

Arista Cloud Engineer: CAMPUS

Duration: 5 Day(s)

Course Overview

The ACE Campus course is designed around Arista's cutting-edge Software Defined Cloud Networks architecture. Engineers will learn the Arista campus network architecture and how to implement a WiFi campus network using Arista switches and Access Points (APs).

Engineers will also learn how to use Arista CloudVision Portal to manage the network as a whole, and how to use Arista Cognitive Unified Edge (CUE) (formerly known as CloudVision WiFi) to manage the WiFi network, including viewing, and troubleshooting issues related to WiFi clients, WiFi APs, and the applications running on WiFi networks.

Review this course online at <https://www.alta3.com/courses/ACE: CAMPUS>

Objectives

- Design efficient network architectures using Arista campus solutions.
- Implement advanced WiFi network management with CloudVision Portal.
- Optimize campus network performance through Cognitive Unified Edge techniques.
- Troubleshoot WiFi client and access point issues using Arista tools.

Who Should Attend

- WiFi Network Engineers
- Network Architects
- IT Infrastructure Managers
- System Administrators

Prerequisites

Familiarity with WiFi fundamentals and basic switching/routing. Completion of the course, Certified Wireless Network Administrator (CWNA) would adequately prepare you for this course.

Course Outline

Campus Network Designs

1. Traditional Architectures – Review the traditional core, distribution, and access layer hierarchy
2. Stacking Architectures – Review the traditional switch stacking methodology
3. Traditional Campus Segmentation – Review network segmentation using VLANs and trunking
4. Traditional Campus WiFi – Review the three WLAN planes: Management, Control, and Data
5. Traditional Campus Network Visibility – Review the traditional network monitoring/polling methods
6. Arista Campus Architecture – Start to learn the Arista campus network methodology

Arista Cognitive Campus Network (CCN)

- 7. CCN Guiding Principles
- 8. Arista Cognitive Cloud Network Design for Campus
- 9. Multi-Chassis Link Aggregation (MLAG)
- 10. Arista Campus Architecture
- 11. CCN for Campus Designs
- 12. Cognitive Cloud-based WiFi Solution for the Campus
- 13. Arista Cognitive WiFi Deployment Considerations
- 14. AP Replacement
- 15. Remote Access Point (Hardware VPN)

Configuration Management, Infrastructure Compliance, and Remediation

- 16. The Optimized Campus Enterprise Network
- 17. Intro to CloudVision
- 18. CloudVision Deployment Options
- 19. Zero Touch Provisioning
- 20. Configuration Automation and Templating
- 21. Tasks, Change Control, and Compliance
- 22. Lab 3-1: Use CVP Configlets to configure MLAG
- 23. Automated Software Upgrades with Cloudvision Portal
- 24. Rollback Overview
- 25. Real Time Telemetry, Machine Learning Troubleshooting, and Monitoring
- 26. Alerts, Notifications, and Events
- 27. Device Information
- 28. Enhanced Monitoring
- 29. Using Studios
- 30. Lab 3-2: Explore CVP Capabilities

Segmentation in the Campus

- 31. Network-Based Overlay in the Campus
- 32. VXLAN in the Campus
- 33. Arista AP Tunneling
- 34. VXLAN Recommendations
- 35. VXLAN Configuration
- 36. Lab 4-1: Use CVP Configlets to configure VXLAN
- 37. BGP EVPN
- 38. BGP Control Plane
- 39. EVPN Implementations
- 40. Lab 4-2: Use CVP Configlets to configure EVPN

Automation and Visibility with CV WiFi

- 41. Intro to CloudVision WiFi
- 42. CV WiFi Network Organization
- 43. Lab 5-1: Add a location and floorplan to CV WiFi
- 44. Configuring Service Set Identifiers (SSIDs)
- 45. Lab 5-2: Create an SSID using CV WiFi
- 46. Access Control
- 47. Captive Portal
- 48. RF Optimization
- 49. Traffic Shaping & QoS
- 50. Radio Settings
- 51. AP Deployment
- 52. CloudVision WiFi APIs
- 53. Lab 5-3: Configure Other Settings for an SSID

Best Practices for Network Provisioning, Management, and Automation

- 54. Seamless Network Operations
- 55. Arista WiFi Client Visibility
- 56. Arista WiFi Access Point Visibility
- 57. Client Connectivity Tests
- 58. Application Visibility
- 59. Lab 6-1: Review AP, Client, and Application Visibility Features in CV WiFi
- 60. Protecting the Campus Network
- 61. Campus Access Control