

Kursinformationen



AR-CXF - ArubaOS-CX Switching Fundamentals

Diese Kurs ersetzt den Kurs ASF-Aruba Switching Fundamentals!

This course teaches you the fundamental skills necessary to configure and manage modern, open standards-based networking solutions using Aruba's OS-CX routing and switching technologies.

ARUBA Kurse führen wir mit unserem zertifizierten Partner der Fast Lane GmbH durch.

Listenpreis 3.890,00 € exkl. MwSt 4.629,10 € inkl. MwSt	Leistungen Präsenz • Schulung im Trainingscenter • Verpflegung • Teilnahmebestätigung / Zertifikat	Ihre Ansprechpartnerin  Gabriela Bücherl Geschäftsführung Vertrieb
Dauer 5 Tage	Leistungen bei VCL Training • Technischer Support • Online Zugang • Teilnahmebestätigung / Zertifikat	Kontakt/Fragen: g.buecherl@cbt-training.de Telefon: +49 (0)89-4576918-16
Gebühr für Prüfungen/Examen 260,00 € exkl. MwSt / 309,40 € inkl. MwSt		

Inhalte

- Network Fundamentals
 - What is a network?
 - What is a Protocol?
 - OSI Reference Model
 - Encapsulation, frames, packets, segments
 - Layer 2 to Layer 7 headers
 - Media, cabling, Ethernet/wifi headers
 - Binary/Hex/Decimal theory and conversion
 - TCP/IP Stack (IP addressing & Transport Protocols TCP/UDP)
 - Types of traffic: Unicast, Broadcast, Multicast
- TCP/IP Stack
 - Overview
- Ethernet frames
 - IPv4 Header
 - TCP Header ? Three-way Handshake
 - TCP Header ? Sequence Numbers
 - TCP Header ? Port Numbers
 - TCP Header
 - UDP Header
- Basic Networking with Aruba Solutions
 - Networking devices: Switches, Routers, Multilayer Switches, APs, Mobility Controllers, Firewalls, Servers (HTTP, DHCP, DNS, Telnet, FTP)
 - 2-Tier vs 3-Tier hierarchy
 - Switching Portfolio (AOS switches & AOS-CX switches) is this introducing both portfolio on a couple of slide and few slides on AOS-CX
 - hardware architecture, software architecture and intro to NAE high level.
 - Introduction to AOS-CX and feature set
 - Port numbering
 - Accessing Aruba OS-CX CLI
 - Prompt modes/levels and navigation

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- Context sensitive help
- Show logs, configuration, interfaces, transceivers, flash, version
- Hostname/interface name, enabling interfaces
- Link Layer Discovery Protocol
- ICMP and reachability testing tools: Ping and Traceroute
- PoE (standards one slide and what we support and one or two slide on configuration and verifications.)
- **VLANs**
 - Broadcast/collision domains
 - VLAN benefits
 - VLAN creation
 - DHCP server configuration in switches (optional)
 - 802.1Q tagging
 - Switchports vs. Routed ports
 - MAC address table
 - ARP table
 - Packet Delivery part 1
- **Spanning Tree Protocol**
 - Redundant network
 - L2 loops
 - 802.1D
 - Common Spanning Tree
 - 802.1s
 - 802.1w overview
 - 802.1w load balancing
 - 802.1w region configuration
- **Link Aggregation**
 - Static Aggregation
 - LACP
 - Load Balancing
- **IP Routing - Part 1**
 - Default Gateway
 - DHCP IP Helper Address
 - IP Routing Service
 - Inter-VLAN routing
 - Packet Delivery Part 2
 - Need for layer 3 redundancy
 - Introduction to VRF
- **VRRP**
 - VRRP overview
 - VRRP basic operation
 - VRRP failover and preempt
 - VRRP and MSTP coordination
- **IP Routing - Part 2**
 - Subnetting
 - CIDR
 - Static routes
 - Administrative Distance
 - Floating routes
 - Scalability issues
- **IP Routing - Part 3**
 - IGP vs EGP
 - Distance Vector vs Link State
 - OSPF Router-ID and Hello Messages
 - Passive interfaces

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- States
- DR and BDR
- LSDB: LSA 1 and 2
- Path selection and convergence
- Using cost to manipulate routes
- **Stacking**
 - Control Plane, Management Plane, and Data Plane
 - Introduction to Stacking technologies
 - Stacking Benefits
 - Centralized control and management plane
 - Distributed Data Plane and Distributed Link Aggregation
 - VSF
 - VSF requirements
 - VSF Link and member roles
 - VSF member IDs and port numbers
 - VSF Configuration
 - VSF Provisioning use cases
 - Tracing Layer 2 traffic: Unicast
 - Tracing Layer 2 traffic: Broadcast, Multicast, and Unknown Unicast
 - VSF Failover and OSFP Graceful-Restart
 - VSF Link failure without MAD
 - MAD
 - VSX Introduction
- **Secure Management and Maintenance**
 - OOBM port
 - Management VRF
 - Secure Management Protocols: AAA, SSH, HTTPS, RBAC
 - Radius-based management auth (VSA)
 - SNMP
 - Web interface
 - Configuration file management (Backup, restore, checkpoint and roll back)
 - Operating System image management (backup and restore)
 - Factory default/password recovery
- **AOS-CX Management tools**
 - Intro to NetEdit
 - NetEdit installation
 - Basic monitoring with NetEdit
 - AOS-CX Mobile App

Ziele

Zielgruppe

Netzwerkadministratoren welche Netzwerke von kleinen und mittelständischen Unternehmen betreuen, basierend auf Aruba Produkten und Technologien.

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Voraussetzungen

Keine

Prüfung/Zertifizierung

Vorbereitung auf die Prüfung HPE6-A72, die zur ACSA Zertifizierung führt.
