Implementing Data Center Networks (IDCN)

ID IDCN **Prix** US $ 4 800,– (Hors Taxe) **Durée** 5 jours

A qui s'adresse cette formation

Typical candidates for this course are network professionals responsible for planning, implementing, and supporting data center networking infrastructure.

Cette formation prépare à la/aux certifications

HPE Aruba Networking Certified Professional - Data Center (ACP-DC)

Pré-requis

Aruba suggests these courses as prerequisites :

- AOS-CX Switching Fundamentals (CXSF) &
- Implementing AOS-CX Switching (ICXS)

Or

- Campus Access Fundamentals (ACAF)
- Implementing Campus Access (IACA)

Objectifs

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

- Describe data center (DC) networking requirements and typical use cases for the HPE Aruba Networking portfolio in this environment.
- List common methods for deploying AOS-CX switches into data centers.
- Explain the technologies and frequent configurations used in an L2 collapsed core and spine and leaf DC implementations.
- Identify monitoring and troubleshooting options from HPE for data center networks.
- Recognize possible optimizations for DC switch configurations.
- Implement security policy for your data center network.
- Design and validate a data center network.
- Deploy HPE Aruba Networking data center switches into greenfield or brownfield network environments.
- Integrate HPE Aruba Networking data center switches with other products, such as servers, storage, hypervisors, and so forth, from HPE or 3rd party vendors.
- Troubleshoot, monitor, and maintain data center networks.

Contenu

Introduction to data center networks

- Define data center networks
- Discuss common drivers for data center networks
- Distinguish common data center network requirements
- Differentiate data center versus campus networks

Data center network products and technologies

- Introduce HPE Aruba Networking data center products and technologies
- Compare the data center management options and advantages
- Deployment models, products, and technologies
- List and demonstrate connection high availability, fault tolerance and load balancing

Data center network design

- Define requirements for data center network design
- Introduce data center network design
- Describe data center policy design
- Compare the data center management options and advantages
- Demonstrate the supported HPE Aruba Data Center Reference Architectures

Switch provisioning and staging

- Switch staging options
- Manual provisioning
- ZTP provisioning
- Remote management

Layer 2 collapsed core

- Debate the L2 collapsed core solution and advantages
- Describe the components of the solution

Switch virtualization and stacking

- List HPE Aruba Networking switch virtualization and stacking options and their characteristics
- Explain the difference between stacking and virtualization and their use cases on DCN
- Describe HPE Aruba Networking VSX technology
- Explain how VSX could be deployed in a data center
- Examine the usage and benefits of VSX in a data center

Loop prevention

- Link aggregation group (LAG) and multi-chassis LAG
- Load balancing
- Spanning tree protocols
- Redundant network links:
  - Multiple Spanning Tree Protocol
  - Loop protect
  - Rapid Ring Protection Protocol

Virtual Routing and Forwarding (VRF)

- Describe the concepts behind VRF
- Explain VRF features
- Demonstrate common use cases for VRF
- Configure and maintain an AOS-CX switch running multiple VRFs

Leaf spine networks

- Debate the spine and leaf solution and advantages
- Describe the components of the solution

Virtual Extensible VLAN (VXLAN)

- Describe the VXLAN feature
- Describe basic VXLAN operations
- Describe the MAC learning process in a VXLAN
- Describe virtual VXLAN to physical VLAN network integration
- Explain the basic configuration of a VXLAN tunnel

EVPN

- Introduce EVPN concepts and use cases
- Explain the EVPN configuration process
- Describe EVPN monitoring and troubleshooting
- Optimize the EVPN environment with ARP and ND suppression
- Describe the EVPN fabric configuration steps to handle multicast traffic
- Explain IPv6 EVPN overlay over an IPv4 underlay configuration

Aruba Fabric Composer

- Define the purpose of Aruba Fabric Composer
- Navigate menus and identify icons
- Manage network services using Guided Set Up
- Explain the benefits of integrating Aruba Fabric Composer with VMware vSphere, HPE ILO, and Pensando Policy Service Manager
- Integrate Aruba Fabric Composer with VMware products and solutions
- Integrate Aruba Fabric Composer with HPE iLO to configure, monitor securely, and update your HPE servers
- Integrate Aruba Fabric Composer with Pensando Policy Services Manager to set up policy for securing your network

Securing the data center with the Aruba CX 10000 Switch

- Define and describe 10K Switch features that improve network performance, security and design
- Manage network services with Aruba Fabric Composer
- Implement policy and network segmentation using Aruba Fabric Composer or Pensando Policy Service Manager
- Utilize analytics gathered by telemetry to view network configuration and view alerts

Data center bridging (DCB)

- Describe DCB and IP ECN
- Configure DCB and IP ECN
- Describe DCB monitoring options

Network Analytics Engine (NAE)

- Describe NAE use cases to monitor and troubleshoot the network.
- Describe NAE agents
- Describe NAE troubleshooting

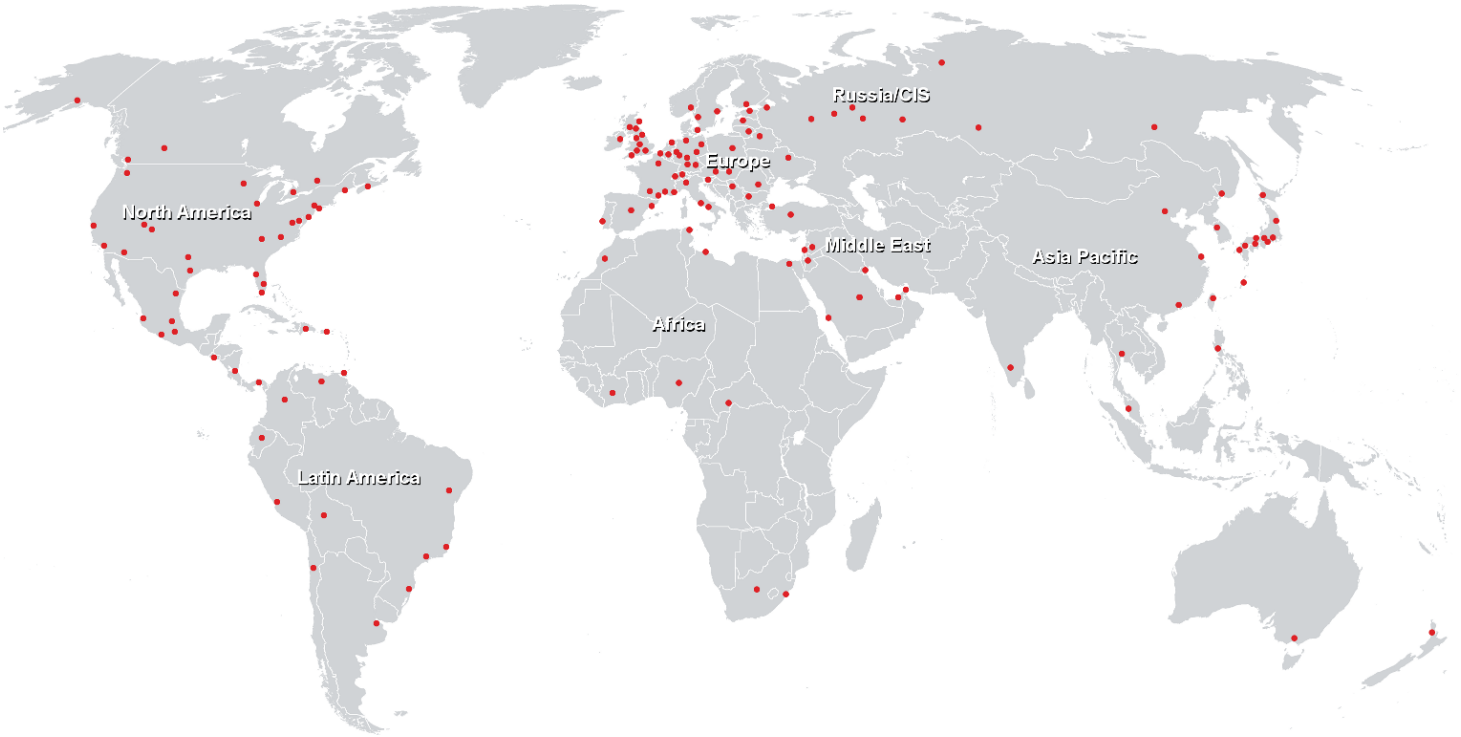
REST API

- Describe the need for the API
- List the REST API features and functions
- Demonstrate an AOS-CX REST API use case

Aruba Central on Prem (COP)

- Describe COP
- Explain COP use cases for DCN

Centres de formation dans le monde entier





Fast Lane Institute for Knowledge Transfer (Switzerland) AG

Husacherstrasse 3
CH-8304 Wallisellen
Tel. +41 44 832 50 80

info@flane.ch, https://www.flane.ch