COURSE DESCRIPTION

The *Veritas InfoScale 7.4.2 Fundamentals for UNIX/Linux Administration* course is designed for the IT professional who desires an overview of the Veritas InfoScale Storage and Veritas InfoScale Availability products.

This five-day class is a condensed version of the five-day *Veritas InfoScale Storage 7.4.2 for UNIX/Linux: Administration* course and the five-day *Veritas InfoScale Availability 7.4.2 for UNIX/Linux: Administration* course. This course is a subset of the two courses, and it covers the absolute basics of the two products - InfoScale Storage 7.4.2 and InfoScale Availability 7.4.2.

This course will NOT prepare you for the certification exams or the Advanced courses of both the products.

Delivery Method(s)
This course is available in the following delivery method(s):
- Instructor-led training (ILT)
- Virtual instructor-led training (VILT)
- Learning Lab

Duration

- Instructor-led training (ILT): 5 days, including 6 months of lab access
- Virtual instructor-led training (VILT): 5 days, including 6 months of lab access
- Learning Lab – Self-paced lesson guide plus 6 months of lab access

Course Objectives
By the completion of this course, you will be able to:
- Install and configure Veritas InfoScale Enterprise.
- Configure and manage disks, disk groups, and volumes.
- Administer file systems.
- Create a cluster.
- Configure service groups and resources.
- Implement and verify failover and failback capability for application, storage, and network services.

Who Should Attend
This course is designed for UNIX/Linux system administrators, system engineers, technical support personnel, network/SAN administrators, and systems integration/development staff, who will be installing, operating, or integrating InfoScale Storage and InfoScale Availability.

Prerequisites
Knowledge of UNIX system administration.

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

COURSE OUTLINE

PART 1: Veritas InfoScale Storage 7.4.2 for UNIX/Linux: Administration

InfoScale Storage Basics

Installing and Licensing InfoScale
- Introducing the Veritas InfoScale product suite
- Tools for installing InfoScale products
- InfoScale Cloud offerings
- Installing Veritas InfoScale Storage
- Installing Veritas InfoScale Availability
- Upgrading Veritas InfoScale Enterprise

Labs: Introduction
- Exercise A: Viewing the virtual machine configuration
- Exercise B: Displaying networking information

Labs: Installation of InfoScale Storage
- Exercise A: Verifying that the system meets installation requirements
- Exercise B: Installing InfoScale Storage and configuring Storage Foundation
- Exercise C: Performing post-installation and version checks

Virtual Objects
- Operating system storage devices and virtual data storage
- Volume Manager (VxVM) storage objects
- VxVM volume layouts and RAID levels

Labs
- Exercise A: Text-based VxVM menu interface
- Exercise B: Accessing CLI commands
- Exercise C: Adding managed hosts (sys1 and sys2) to the VIOM Management Server (mgt)

Creating a Volume and File System
- Volume layouts
- Creating volumes with various layouts
- Allocating storage for volumes
- Preparing disks and disk groups for volume creation
- Creating a volume and adding a file system
- Displaying disk and disk group information
- Displaying volume configuration information
- Removing volumes, disks, and disk groups

Labs
- Exercise A: Creating disk groups, volumes and file systems: CLI
- Exercise B: Removing volumes and disks: CLI
- Exercise C: Destroying disk data using disk shredding: CLI

- Exercise D: (Optional) Creating disk groups, volumes, and file systems: VIOM
- Exercise E: (Optional) Removing volumes, disks, and disk groups: VIOM

Working with Volumes with Different Layouts
- Volume layouts
- Creating volumes with various layouts
- Allocating storage for volumes

Labs
- Exercise A: Text-based VxVM menu interface
- Exercise B: Accessing CLI commands
- Exercise C: Adding managed hosts (sys1 and sys2) to the VIOM Management Server (mgt)

Making Configuration Changes
- Administering mirrored volumes
- Resizing a volume and a file system
- Moving data between systems
- Renaming VxVM objects

Labs
- Exercise A: Administering mirrored volumes
- Exercise B: Resizing a volume and file system
- Exercise C: Renaming a disk group
- Exercise D: Moving data between systems
- Exercise E: (Optional) Resizing a file system only

PART 2: Veritas InfoScale Availability 7.4.2 for UNIX/Linux: Administration

InfoScale Availability Basics

High Availability Concepts
- High availability concepts
- Clustering concepts
- High availability application services
- Clustering prerequisites

Labs:
- Exercise A: Installing InfoScale Enterprise using the Common Product Installer (CPI)]
- Exercise B: Running a post-installation check
- Exercise C: Adding cluster systems to VIOM as managed hosts

VCS Building Blocks
- VCS terminology
- Cluster communication
- VCS architecture
- Multi version cluster

Labs:
- Exercise A: Displaying cluster information
- Exercise B: Displaying status and attributes
- Exercise C: Performing service group operations
- Exercise D: Manipulating resources

VCS Operations
- Common VCS tools and operations
- Service group operations
- Resource operations

Labs
- Exercise A: Displaying cluster information
- Exercise B: Displaying status and attributes
- Exercise C: Performing service group operations
- Exercise D: Manipulating resources

VCS Configuration Methods
- Starting and stopping VCS
- Overview of configuration methods
- Online configuration
- Controlling access to VCS

Labs
- Exercise A: VCS configuration state and stopping VCS
- Exercise B: Configuring automatic backup of the VCS configuration
- Exercise C: Setting non default VCS stop options

Preparing Services for VCS
- Preparing applications for VCS
- Performing one-time configuration tasks
- Testing the application service
- Stopping and migrating a service
- Collecting configuration information

Labs
- Exercise A: Configuring and examining storage for the service
- Exercise B: Examining the application
- Exercise C: Manually starting and stopping the application

Online Configuration
- Online service group configuration
- Adding resources
- Solving common configuration errors
- Testing the service group

Labs
- Exercise A: Creating a service group for the loopy application
- Exercise B: Configuring resources for the loopy application
- Exercise C: Performing a virtual fire drill on the service group
- Exercise D: Testing the service group
- Exercise E: Setting resources to critical
- Exercise F: (Optional) Examining Veritas File System locking by VCS

Offline Configuration
- Offline configuration examples
- Offline configuration procedures
- Solving offline configuration problems
- Testing the service group

Labs
- Exercise A: Editing a copy of the main.cf file using a system editor
- Exercise B: Stopping VCS
- Exercise C: Restarting VCS using the edited main.cf file

Configuring Notification
- Notification overview
- Configuring notification
- Overview of triggers

Labs
- Exercise A: Configuring and testing the notifier using VIOM
- Exercise B: Configuring trigger scripts

InfoScale Availability Additions

Handling Resource Faults
- VCS response to resource faults
- Determining failover duration
- Controlling fault behavior
- Recovering from resource faults
- Fault notification and event handling

Labs
- Exercise A: Observing non-critical resource faults
- Exercise B: Observing critical resource faults
- Exercise C: (Optional) Observing faults in frozen service groups
- Exercise D: (Optional) Observing ManageFaults behavior
- Exercise E: (Optional) Observing restart limit behavior

Intelligent Monitoring Framework
- IMF overview
- IMF configuration
- Faults and failover with intelligent monitoring

Labs
- Exercise A: Examining IMF monitoring on a resource
- Exercise B: (Optional) Examining the IMF default configuration

Cluster Communications
- VCS communications review
- Cluster interconnect configuration
- Cluster startup
- System and cluster interconnect failure
- Changing the interconnect configuration

Labs
- Exercise A: Reconfiguring LLT
- Exercise B: Observing jeopardy membership