SDN/NFV Evolution and Implementation Solutions

Course 7372 – 24 Hours

Overview

SDN/NFV Evolution and Implementation Solutions is a 3 day course. Students will learn the basics of SDN [Software Defined Networks] and understand the drawbacks of the traditional networking platform in comparison to the solutions that SDN offers today. SDN is a new approach to networking in which network control is decoupled from the data forwarding function and is directly programmable.   Implementing SDN enables extraordinary agility while reducing service development and operational costs, and frees network administrators to integrate best-of-breed technology as it is developed.

In addition students will be familiarized with NFV [Network Functional Virtualization] which is a network architecture concept that uses the technologies of IT virtualization to virtualize entire classes of network node functions into building blocks that may connect, or chain together, to create communication services.

This course will enable students to understand the difference between SDN and NFV and how these two architectures complete and interact with one another to enhance today's dynamic, demanding agile networking environments. Students will gain an understanding of the capabilities of SDN/NFV and gain knowledge and practice from the two leading vendors in the SDN/NFV market today that offer customers the ability to innovate their networks to the next level.

On Completion, Delegates will be able to

Students will acquire knowledge and understanding of the need to perform a transformation and escalation of IP cloud networks to SDN/NFV.

Who Should Attend

- Network engineers, system engineers and IT team leaders

Prerequisites

- Basic Networking Background
- CCNA
- CCNP
- Networking Team Leaders

Course Contents

What's missing in today's network
- Limitations of Current Networking Technologies
- The Need for a New Network Architecture
- Why Was SDN Needed

Introduction to the Nuts and Bults of SDN/NFV Acronyms
- SDN Founders
- How Did it all Start
- Caveats and Clarifications
- What is the Root Cause

SDN Overview and Enhancements
- Abstractions For Control Plane
- SDN Architecture
- Control Plane Abstraction
- Global Network View
- Forwarding Model

The Importance of NFV
- Virtualizing Networking Nodes via NFV
- Service Providers – Visions and Innovations

Cisco SDN Architecture and Implementation
- Addressing the Changing Landscape
- Application Centric Approach to managing the Network Infrastructure
- Benefits of Leaf Spine Architecture
- The role of the APIC Controller

Vmware SDN/NFV Architecture and Implementation
- Introduction to Network Virtualization
- NSX Logical Networking Components
- NSX Functional Services
- NSX Design Considerations

SDN/NFV Integration Solution Based Open Stack
- What is Open Stack
- Open Stack Architecture and Components