

AIX System Administration Implementation v7.2

Course Summary

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.

Objectives

After taking this course, students will 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

Topics

- Advanced System Concepts for System Administrators
- System Installation and Updating
- Startup and Shutdown
- Managing of System Users
- Managing Printer Queues
- Managing Disk and Tape Volumes
- Monitoring System Activity
- Maintaining System Integrity
- Network Setup and Configuration

Prerequisite

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.

Duration

Four Days

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Course Outline

- I. **Advanced System Concepts for System Administrators**
 - A. Process concepts
 - B. Shell command usage and review
 - C. Optimizing system help information
 - D. System administrator functions
 - E. Using the root account
 - F. Using the smit graphical and non-graphical interfaces
 - G. Manipulating system default environment files
- II. **System Installation and Updating**
 - A. Installation types and methods
 - B. Installing the AIX operating systems
 - C. Upgrading to a newer version of AIX
 - D. Maintaining the system via patches
 - E. Adding additional products to the system (lpp)
 - F. Reconfiguring the AIX kernels via parameters
- III. **Startup and Shutdown**
 - A. Default bootstrap
 - B. Boot to single-user mode
 - C. Startup methods and procedures
 - D. Adding procedures to the startup mechanism
 - E. Shutdown methods and control
- IV. **Managing of System Users**
 - A. UID and GID concepts
 - B. Creation of a user account
 - C. Security through password aging
 - D. Login sequence
- V. **Managing Printer Queues**
 - A. Creation of an execution print queue
 - B. Commands to manipulate queues
 - C. Commands to manipulate jobs in queues
- VI. **Managing Disk and Tape Volumes**
 - A. Commands to manipulate disks/filesystems
 - B. Creating volume groups and logical volumes
 - C. Creating file systems (crfs and mkfs)
 - D. Manipulating file system structures
- E. Verifying file system structures with fsck
- F. Making file systems available to software (mount)
- G. Commands to manipulate archival volumes:
- H. Tar utility
- I. Cpio utility
- J. Backup and restore utilities
- VII. **Monitoring System Activity**
 - A. Informational Utilities
 - B. The vmstat utility
 - C. The iostat utility
 - D. The sar utility
 - E. The netstat utility
 - F. Maintaining swap and paging space(s)
 - G. Building and using the top facility
- VIII. **Maintaining System Integrity**
 - A. Using cron tables
- IX. **Network Setup and Configuration**
 - A. TCP/IP address selection
 - B. Host names and related files
 - C. Configuring network devices
 - D. Network testing with ping
 - E. Network utilities: telnet, rlogin, rcp, rsh