SAN Volume Controller (SVC) Planning and Implementation Workshop (4 Days)

Description

This course is designed to leverage SAN storage connectivity by integrating a layer of intelligence or virtualization, the SAN Volume Controller (SVC) to facilitate storage application data access independence from storage management functions and requirements. The focus is on planning and implementation tasks associated with integrating the SVC into the storage area network. It also explains how to:

- Centralize storage provisioning to host servers from common storage pools.
- Facilitate the coexistence and migration of data from non-virtualized to the virtualized environment.
- Improve storage utilization effectiveness using Thin Provisioning and Real-time Compression.
- Implement storage tiering and optimize solid state drives (SSDs) or flash systems usage with Easy Tier.
- Utilize network-level storage subsystem-independent data replication services to satisfy backup and disaster recovery requirements.

Audience

This intermediate lecture and exercise-based course is for individuals who are assessing and/or planning to deploy networked storage virtualization solutions.

Prerequisites

You should:

- complete *Storage Area Networking - Fundamentals (SN71G)*
- have an understanding of the open systems disk storage systems and I/O operations

Skills Taught

- Create an implementation task list to integrate the SVC solution into the storage network fabric
- Establish or update zoning policies to enable the SVC to control storage device access and facilitate storage provisioning to host servers
- Utilize SVC user interfaces to manage the networked storage environment, assign storage to servers, migrate data, replicate data across storage systems, and monitor storage access activities
- Assess issues related to coexistence between the SVC and native disk storage access across host servers
- Migrate existing data to the virtualized SVC environment
- Use interfaces provided by the Subsystem Device Driver (SDD) to monitor and manage SDD multi-path I/O access and path management
- Implement point-in-time copies across the SVC cluster using FlashCopy GUI presets

Course Outline
- Introduction to IBM SAN Volume Controller
- SVC hardware architecture
- SVC planning and zoning requirements
- SVC cluster initialization and user authentication
- SVC storage provisioning
- SVC host to volume allocation
- Spectrum Virtualize advanced features
- Spectrum data migration
- Spectrum Virtualize Copy Services
- SVC administrative management

Agenda:
Day 1
- Welcome
- Unit 1: Introduction to IBM SAN Volume Controller
- Unit 2: SVC hardware architecture
- Unit 3: SVC planning and zoning requirements
- Unit 4: SVC cluster initialization and user authentication
  - Exercise 1: SVC system initialization
  - Exercise 2: SVC system configuration
  - Exercise 3: Examine back-end storage system

Day 2
- Review
- Unit 5: SVC storage provisioning
- Unit 6: SVC host access
  - Exercise 4: Storage provisioning
  - Exercise 5: Access SVC storage from Windows and AIX
- Unit 7: Spectrum Virtualize advanced features
  - Exercise 6: Thin Provisioning and Volume Mirroring
  - Exercise 7: Storage access and SDD path selection

Day 3
- Review
- Unit 8: Spectrum Virtualize data migration
- Exercise 8: SVC data migration
- Exercise 9: Migrate existing data: Migration Wizard
- Exercise 10: Migrate existing data: Import Wizard and CLI

Day 4
- Review
- Unit 9: Spectrum Virtualize Copy Services
  - Exercise 11: SVC scripting and I/O group modification
  - Exercise 12: Real-time Compression and the IBM Comprestimator
  - Exercise 13: SVC FlashCopy and consistency groups
- Unit 10: SVC administration management
  - Exercise 14:Assign user roles and access