

IBM - SAN Volume Controller (SVC) Planning and Implementation Workshop

Code:	SNV1G
Length:	4 days
URL:	View Online

This course is designed to leverage SAN storage connectivity by integrating a layer of intelligence in virtualization. The SAN Volume Controller (SVC) facilitates storage application data access independence from storage management functions and requirements. This 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.
- Improve storage optimization and efficiency through Thin Provisioning, Data Reduction and Compression
- Implement storage tiering and optimize flash drives and storage usage with Easy Tier
- Facilitate the coexistence and migration of data from non-virtualized to the virtualized environment.
- Utilize network-level storage subsystem-independent data replication services to satisfy backup and disaster recovery requirement.

This course offering is at the IBM Spectrum Virtualize V8.2.1.1 level.

Course Agenda

- IBM SAN Volume Controller - Introduction
- IBM SAN Volume Controller - Hardware architecture
- IBM SAS-Attached storage
- IBM SVC RAID protection solutions
- IBM SVC System - scaling
- IBM SVC System - Installation and management access
- IBM Spectrum Virtualize - Storage provisioning
- IBM Spectrum Virtualize - Volume allocation
- IBM Spectrum Virtualize - Host integration
- IBM Spectrum Virtualize - Data reduction technologies
- IBM Spectrum Virtualize - Easy Tier
- IBM Spectrum Virtualize - Data migration
- IBM Spectrum Virtualize - FlashCopy and Consistency group
- IBM Spectrum Virtualize - Remote data replication
- IBM Spectrum Virtualize - Administration management
- IBM Storage Insights

Skills Gained

After completion of this course, you should be able to:

- Distinguish the concepts of IBM Spectrum virtualization.
- Recall the history for IBM SAN Volume Controller.
- Classify the characteristics and components of the IBM SAN Volume Controller system and SAS attached expansion enclosures.
- Outline setups required to integrate an SVC system solution.
- Compare the characteristics of the RAID and DRAID.
- Summarize the SVC systems- ability to scale for capacity and performance.
- Summarize the virtualization process converting physical storage space into virtual resources.
- Recall the process to create host access storage on an SVC system.
- Differentiate the advanced software features designed to simplify data management, reclaim storage space, and preserve storage investments.
- Differentiate methods in which to migrate data to and from the virtualized system environment.
- Summarize the methods of remote data replications to improve availability and support for disaster recovery.
- Employ administrative operations to manage, monitor, and troubleshoot the system. environment.
- Summarize the characteristics of IBM Storage Insights- ability to identify, troubleshoot and minimize potential system downtime.

Who Can Benefit

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

Prerequisites

The following courses are required prior to this class:

- Introduction to Storage (*SS01G*)
- Storage Area Networking Fundamentals (*SN71G*) or (*SN71DG*) or equivalent experience

A basic understanding on the concepts of open systems, disk storage systems and I/O operations.

Course Details

Course Outline

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
 - o Exercise 0: Lab environment overview
 - o Exercise 1: SVC system initialization
 - o Exercise 2: SVC system configuration
 - o Exercise 3: Examine back-end storage system

Day 2

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

Day 3

- Review
- Unit 8: Spectrum Virtualize data migration
 - o Exercise 8: SVC data migration
 - o Exercise 9: Migrate existing data: Migration Wizard
 - o Exercise 10: Migrate existing data with Import Wizard GUI
 - o Exercise 11: Migrate existing data with Import Wizard CLI
- Unit 9: Spectrum Virtualize Copy Services

Day 4

- Review
 - o Exercise 12: SVC scripting and I/O group modification
 - o Exercise 13: Real-time Compression and the IBM Comprestimator
- Unit 10: SVC administration management
 - o Exercise 14: SVC FlashCopy and consistency groups
 - o Exercise 15: Assign user roles and access
- Class Review and Evaluation

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