

AUTO-SNAPSHOT MANAGER/BUSINESS CONTINUITY AND DISASTER RECOVERY WORKSHOP



Instructor-led training to get you up to speed on your Dell EqualLogic Storage Array.

OVERVIEW

This 2-day workshop provides the opportunity for students to practice and exercise the data protection and recovery functions of the PS Series Storage Array in a variety of real-world scenarios. In this hands-on workshop, students use the features of the PS Series solution and the Auto-Snapshot Manager Recovery tools to recover individual files, entire volumes, collections of volumes, bootable volumes, and SQL databases. Students capture and recover data from crash consistent and application consistent snapshots and replicas. Students will save and restore data locally using snapshots, as well as across WAN links using replication. WAN optimization appliances will be used to demonstrate WAN optimization for replicating to the DR site.

COURSE DETAILS

Module 1: Disaster Recovery Overview

- Objectives of a disaster recovery plan
- Major elements of a disaster recovery plan
- Technical benefits and functionality of replication and snapshots
- Purpose of volume collections

Module 2: Data Recovery Using PS Series

Snapshots

- Describe the difference between the three categories of snapshots: Application File Consistent, Crash Consistent, and Inconsistent
- Configure and perform a snapshot of a single volume
- Create a volume collection
- Recover a file and also volume from a snapshot
- Create and then recover from crash-consistent snapshot of a Windows 2003 Server system Boot-from-SAN volume
- Describe system behavior when snapshot reserve space is exhausted

Lab Exercise #1 - RAID Data protection

Lab Exercise #2 - Snapshot Data protection

Module 3: Using EqualLogic Auto Snapshot Manager, ASM

- Describe the technical benefits and functionality of using application-file consistent snapshots
- Using Host Integration Toolkit v3.0, create an application-file-consistent snapshot of a Microsoft SQL Server 2005 database
- Recover the database from the snapshot

Lab Exercise #3 - Using ASM to recover application consistent snapshot volumes

Module 4: Data Recovery Using PS Series

Replication

- One-way replication
- Reciprocal replication
- Centralized Replication
- Using ASM to perform an application consistent replication recover of a Microsoft SQL Server 2005 database

Lab Exercise #4 - Replication Data protection

Module 5: Data Recovery Scenarios

- Discuss data recovery considerations and process scenarios
 - Replication over a T1 WAN link
 - WAN Optimizations
 - Manual replicate a volume across the WAN link
- Lab Exercise #5 - Data Recovery Scenarios/WAN optimization

YOU WILL LEARN TO:

- Understand the objectives and major elements of a disaster recovery policy
- Recognize the benefits and functionality of replication, snapshots and volume collections
- Determine the difference among Application Consistent, Crash Consistent, and Inconsistent snapshots
- Understand volume snapshots, collection snapshots and volume recovery from snapshots
- Recognize system behavior when snapshot reserve space is exhausted
- Use Host Integration Toolkit v3.0, ASM SmartCopy
- Recover data from the replicated volume
- Simulate a failure and recovery of the primary site, and perform a fast failback to the primary site
- Use Auto Snapshot Manager to replicate the SQL database and then recover the database from the replication set
- Evaluate performance considerations, including using a Wide-Area Data Services solutions of WAN optimization products
- Describe basic concepts of backup software operation, including VSS integration
- Perform backup and restoration of SQL database using Microsoft SQL Server Management Studio

FEATURES	AUTO-SNAPSHOT MANAGER/BUSINESS CONTINUITY AND DISASTER RECOVERY WORKSHOP
Type of Course	Instructor-led workshop with hands-on labs
Class Length	2 days
Number of Students Per Class	Up to 12
Who Should Attend	<ul style="list-style-type: none">• System administrators• Systems engineers• Technical end users• Storage administrators• Technical support
Skill Level	Basic to intermediate
Suggested Prerequisites	<p>The following Dell EqualLogic prerequisite courses are required before attending this course:</p> <ul style="list-style-type: none">• PS Series Storage – Basic Operations and Administration• PS Series Storage – Advanced Features <p>The following prerequisite knowledge is desired before attending this course.</p> <ul style="list-style-type: none">• Storage Area Networks• Storage Network Protocols – iSCSI, SCSI, etc.• Local Area Network Protocols – Gigabit Ethernet• Internet Protocols

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