

# Power Systems for AIX III: Advanced Administration and Problem Determination

Course code: AN15G

Learn advanced AIX system administrator skills focusing on availability and problem determination. Learn detailed knowledge of the ODM database where AIX maintains configuration information. Learn to monitor for and deal with AIX problems with emphasis on Logical Volume Manager problems, including procedures for replacing disks. Learn how to migrate AIX Workload Partitions to another system with minimal disruption. While the course includes some AIX 6.1 enhancements, most of the material is applicable to prior releases of AIX.

## Who is the course for

This is an advanced course for AIX system administrators, and system support individuals with at least six months of experience in AIX.

## What we teach you

- Perform system problem determination and reporting procedures including analyzing error logs, creating dumps of the system, and providing needed data to the AIX Support personnel
- Examine and manipulate Object Data Manager databases
- Identify and resolve conflicts between the Logical Volume Manager (LVM) disk structures and the Object Data Manager (ODM)
- Complete a very basic configuration of Network Installation Manager to provide network boot support for either system installation or booting to maintenance mode
- Identify various types of boot and disk failures and perform the matching recovery procedures
- Implement advanced methods such as alternate disk install, multibos, and JFS2 snapshots to use a smaller maintenance window
- Install and configure Workload Partition Manager to support WPAR management and to implement Live Application Mobility (LAM)

## Required skills

You should be able to:

- Use the Hardware Management Console (HMC) to activate a logical partition running AIX and to access the AIX system console
- Install the AIX operating system from a NIM server
- Implement AIX backup and recovery
- Manage additional software and base operating system updates
- Use management tools such as SMIT
- Understand how to manage file systems, logical volumes, and volume groups
- Understand basic Workload Partition (WPAR) concepts and commands
- Master the UNIX user interface including use of the vi editor, command execution, input and output redirection, and the use of utilities such as grep

These skills may be obtained by in:

- *Power Systems for AIX II: AIX Implementation and Administration (AN120)*
- **or**
- *(AX120)*
- **or**
- *AIX System Administration I: Implementation (AU140)*

If you have AIX system administration skills, but are not familiar with the LPAR environment, you may obtain those skills in:

- *System p LPAR and Virtualization I: Planning and Configuration (AU730)*
- **or**
- *Power Systems for AIX I: LPAR Configuration and Planning (AN110)*

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- or
- (AX110)

## Teaching materials

IBM guide book for this course.

## Course outline

### Day 1

- Unit 1 - Advanced AIX administration overview
- Exercise 1
- Unit 2 - The Object Data Manager
- Exercise 2
- Unit 3 - Error monitoring
- Exercise 3

### Day 2

- Unit 4 - Network Installation Manager basics
- Exercise 4
- Unit 5 - System initialization: Part I
- Exercise 5

### Day 3

- Unit 6 - System initialization: Part II
- Exercise 6
- Unit 7 - Disk management theory
- Exercise 7
- Unit 8 - Disk management procedures
- Exercise 8

### Day 4

- Unit 8 continued
- Exercise 8 continued
- Unit 9 - Install and backup techniques
- Exercise 9
- Unit 10 - Workload partitions
- Exercise 10

### Day 5

- Exercise 10 continued
- Unit 11 - The AIX system dump facility
- Exercise 11 - System dump facility

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