



# HP-UX System and Network Administration I

## Course description

This hands on course prepares you to successfully configure, manage, maintain, and administer HP-UX servers. The course focuses on configuring disks, file systems, peripherals, and user accounts, as well as managing and configuring core OS, patches, and application software. This course is 50 percent lecture and 50 percent hands on labs using HP servers.

## Who should attend

HP-UX system administrators and others who install, configure, and maintain HP-UX servers

## Prerequisites

- UNIX Fundamentals (514345) or equivalent experience

For complete prerequisites and requirements to achieve any of the related certifications or upgrade paths, see the certification description on the HP ExpertOne website.

## Topics

- Navigating the System Management Homepage (SMH)
  - SAM and SMH overview
  - Launching the SMH GUI and TUI
  - Verifying SMH certificates
  - Logging into the SMH
  - Navigating the SMH interface
  - Launching SMH tools
  - Launching SMH tasks
  - Viewing SMH logs
  - Managing SMH access control
  - Managing SMH authentication
  - SMH and SIM integration concepts
  - Managing Users and Groups
- User and group concepts
  - /etc/passwd, /etc/shadow, and /etc/group concepts
  - Creating, modifying, deactivating, and removing user accounts
  - Configuring password aging and password security policies
  - Managing groups
  - Managing /etc/skel
  - Navigating the HP-UX File System
- Static and dynamic files and directory concepts
  - OS and application directory concepts
  - Top level directory concepts and contents
  - Searching for files and executables using the find, whereis, which, and file commands
  - Configuring Hardware
- Hardware component overview
  - CPU, cell, crossbar, and Blade overview
  - SBA, LBA, and I/O overview
  - iLO/MP, core I/O, and interface adapter card overview
  - Internal disks, tapes, and DVD overview
  - Disk array, LUN, SAN, and multipathing overview
  - Partitioning overview
  - nPar, vPar, VM, and secure resource partition overview
  - System type overview
  - Entry-class rackmount server overview
  - Mid-range rackmount server overview
  - High-end server overview
  - HP BladeSystem overview
  - HP BladeSystem c-class enclosure overview
  - HP Integrity blade server overview
  - HP Integrity Superdome 2 overview

<b>Course ID</b>	00071681
<b>HP product number</b>	H30645
<b>Course format</b>	ILT
<b>Typical Course length</b>	5 days
<b>Delivery languages</b>	English
<b>Related certifications</b>	<ul style="list-style-type: none"> <li>• <a href="#">HP ATP - HP-UX 11i v3 Administrator V1</a></li> </ul>

[Register for this course.](#)

Find this course in the Training calendar and click the "Register" link in the last column to begin your registration.

- Viewing system hardware configuration
- Viewing nPar, vPar, and VM hardware
- Hardware address concepts
- Legacy HBA, SCSI, and FC hardware address concepts
- Agile View HBA, SCSI, and FC hardware address concepts
- Viewing legacy hardware addresses
- Viewing LUNs via Agile View
- Viewing a LUN's lunpaths via Agile View
- Viewing an HBA's lunpaths via Agile View
- Viewing LUN health via Agile View
- Viewing LUN attributes via Agile View
- Enabling and disabling lunpaths
- Slot address concepts
- Slot address components
- Viewing slot addresses
- Installing interface cards with and without OL\*
- Installing new devices
- Configuring Device Special Files
- DSF attribute concepts
- DSF directories
- Legacy DSF names
- Persistent DSF names
- LUN, disk, and DVD DSF names
- Boot disk DSFs
- Tape drive DSFs
- Tape autochanger DSFs
- Terminal, modem, and printer DSFs
- Listing legacy DSFs
- Listing persistent DSFs
- Correlating persistent and legacy DSFs
- Correlating persistent DSFs with lunpaths and WWIDs
- Decoding legacy and persistent DSF attributes
- Creating DSFs via insf, mksf, and mknod
- Removing DSFs via rmsf
- Disabling and enabling legacy mode DSFs
- Managing Disk Devices
  
- Disk partitioning concepts
  - Whole disk partitioning concepts
  - LVM disk partitioning concepts
  - LVM physical volume concepts
  - LVM volume group concepts
  - LVM logical volume concepts
  - LVM extent concepts
  - LVM extent size concepts
  - LVM versions and limits
  - LVM DSF directories
  - LVMv1 device files
  - LVMv2 device files
  - Creating physical volumes
  - Creating LVMv1 volume groups
  - Creating LVMv2 volume groups
  - Creating logical volumes
  - Verifying the LVM configuration
  - Comparing disk space management tools
  - Managing File Systems
  
- File system concepts
  - File system types
  - Superblock, inode, directory, block, extent, and intent log concepts
  - Hard and symbolic link concepts
  - HFS and VxFS comparison
  - Creating file systems
  - Mounting file systems
  - Unmounting file systems
  - Automatically mounting file systems
  - Mounting CDFS file systems
  - Mounting LOFS file systems
  - Mounting ISO file systems
  - Mounting MemFS file systems
  - Managing Swap Space

- HP-UX memory concepts
  - HP-UX swap concepts
  - HP-UX swap types
  - HP-UX pseudoswap
  - Enabling swap via the CLI
  - Enabling swap via /etc/fstab
  - Monitoring swap space
  - Disabling swap
  - Guidelines for configuring swap space
  - Maintaining Logical Volumes and File Systems
- Defragmenting file systems
  - Repairing corrupted file systems
  - Monitoring free space
  - Reclaiming wasted file system space
  - Extending, reducing, and removing volume groups
  - Extending, reducing, and removing logical volumes
  - Extending and reducing file systems
  - Preparing for Disasters
- Disaster recovery, mirroring, and DRD concepts
  - Using DRD to minimize planned downtime
  - Using DRD to minimize unplanned downtime
  - Installing DRD
  - Using the drd command
  - Creating a DRD clone
  - Synchronizing a DRD clone
  - Verifying a DRD clone's status
  - Accessing inactive images via DRD-safe commands
  - Managing software via DRD-safe commands
  - Managing kernel tunables via DRD-safe commands
  - Accessing inactive images via other commands
  - Activating and deactivating an inactive image
  - Customizing the make\_\*\_recovery archive contents
  - Backing up the boot disk via make\_tape\_recovery
  - Backing up the boot disk via make\_net\_recovery
  - Using a make\_\*\_recovery archive
  - Interacting with the recovery process
  - Accessing the System Console and the iLO/MP
- Management processor concepts
  - Viewing MP/console ports
  - Connecting MP serial and LAN ports
  - Accessing the MP
  - Navigating the MP menu and web interfaces
  - Accessing nPar, vPar, and VM consoles
  - Accessing the VFP, console log, and system event log
  - Accessing the MP help menus
  - Accessing the MP command menu
  - Configuring the MP LAN interface
  - Enabling MP remote access
  - Managing MP user accounts and access levels
  - Managing MP login sessions
  - Rebooting via the MP
  - Booting PA-RISC Systems
- HP-UX shutdown and reboot concepts
  - PA-RISC boot process major players
  - PA-RISC boot disk structures
  - PA-RISC boot process overview
  - Autoboot and manual boot concepts
  - Interacting with the BCH and ISL/IPL
  - Booting Integrity Systems
  - Integrity boot process major players
  - Integrity boot disk structures
  - Integrity boot disk system, OS, and HPSP structures
  - Integrity and PA-RISC boot process comparison
  - UEFI/EFI addressing concepts
  - Autoboot and manual boot concepts
  - Booting from primary, alternate, and arbitrary boot devices
  - Booting from Ignite-UX servers and recovery archives
  - Managing boot menu settings

- Managing console settings
- Interacting with the UEFI/EFI shell
- Interacting with the hpux.efi OS loader
- Configuring the HP-UX Kernel
  
- Kernel configuration concepts
  - Special kernel configurations
  - Kernel configuration commands
  - Modifying the current kernel configuration
  - Creating a named configuration
  - Copying a configuration
  - Loading a configuration
  - Kernel module concepts, states, and state changes
  - Viewing and managing module states
  - Kernel tunable concepts and types
  - Viewing, managing, and monitoring kernel tunables
  - Viewing, managing, and monitoring kernel resource alarms
  - Kernel troubleshooting
  - Viewing the kernel change log
  - Booting from an alternate kernel
  - Booting via override parameters
  - Booting to tunable maintenance mode
  - Managing Software with SD-UX
  
- SD-UX software structure concepts
  - SD-UX software depot concepts
  - SD-UX IPD concepts
  - SD-UX daemon and agent concepts
  - Listing software
  - Installing and updating software
  - Removing software
  - Managing Patches with SD-UX
  
- Patch concepts
  - Patch naming convention concepts

## Objectives

After completing this course, you should be able to do the following:

- Install and manage HP-UX software and patches
- Configure and manage peripheral devices and device files
- Configure and manage disks using HP Logical Volume Manager (LVM)
- Configure and manage file systems using HP Journal File System (JFS)
- Configure HP-UX kernel drivers, subsystems, and tunable parameters
- Minimize planned and unplanned downtime with DRD
- Shutdown, boot, reboot Integrity HP-UX servers

## How to register

Click on this link to register for this course: [Register for this course.](#)

## Policies, fees and cancellations

Course fees may vary and are established and collected by the training center delivering the course. Cancellation fees may apply. Contact your HP Authorized Training Partner for their respective policies.

## For more information

HP ExpertOne: [www.hp.com/go/ExpertOne-ContactUs](http://www.hp.com/go/ExpertOne-ContactUs)

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