HP-UX System Administration

Duration: 5 Days   **Course Code: HSA**   **Delivery Method: Company Event**

Overview:

HP-UX System Administration Course Overview

This Hewlett Packard HP-UX System Administration training course is designed to give delegates practical experience in the administration of an HP-UX UNIX System. Reference will be made to the HP-UX command line,including using the System Management Homepage (SMH) to achieve the course exercises and objectives.

Exercises and examples are used throughout the course to give practical hands-on experience with the techniques covered.

Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

Target Audience:

Who will the Course Benefit?

The HP-UX System Administration course is designed for System Administrators and Programmers and other Technical IT staff who require a working knowledge of the key tasks required to administer an HP-UX system.

The course assumes knowledge of the HP-UX Operating System to the level covered in the HP-UX Introduction Course. Some shell programming experience may also prove advantageous; this can be gained on the HP-UX Shell Programming Course.

Objectives:

- Course Objectives

- On completion of the HP-UX System Administration course the delegate will have a greater awareness,both technical and practical,of the key tasks required to administer an HP-UX system,and completing these tasks by interacting via the command line or the System Management Homepage (SMH).

Prerequisites:

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This HP-UX System Administration course assumes good knowledge of a Unix operating system in an Enterprise environment to the level covered in the HP-UX Introduction course. Alternatively,relevant experience of UNIX or Linux servers is required,preferably within an Enterprise environment.

Knowledge of HP-UX Shell Programming to the level covered on the HP-UX Shell Programming course would also be beneficial.

Follow-on-Courses:

Further Learning

- HP-UX Advanced Shell Programming Tools
- Oracle SQL
- Linux Networking
- Apache Web Server

Content:

HP-UX System Administration Training Course
Course Contents - DAY 1

Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

Session 1: THE HP SERVER RANGE

- HP Integrity Series Servers
- HP Integrity Entry-Class Servers
- HP Integrity Mid Range Servers
- HP Integrity Superdome Servers
- HP 9000 Series Servers
- HP 9000 Superdome
- HP Servers RP8420-32
- HP 9000 RP4440 Server
- Node Partitioning Support

Session 2: MANAGING USERS AND GROUPS

- Managing Users
- The /etc/passwd File
- Adding an Entry to the /etc/passwd File
- The /etc/shadow File
- The pwconv and pwunconv Commands
- The /etc/group File
- Adding an Entry to the /etc/group File
- Managing User Accounts
- The useradd Command
- The usermod Command
- The userdel command
- Deactivating and Reactivating a User Account
- User Group Maintenance
- Managing Groups
- Password Ageing and Password Security Policies
- The passwd command

Session 3: NAVIGATING THE HP-UX FILE SYSTEM

- Unix File System Hierarchy
- Static and Dynamic Files
- HP-UX System Directories
- Searching for Files and Executables

Session 4: SYSTEM MANAGEMENT HOMEPAGE (SMH)

- SMH Introduction
- Starting SMH
- SMH Login Screen
- Navigating the SMH Software
- SMH Command Line Interface Configuration
- Text Based SMH HP-UX System Administration Training Course Course Contents - DAY 2

Session 6: LOGICAL VOLUME MANAGER (LVM)

- Disk/File System Configuration
- Logical Volume Manager
- LVM Version 1 Limits
- LVM Version 1,2.0 And 2.1 Comparison Table
- LVM DSF Directories
- Benefits of Persistent DFS Naming
- Creating Physical Volumes
- Displaying Physical Volumes
- Creation of Volume Groups
- Creating a 1.0 Volume Group
- Creating a 2.x Volume Group
- Displaying Volume Groups
- Creating Logical Volumes
- Displaying Logical Volumes
- An Introduction to Mirroring and Disk Striping
- Quorum
- Glossary of Common HP LVM Commands   HP-UX System Administration Training Course Course Contents - DAY 3

Session 7: FILE SYSTEM MANAGEMENT

- File System Structure
- File Systems Types
- Creating File Systems
- Special newfs Arguments
- Blocks and Fragments
- Mounting File systems
- Checking the File System Table
- Using the /etc/fstab File
- Unmounting File Systems
- Mounting and Unmounting CDFS File Systems
- Mounting and Unmounting LOFS File Systems
- Mounting a ISO Image
- How To Mount a MemFS File System

Session 8: MANAGING SWAP SPACE

- HP-UX Memory Concepts
- HP-UX Swap Concepts
- HP-UX Swap Types
- HP-UX Pseudo Swap
- Creating Swap via the CLI
- Enabling Swap via /etc/fstab

Session 9: MAINTAINING LOGICAL VOLUMES AND FILE SYSTEMS

- Defragmenting File Systems
- Repairing Corrupted File Systems
- The lost+found Directory
- Repairing a Damaged HFS File System
- Repairing a Damaged VXFS File System
- Repairing a Damaged Root File System
- Common Errors Found by fsck

Session 13: CONFIGURING DEVICE SPECIAL FILES (DSF)

- Legacy and Agile Naming Models SD-UX Structure
- Agile View
- Persistent Device Special File (DSF) Naming Scheme
- Disk Device File Naming Convention
- Tape Device Special File Naming Convention
- Array Controller and Other Device File Naming
- Legacy DSF's
- Legacy View Major And Minor Numbers
- Agile and Views in ioscan
- Mapping Between Legacy DSF's and Persistent DSF's
- Creating Device Special Files Manually
- Removing DFS's   HP-UX System Administration Training Course Course Contents - DAY 5

Session 14: MANAGING SOFTWARE WITH SD-UX

- Software Distribution Overview
- SD-UX Structure
- SD-UX Commands
- SD-UX Daemons
- Glossary of Terms
- The Installed Produce Database (IDP)
- Using SD Commands
- Listing Installed Software
- Managing Software Depots
- Installing Software
- Verifying Installed Software
- Removing Installed Software

Session 15: MANAGING PATCHES WITH SD-UX

- Managing Patches
- Patch Naming Conventions
- Listing Installed Patches
- Patch State
- Acquiring Individual Patches
- Installing Individual Patches
- Installing Patches from CD/DVD
- Installing Patches from Tape
- Verifying a Patch
- Rolling Back a Patch
- Committing a Patch
- The Patch Assessment Tool
- The Security Patch Tool
- The HP-UX Software Assistant (SWA)

Session 16: INSTALLING THE OS WITH IGNITE-UX

- System Recovery Using Ignite-UX
- Setting up an Ignite-UX Server
- Ignite-UX Software Requirements

Session 5: BOOTING PA-RISC AND INTEGRITY SYSTEMS AND SHUTDOWN

- System Startup Process for an HP PA-RISC Server
- ISL (Initial System Loader) ; Autoboot
- Enabling and Disabling Autoboot
- Manually Booting HP-UX in Single User-Mode
- Recovering from a Lost root Password
- Booting to LVM Maintenance State
- Booting from an Alternate Kernel
- Understanding Hardware Addresses
- Booting from Another Disk
- HP Integrity Server Booting Differences
- The init Procedure
- System Run States
- Using Unique Keywords
- System Startup Procedures
- The rc Process
- Sequencer Directories
- Kill Scripts
- Execution Scripts
- Contents of the Template File
- Configuration Files
- Changing the /etc/inittab File
- Shutdown and rc
- Shutdown Permissions
- The reboot Command

- Monitoring Free Space
- Extending a Volume Group
- Reducing a Volume Group
- Removing a Volume Group
- Extending a Logical Volume
- Reducing a Logical Volume
- Removing a Logical Volume
- Extending a File System
- Reducing a File System   HP-UX System Administration Training Course Course Contents - DAY 4

Session 10: PREPARING FOR DISASTERS

- Dynamic Root Disk
- DRD Commands Overview
- Downloading And Installing Dynamic Root Disk
- Cloning the Active System Image
- Verifying a DRD Clone's Status
- Synchronizing a DRD Clone
- DRD Sync Preview Command
- Copying the Files To the Inactive Clone Image
- DRD Sync System Shutdown Script
- DRD-Safe Commands And Packages
- Mounting/Unmounting the Inactive System Image
- Performing Tasks on the Inactive System Image
- Activating/Deactivating the Inactive System Image
- Cloning (Golden image) / Backing up the Root Disk

Session 11: ACCESSING THE SYSTEM CONSOLE AND THE ILO/MP

- Introduction to iLO 2
- Ports and LEDs
- HP Integrity Server Blade Components
- HP Integrity rx2660 Server Components
- HP Integrity rx3600 and rx6600 Server Components
- iLO 2 MP Status LEDs
- iLO 2 MP Reset Button
- Resetting Local User Accounts To Default Values
- Getting Connected to iLO 2
- Logging In to iLO 2
- Accessing the Host (Operating System) Console
- Accessing a Text Host Console Using the TUI
- Using iLO 2
- iLO 2 TUI Command Menu
- iLO 2 Web GUI

Session 12: HP-UX KERNEL CONFIGURATION

- Kernel Configuration Interfaces
- Kernel Management Commands
- Tuneable Manual Pages
- Managing Kernel Configurations Using

- Installing Ignite-UX Software on the Server
- Creating the HP-UX Depot
- Creating the HP-UX OE Configuration Information
- Configure the System as an Ignite-UX Server
- Cold-installing a Client Across the Network
- Boot the Client System from the Ignite-UX Server
- Installing HP-UX Using the Client Console
- Creating a Golden Image

Session 17: WORKSHOP EXERCISES

- HP-UX 11 System Administration Course Workshops

Session 18: WORKSHOP SOLUTIONS

- HP-UX 11 System Administration Course Workshops Solutions

Addendum: Reference Materials (provided within the course handbook for additional reading)

- Appendix 1 - Node and Virtual Partitioning
- Appendix 2 - The Veritas Volume Manager
- Appendix 3 - File ; File System Backup and Restore

Kcweb
- The Web Based Interface Of Kcweb
- Managing Saved Configurations
- The Kernel System File
- Managing The System File
- Managing Modules Via The System File
- Managing Tunables Via The System File
- Applying System File Changes
- Booting Using A Non-Default Configuration

Further Information:

For More information, or to book your course, please call us on 0800/84.009

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