- For the NS-1000 or NS14000 two M8801-4 VIO Expansion Boards for Ethernet are recommended
- Two 8-port 10/100 switched hubs, including cables (for a four-group lab environment)
- Two RS-232-C cable hoods, part number U11670, per SWAN
- Loopback test connector, part number U11674, per SWAN
- SLSA subsystem and TCP/IP products
- Expand product
- X.25AM product or AT6100 product
- Optional equipment:
- One 6600 synchronous null modem cable or equivalent
- One 3862 token-ring ServerNet adapter
- One 3860 ATM3 ServerNet adapter (two minimum required for labs)
- One IPv6 capable router

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