

AIX System Administration I (4 Days)

COURSE DESCRIPTION

This course will teach the commands and methods needed to setup and manage **IBM AIX** systems. The course will also use a problem solving approach in the lab exercises to teach system managers advanced topics, for long-term management goals.

Systems: **IBM AIX version 7, running on RS/6000 or POWER configurations.**

COURSE OBJECTIVES

On completion of this course, a system manager should be able to install, update, and boot the **IBM AIX** operating system; set up user accounts and directories; prepare queues for use; perform backups for integrity and performance reasons; monitor the system for performance and do basic setup of network software and capabilities.

COURSE DURATION

This course normally requires **four** (4) days, approximately 60% lecture and 40% lab time.

COURSE PREREQUISITES

It is assumed that the student has successfully completed the **Fundamentals of IBM AIX: Getting Started** course, or has equivalent system time as a user.

COURSE TOPICS

Advanced System Concepts for System Administrators

Process concepts

Shell command usage and review Optimizing system help information System administrator functions Using the root account

Using the **smit** graphical and non-graphical interfaces

Manipulating system default environment files

System Installation and Updating

- Installation types and methods
- Installing the AIX operating systems
- Upgrading to a newer version of AIX
- Maintaining the system via patches
- Adding additional products to the system (**lpp**)
- Reconfiguring the **AIX** kernels via parameters

Startup and Shutdown

- Default bootstrap
- Boot to single-user mode
- Startup methods and procedures
- Adding procedures to the startup mechanism
- Shutdown methods and control

Managing of System Users

- UID and GID concepts
- Creation of a user account
- Security through password aging
- Login sequence

Managing Printer Queues

- Creation of an execution print queue
- Commands to manipulate queues
- Commands to manipulate jobs in queues

Managing Disk and Tape Volumes

- Commands to manipulate disks/filesystems
 - creating volume groups and logical volumes
 - creating file systems (**crfs** and **mkfs**)
 - manipulating file system structures
 - verifying file system structures with **fsck**
 - making file systems available to software (**mount**)
- Commands to manipulate archival volumes:
 - tar** utility
 - cpio** utility
 - backup** and **restore** utilities

Monitoring System Activity

Informational Utilities

The **vmstat** utility

The **iostat** utility

The **sar** utility

The **netstat** utility

Maintaining swap and paging space(s)

Building and using the **top** facility

Maintaining System Integrity

Using cron tables

Network Setup and Configuration

TCP/IP address selection

Host names and related files

Configuring network devices

Network testing with **ping**

Network utilities: **telnet**, **rlogin**, **rcp**, **rsh**