PowerHA SystemMirror 7 Planning, Implementation, Customization and Basic Administration

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Overview

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

Learning Journeys or Training Paths that reference this course:

- [PowerHA SystemMirror for AIX](#)

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.

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:

- *TCP/IP for AIX Administrators ([AN210](#))*

Key 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

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 (AN620)*
- *PowerHA SystemMirror 7 Migration (AN650)*
- *PowerHA/XD: Extended Distance and Disaster Recovery (AN440)*