



# VERITAS Storage Foundation 5.0 for UNIX

(Course Code: VFN)

- Course Objectives:** By the end of this course, you should be able to:
- Install and configure VxVM and VxFS.
  - Configure and manage disks, disk groups, and volumes.
  - Administer file systems.
  - Perform cross-platform data sharing.
  - Perform basic VxVM recovery operations.
  - Manage the dynamic multipathing feature.
  - Identify types of disk failure and resolve disk failures.
  - Interpret plex, volume, and kernel states, and fix plex and volume failures.
  - Place the root disk under VxVM control.
  - Monitor VxVM.
  - Create and manage point-in-time copies using VERITAS FlashSnap.

**Who Should Attend:** This course is for UNIX system or network administrators, system engineers, technical support personnel, and system integration/development staff who will be installing, operating, or integrating VERITAS Storage Foundation.

**Prerequisites:** Knowledge of UNIX system administration.

**Hands-On:** This course includes practical exercises that enable you to test your new skills and begin to transfer them into your working environment.

**Duration:** Five days

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**Course Description:** In this course, you will learn to integrate, operate, and make the most of VERITAS Storage Foundation, including VERITAS Volume Manager (VxVM) and VERITAS File System (VxFS), in a UNIX environment. You will learn to install and configure VERITAS Volume Manager and how to manage disks, disk groups, and volumes by using the graphical user interface and from the command line. You will also learn system troubleshooting and recovery, online file system administration, cross-platform data sharing, and offline and off-host processing using volume snapshots and storage checkpoints.

## REGISTRATION AND INFORMATION

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## **PART 1: VERITAS Storage Foundation 5.0: Fundamentals**

### **1. Virtual Objects**

- Physical Data Storage
- Virtual Data Storage
- Volume Manager Storage Objects
- Volume Manager RAID Levels

### **2. Installation and Interfaces**

- Installation Prerequisites
- Adding License Keys
- VERITAS Software Packages
- Installing VxVM
- VxVM User Interfaces
- Installing and Starting VEA
- Managing the VEA Server

### **3. Creating a Volume and File System**

- Preparing Disks for Volume Creation
- Creating a Volume
- Adding a File System to a Volume
- Displaying Volume Configuration Information
- Displaying Disk and Disk Group Information

### **4. Selecting Volume Layouts**

- Comparing Volume Layouts
- Creating Volumes with Various Layouts
- Creating a Layered Volume
- Allocating Storage for Volumes

### **5. Making Basic Configuration Changes**

- Administering Mirrored Volumes
- Resizing a Volume
- Renaming Disks and Disk Groups
- Managing Old Disk Group Versions
- Removing Volumes, Disk Groups, and Disks

### **6. Administering File Systems**

- Comparing Allocation Policies
- Using VERITAS File System Commands
- Controlling File System Fragmentation
- Logging in VxFS

### **7. Resolving Hardware Problems**

- How VxVM Interprets Failures in Hardware
- Recovering Disabled Disk Groups
- Resolving Disk Failures
- Managing Hot Relocation at the Host Level

## **PART 2: VERITAS Storage Foundation 5.0: Maintenance**

### **8. Maintaining Data Consistency**

- Resynchronization Operations
- Interpreting State Information for VxVM Objects
- Modifying VxVM Objects

### **9. Managing Devices Within the VxVM Architecture**

- Managing Components in the VxVM Architecture
- Discovering Disk Devices
- Managing Multiple Paths to Disk Devices

### **10. Encapsulation and Rootability**

- Placing the Boot Disk Under VxVM Control
- Creating an Alternate Boot Disk
- Removing the Boot Disk from VxVM Control

### **11. Troubleshooting the Boot Process**

- Operating System Boot Processes
- Troubleshooting the Boot Process
- Recovering the Boot Disk Group

### **12. Volume Maintenance**

- Changing the Volume Layout
- Managing Volume Tasks
- Analyzing Volume Configurations with Storage Expert

### **13. Performance Monitoring**

- Storage Performance Analysis Process
- VxVM Performance Monitoring Tools and Techniques

### **14. Point-in-Time Copies**

- What is a Point-In-Time Copy
- Types of SF PITC Solutions
- Creating and Managing Volume Snapshots
- Using Volume Snapshots for Off-Host Processing
- Creating and Managing Storage Checkpoints

### **15. Other Enterprise Features Overview**

- What is Dynamic Storage Tiering?
- What is Intelligent Storage Provisioning?

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