AIX System Administration - Part I

Duration: 5 Days   Course Code: ASA1

Overview:

This IBM AIX System Administration training course is designed to give delegates practical experience in the administration of an AIX System. Reference will be made to the AIX commands required to administer the system, although practical work will concentrate on using the System Management Interface Tool (SMIT) to achieve the course objectives.
Although the course is based on AIX Version 6.1 it is also appropriate for prior releases of AIX.

Target Audience:

The course is designed for AIX System Administrators and Programmers and other Technical IT staff who require a full working knowledge of how to administer an AIX system.
The course assumes knowledge of the AIX Operating System to the level covered in the AIX Basics Course.
On completion of the AIX System Administration - Part I course the delegate will have practical experience of the Systems Management Interface Tool (SMIT), allowing them to administer an IBM AIX System.

Objectives:

- The Role of the System Administrator.
- System Startup and Shutdown Procedures.
- AIX Installation.
- Using the System Management Interface Tool (SMIT).
- The Visual System Management Tools.
- Using Web Based Information Browser.
- AIX Filesystems and Storage.
- Looking after Filesystems.
- Configuring Filesystems.
- Logical Volume Manager (LVM).

- Journaled Filesystems.
- Paging Space.
- Adding and Removing Users.
- Managing Groups.
- Printer and Terminal Configuration.
- Backup and Restore Commands.
- Background Jobs and Scheduling.
- Basic Network Configuration.
- Software Installation and Maintenance.

Prerequisites:

- AB, AIX Basics
- ASPR, AIX Shell Programming

Follow-on-Courses:

- ASA2, AIX System Administration - Part II
- AASP, AIX Advanced Shell Programming Tools
- OSI, Oracle SQL
- APH, Apache Web Server
- PERL, Perl Programming
- ORO, ORACLE Overview Seminar

Content:

Session 1: THE SYSTEM ADMINISTRATORS' ROLE

- Role of a Systems Administrator
- The root Login and the su Command

Session 2: INTRODUCTION TO THE P-SERIES

- The P-SERIES Product Line
- RISC Technology
- MCA and PCI Bus Systems
- P-SERIES Configurations and Model Types
- The AIX Operating System

Session 3: AIX INSTALLATION

- Installation for Classical and PCI Models
- Console and Language Definitions
- Other Installation Settings
- Configuration Assistant Menu

Session 4: STARTUP AND SHUTDOWN

- RS/6000 Key Positions
- The Boot Sequence
- Standalone Mode for PCI Systems
- Booting from Hard Disk for Maintenance
- Booting from Removable Media
- The /etc/init Procedure
- Startup Modes
- The /etc/inittab File and the rc Startup Scripts
- Inittab Commands
- Using the alog Program
- System Resource Controller Commands
- The /etc/shutdown Script

Session 5: SYSTEM MANAGEMENT TOOLS

- System Management Commands
- Using SMIT
- SMIT Special Characters and Keys
- Smit.log and smit.script Files
- The smit Command
- Distributed System Management
- Visual System Management
- Web Based System Manager

Session 6: AIX ON-LINE DOCUMENTATION

- The man Command
- InfoExplorer
- Web Based Documentation Browser
- Setting up the Web Based Browser

Session 7: SOFTWARE INSTALLATION AND MAINTENANCE

- Units of Installation
- Filesets, Packages and Licensed Program Products
- Bundles
- Update and Maintenance Bundles

Session 8: DEVICE CONFIGURATION

- Introduction to the Object Data Manager
- Listing Devices
- Interpreting Location Codes
- Self-configuring Devices
- Adding, Changing and Removing Devices

Session 9: SERIAL DEVICES

- Terminal Attributes
- Terminal Configuration
- The stty Command
- The terminfo Database
- Adding Printers

Session 10: PRINTER CONFIGURATION

- Printers and Queues
- Queuing Concepts in AIX
- Spooling Control Directories
- The QCONFIG File
- Managing Print Queues
- Queue Status Commands

Session 11: USERS AND GROUPS

- Users and Groups in AIX
- Administrator Commands
- Structure of the /etc/passwd File
- Adding a New User
- Changing User Characteristics
- The Configuration Files
- Passwd and pwdadm Commands
- Removing a User
- Adding, Changing and Removing a Group
- Account Validation

Session 12: AIX SECURITY FEATURES

- The SECURITY Directory
- The /etc/security/passwd File
- The /etc/security/user File
- The /etc/security/login.cfg File
- The /etc/security/group File
- Auditing Files
- Losing Root User Password

Session 13: THE LOGICAL VOLUME MANAGER

- The AIX Approach to Disk Storage
- Volume Groups, Physical Volumes and Logical Volumes
- Volume Group Descriptor Areas
- Mirroring
- Striping
- Disk Placement Policies
- Migrating Physical Volume Data
- Useful Commands

Session 14: THE JOURNALED FILESYSTEM

Session 15: PAGING SPACE

- Define Paging Space
- Paging Space Location
- List System Memory
- List Paging Space
- Monitor Paging Space Usage]
- Calculate Paging Space Requirements
- Add/Remove Paging Space

Session 16: BACKUP AND RESTORE

- Backup Devices
- mksysb and savevg Commands
- The backup Command
- The restore Command
- Using the cpio Command
- Using the cpio-o Command
- Using the find Command with cpio
- Using the ls command with cpio
- Using the cat Command with cpio
- Using the cpio -I Command
- Using the cpio -p Command
- Creating a tar Archive
- Reading/Verifying a tar Archive
- Restoring from a tar Archive
- Tape Control Commands

Session 17: SCHEDULING JOBS

- Starting Background Jobs
- The nohup Command
- Using cron Processes
- Creating cron Processes
- Creating crontab Entries
- Using the crontab Command
- The at Command
- Authorisation for the at Command

Session 18: TCP/IP CONFIGURATION

- Define TCP/IP Terminology
- Define Routing (Static and Dynamic)
- TCP/IP Commands and Utilities
- Configure TCP/IP for a Network Interface
- Configure a Static Route
- Test Network Connectivity
- Test Route Connectivity
- Basic TCP/IP Applications

Session 19: NFS

- Define NFS Terminology
- Client Side NFS
- Server Side NFS
- The /etc/exports File
- The /etc/filesystems File

---

www.globalknowledge.co.uk   info@globalknowledge.co.uk   01189 123456

- Software States
- Installing Patches and Fixes

- The AIX Native File System
- Superblocks and I-nodes
- Journaling of File System Data
- Creating a File System
- Mounting of Filesystems
- Managing Filesystems
- The /etc/filesystems File
- Removing Filesystems
- Using the fsck Command

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

info@globalknowledge.co.uk

www.globalknowledge.co.uk

Global Knowledge, Mulberry Business Park, Fishponds Road, Wokingham Berkshire RG41 2GY UK