



This fast-paced intensive course is designed for experienced Tru64, AIX, Solaris, Linux or other UNIX administrators who need to understand the differences between HP-UX and standard UNIX. It is essential that students have existing UNIX system administration experience. The 5-day course is 50 percent lecture and 50 percent hands-on.

Audience

- Experienced UNIX System administrators who are new to HP-UX systems

Prerequisites

- Existing knowledge and system administration experience of a version of UNIX. A self-assessment check is available from our web site as a guide.

Course Objective

- Configure and manage HP-UX user accounts
- Configure and manage HP-UX peripherals and device files
- Configure and manage disk devices via LVM
- Configure and manage JFS file systems
- Configure network connectivity and services
- Configure kernel drivers, subsystems, and tunable parameters
- Shutdown, boot, and reboot HP-UX
- Install HP-UX OS software, applications, and patches

Benefits to You

- Build on your existing UNIX system administration experience to quickly develop HP-UX skills

Why education services from HP?

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

Course Title: HP-UX System and Network Administration for Experienced UNIX System Administrators

HP Product Number: h5875s

Category/Subcategory: UNIX

Course Length: 5 days

Level: Experienced

Delivery Language: English

To Order: You can order this course online at <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.

Next Steps: Become an HP-UX Certified System Administrator (CSA) by taking the HPO-091 certification exam.

Detailed Course Outline

HP-UX System Administration Overview

- Course overview
- Using the System Administration Manager (SAM)

Managing User Accounts

- Comparing and contrasting UNIX, shadow, and trusted system passwords
- Converting to a shadow password system
- Converting to a trusted system
- Configuring trusted system password policies
- Configuring trusted system user account policies
- Configuring trusted system terminal and modem policies

Connecting Peripherals

- HP-UX processor roadmap
- HP-UX operating system roadmap
- HP-UX hardware product overview
- Hardware component overview
- Hardware addresses
- Slot addresses
- EFI hardware addresses
- SCSI device concepts and addresses
- Node Partition (nPar) concepts
- Virtual Partition (vPar) concepts
- nPar and vPar hardware addresses
- Installing interface cards
- Installing new devices

Configuring Device Files

- Understanding the purpose of HP-UX device files
- Understanding the HP-UX device file naming convention for disks, CDROMs, and tape drives
- Understanding the HP-UX device file naming convention for terminals and modems
- Viewing device file information with lssf, ll, ioscan,

and lsdev

- Creating device files with insf, mkssf, mknod, and SAM
- Removing device files with rmssf

LVM Concepts and Commands

- Understanding HP's supported disk partitioning solutions
- LVM concepts
- LVM extents
- LVM device files
- Creating an LVM physical volume
- Creating an LVM volume group
- Creating an LVM logical volume

HP-UX File System Concepts and Commands

- HP-UX file system types
- HFS and JFS advantages and disadvantages
- Creating HFS and JFS file systems
- Mounting and unmounting HFS and JFS file systems
- Mounting and unmounting CDFS file systems
- Mounting and unmounting LOFS file systems
- Automatically mounting file systems via /etc/fstab

HP-UX Swap Concepts and Commands

- HP-UX swap concepts and types
- Understanding the purpose of physical memory vs. swap space
- Understanding the HP-UX swap reservation policy and the role of pseudoswap
- Comparing and contrasting device and file system swap
- Enabling device and file system swap
- Adding swap entries to /etc/fstab

Extending, Reducing and Removing Logical Volumes

- Disk space management tasks
- Extending and reducing volume groups

- Extending and reducing logical volume
- Extending and reducing file systems

Mirroring Logical Volumes

- LVM mirroring concepts
- Extending and reducing mirrors
- Synchronizing mirrors
- Splitting and merging mirrors

HP-UX Disaster Recovery

- Data backup and recovery
- LVM backup and recovery
- File system defragmentation
- File system maintenance
- Creating a bootable recovery tape using `make_tape_recovery`
- Creating a bootable recovery image using `make_net_recovery`

Accessing the System Console

- Understanding the purpose of the Management Processor (MP)
- Connecting and configuring the MP serial port
- Connecting and configuring the MP LAN port
- Configuring MP user accounts
- Navigating the MP main menus
- Accessing nPar and vPar console and VFP interfaces
- Resetting and booting nPars via MP commands

Shutting down and booting PA-RISC systems

- HP-UX shutdown and reboot
- PARISC boot major players
- PARISC boot disk structures
- PARISC boot process overview
- Autoboot versus manual boot
- Interacting with the BCH
- Interacting with the ISL

Shutting down and booting Integrity systems

- Integrity boot process major players
- Integrity boot disk structure
- Integrity boot disk system partition structure
- Integrity boot disk OS partition structure
- Integrity boot disk HPSP partition structure
- PARISC / integrity boot process overview
- Autoboot versus manual boot
- Interacting with the EFI boot manager
- Interacting with the EFI shell
- Managing EFI file systems via the EFI shell
- Managing the EFI boot menu via the EFI shell
- Booting an arbitrary boot device via the EFI shell
- Interacting with the `hpux.efi` OS loader

Starting network services

- HP-UX run levels
- Configuring network services via `/etc/rc.config.d/` files
- Controlling network services via `/sbin/rc*.d/` directories and scripts
- Starting and stopping network services via `/sbin/init.d/` scripts
- Creating custom startup/shutdown scripts

Configuring TCP/IP connectivity in HP-UX

- Installing LAN software
- Configuring link layer connectivity
- Configuring IP connectivity
- Configuring IP multiplexing
- Configuring routing tables
- Configuring the `/etc/hosts` file
- Configuring the `/etc/rc.config.d/netconf` file
- Configuring a DNS resolver client
- Configuring `/etc/nsswitch.conf`
- Troubleshooting connectivity

Configuring the HP-UX 11i v2 kernel

- Why reconfigure the kernel
- Choosing a kernel configuration interface
- Kernel configuration command overview
- Using the kc* CLI
- Using the kcweb TUI and GUI
- kcweb overview
- kcweb architecture
- Using kcweb via a local browser
- Using kcweb via a remote browser
- Kernel modules
- Kernel module states
- Kernel module state changes
- Viewing module states via kcweb
- Managing module states via kcweb
- Kernel tunables
- Types of tunables
- Viewing tunables via kcweb
- Managing tunables via kcweb
- Kernel configurations
- Special kernel configurations
- Kernel configuration command overview
- Example: creating a new configuration
- Example: copying a config to another host
- Kernel troubleshooting overview
- Viewing the kernel change log
- Viewing the kcweb logs
- Booting an alternate kernel
- Booting to tunable maintenance mode

Installing software with SD-UX

- Understanding the features and benefits of HP's Software Distributor (SD-UX) technology
- Understanding the purpose of SD-UX bundles, products, and filesets

- Understanding the purpose of SD-UX depots
- Starting and stopping the swagentd daemon
- Installing software using swinstall
- Updating software using swinstall
- Listing software using swlist
- Removing software using swremove
- Creating an SD-UX depot with swcopy

Installing patches with SD-UX

- Understanding the HP-UX patch naming convention
- Downloading and installing patches from the ITRC patch database
- Creating a patch depot using the create_depot_hp-ux_11 command
- Installing patches from the SupportPlus CDROM
- Installing patches from patch tapes
- Installing patches from SD-UX patch depot servers
- Listing installed patches
- Removing patches

Installing the OS with Ignite/UX

- Why install?
- Install sources
- Operating environments
- Planning the install
- Initiating an install on PARISC systems
- Initiating an install on Integrity systems

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