

Essentials of SD-WAN

The options for automating our networks

Overview

This course gives the participant an introduction to Software Defined Networking and its application to Software Defined WAN in the Telco environment. SDN is arguably one of the most significant enablers in the modern computing & networking environments, allowing for rapid deployment of new services with optimal and automated management and operations. We will highlight the main features of SD-WAN from the perspective of both infrastructure and service requirements to provide an overall solution to customers.

Who can benefit

This workshop is designed for personnel and decision makers who need a basic understanding of the key concepts of SD-WAN including terminology that is prevalent in the industry, the various solutions available and the general direction of the industry

Pre requisite knowledge

Basic technical understanding of network architectures

Course Outline

Introduction

- Overview of SDN concept
- Traditional networking
- Challenges in network control & management
- Separating the control & traffic forwarding functions
- SDN and SD-WAN
- How does it relate to virtual networking & NFV?
- What are the benefits?
- SD-WAN for the Enterprise customer
- Virtualization & Cloud Computing

Software defined Wide Area Networking (SD-WAN) Overview

- Key concepts of SD-WAN
- Standardization process for SD-WAN
- SD-WAN characteristics
 - Support for multiple connections types
 - Dynamic path selection
 - Management interfacing
 - Support VPNs
- SD-WAN Business Drivers

SD-WAN Architecture

- Typical SD-WAN architecture
- Key interfaces
- Comparing traditional WAN, Hybrid WAN, i-WAN and Hybrid SD-WAN

- Key types of SD-WAN architecture (Premises based, MPLS based and Internet based)
- SD-WAN network components (edge devices, controllers and service orchestration)
- Service architecture (Policy manager, service portal and billing)
- Underlying transport technologies to carry SD-WAN traffic
 - MPLS-based
 - Internet over LTE
 - Broadband internet
 - Dedicated internet access

SD-WAN Service Requirements

- Various QoS classes available
- QoS requirements to measure SD-WAN tunnel performance
- SDN-WAN transmit modes (load balance paths, duplicate paths and override service)
- Policy based forwarding
- How to utilize management tools to optimize networking experience

SD-WAN Management Aspects

- SD-WAN Operational Considerations
- Issues (interoperability with legacy WAN infrastructure, managing multiple WAN links, application QoS)
- SD-WAN Products available in the market
 - Routing and switching vendors rolling out SD-WAN products
 - WAN optimization specialists using SD-WAN products
 - Service provider managed services uses SD-WAN products
- Importance of managing security in SD-WAN
- Evolution of SD-WAN
- Case Study

DURATION 2 days

MAXIMUM CLASS SIZE 12