

# (DATAPROT9) NetApp Data Protection Administration Training

## Module 1: Overview of NetApp Data Protection Technologies

- Data Protection requirements
- Technologies and management
- Aligning technologies to the risk spectrum
- Data loss risk spectrum
- Replication technologies
  - Snapshot copy and SnapRestore
  - MetroCluster
  - SnapMirror
  - SnapVault
  - NDMP
- Management interfaces and solutions
- Data ONTAP CLI
- OnCommand system manager
- NetApp plug-in for Symantec NetBackup
- Prerequisite Data Protection configurations
- Intercluster failover group
- Verify network interface configurations
- Configure cluster and SVM Peer relationships

## Module 2: Data Protection with NetApp Snapshot Copies

- Snapshot copy
  - Design guidelines
  - Maximum number of copies
  - Manage
  - Obtain information
  - Create manually
  - Modify
- SnapRestore feature
- Considerations before restoring data
- Volume Snapshot restore workflow
- Perform volume SnapRestore operation
- Single file SnapRestore
- Snapshot copy management tasks
  - Guidelines
  - Managing disk space
  - Deleting copies
  - Managing busy copies
  - Autodelet command
- Snapshot Copy policy
  - Assigning
  - Default policies
  - Workflow
  - Managing policies and schedules
  - Job scheduler
  - Volumes

### **Module 3: Synchronous Data Protection**

- SyncMirror features and guidelines
- MetroCluster
  - Range of protection
  - Components
  - Deployment options
  - SnapMirror and SnapVault
  - NDO

### **Module 4: Using NDMP for Data Protection**

- NDMP technology
  - Concepts
  - Node-scoped
  - SVM-scoped
  - Volume and tape availability with CAB
  - Backup models – local and remote
  - Authentication methods
  - Design considerations
  - Firewall policy
  - Data ONTAP LIFs
  - CAB extension
  - ndmcopy command
  - Scalability Limits
- NDMP Services
- NDMP passwords

### **Module 5: Implementing and Managing SnapMirror Technology**

- SnapMirror
  - Capabilities
  - Replication workflow

- Snapshot copies
- Intracluster and intercluster
- Volume automatic resizing
- Volume move
- Relationships
- Licensing
- Test mode
- Disaster mode
- Management interfaces
- Administration
- FlexClone technology
- Throttle
- Network compression
- Load-sharing
- Version-independent

### **Module 6: SnapVault Backup and Recovery**

- Components of SnapVault solution
- Preconfiguration checklist
  - License codes
  - Language setting
  - Firewall requirements
  - Peer relationship
  - Planning space
  - Snapshot copy policy
- SnapVault destination volume
- Modify SnapVault policy
- Modify relationship
- Manual update
- Restore data

## Module 7: Using Data Protection Management Solutions

- Data Protection technologies and management
- OnCommand console dashboard
- Protection and provisioning capabilities
- SnapManager Suite
- SnapProtect solution overview
- CommCell components
- Symantec NetBackup plug-in 2.0

### Labs

- Create intercluster subnets and intercluster LIFs
- Create a CIFS subnet on cluster1
- Create and aggregate
- Create a primary SVM
- Create volumes on the primary SVM
- Prepare the storage environment on cluster 2 as the secondary target
- Configure cluster peering
- Configure SVM peering
- Create Snapshot copies
- Restore volume data from Snapshot copies
- Restore data from Snapshot copies using windows
- Delete Snapshot copies
- Create an autodelete policy
- Create a job schedule
- Create a Snapshot copy policy
- Assign a Snapshot copy policy to primary volumes
- Create a SnapMirror relationship
- Verify Data transfer
- Take the source volume offline
- Break the SnapMirror relationship
- Perform a SnapMirror reverse resynchronisation
- Restore the original SnapMirror relationship
- Verify that prerequisites for SnapVault are met
- Create a SnapVault relationship and SnapVault policy
- Create a schedule on cluster2
- Create a SnapVault policy on the destination SVM
- Create a snapVault relationship from the secondary SVM
- Perform a SnapVault manual update
- Edit the retention rules for a SnapVault relationship
- Simulate data loss
- Restore SnapVault volume
- Restore a file from a SnapVault Snapshot copy by using previous versions