

# Course Outline

Hands on Labs denoted by Underline

## Day 1

- Architecture Components
- Deploying Control Plane Elements
- Deploy On Prem vManage, vBond & vSmart
- Securing the Control Plane (Local CA)
- Generating Locally Signed Certificates
- ZTP & NAT
- Deploying a ZTP Server
- Onboarding vEdge/wEdge/cEdge Devices
- Onboarding vEdge Cloud Routers
- Onboarding cEdge Routers
- Onboarding physical wEDGE Router (DEMO)

## Day 2

- Cloud Deployment scenarios
- Multi-Tenant Deployment Architectures
- Templates
- Implementing Templates
- Service Side Routing
- Implementing Service Side Routing
- Defining Control Policies
- Implementing Control Policies
- Defining Data Policies
- Implementing Data Policies

## Day 3

- Internet Breakouts
- Implementing Internet Breakouts
- Working with NAT
- Network Address Translation
- AAR
- Implementing AAR Policies
- Serviceability
- Conducting Software Upgrades

## Day 4

- Route Control
- OSPF & BGP Route Control

- TLOC Extension
- Implementing TLOC Extension
- Dual Transport
- Implementing Dual Transport
- Control Plane Traffic Engineering Concepts
- Deploying Traffic Engineering (Control Plane)
- Data Plane Traffic Engineering Concepts
- Deploying Traffic Engineering (Data Plane)
- Multicast
- Implementing Multicast Traffic

## Day 5

- QOS and Monitoring Mechanisms
- Implement QoS
- Implement Mirroring
- Implement cFlowd
- VPN Segmentation
- Implement VPN Segmentation
- Service Chaining
- Deploy a Service Chain
- ACL FW (Data Plane)
- Implement ACL FW
- Zone-Based Firewall
- Deploy Zone-Based Firewalls (cEdge)
- Fabric Programmability and API
- Leveraging Programmability Features