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## AIX Jumpstart for UNIX/Linux Professionals

**Duration: 5 Days**    **Course Code: AJS**    **Delivery Method: Virtual Learning**

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### Overview:

#### AIX Jumpstart for UNIX/Linux Professionals Course Overview

This IBM AIX Jumpstart for Experienced UNIX/Linux Administrators training course is targeted at cross-training experienced HP-UX, SUN Solaris and other UNIX Administrators who wish to implement and manage systems capable of running the AIX Operating System. Students attending this course should therefore have a good understanding and experience of managing and running UNIX like systems. 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 7.1, it is also appropriate for prior releases of AIX. Exercises and examples are used throughout the course to give practical hands-on experience with the techniques covered.

#### Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

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### Target Audience:

#### Who will the Course Benefit?

Experienced System Administrators and other Technical IT staff who need to cross-train to be able to implement and manage systems capable of running the AIX Operating System. Some shell programming experience will also prove advantageous; this can be gained on the AIX Shell Programming course.

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### Objectives:

- Course Objectives
  - On completion of the AIX Jumpstart for UNIX/Linux Professionals course the delegate will have practical experience of the Systems Management Interface Tool (SMIT), allowing them to administer an AIX System.
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### Prerequisites:

- Delegates must have recent in-depth practical experience of administrating UNIX in a network environment on another UNIX platform such as HP-UX, SUN or Solaris.
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### Follow-on-Courses:

#### Further Learning

- AIX Basics
  - AIX System Administration - Part II
  - AIX Advanced Shell Programming Tools
  - AIX Shell Programming
  - Oracle SQL
  - Apache Web Server
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## Content:

### AIX Jumpstart for UNIX/Linux Professionals Training Course Course Contents - DAY 1

#### Course Introduction

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

#### Session 1: INTRODUCTION TO THE P-SERIES

- The P-SERIES Product Line
- RISC Technology
- P-Series Product Range For The Power6
- P-Series Product Range For The Power7
- Hardware Management Console
- The AIX Operating System

#### Session 2: SYSTEM MANAGEMENT TOOLS

- System Management Commands
- Using SMIT
- SMIT Special Characters and Keys
- Smit.log and smit.script Files
- The smit Command
- IBM Systems Director Console
- Web Based System Manager
- Exercise: Remotely connect to a host using WSM

#### Session 3: STARTUP AND SHUTDOWN

- 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
- Exercise: Start and stop processes using SMC

#### Session 4: SOFTWARE INSTALLATION AND MAINTENANCE

- Units of Installation
- Filesets, Packages and Licensed Program Products
- Bundles
- Update and Maintenance Bundles
- Software States
- Installing Patches and Fixes
- Exercise: Install, enquire and remove software

#### Session 5: DEVICE

- Introduction to the Object Data Manager (ODM)
- Listing Devices

#### Session 6: 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
- Exercise: Creating, Extending and Mirroring a Logical Volume

#### Session 7: AIX FILESYSTEMS

- 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
- Exercise: Creating, Extending and Removing a Filesystem

#### Session 8: BACKUP AND RESTORE

- Backup Devices
- mksysb and savevg Commands
- The backup Command
- The restore Command
- Tape Control Commands
- Exercise: Use of Backup And Restore, including mksysb AIX Jumpstart for UNIX/Linux Professionals Training Course Course Contents - DAY 3

#### Session 9: OBJECT DATA MANAGER

- ODM Components and Commands
- Object Classes
- Descriptor Information
- Objects
- Searching The ODM
- The ODM Database
- Data Base File Names
- ODM File Locations
- cfgmgr And The ODM
- The Predefined Database Files
- Predefined Devices
- Predefined Attributes
- Customised Devices
- Customised Attributes
- ODM Class Usage
- Additional Device Object Classes
- Predefined Connection
- Customised Dependency
- Customised Device Driver

#### Session 13: ALTERNATE DISK INSTALLATION

- Alternate Disk Installation
- Installing a mksysb Image On Another Disk
- Cloning the Running rootvg to Another Disk
- Removing an Alternate Disk Installation
- Exercise: Clone the roovg and remove the Alternate Disk Installation AIX Jumpstart for UNIX/Linux Professionals Training Course Course Contents - DAY 5

#### Session 14: BASIC NETWORKING

- 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
- Exercise: Configure TCP/IP
- Exercise: Use TCP/IP Commands to:
  - Login to a Remote System
  - Transfer Files To/From a Remote System

#### Session 15: AIX INSTALLATION

- Installation for Classical and PCI Models
- Console and Language Definitions
- Other Installation Settings
- Configuration Assistant Menu AIX Jumpstart for UNIX/Linux Professionals Training Course Addendum: Reference Materials (Sections below are provided within the course handbook for additional reading)

#### Session 16: Appendix A

- AIX TECHNOLOGY LEVELS AND SERVICE PACKS

#### Session 17: Appendix B

- LOGICAL VOLUME SPREADING

#### Session 18: Appendix C

- AIX MULTIBOS

#### Session 19: Appendix D

- AIX INTRODUCTION TO NIM

- Interpreting Location Codes
- Self-configuring Devices
- Adding, Changing and Removing Devices
- Exercise: Add and remove devices using the command line and smit AIX Jumpstart for UNIX/Linux Professionals Training Course Course Contents - DAY 2

- Customised Vital Product Data
- Exercise: Add a device by manipulating the ODM

#### Session 10: PROBLEM SOLVING TOOLS

- Error Log Facility
- Error Log Input Components
- Error Reporting from SMIT
- The errpt Command
- Sample Summary/Intermediate/Detailed Report Output
- Interpreting LVM Error Log Entries
- Error Log Maintenance
- Error Notification Facility
- Notification Methods
- The syslogd Daemon

#### Session 11: SYSTEM INITIALISATION

- System Startup and The Boot Process
- The Bootlist and BLV
- The Boot Logical Volume
- Repairing the BLV
- Using Bootlists
- Boot Problems
- Service Processors
- Accessing A System That Will Not Boot Normally
- Accessing A Volume Group And Starting A Shell
- Accessing A Volume Group Without Mounting Filesystems
- The LED Display
- Interpreting Flashing LED Codes
- Location Codes
- Understanding SCSI Addressing
- Maintaining Firmware Levels
- AIX Initialisation
- The Three RC Boot Phases
- More about the cfgmgr
- Boot Problem Management
- Exercise: Destroy the BLV and then re-create a new BLV AIX Jumpstart for UNIX/Linux Professionals Training Course Course Contents - DAY 4

#### Session 12: LVM SYSTEM DATA AND RECOVERY

- LVM System Data
- LVM Identifiers
- LVM Data on Disk Control Blocks
- Other LVM Locations
- How the LVM uses the ODM
- Physical Volumes and the ODM
- Volume Groups and the ODM
- Logical Volumes and the ODM
- LVM Problems in the ODM
- Re-synchronizing the ODM
- VGDA and Quorum
- Forcing a varyonDisk Replacement Techniques
- Possible Errors After Disk Replacement
- Exporting and Importing Volume Groups

■ Exercise: Mirror a whole disk and recover a corrupt Logical Volume

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### Further Information:

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

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[www.globalknowledge.com/en-be/](http://www.globalknowledge.com/en-be/)