Introduction to SDN, Openflow and NFV

Course No. 1225   **Duration: 1 Day**

Course Overview:

This course introduces software defined networking (SDN), an emerging paradigm in computer networking that allows a logically centralized software program to control the behavior of an entire network.

Separating a network's control logic from the underlying physical routers and switches that forward traffic allows network operators to write high-level control programs that specify the behavior of an entire network, in contrast to conventional networks, whereby network operators must codify functionality in terms of low-level device configuration.

Who should attend?

The seminar is built for technical, marketing and business development individuals from Telecom Service Providers as well as Manufacturers of Networking hardware and software products.

Prerequisites:

Delegates must have a fair knowledge of IP, Routing principles and LAN concepts, including basic Ethernet

Course Content:

1. Switching and Routing in a nutshell

2. SDN - Introduction
- SDN history
- Why we need SDN?
- SDN definition

3. Introduction to OpenFlow
- Planes of Networking
- OpenFlow Operation
- H/W & S/W OpenFlow Switches including Open vSwitch
- OpenFlow Evolution
- Current Limitations and Issues

4. OpenFlow controllers and tools
- OpenFlow Controllers
- Software Routing Platform
- OpenFlow Related Tools

6. SDN Applications
- Network virtualization
- Data Center traffic management
- WAN traffic management

7. SDN Security
- The main threats to SDN
- The road to a secure SDN

8. Introduction to Virtualization

9. Network Function Virtualization (NFV)
- What is NFV?
- NFV and SDN relationship
- NFV concepts
- NFV architecture

10. NFV Use cases
- Virtualisation of LTE EPC and IMS
- NFV Proof of Concepts
- NFV Summary

10. Vendors and products

11. Final thoughts and conclusions

12. Glossary

13. Summary