

ID CAMPOPS Price on request Duration 5 days

#### Who should attend

Network engineers and administrators managing campus network infrastructure and responsible for troubleshooting and maintaining campus networks.

#### This course is part of the following Certifications

ACE - L3 - Specialist Campus Operations Wired (ACE-L3-CAMPOPS)

# **Prerequisites**

- Solid understanding of Layer 2/3 network technologies and protocols
- · Understanding of Spine/Leaf designs is a benefit

# **Course Objectives**

At the end of the course, you should be able to:

- Understand the architecture and deployment options of CloudVision in a campus environment.
- Provision and onboard network devices using CloudVision, including Zero Touch Provisioning (ZTP) and Zero Touch Replacement (ZTR).
- Configure and manage campus networks using CloudVision Studios, from initial deployment to day-2 operations.
- Monitor the health and compliance of campus networks using dashboards, events, and topology tools in CVP.
- Perform upgrades, troubleshooting, and monitoring of EOS devices within the CloudVision ecosystem.
- Operate and troubleshoot wireless infrastructure using CV-CUE, including AlOps and telemetry integration.
- Leverage CloudVision and CV-CUE tools for proactive diagnostics and optimization of wired and wireless campus operations.

#### **Course Content**

# **CAMPUS OPERATIONS WITH CLOUDVISION**

#### CloudVision overview

- Why CloudVision
- · Approaches to network automation
- Introduction to CloudVision
- · CVP implementation options

# CloudVision setup

- CVP clustering
- CVP Multi-node OVA installation
- CVaaS initial onboarding
- Upgrading CVP
- CVP backup and restore
- · Getting familiar with CVP interface
- CVP profiles
- CVP help center
- · License key management using CVP
- Lab Navigating CVP

### **CLOUDVISION PROVISIONING**

## **Device registration**

- Connecting devices to CloudVision
- · Manual onboarding

#### **Network provisioning**

- Containers
- Configuration sources
- · Designed and running config
- Configlets
- Tasks and change control
- · Applying configlets to containers
- Reconcile
- Lab Configlets
- Snapshots and staging
- Redesigned change control UI
- Rollback
- Lab Snapshots
- Lab Change Control
- Image repository

#### Zero touch provisioning

- Zero touch provisioning (ZTP)
- Deploying and onboarding vEOS to CVP suing ZTP
- Zero Touch replacement (ZTR)
- Replacing a device using ZTR

### **CLOUDVISION CAMPUS STUDIOS**

#### Studios overview

- Introduction to Studios and Tags
- Workspaces
- · Studio deployment and execution
- Lab Using Studios
- Lab Clean up Studios

#### Studios in action

- New Studios UI
- Static configuring Studio
- Management connectivity Studio
- Software management Studio
- Authentication Studio
- Mirrorina Studio
- Provisioning new devices with ZTP and Studios
- Lab Static configuration Studio

#### Operating L2LS Campus network with CVP Studios

- Onboarding devices to Studios
- Configure L2LS network using Studios
- Configure access interfaces
- Submit workspace and execute change control
- Managing L2LS campus gateway connectivity with Studios
- Add a new VLAN to L2LS campus
- Modifying VLAN settings in L2LS campus
- Connecting new host to L2LS campus
- Lab Deploying L2 Campus with Studios

#### **Campus Zero Touch operations**

- CloudVision Campus dashboard overview
- CloudVision Campus Day 1 Onboarding
- CloudVision Campus Day 2 Provisioning and Diagnostics
- CloudVision endpoint analyzer
- Lab Day 2 operations with L2 Campus Studios

#### Operating L3LS Campus network with CVP Studios

- Configuring L3LS Campus with CVP Studios
- Configuring L2LS Campus with VXLAN and eVPN using Studios
- · Adding new access pods to L3LS Campus

- Adding new spines to L3LS Campus
- Adding new VRFs to L3LS Campus
- Add new VLANs to L3LS Campus
- Modifying VRF and VLAN settings for L3LS Campus
- Changing underlay protocol in L3LS Campus
- Connecting new hosts to L3LS Campus
- Lab Deploying L3LS Campus with VXLAN and eVPN using Studios
- Lab Day 2 operations with L3 Campus Studios

#### MONITORING CAMPUS WITH CVP

# Monitoring devices with CVP

- Network hierarchy
- Compliance overview
- Device input power
- 802.1x details in endpoint search
- · Lab Monitoring Campus with network hierarchy

#### **Dashboards**

- Dashboards overview
- Dashboards enhancements
- Device connectivity health panel dashboard
- · Compliance counts dashboard
- · Syslog filters dashboard
- Dashboard tabs layout
- Exporting and importing dashboards

#### **Events**

- · Events overview
- Event groups
- · Compliance events
- Config sanity check events
- Lab Dashboards and Events

#### **Topology**

- Introduction to topology
- Topology icons and settings
- Custom topology hierarchies
- User defined topology filters
- Lab Topology

#### **EOS OPERATIONS UPGRADES**

# EOS reloads and upgrades

- Understanding EOS upgrades
- Standard upgrade vs smart system upgrade

- Upgrading EOS with CLI
- Upgrading EOS with CVP
- MLAG ISSU upgrade and reload with CLI
- Chassis upgrade and reload
- MLAG upgrade and reload with CVP

# **EOS** monitoring tools

- SNMP
- sFLow
- Watch and Diff commands
- Latency Analyzer (LANZ)
- · Port mirroring

# **Advanced Event Management (AEM)**

- AEM CLI scheduler
- AEM Event monitor
- AEM Event manager
- Lab AEM

#### Troubleshooting EOS hardware and software

- · System and software troubleshooting
- SFP and physical errors
- Arista EOS health checks CLI and CVP
- Hardware troubleshooting
- Memory and flash errors
- Tcpdump and Iperf
- Installing extensions
- · Recovery procedures

#### MANAGING WIRELESS OPERATIONS

## Introduction to CV-CUE

Introducing CV-CUE

# **CV-CUE** operations overview

- CV-CUE features overview
- · Wired and wireless monitoring
- Auto Wi-Fi threat detection and prevention
- Auto network assurance
- Auto issue locationing
- · Auto client connectivity troubleshooting
- · Auto client and network performance issue troubleshooting
- Auto Application troubleshooting
- Lab Navigating CV-CUE

· Hitless AP upgrades

# **CV-CUE AIOps**

- · Explore overview dashboard
- Analyze app experience using the overview dashboard
- Explore feed dashboard
- Perform operations with Cognitive maps
- Map view persona-based workflows
- Floor plan coverage and throughput SLA
- Reactive and proactive troubleshooting
- Monitor Wi-Fi with CUE dashboard
- · Monitor clients with CUE
- Monitor Access Points and RFs with CUE
- Monitor Wi-Fi with Cognitive maps and alerts
- · Proactive Wi-Fi monitoring with client connectivity test
- Monitor Wi-Fi with Map views and feed
- · View and Compare configuration checkpoints
- Lab Monitoring wireless clients
- Lab Monitoring access points

### Wi-Fi visibility with CloudVision

- Monitor devices with CloudVision campus health dashboard
- Telemetry between CVP and CV-CUE

#### **Troubleshoot Wi-Fi issues with CV-CUE**

- Proactive network assurance
- Troubleshoot wrong PSK issue
- Troubleshoot RADIUS access reject issue
- Troubleshoot No DHCP IPv4 address issue
- Troubleshoot Low RSSI and low data rate issues
- Troubleshoot high retry rate issue
- Troubleshoot DNS failures IPv4 issue
- Troubleshot Rogue AP issue
- Day in the life of CV-CUE network operator
- Lab Client connectivity test
- Lab Troubleshoot Client connectivity issues

# **Training Centres worldwide**





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