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Veritas InfoScale Storage 7.3 for UNIX/Linux: Advanced Administration

CODE:	LENGTH:	PRICE:
VER_ISS-7.3 AA	40 Hours (5 dage)	kr 25,000.00

Description

The Veritas InfoScale Storage 7.3 for UNIX/Linux: Advanced Administration course, discusses how to integrate, manage, operate, and utilize Veritas InfoScale Storage advanced features, which include Dynamic Multi-Pathing, Smart Tiering, Docker support, 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, move 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.

Objectives

By the completion of this course, you will be able to:

Manage the advanced features of Veritas Storage Foundation.
Configure and manage disks, disk groups, and volumes.
Administer Veritas File System advanced features.
Manage the Dynamic Multi-Pathing feature.
Apply performance tuning principles to Veritas Volume Manager, Veritas File System and Dynamic Multi- Pathing.
Monitor VxVM and change volume layouts to improve performance.
Create and manage point-in-time copies for off-host and on-host processing.
Manage LUN snapshots.
Remotely mirror your data across different sites.
Use dynamic storage tiering for optimal storage allocation.
Provision storage in a Docker environment.

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.

Prerequisites

Veritas InfoScale Storage 7.3 for UNIX Knowledge of UNIX system administration.

Programme

Volume Manager Overview
Supported upgrade paths
Upgrade considerations
Operating system storage devices and virtual data storage

Labs
Exercise A: Installing Storage Foundation
Exercise B: Upgrading from Storage Foundation to InfoScale Storage
Exercise C: Creating disks with different disk types and formats

Managing VxVM Components
Managing components in the VxVM architecture
Volume Manager storage objects
Volume layouts
Viewing object attributes

Labs
- Exercise A: Creating a disk group containing non-cds disks
- Exercise B: Converting non-cds disks in a disk group to the CDS disk format
- Exercise C: Creating volumes with different layouts
- Exercise D: Creating layered volumes
- Exercise E: Creating volumes with user defaults

Advanced Disk Group Operations
- Disk group information
- Disk group split, move, and join
- Disk group backup/restore

Advanced Volume Operations
- Using vxmake to create volume manager objects
- Changing the volume layout
- Online relayout process
- Managing volume tasks
- Securing data at rest

Labs
- Exercise A: Preparing for disk group split/move/join operations
- Exercise B: Performing vxdg split and join operations specifying volume objects
- Exercise C: Performing vxdg split and join operations specifying disk objects
- Exercise D: Performing vxdg join operations when conflicting objects exist
- Exercise E: Performing vxdg move operations
- Exercise F: Performing configuration backups

File System Architecture
- VxFS layout versions
- Components and attributes of Veritas File System

Labs
- Exercise A: Viewing the file system metadata

File System Advanced Features
- Compressing files and directories with VxFS
- Using the FileSnap feature
- Deduplicating VxFS data
- Migrating a native file system to VxFS

Labs
- Exercise A: Compressing files and directories with VxFS
- Exercise B: Deduplicating VxFS data
- Exercise C: Using the FileSnap feature
- Exercise D: Migrating a native file system to VxFS

Dynamic Multi-Pathing Administration Labs
- DMP/DDL overview
- Event Source Daemon
- ASL/APM administration
- DDL/DMP CLI administration

- Exercise A: Perform DMP testing using the vxdmpadm command
- Exercise B: Perform DMP testing using the vxcheckasl command
- Exercise C: Perform DMP testing using the vxdisk command
- Exercise D: Perform DMP testing using the vxddladm command

Dynamic Multi-Pathing Advanced Operations
- Subpath failover groups
- Array/enclosure management
- Online dynamic LUN reconfiguration
- DDL/DMP enhancements

Labs
- Exercise A: Listing Subpath Failover Groups (SFG)
- Exercise B: Tuning the Low Impact Path Probing (LIPP) attributes
- Exercise C: Differentiating manually disabled paths

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

Labs
- Exercise A: Configuring a volume set with a multi-volume file system
- Exercise B: Configuring device visibility

Implementing SmartTier (ST)
- Introducing SmartTier
- Defining the SmartTier concepts
- Creating storage tiers
- Implementing file placement policies

Labs
- Exercise A: Configuring a multi-volume file system and SmartTier
- Exercise B: Testing SmartTier

Co-existence with Array-based Snapshots
- Understanding snapshot technologies
- Identifying hardware snapshots using Volume Manager
- Managing clone disks
- Using disk tags

Labs
- Exercise A: LUN snapshots setup
- Exercise B: Importing clone disk groups

Using Full-Copy Volume Snapshots
- Creating and managing full-copy volume snapshots
- Using volume snapshots for off-host processing

Labs
- Exercise A: Full-sized instant snapshots
- Exercise B: Off-host processing using split-mirror volume snapshots
- Exercise C: Traditional volume snapshots

Using Copy-on-Write SF Snapshots
- Creating and managing space-optimized volume snapshots
- Creating and managing storage checkpoints
- Serving business requirements

Labs
- Exercise A: Using space-optimized instant volume snapshots
- Exercise B: Restoring a file system using storage checkpoints
- Exercise C: Examining storage checkpoint behavior

Labs
Exercise A: Using vxbench and vxstat
Exercise B: Tracing I/O
Exercise C: Maintaining quality of service
Performance Tuning
Understanding the environment
Performance Monitoring and Management
VxVM tunables and volume best practices
Performance benchmarking tools
VxFS tunables, inode cache and cache advisories
Ensuring quality of service
DMP tunables
Using Site Awareness with Mirroring
Introducing remote mirroring and site awareness
Labs
Configuring site awareness
Exercise A: Benchmarking
Recovering from failures with remote mirrors
Exercise B: Isolating performance issues
Verifying a site-aware environment
Labs
Support for Docker Deployments
Exercise A: Configuring site awareness
Docker overview
Exercise B: Analyzing the volume read policy
Introducing support for Docker deployments
Exercise C: Analyzing the impact of disk failure in a site-consistent environment
Provisioning storage to Docker containers
Exercise D: A manual fire drill operation with remote mirroring
Additional features and limitations
Labs
Exercise A: Preparing the Docker environment
Exercise B: Creating volumes for use with Docker containers
Exercise C: Moving Docker containers

Session Dates

På anmodning. Kontakt os venligst

Yderligere Information

Denne træning er også tilgængelig som træning på stedet. Kontakt os for at finde ud af mere.