Implementing Microsoft Hyper-V on Data ONTAP (IMPMSHV)

Modality: Virtual Classroom

Duration: 2 Days

NATU: 24 Units

About this course:

Learn how to implement Microsoft Hyper-V virtualization solutions on clustered Data ONTAP. In this course, you learn how to deploy the Microsoft Windows Server 2012 R2 virtual infrastructure on Data ONTAP storage.

The average salary for a NetApp storage administrator is **$122,000** per year.

Course Objectives:

- Describe Microsoft Windows Server 2012 R2 Hyper-V virtualization solution
- Articulate the NetApp value proposition when integrating the Data ONTAP operating system with virtualization solutions
- Describe the main concepts, terminology and operation of SnapManager for Hyper-V v2.1
- Demonstrate the configuration of SnapManager for Hyper-V v2.1 hosts, datasets, policies, event notifications, and reporting
- Identify capabilities, functions, and integration of the Microsoft and NetApp management, backup, and migration tools in a public, private, and hybrid cloud environment

Audience:

- NetApp employees, channel partners, and customers

Prerequisites:

- NetApp core technical training or equivalent knowledge
- NetApp SAN core technical training or equivalent knowledge
- Basic knowledge of Microsoft virtualization

Course Outline:

Module 1: Overview of Microsoft Hyper-V

- Microsoft (MS) Server virtualization framework
- MS private cloud
- MS hyper-V architecture
- Virtual hard disk (VHD) formats and types of virtual disks
- Hyper-V virtualization features and virtual disk types

Module 2: Introduction to SnapManager for Hyper-V (SMHV)

- SMHV features and architecture
- MS VSS
- SMHV backup process
- SMHV data management concepts
- SMHV components

Module 3: SnapManager for Hyper-V with NAS and SAN

- SAN environment features
- CSV features
- MS Server 2012 failover clustering
- NAS SMB 3.0 protocols

Module 4: Installing SnapManager for Hyper-V

- Pre-install considerations
- SnapDrive for Windows
- PowerShell Toolkit
- SMHV installation requirements
- License keys

Module 5: Configuring SnapManger for Hyper-V

- SMHV dashboard
- Hyper-V parent host
- Hyper-V VM exporting and importing
- SnapInfo directory settings
- SMHV backup jobs creation process
- SnapInfo Snapshot copy retention
- Windows scheduler
- On-demand backup jobs
- SMHV reports

Module 6: Restoring Virtual Machines with SnapManager for Hyper-V

- Restoring a VM
- VM backup and recovery
- Restore wizard
- Migrating VMs

Module 7: Managing the Integrated Virtualized Data Center

- NetApp and MS integrated solutions
  - Private cloud
  - Hybrid cloud
  - Public cloud

- MS Azure site recovery
- Data fabric
- ESXi migration to Hyper-V
- OnCommand shift
- Alta Vault cloud-integrated storage

Labs:

- Implementing Microsoft Hyper-V on Data Ontap
- Installing Hyper-V on Windows Server 2012 R2
- Preparing Storage and Networking For Installation
- Installing Snapdrive for Windows
- Installing Snapmanager for Hyper-V
- Configuring Snapmanager for Hyper-V For Backups
- Restoring Virtual Machines With Smhv
- Migrating Windows Live
- Migrating Virtual Machines with Oncommand Shift