

Course Length: 4 days

Course Description: Geared toward the experienced UNIX administrator students learn Linux administration skill without covering an overlap of common knowledge.

Prerequisites: Individuals wishing to take this class should already be experienced UNIX administrators. Particular focus is given to SOLARIS and HP-UX in the GL-615 text. Students not comfortable with UNIX operating systems should consider other Guru Labs courses such as the GL-120 "Linux Fundamentals", GL-250 "Red Hat Linux Systems Administration and GL-275 "Red Hat Linux Network Services"

Distributions: This courses is currently supported on the latest releases of Red Hat Enterprise Linux

Detailed description:

- Linux workstation installation
- Linux server installation
- Post-install system configuration
- Scripting installation of custom setups using kickstart
- Linux boot process
- SysV init concepts and configuration
- Managing startup of system daemons
- Controlling startup of services in xinetd / inetd

- Creation, modification, and deletion of users and groups
- Password aging under Linux
- The Linux login process and login authentication
- Regulating access to the root account via su and sudo
- Creation, modification, and deletion of partitions and filesystems
- Configuring NFS clients
- Client DS configuration - NIS, LDAP
- Management of RAID and LVM devices under Linux
- Using ACLs
- Disk space regulation using quotas
- Backing up and restoring Linux filesystems

- Scheduling jobs using cron, anacron, and at
- Management of processes running on the system
- Usage of process accounting and implementation of process limits
- Configuration and analysis of system logs
- System performance analysis
- Configuring network interfaces
- Setup of DNS and DHCP clients
- Diagnosing network setup issues

- Configuration of X server
- Installation and maintenance of fonts
- Usage and configuration of XDMCP
- Implementations of X security
- Securing freshly installed Linux systems
- Keeping Linux systems up-to-date
- Configuration of Linux firewalls
- Usage of TCP wrappers to secure Linux systems

- Configuration of optimized Linux kernels
- Compiling and installing custom Linux kernels
- Using third-party patches with Linux kernels
- Updating userland to support new kernels
- Concepts for troubleshooting Linux
- Analysis of system logs to identify problems
- Use of systems-level debugging aids in troubleshooting
- Usage of the Linux rescue environment

- DNS history and theory
- The domain name space
- Delegation and Zones
- Resolving names and reverse lookups
- Configuring BIND named.conf
- Configuring BIND zones
- DNS heirarchies: subdomain delegation
- Securing BIND DNS
- BIND 9 Views
- Restricting queries
- Restricting zone transfers
- DDNS and nsupdate

- LDAP Directory services
- LDAP Schema
- Referenceing LDAP entries
- LDAP security
- Implementing OpenLDAP server
- Defining global parameters
- Restricting access
- Database configuration and indexing
- Querying LDAP databases
- HTTP theory
- Apache history and status
- Apache architecture
- Apache configuration files
- Using Apache modules

- Apache logs and analysis
- Apache virtual hosting
- Virtual host security issues
- Apache authentication
- Intro to cryptography
- Using HTTPS with Apache
- Dynamic content

Extending Apache with PHP and Tomcat
Dynamic content and security
Implementing FTP services

Configuring a squid proxy
Squid ACLs, and hierarchies
Bandwidth metering and monitoring
Samba 3 foundation
SMB protocol theory
NetBIOS and NetBEUI
NetBIOS naming
SMB shares with Samba
Mounting SMB shares on Linux
Password encryption issues

SMTP theory
Implementing SMTP with Sendmail
Sendmail configuration
Sendmail ESMTP AUTH and encryption
Implementing SMTP with Postfix
Postfix configuration
Postfix ESMTP AUTH and encryption
Email services: POP3 and IMAP4
Encrypting client access
Spam and virus filtering
Web mail client access