

Course Description: This course is for Linux and/or UNIX systems administrators who want to configure and maintain a secure Apache Web Server.

Who Should Attend: Linux or UNIX system administrators who desire to obtain intensive hands-on training on configuration and management of an Apache Web Server will benefit from this course.

Prerequisites: Students should have taken RH253 Red Hat Linux Network Services and Security, or RH300 RHCE Rapid Track Course, or have equivalent experience with UNIX or Linux. Students should also have experience creating web pages using HTML. Some experience with Perl or Python or shell scripting/programming is recommended but not required.

Benefits of Attendance: Upon completion of this course, students will be able to:

- Configure and maintain an Apache web server running under Red Hat Linux.
- Incorporate CGI handlers, SSL security, dynamic content, and customization via modules.

Course Outline:

Introduction And Basic Apache Configuration

httpd overview: client/server topology, transactional overview
History of web servers: NCSA, Apache evolution, The Apache Organization
Apache today: usage, extensibility, process model, Red Hat's Apache packages
Basic configuration: configuration files and options, basic daemon control

Apache Virtual Hosts

Understanding Virtual hosts: IP-based, name-based
Configuration directives and syntax checking
Using Apache to serve virtually hosted web servers
Web server log files: formats, configuration, use and analysis
Server MIME types

CGI And Server Side Includes

Understanding CGI: Definition, mechanics, limitations, common CGI languages
Basic CGI requirements
Useful CGI tasks: form processing, database manipulation, custom-built tasks
SSI: similarities to CGI, .shtml implementation, Xbithack directive, examples
CGI security: proper programming; suEXEC: file placement issues, configuration

Database Backends

Available Databases
Postgres: installation, administration, creating and loading a table; pgaccess
Query and insert with SQL
Implementations of query and insert in CGI
Perl CGI.pm; DBD/DBI.pm

Apache Customization Through Modules

Concepts
mod_perl
mod_php
mod_status
mod_usertrack
mod_rewrite
other modules

Security And Authentication

Basic access control by host/domain/network
Apache security strategies
Implementing Web-based password authentication
Authentication scenarios

Advanced Security With SSL

Basic Cryptography and SSL concepts
SSL Certificates
Obtaining a website certificate
Implementing SSL with Apache