Arista Cloud Engineer: CloudVision Portal (CVP) Specialist (CVP)

ID CVP **Preis** 3.995,– € (exkl. MwSt.) **Dauer** 3 Tage

Kursüberblick

The 3-day CloudVision Portal (CVP) Specialist course provides the understanding and technical skills needed to deploy, operate, and manage CVP. Using numerous hands-on labs, this course explores how CVP is used as a turnkey solution for network-wide workload orchestration, workflow automation, and real-time visibility. network operations. This course provides hands-on activities with CloudVision, Ansible, and Python to demonstrate advanced widgets and change control workflows for day 1 and day 2 data center operations. Additionally, you will examine advanced automation and optimization using CloudVision Studios.

Zielgruppe

This course is suitable for people with at least intermediate-level networking experience and prior knowledge of Python and the basics of Ansible. This course is ideal for students working in network management and automation positions, or looking to advance to such positions.

Kursziele

At the end of this course, you will be able to:

- Present CloudVision Portal CVP and its architecture
- Know the automation requirements of modern networks and especially for the NetOps lifecycle.
- Deploy the CVP solution
- Know, activate and manage the Arista eAPI communication portal
- Introduce CloudVision Portal features like Zero Touch Provisioning (ZTP) and describe its processes, patterns, and provisioning.
- Deploy CloudVision Portal.
- Understand and manage BugAlerts EOL lifecycle, configlets, change control models, image management.
- Know the labels and tags
- Understand and analyze telemetry
- Present and manage CloudVision topology
- Deploy and manage advanced widgets
- Configure automated tasks with the CloudVision Portal in an advanced way with CloudVision Studios, APIs, Python and Ansible with CVP.

Detaillierter Kursinhalt

Overview and Architecture of CloudVision Portal (CVP)

- Introduction to CloudVision
  - Multifunctional NetOps platform
- Automation Landscape
  - Modern Network Automation Requirements
  - Network Automation Approaches
  - Complete automation for the NetOps lifecycle
- Deployment Options
  - On-Premise - Appliance, Virtual
  - Cloud-based - CVaaS
  - Onboarding, Authentication, and Connectivity Requirements for CVaaS
  - Scale - Distribution and Limits
- Communication portal
  - Arista eAPI
  - Controlling an EOS environment
  - eAPI interfaces: Python, Ansible, Browser
  - Enabling eAPI
  - Streaming Agent - TerminAttr
  - eAPI on TerminAttr with gRPC connections
  - eAPI on TerminAttr - Warnings

CloudVision Portal - Features

- Zero Touch Provisioning (ZTP) from CloudVision
  - Processes, models, provisioning
  - DHCP server on CVP cluster
  - DHCP Setup
  - Bootstrap ZTP with CVP
  - Contactless replacement
- Initial deployment
  - Initial Switch Deployment
  - AAA protocols - RADIUS, TACACS
  - Creating a new role, RBAC roles
  - User Management
  - Adding EOS Images to CVP, EOS Lifecycle
- EOL BugAlert lifecycle
- Configurations
- Change control models; snapshots; backtrack
- Image management

- Devices view
  - Inventory, sorting and search / filter
  - Removal of provisioning and decommissioning
  - Provisioning and adding to provisioning
  - SSH to device
  - Information about the tunnels in the next hop
  - Compare Options - VXLAN Table, Routing Table
- Labels and tags
  - Value associated with devices
  - Used in topology view and dashboards.
  - Custom labels
  - Interface markup UI
- Telemetry
  - Status streaming or polling
  - SysDB, NetDB, NetDL
  - TerminAttr - Streaming Telemetry Agent
  - Continuous analysis
- CloudVision Topology View
  - Visibility from customer to cloud
  - VXLAN filters and overlay
  - IPSEC tunnels
  - Layout of cloud-hosted devices
  - Updating Third-Party Devices
- Advanced Widgets
  - Customizable dashboards
  - Export dashboards as images for reports
  - Browse and create dashboards
  - Device Comparison
  - Create a new widget - Inputs, Topology, NQA
  - Troubleshooting with CLI and CVP
  - Predictive analysis
  - Visibility of flows
  - Behavioral baselines, deviation notifications
  - Address search

CloudVision Portal - Advanced Automation

- Introduction to CloudVision Studios
  - Concept of CloudVision Studios
  - Studio Types - Specialized, Integrated, Custom/User
  - Studios - Workspaces
  - Point-and-click workflow for DC configuration automation
  - Inventory and Topology Studio
  - Studio L3 Leaf-Spine Fabric - DC, PODs
- Ansible Portal and CloudVision
  - Ansible basics
  - Ansible as a configuration builder
  - Integration of Ansible and EOS
  - Arista CVP-Collection
  - Arista Validated Design by Ansible (AVD)
  - Inventory file
  - Ansible Arista modules, data structure
  - Playbooks - Scaling with Ansible
- Python
  - Basics of Python scripting
  - Python interpreter
  - Configlet builder with Python
  - Configlet Builder with Python for EVPN
  - Maths and strings
  - If/Else - Making Decisions
  - Loops
  - File operations
  - Functions
  - Modules
  - Python with EOS
- Using APIs, Python, and Ansible with CVP
  - Access to the online API library
  - Access to REST API
  - CVP API command script
  - CVP API script to authenticate
- Creating a Configlet Constructor in Python for EVPN Deployments
  - Process, requirements, configuration
- Python code
  - VLAN database, SVI/Anycast gateway, VTI, BGP configuration
- Advanced studios
  - EVPN Services Workflow
  - Build and Submit Workspace
  - Interface Manager Workflow
  - Creation / Modification of studios
  - Create a model
  - Configlet builder vs. Jinja2 vs. Mako

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