Orchestrating Distributed Services with the CX 10000 Series

Course Description

This 2-day course teaches students how the HPE Aruba Networking CX 10000 Series with Pensando can improve data center network (DCN) security and performance. Students will learn why the CX 10000 is unique and how its placement in the DCN will dynamically change the performance and security. Students will learn how and where to install the CX 10000. Through the HPE Aruba Networking Fabric Composer, students will create and configure their entire network, as well as create and apply policy, including micro-segmentation. Using AMD Pensando PSM, students will understand how it integrates with Fabric Composer and the CX 10000, and they will be able to monitor switches and policy performance.

Course Duration:

2 days

Prerequisites:

No prerequisites.

Objectives:

After you successfully complete this course, expect to be able to:

- o Define CX 10000 switch features that improve network performance, security and design
- o Install and Deploy Aruba Fabric Composer and AMD Pensando PSM
- o Operate navigation menus within Aruba Fabric Composer and AMD Pensando PSM
- o Create and Manage Network using Aruba Fabric Composer
- o Implement Policy and micro segmentation using Aruba Fabric Composer and AMD Pensando PSM
- o Utilize analytics gathered by telemetry to view network health, configuration, alerts and create charts.

Course Outline:

- ▪ **CX 10000 Product Overview**

  - o Understanding the challenge
  - o Identifying the solution
  - o Three main components of the CX 10000
  - o Physical product specifications
  - o Product details
  - o Key attributes

- **Installation and Setup of HPE Aruba Networking Fabric Composer and AMD Pensando PSM**

    o Hardware requirements
    o Supported platforms
    o HPE Aruba Networking Fabric Composer Licensing
    o PSM deployment
        ▪ PSM user authentication policy
        ▪ Create PSM users with appropriate roles

- DSS configuration

- **HPE Aruba Networking Fabric Composer Overview and Navigation**

    o Data center networks overview
    o HPE Aruba Networking Fabric Composer key features and benefits
    o CX portfolio orchestrated by HPE Aruba Networking Fabric Composer
    o Understanding fabrics
    o HPE Aruba Networking Fabric Composer navigation
        ▪ Menu bar and icons
        ▪ Customizing dashboard
        ▪ Configuration, maintenance, and Visualization menu
        ▪ User management, system settings, and backup

- **Managing Network Services with HPE Aruba Networking Fabric Composer**

    o Switch management
        ▪ Switch actions
        ▪ Editing switch config
        ▪ Switch ports
        ▪ Switch upgrade
    o NTP configuration
    o DNS workflow and configuration
    o VSX configuration
    o Leaf and spine
        ▪ L2 leaf-spine underlay
        ▪ L3 leaf-spine overlay
    o Creating and assigning VLANs
    o Creating IP interfaces
    o Provisioning EVPNs

- **Managing Security with HPE Aruba Networking Fabric Composer**

    o   Stateful versus stateless firewalls- What's the difference?
    o   Building policy
        ▪   Policy building blocks (Service Qualifiers, applications, endpoint groups, and rules)
        ▪   Policy direction
    o   3rd party integrations
        ▪   VMWare vSphere, Nutanix, HPE SimPlivity, etc.
    o   HPE Aruba Networking Fabric Composer and Pensando PSM integration
    o   Virtual Routing and Forwarding (VRF)
    o   PVLANs and microsegmentation

- **AMD Pensando PSM Overview and Navigation**

    o   PSM key terms
    o   PSM object model
    o   PSM menus and navigation
        ▪   Dashboard
        ▪   System menu navigation
        ▪   Tenants menu navigation
        ▪   Workload navigation
        ▪   Monitoring menu navigation
        ▪   Search function
    o   Server certificate
    o   API capture
    o   Configuration snapshots

- **Managing Security with AMD Pensando PSM (Brownfield)**

    o   Firewall policy functionality and configuration
        ▪   Firewall profile
        ▪   VSX and firewall high availability
        ▪   Network security policy
        ▪   Understanding firewall policy scaling profiles
        ▪   Enable/ disable individual firewalls
    o   Apps

- **Network Monitoring**
  - HPE Aruba Networking Fabric Composer
    - Visualization hosts
    - Network
    - Statistics visualization
    - Firewall policy logs
    - Firewall profiles
  - AMD Pensando PSM
    - Dashboard and DSS health
    - Firewall export policies
    - Firewall profiles
    - Firewall logs
    - Alerts, events, and audit events
    - Metric charts

Who Should Attend

Ideal candidates are data center networking professionals such as Data Center Network Architects and Engineers, Server Administrators, or individuals responsible for network security and compliance who want a cost-effective solution to secure their data center network while simplifying scale and growth, rapid fabric deployments, enhance visibility and control, remove bottlenecks and boost network performance.