SnapProtect Solution Administration (SPSA)

Modality: Virtual Classroom

Duration: 2 Days

NATU: 24 Units

About this course:

This is a two-day course for learning about NetApp Element Software Administration. In this course, you will be learning with professional instructors who will deliver lectures and give you the opportunity for practical demonstration exercises to learn the administration methods. You will be taught the basic techniques for administering a NetApp Element software cluster in a SolidFire system. You will be learning extensively about the configuring and maintaining a cluster in the system. The Element software has a wide array of features which require adequate training for use. This course will provide you with the opportunity of learning and practicing with those features. You will use the Element CLI tool and web UI feature to manage the storage and network resources.

Learning outcomes:

The course enables you with the following learning outcomes:

- Recognizing and learning about the basic hardware features of an Element cluster
- Completing the steps for the task of configuration for a new Element cluster
- Practically demonstrating the basic aspects of system administration tasks from the Element UI.
- Recognizing the Element data replication features and method for the purpose of backup and recovery
- Overseeing the amount of health and performance level of an Element cluster
- Practically demonstrating the basic steps of system administration tasks by using Element API plug-in.

Audience:

Element Administration enables you to cater to the requirements of NetApp customers, partners, and employees. Hence, this course has an intermediate level for a concise learning of Element Administration.

Requirements:

You need to have a good know-how of Element Fundamentals (Web-based training [WBT])

Course Outline:

Module 1: Getting Started with the SnapProtect Solution

- Describe the SnapProtect solution
- Describe SnapProtect for Open Systems
- Use the Getting Started tab to configure the initial settings of the CommCell Browser
- Describe setup configurations that impact SnapProtect operations

Module 2: The NDMP Protocol and the SnapProtect Solution

- Describe the NDMP protocol
- Node-Scoped NDMP for Clustered Data ONTAP
- Describe Cluster Aware Backup (CAB) operations
- Configure the NDMP Services for Cluster Data ONTAP 8.2 and later
- Configure the NDMP protocol in Data ONTAP systems

Module 3: Protecting Data on NAS File Servers

- Add Data ONTAP clusters and storage virtual machines (SVMs) to a CommCell
- Create NAS subclients and storage policies
- Manage NAS backup and restore operations
- Create schedule policies for NAS data

Module 4: Protecting Microsoft SQL Server Databases

- Describe Microsoft SQL Server architecture
- Backup and restore SQL Server databases
- Schedule backup operations for SQL Server database and log files

Module 5: Protecting Microsoft Exchange Servers

- Describe Microsoft Exchange clients
- Administer SnapProtect backup operations for Exchange mailbox databases
- Restore Exchange mailbox databases
- Use snap mining to perform single-mailbox recovery

Module 6: Protecting Virtual Machines

- Describe the components that protect virtual machines in a SnapProtect solution
- Define guest machines or virtual machines as subclients
- Back up and restore guest machines or virtual machines

Module 7: SnapProtect Solution Management Tasks

- Describe best practices for administering the SnapProtect solution
- Change access passwords, IP addresses, and host names
- Upgrade SnapProtect service packs

New Features

- SnapProtect 10 SP8 New Features

- Download manager for UNIX installations
- Warning for NAS client restores
- Cascade Topology support for SnapProtect for Open Systems (SPOS)
- Cluster Aware Backup (CAB) extension for clustered data ONTAP
- VMware view for ALL Versions feature
- Virtual machines conversion (VMware to Microsoft Hyper-V)
- Cloud support with AltaVault appliances
  - SnapProtect Version 10 SP10
    - Single-file restore (SFR)
    - Root file system support for SnapProtect for Open Systems
  - SnapProtect Version 10 SP11
    - Support for two-node MetroCluster configuration Support for MySQL on the UNIX operating system Support for Hyper-V on SMB 3.0 shares

Labs

Locate Vserver Associations
Locate resource pools
Manage disk space of resource pools
Delegate volume creation to SVMs
Tour the CommCell browser
Verify that the SnapProtect license file is valid
Setting up the Windows domain administrator and administrators' group
Use the getting started tab to create two disk libraries
Modify the CommServerDR storage policy
Add the OnCommand Unified Manger server to the CommCell
Review the NDMP configurations on cluster1 and cluster2
Add storage systems to the CommCell
Configure a NAS file server as a CommCell client machine
Use the detect tool to add the SVMs of a cluster as separate clients
Create a NAS subclient
Initiate backup operations
Restore individual files from the primary (snap) copy
Restore individual files from the mirror copy
Create and assign a NAS schedule policy
Set the database option to full recovery
Create a storage policy that is dedicated to a Microsoft SQL database
Create a subclient for a Microsoft SQL database
Initiate a local backup of the AdventureWorks database subclient
Resolve an SQL database backup issue
Initiate a mirror replication of the AdventureWorks database subclient
Configure iSCSI connection between SQL Server host and SVMs
Restore SQL databases
Challenge task
Configure required Exchange server settings
Create an Exchange database subclient and storage policy
Initiate local, mirror, and vault back up operations
Restore Exchange databases from a SnapMirror copy

Schedule backup operations

Add the vCenter Server as a virtualization client

Create a subclient with a dedicated storage policy

Initiate a backup job

Restore a virtual machine

Create and run an auxiliary vault copy of the VMware datastore

Create schedule policies to back up vCenter servers

Change user credentials globally

Gather log files with the send log files tool – not specifying a Job ID

Initiate and schedule the Job Summary Report