

# **Windows Server 2016: Advanced Virtualization**

**Modality: On Demand**

**Duration: 24 Hours**

## ***About this course:***

The technology of virtualized environments will compose the future of computing. This computer science course has been designed to elaborate on the fundamental virtualization skills into the latest Windows Server 2016 capabilities.

In this course, you will get to study the features of Nano Server as an alternative lightweight OS option for enforcing a lightsome and cost-effective data center host. This will also provide you with the benefit of having minimum digital footprints.

You will also get to learn about expanding the support provided by virtualization for hosting a variety of VMs that are operating various operating systems. You will have to make sure that you have the relevant technique of supporting a highly available virtual environment by using clustering and load balancing technologies.

Apart from this, it is important that you have secured the environment. By taking this course, you will get to study the latest advancements made in Windows Server 2016 to provide strong security to your virtualized environment.

In this course, you will also learn of the ways of enforcing various migration options for moving VMs between Hyper-V hosts.

This is a self-paced course and it will be delivered by videos, discussions, hands-on labs, and assessments. This course will be of great aid to you in pin-pointing and enforcing the newest Windows Server 2016 virtualization capabilities. Make use of this course so that you can:

- Make career decision that whether IT is for you or not.
- Prepare for a primary-level job in Windows Server administration
- Advance your existing capabilities in virtualized environments, like, modern data center and cloud-based systems.
- Study for Microsoft certification tests and badges.

## ***Learning objectives:***

The course has the following learning objectives:

- Getting training in enforcing Nano Server.
- Getting training in configuring Hyper-V to run VMs with Linux and FreeBSD operating systems
- Getting training in configuring new virtual switch and virtual networking features
- Knowing about the ways in which shielded VMs and the Host Guardian fabric secure the virtualized environment

- Getting training in backup planning and recovery strategies for virtualized environments
- Getting training in reducing the downtime with migration strategies like Quick Migration, Live Migration and Hyper-V Replica

### ***Audience:***

The course has been designed for Windows, network, and system administrators.

### ***Requirements:***

It is important that students have a basic understanding of virtualized environments, especially Hyper-V. Additionally, students should have a strong base in accessing and using simple Windows PowerShell commands.

### **Course Outline:**

#### **Module 1 | Nano Server**

- Overview
- Nano Server Images and Virtual Machines
- Managing Nano Server
- Nano Server Hosts
- Module 01 Review Questions

#### **Module 2 | Advanced Hyper-V Settings**

- Hyper-V for Linux and FreeBSD Virtual Machines
- Hyper-V Switches and VLAN Settings
- Shielded VMs
- Module 02 Review Questions

#### **Module 3 | Highly Available Virtual Environments**

- Business Continuity
- High Availability in Virtualization
- Hyper-V Failover Clustering
- Disaster Recovery in Virtualization
- Module 3 Review Questions

#### **Module 4 | Highly Available Hyper-V**

- Additional Hyper-V Failover Clustering Options
- Quick Migration and Live Migration
- Storage Migration and Shared Nothing Migration
- Hyper-V Replica
- Module 4 Review Questions

### **Course Completion**

- Final Exam (Graded)?