

40 HORAS

OVERVIEW

This course provides the knowledge required to deploy and manage Symmetrix VMAX 1/2 -based local and remote replication solutions for business continuity needs. Operational details and implementation considerations for EMC TimeFinder, SRDF and Open Replicator are covered. Lessons include considerations for and performing local and remote replication operations in physical and virtualized environments. Hands-on lab exercises using Symmetrix Command Line Interface (SYMCLI) and Unisphere for VMAX provide the opportunity to learn and validate the material covered in the lectures. Lab exercises will be performed in physical (Sun Solaris and Windows 2008) and virtualized (VMware ESXi) environments. Servers will be SAN attached to Symmetrix VMAX 1/2 series arrays.

AUDIENCE

EMC Personnel, EMC Partners and EMC Customers who will be involved in implementing and managing local and remote replication solutions for Business Continuity using TimeFinder, SRDF and Open Replicator in an Open Systems environment.

PREREQUISITE KNOWLEDGE/SKILLS

- Windows and/or Unix operating systems; ability to utilize host based GUI
- and/or command line interfaces to perform all hands-on labs
- Symmetrix architecture, concepts, and theory of operations
- TimeFinder, SRDF, and Open Replicator for Symmetrix Fundamentals
- Symmetrix Configuration Management
- VMware vSphere ESXi fundamenta

COURSE OBJECTIVES

- Describe and perform TimeFinder/Clone and TimeFinder/Snap operations with SYMCLI and Unisphere for VMAX – in physical and virtualized environments
- Describe and perform SRDF operations in Synchronous (SRDF/S) and Asynchronous (SRDF/A) modes using SYMCLI and Unisphere for VMAX – in physical and virtualized environments
- Describe and perform Open Replicator for Symmetrix (ORS) data replication in Hot/Cold, Push and Pull scenarios
- Describe the use of Unisphere for VMAX for performing local and remote replication operations

COURSE OUTLINE

Module 1: Symmetrix Business Continuity Concepts

- Device Groups, Consistency Groups, and Device Files
- VMware Storage Presentation Methods
- Host Considerations when Accessing Replicated Devices in Physical and Virtual Environments

Module 2: TimeFinder/Clone and TimeFinder VP Snap Operations

- TimeFinder/Clone
- TimeFinder VP Snap
- TimeFinder/Clone Operations in a Virtualized Environment – Replicating a VMFS Datastore
- TimeFinder/Clone Operations in a Virtualized Environment – Replicating a VM Accessing RDM Hard Disks
- Using Unisphere for VMAX to perform TimeFinder/Clone and TimeFinder VP Snap Operations

Module 3: TimeFinder/Snap Operations

- TimeFinder/Snap Overview and Considerations
- Managing TimeFinder/Snap Using SYMCLI
- Using Unisphere for VMAX for TimeFinder/Snap Operations

Module 4: SRDF/Synchronous Operations

- SRDF Initial Setup Operations
- SRDF Disaster Recovery Operations
- SRDF Decision Support/Concurrent Operations
- SRDF/S for VMFS Disaster Recovery
- SRDF/S Disaster Recovery for a VM Accessing RDM Hard Disks
- Using Unisphere for VMAX to Perform SRDF/S Operations

Module 5: SRDF/Asynchronous Operations

- SRDF/A Overview and Operations
- SRDF/A Resiliency Features
- SRDF/A Multi-Session Consistency
- SRDF/A Consistency Exempt Feature

Module 6: Open Replicator for Symmetrix Operational Details

- Open Replicator Overview and Modes of Operation
- Zoning and LUN Masking Requirements
- Using SYMCLI to Perform ORS Operations
- Using Unisphere for VMAX to Perform ORS Operations