

Course Code: AN61G

Course Title: PowerHA SystemMirror 7 Planning, Implementation, Customization and Basic Administration

## Description:

This course is designed to prepare students to install and configure a highly available cluster using PowerHA SystemMirror.

## Objectives:

- Explain what high availability is
- Outline the capabilities of PowerHA SystemMirror
- Design and plan a highly available PowerHA cluster
- Install and configure PowerHA SystemMirror in the following modes of operation:
  - Single resource group on a primary node with standby node (active/passive)
  - Two resource groups in a mutual takeover configuration (active/active)
- Configure resource group startup, fallover, and fallback policies
- Perform basic system administration tasks for PowerHA
- Perform basic customization for PowerHA
- Perform basic problem determination and recovery

This course is the first in the PowerHA 7 curriculum. The following courses can be taken after this course is completed:

- *PowerHA 7 Advanced Configurations (AN62G)*

## Prerequisites:

You should be AIX system administrator **and** have TCP/IP, LVM storage, **and** disk hardware implementation skills. These skills are addressed in the following courses or can be obtained through equivalent education and experience:

- *Power Systems for AIX II: AIX Implementation and Administration (AN12G)*

## Duration:

40 Hrs

## Topics:

### Day 1

- Welcome and course introduction
- Unit 1: Introduction to PowerHA SystemMirror
- Unit 2: Planning and configuring network and storage for PowerHA SystemMirror
- Exercise 1: Lab setup, cluster planning, and exploring fallover
- Exercise 2: Preparing the AIX environment for PowerHA SystemMirror

## Day 2

- Unit 3: Configuring applications for PowerHA SystemMirror
- Unit 4: Configuring a PowerHA SystemMirror cluster
- Exercise 3: Preparing an application for integration with SystemMirror
- Exercise 4: Initial cluster configuration

## Day 3

- Unit 5: Cluster validation and testing
- Unit 6: Basic PowerHA SystemMirror administration
- Exercise 5: Cluster validation and testing
- Exercise 6: Extending the configuration

## Day 4

- Unit 7: Events
- Unit 8: Basic troubleshooting
- Exercise 7: Events
- Exercise 8: PowerHA SystemMirror problem determination

## Day 5

- Unit 9: PowerHA SystemMirror installation
- Exercise 9: Install and maintain PowerHA SystemMirror
- Open lab

## Audience:

The audience for this advanced course is students who are experienced AIX system administrators with TCP/IP networking **and** AIX Logical Volume Manager (LVM) experience who are responsible for the planning and installation of a PowerHA SystemMirror 7.1 **and** later cluster on an IBM Power Systems server running AIX V6.1 or later. The lab exercises are conducted on an AIX 7.1 TL2 level system.