



iTP WebServer Workshop for NonStop Servers U4160S

Learn the basics of installing, configuring, and securing HP iTP WebServer solutions along with the management procedures needed to support the operation of the iTP WebServer. Hands-on lab exercises give you programming experience in the iTP WebServer environment. This four-day course is 60 percent lecture and 40 percent hands-on labs using HP NonStop servers.

iTP WebServer Workshop for NonStop Servers

Price USD \$3,200

Links to local schedules, pricing and registration [US/Canada](#)
[Mexico/Latin America](#)
[Brazil](#)

HP course # U4160S

Category NonStop

Duration 4 days

Audience

- Personnel involved with installation, management, programming, and support of the iTP WebServer and applications developed in the iTP WebServer environment.

Prerequisites

- A working knowledge of C or C++ and Java programming languages.

Course objectives

At the conclusion of this course you should be able to:

- Explain the development of commercial data processing on the Internet
- Describe the basic features of World Wide Web technology
- Configure a basic iTP WebServer file server environment
- Alter the basic configuration to enable advanced control options in the iTP WebServer
- Enhance the environment to perform secure transactions using the Secure Sockets Layer (SSL) protocol
- Manage and control the operation of the iTP WebServer environment
- Describe the Common Gateway Interface (CGI) standard for interfacing with web servers, the HP Pathway CGI implementation, and the differences between the two approaches
- Describe the implementation of Java servlets and Java Server Pages (JSPs) and how they differ from generic CGI and Pathway CGI
- Code, compile, deploy, and execute Java servlets and JSPs in the iTP WebServer environment using the Apache Tomcat container

Benefits to you

- Minimize time spent programming and increase your productivity by learning to use HP NonStop iTP WebServer software
- Learn how to configure and manage an iTP WebServer environment, saving time and increasing your productivity with HP NonStop iTP WebServer software
- Learn how to enable your existing Pathway applications for browser based access using iTP WebServer in order to modernize your existing Pathway applications
- Learn how to build and deploy Java servlets in the iTP WebServer environment using the Apache Tomcat container

Next steps

- Web Services for NonStop Server (U8525S)

Course outline

Module 1 - Web Technology on the Internet

- Origin of the Internet
- Packet switching
- ARPAnet
- Emergence of international operations
- Creation of a common protocol
- TCP/IP addresses and domains
- The World Wide Web
- Transaction classes - the new model

Module 2 - TS/MP and iTP WebServer Components

- Major design goals for NonStop systems
- NonStop system - layered environmen
- TS/MP environment
- Server class concept
- Distributed TS/MP implementation
- Pathway/TS product
- Client/server using RSC and TS/MP products
- iTP WebServer architecture
- iTP WebServer and iTP active transaction pages
- Application migration
- Migrating client/server applications

Module 3 - iTP WebServer Functions and Products

- Basic file server
- File content - useful.html
- Browser processing of HTML documents
- Generic CGI processing
- CGI script - hello.cgi
- Pathway legacy systems
- Java servlets
- Active Transaction Pages (ATP) applications
- Resource Locator Service (RLS)
- Anonymous ticketing

Module 4 - Security Considerations

- Existing private networks
- Intercompany communication
- Applications on the Internet
- Problems for commercial use of the Internet
- Message security - encryption methods
- Encryption algorithms
- Relative speed
- Certificate Authorities (CAs)
- Using the certificate
- Emerging Internet standards for WWW
- Secure Sockets Layer (SSL)
- Private Communication Technology (PCT) protocol
- iTP WebServer support
- Atalla WebSafe Internet security processor
- iTP WebServer/Atalla WebSafe Internet security processor integration

Module 5 - Preinstallation Planning

- Hardware and software requirements
- Checking product files
- System checks - DNR, TCP/IP, and OSS
- Safeguard subsystem considerations
- TMF and SQL/MP environments
- Java development kit requirement

Module 6 - Installation

- Installing iTP WebServer software
- Out-of-box installation
- setup script
- Administration server overview
- setup script dialog
- Administration server
- iTP WebServer environment
- Standard commands
- EMS template installation
- Installing and configuring the RLS
- Lab: basic installation

Module 7 - Configuration

- iTP WebServer PATHMON configuration
- TS/MP component configuration
- Server class configurations
- Overriding server class parameters
- Accept directive
- Logging function and modes
- Log file content
- Selecting log format
- Logging domain names - reverselookup
- Finding content files
- Mapping URLs to OSS files
- Partitioning content using filemap
- Mapping URLs to Guardian file space
- Returning default HTML documents

- Region commands
- Automatic directory indexing
- Requiring a password
- User ID and password prompts
- Virtual host support
- Defining server messages
- Customized message display
- Multipurpose Internet Mail Extensions (MIME)
- iTP WebServer MIME types
- Standard MIME types for iTP WebServer
- Processing local server class and generic-CGI requests
- Processing requests for other environments
- Running with Guardian files and commands
- Server-side includes
- Lab: customized installation

Module 8 - Configuring for Security

- Basic security
- Configuring for SSL and PCT
- AcceptSecureTransport - other options
- Distinguished Names (DNs)
- Certificates
- Obtaining a certificate
- Creating a public/private key pair
- keyadmin command output
- Certificate request message
- Installing the certificate
- Certificate record
- RequireSecureTransport for secure access
- Hardware encryption with WebSafe2 Internet security processor
- Enabling hardware encryption
- Installing and configuring the WID
- The WebSafe2 Internet security processor
- The make_key_websafe utility
- How hardware encryption works
- Lab: security

Module 9 - Additional Management Issues

- Log-file maintenance
- Improving DNS performance
- TS/MP management
- Checking status and server class status
- Displaying server configuration
- Performance - server statistics
- PATHMON status
- Controlling TS/MP logging
- Using command files for configuration
- Extended configuration from the OSS environment
- Viewing EMS log files
- Lab: pathway demonstration

Module 10 - Pathway CGI Programming

- Generic CGI processing
- CGI environment variables
- Generic CGI performance
- Default MIME type
- Pathway CGI implementation and procedures
- Automatic form decoding
- Processing input in a pathway CGI program
- HTML form
- Structured database access
- Pathway CGI coding considerations
- Maintaining context
- Configuring a pathway CGI server class
- Using MIME types
- Security design considerations

Module 11 - Java Servlets and JSP

- Introduction to Java
- iTP secure WebServer servlet architecture
- Java servlet implementation
- Java development kit directory structure
- Java compilation
- Java servlet standard API and code
- JDBC transaction drivers
- Transaction unaware driver
- ddl2java tool and using ddl2java
- JPathsend
- Installing NonStop Servlets for JavaServer Pages (NSJSP)
- setup script
- Directory and configuration overview
- Configuring the servlet server class
- Java Server Pages (JSP)
- Lab: Java servlet and JSP programming

Onsite Delivery Equipment Requirements:

- NonStop H-series server
- 30 MB of memory per student (plus swap space for one NonStop TS/MP application per student)
- Appropriate Ethernet controller

Server Software Requirements:

- NonStop server requirements:
 - H06.16 or later version of the NonStop operating system
 - iTP secure WebServer (exportable) version 6 or greater (SJ99V6 or greater)
 - NonStop Server for Java, SDK 1.5.2 or greater (HSJ96V5A or greater)
 - NonStop Servlets for JavaServer Pages(HSJ88V6 or greater)
 - NonStop TM/MP, NonStop SQL/MP, Safeguard, OSS, and NonStop TS/MP applications
- TCP/IP
- LAN access to the Internet is preferred

Client Hardware Requirements:

- PC with minimum of:
 - 256 Mhz processor
 - 64 MB of RAM
 - Hard drive with 20 MB free space

Client Software Requirements:

- Windows operating system
- Outside View or other 6530 and VT 100+ emulator
- TCP/IP stack (preferably Microsoft)
- Microsoft Internet Explorer browser software
- All workstations must have TCP/IP addresses

Learn more at

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