



**Enterprise Computing Solutions - Education Services**

## **TRAINING OFFERING**

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**Skontaktuj się z nami**

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## Veritas InfoScale Availability 8.0 for UNIX/Linux: Administration

Kod:	Czas trwania:	Cena netto:
VER_ISA_80_ADMIN	40 Hours (5 days)	zł13,200.00

### Description

The Veritas InfoScale Availability 8.0 for Unix/Linux: Administration course is designed for IT professionals tasked with installing, deploying, configuring, and maintaining Veritas Cluster Server (VCS) clusters. This course discusses how to use InfoScale Availability to manage applications and databases in high availability environments and Cloud environments. The course is designed to enable you to gain the necessary fundamental and advanced skills that are required to manage a highly available application in a cluster. It also discusses how to deploy InfoScale Availability in the lab environment to practically implement a sample cluster design and deployment.

### Cel szkolenia

After completing this course, you will be able to:

- Provide an overview of the InfoScale product suite and InfoScale support for cloud environments.
- Create a cluster, and configure service groups and resources.
- Outline the different VCS cluster communication mechanisms.
- Explain InfoScale support for multi-version clusters.
- Perform common administrative cluster operations.
- Summarize VCS user and agent account passwords encryption standards.
- Outline online and offline configuration procedures.
- Configure notifications and triggers to customize VCS behavior in response to events.
- Explain how VCS responds to resources faults.
- Describe how the Intelligent Monitoring Framework improves fault detection.
- Describe VCS response to common system and cluster interconnect failures.
- Illustrate how I/O Fencing protects data in common cluster scenarios.
- Manage applications and databases in a VCS environment.
- Explain InfoScale support for containers and Kubernetes.
- Summarize the architecture of VMware vSphere HA.
- Summarize the architecture for supporting HA in VMware environments.
- Set up cluster configuration using shared storage for CFS clusters.

### Uczestnicy

This course is designed for UNIX/Linux system administrators, system engineers, technical support personnel, network/SAN administrators, and systems integration/development staff, who will install, configure, manage, and integrate InfoScale Availability.

### Wymagania wstępne

Knowledge of and hands-on experience with UNIX/Linux systems administration is required.

### Program szkolenia

## **1. High Availability Concepts**

- High Availability Concepts
- Clustering Concepts
- High Availability Applications
- Clustering Prerequisites

### **Labs: Introduction**

- Exercise A: Viewing Virtual Machine Configuration Details
- Exercise B: Verifying Network Connectivity

### **Labs:**

- Exercise A: Performing a CPI Pre-installation Verification
- Exercise B: Performing a SORT Pre-installation Verification

## **I. Cluster Server Basics**

## **2. 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:**

- Exercise A: Installing InfoScale Enterprise Using the Common Product Installer (CPI)
- Exercise B: Running a Post-installation Check
- Exercise C: Adding Managed Hosts to the VIOM Management Server

## **3. VCS Building Blocks**

- VCS Terminology
- Cluster Communication
- VCS Architecture
- Multi-version Cluster
- Veritas InfoScale Operations Manager (VIOM): Overview

### **Labs:**

- Exercise A: Working with the VIOM GUI Dashboard and Inventory Information
- Exercise B: Exploring the VIOM GUI License Options
- Exercise C: Working with the VIOM GUI Settings Option

## **4. VCS Operations**

- Common VCS Tools and Operations
- Service Group Operations
- Resource Operations
- VCS Custom Scripts: Operations

### **Labs:**

- Exercise A: Displaying Cluster Information
- Exercise B: Displaying Status and Attributes
- Exercise C: Performing Service Group Operations
- Exercise D: Manipulating Resources

## **6. 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 a Service
- Exercise B: Examining the Application
- Exercise C: Manually Starting and Stopping the Application

## **7. 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 (VFD) 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

## **5. VCS Configuration Methods**

- Starting and Stopping VCS
- Configuration Methods: Overview
- Online Configuration
- Controlling Access to VCS
- VCS Password Encryption

### **Labs:**

- Exercise A: VCS Configuring the State and Stopping VCS
- Exercise B: Configuring Automatic Backup of VCS Configuration
- Exercise C: Setting Non-default VCS Stop Options

## 8. 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

### 1. 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 RestartLimit Behavior

## II. Cluster Server Additions

### 2. Intelligent Monitoring Framework

- Intelligent Monitoring Framework: Overview
- Intelligent Monitoring Framework: Configuration
- Faults and Failover with Intelligent Monitoring

### Labs:

- Exercise A: Examining IMF Monitoring on a Resource
- Exercise B: (Optional) Examining IMF Default Configuration
- Exercise A: Reconfiguring LLT
- Exercise B: Observing Jeopardy Membership

### 1, Using I/O Fencing for Application Data Integrity

- Data Protection Requirements
- I/O Fencing Concepts
- I/O Fencing Operations
- I/O Fencing Implementation
- Fencing Configuration

### Labs:

- Exercise A: Fencing Configuration Pre-checks
- Exercise B: Configuring VCS for I/O Fencing
- Exercise C: Verifying I/O Fencing Configuration
- Exercise D: Verifying Data Disks for I/O Fencing

## III. Cluster Server Applications

### 2. Clustering Applications

- Application Service: Overview
- Manage Applications Using VCS Agents
- Working with the Application Agent
- IMF Support and Prevention of Concurrency Violation

### Labs:

- Exercise A: Adding a Resource of Type Application
- Exercise B: Testing the Resource
- Exercise C: IMF and Application Agent Monitoring Options

### 3. Clustering Databases

- VCS Database Agents
- Database Preparation
- Database Agent For Oracle
- Database Failover Behavior
- Additional Oracle Agent Functions

### Labs:

- Exercise A: Verifying the Oracle Configuration
- Exercise B: Preparing Storage and Network Resources for the Oracle Service Group
- Exercise C: Testing the Oracle Database Manually
- Exercise D: Configuring Oracle Under VCS Control
- Exercise E: Running a Virtual Fire Drill and Switching the Oracle Service Group
- Exercise F: (Optional) Oracle Monitoring

## 9. Configuring Notification

- Notification: Overview
- Configuring Notification
- Triggers: Overview

### Labs:

- Exercise A: Configuring and Testing Notifier Using VIOM
- Exercise B: Configuring Trigger Scripts

### 3. Cluster Communications

- VCS Communications: Overview
- Cluster Interconnect Configuration
- Cluster Startup
- System and Cluster Interconnect Failure
- Changing the Interconnect Configuration

### Labs:

- Exercise A: Reconfiguring LLT
- Exercise B: Observing Jeopardy Membership

## IV. In-Guest Clustering

### 1. InfoScale Support for Cloud Environments

- InfoScale Solutions for Cloud Environments
- InfoScale Support for Kubernetes on Linux
- Preparing for InfoScale Installations in Cloud Environments
- Configuration for Cloud Environments
- Application Migration Support for AWS
- Troubleshooting Issues in Cloud Environment

#### Labs:

- Exercise A: Configuring the REST API Server
- Exercise B: Verifying S3 Server Details
- Exercise C: Creating InfoScale Storage Support for S3 Connector
- Exercise D: Using the VIOM Deploy Application Migration Add-On
- Exercise E: Adding the VIOM Management Server to the Global Reports Perspective
- Exercise F: Generating VIOM Reports

### 2. VMware vSphere Data Center Architecture

- VMware vSphere High Availability Architecture
- VMware Administration
- VMware Storage Architecture
- Server and Storage Migration

#### Labs:

- Exercise A: Verifying the VMware vSphere Lab Environment
- Exercise B: Connecting to Nested Virtual Machines
- Exercise C: Testing vMotion Functionality

### 3. Veritas High Availability Deployment in VMware

- Veritas High Availability Architecture for VMware
- Deploying InfoScale Availability on Virtual Machines
- Configuring the vSphere Web Client for Veritas HA

#### Labs:

- Exercise A: Preparing the Nested Virtual Machine Lab Environment
- Exercise B: Deploying a Veritas Cluster on Nested Virtual Machines
- Exercise C: Adding Cluster Systems as Managed Hosts to VIOM
- Exercise D: Installing the VIOM Control Host Add-On
- Exercise E: Adding Virtualization Information to the VIOM Management Server
- Exercise F: Installing and Registering the Veritas HA Plug-in for vSphere Web Client

### 4. Veritas High Availability Configuration and Administration

- Configuring Storage for VCS Failover Clusters
- Configuring shared storage for CFS Clusters
- Configuring Availability
- Veritas High Availability Operations
- Just-In-Time Availability Solution

#### Labs:

- Exercise A: Preparing the Nested Virtual Machine Lab Environment
- Exercise B: Setting the EnableUUID Parameter for Virtual Machine Disks
- Exercise C: Testing vMotion with Veritas In-Guest Clustering
- Exercise D: Managing the Oracle Disk Group Configuration

### 5. Labs: Managing Different Types of VMware Storage in a VCS Cluster

- Exercise A: Preparing the Nested Virtual Machine Lab Environment
- Exercise B: Configuring a Shared VMFS Datastore
- Exercise C: Configuring Virtual and Physical RDM Disks
- Exercise D: Creating a Service Group to Manage the Virtual and Physical RDM Disks
- Exercise E: (Optional) Observing vMotion with RDM Disks
- Exercise F: (Optional) Enabling Shared Storage Across Multiple VMs Using Physical RDM Disks
- Exercise G: (Optional) Aligning Shared Disk Device Names Across Multiple Virtual Machines

## Terminy

Data	Lokalizacja	Strefa czasowa	Język	Typ szkolenia	Gwarancja	Cena netto
23 Sep 2024	Virtual Classroom	CEDT	English	Instructor Led Online		zł13,200.00

## Dodatkowe informacje

Jeśli interesują Cię inne szkolenia tego producenta - skontaktuj się z nami.