SD-WAN CERTIFICATION COURSE

Course Duration: 5 days

SD-WAN Market Overview

SD-WAN market is still in its infancy, yet it promises to improve network performance, enable affordable and reliable connectivity to cloud applications, and provide greater visibility and control over network services. Similar to the days before Carrier Ethernet and SDN standardization and professional certification, while there is lot of excitement about performance versus price advantages, greater flexibility etc., there is also a vast need for training and alignment on terminology in order to help enhance deployment and increase market efficiencies. Having skilled professionals, well versed in the emerging standards for SD- WAN is key to enabling ecosystem stakeholders to capitalize on market opportunities

What is SD-WAN?

SD-WAN is a specific application of software-defined networking (SDN) technology applied to WAN connections such as broadband internet, 4G, LTE, or MPLS. It connects enterprise networks, including branch offices and data centers, over large geographic distances.
WAN connections have often employed technology which required special, proprietary hardware. SD- WAN, on the other hand, uses the internet or cloud-native private networks. SD-WAN decouples the network from the management plane and detaches the traffic management and monitoring functions from hardware. It relies on four central components:

- Edge connectivity abstraction
- WAN virtualization
- Policy-driven, centralized management
- Elastic traffic management

Preferred Candidates and Companies

Technical network professionals involved in any or all aspects of advanced network and service planning, design, implementation, technical sales and operations are all candidates including:

- Network Engineer who want to demonstrate their ability to manage SD-WAN systems/
- Operation Engineers
- System Engineers (e.g., Application Engineers etc.)
- Network Engineer Managers
- Network Consulting Engineers
- Product Developers
- Enterprise Solution Designers
- Sales Engineers
- Network Architects
- Product Support and IT Directors

Companies which may benefit from training and certifying their employees as SD-WAN professionals include:

- Communications and Cloud Service Providers planning software-defined and virtualized networks and services
- Large enterprises with digital transformation strategies
- Technology Solution Providers with software-defined and virtualized capabilities
- System integrators and consultants delivering automated, virtualized, multi-vendor solutions to enterprises and SPs

Course Goals and Objectives

- Do we need WAN optimization, and how to implement this function?
- Why is SD-WAN necessary?
- What are the building blocks of SD-WAN?
- What are the benefits of SD-WAN to end-users and enterprises?
- Is SD-WAN a major SDN/NFV application?
- What SD-WAN reference architectures exist?
- Transport-independence of the underlay network
- IP-based virtual overlay network
- How to assure SD-WAN services?
- What is application-driven packet forwarding for SD-WAN connections?
- Ensuring high availability of SD-WAN Services
- Applying policy-based packet forwarding for SD-WAN
- Highlighting the key specifications and standards for SD-WAN
- What are the SD-WAN deployment scenarios?
- Selecting an SD-WAN solution - vendor review
- Next steps for SD-WAN implementation and deployment

Topics Include:

- SD-WAN architecture, network & service components
- SD-WAN service description
- Application flows and policies
- SD-WAN service attributes
- Deploying SD-WAN
- Use cases
- SD-WAN requirements
- SD-WAN challenges
- Advantages of open-source SD-WAN
- SD-WAN as a service
- SD-WAN as a service using orchestration
- SD-WAN vs. traditional MPLS