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## Symantec Storage Foundation 6.x for UNIX: Advanced Administration

**Duration: 5 Days    Course Code: HA0415**

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### Overview:

In the Storage Foundation 6.x for UNIX: Advanced Administration course, you learn to integrate, operate, and make the most of Veritas Storage Foundations advanced features, including Dynamic Multi-Pathing, File Replication, Smart Tiering, Performance Tuning and Snapshots, in a UNIX environment.

You learn how to manage the VxVM Private Region and understand different disk layouts, disk group management, and how to build volumes from scratch. You also learn about disk group split, moves and joins, volume relayout, volume sets, multivolume file systems, online file system administration, remote mirroring across sites, offline and off-host processing using volume snapshots and storage checkpoints, and dynamic storage tiering.

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### Target Audience:

This course is for UNIX system or network administrators, system engineers, technical support personnel, and system integration/development staff who will be administering Veritas Storage Foundation advanced features.

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### Objectives:

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| ■ <b>By the end of this course, you will be able to:</b>  | ■ Manage the dynamic multipathing feature.                                    |
| ■ Manage the advanced features of Veritas Storage Foundation.   | ■ Create and manage point-in-time copies for off-host and on-host processing. |
| ■ Configure and manage disks, disk groups, and volumes.   | ■ Manage LUN snapshots.   |
| ■ Administer file systems advanced features..   | ■ Remotely mirror your data across different sites.                           |
| ■ Apply Performance Tuning principles to Veritas Volume Manager, Veritas File System and Dynamic Multi-Pathing. | ■ Use dynamic storage tiering for optimal storage allocation.                 |
| ■ Monitor VxVM and change volume layouts to improve performance.  | ■ Place the boot disk under VxVM control.                                     |
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### Prerequisites:

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| ■ Symantec Storage Foundation 6.x for UNIX |  |
| ■ Knowledge of UNIX system administration  |  |
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## Content:

### Storage Foundation 6.x for UNIX: Advanced Administration

#### Volume Manager Overview

- Supported upgrade paths
- Upgrade considerations
- Operating system storage devices and virtual data storage
- Volume Manager storage objects
- Volume layouts

#### Volume Manager Advanced Features

- Managing components in the VxVM architecture
- Disk group information
- Using vxmake to create Volume Manager objects
- Viewing object attributes
- Disk group split/move/join
- Changing the volume layout
- Online relayout process
- Managing volume tasks
- Using Configuration Backup and Restore

#### File System Advanced Features

- VxFS layout versions
- Compressing files and directories with VxFS
- Using FileSnap feature
- Duplicating VxFS data
- Dynamic Multi-Pathing Administration
- DMP/DDI overview
- Event Source Daemon
- ASL/APM Administration
- DDI/DDI CLI Administration
- DDI/DDI Enhancements
- Subpath Failover Group
- Array/Enclosure Management
- New DMP enhancements

#### Volume Sets and MVFS Management

- Creating and managing volume sets
- Creating and managing multi-volume file systems
- Volume device visibility
- Administering raw device access

### Implementing SmartTier (ST)

- What is SmartTier?
- SmartTier concepts
- Creating storage tiers
- Implementing file placement policies

#### Co-existence with Array based Snapshots

- Understanding and selecting snapshot technologies
- How Volume Manager detects hardware snapshots
- Managing clone disks
- Using disk tags

#### Using Full-Copy Volume Snapshots

- Creating and managing full-copy volume snapshots
- Using volume snapshots for off-host processing

#### Using Copy-on-Write SF Snapshots

- Creating and managing space-optimized volume snapshots
- Creating and managing storage checkpoints
- Examples of using SF snapshot technologies for different application needs

#### Performance Tuning

- VxVM Tunables and Volume best practices
- VxFS Tunables, inode cache, and cache advisories
- DMP Tunables

### Using Site Awareness with Mirroring

- What are remote mirroring and site awareness?
- Configuring site awareness
- Recovering from failures with remote mirrors
- Verifying a site-aware environment

#### Replicating a Veritas File System

- Understanding Veritas File Replicator
- Setting up replication for a Veritas file system
- Error recovery with Veritas File Replicator

#### Managing the Boot Disk with Storage Foundation

- Placing a non-boot disk under VxVM control
- Placing a boot disk under VxVM control
- Creating an alternate boot disk
- Administering the boot disk
- Removing the boot disk from VxVM control

#### New Features and Enhancements in Storage Foundation

- SF 6.1 and Smart I/O

#### Support for caching on SSDs

## Further Information:

For More information, or to book your course, please call us on Head Office Tel.: +974 40316639

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