HPE Trainings

Technical certifications & credentials

Click the digital badges to get access training and exam details

HPE Aruba Networking Certifications | **Credentials**

Career Certifications

	Architect	Campus Access	Data Center	Network Security	Switching
Expert ⓘ Min. 3-5 years of experience in technology area.	Hewlett Packard Enterprise – Architect – Campus Access – HPE Aruba Networking Certified Hewlett Packard Enterprise – Architect – Data Center – HPE Aruba Networking Certified	Hewlett Packard Enterprise – Expert – Campus Access Mobility – HPE Aruba Networking Certified Hewlett Packard Enterprise – Expert – Campus Access Switching – HPE Aruba Networking Certified		Hewlett Packard Enterprise – Expert – Network Security – HPE Aruba Networking Certified	Hewlett Packard Enterprise – Expert – Switching – HPE Aruba Networking Certified
Professional ⓘ Min. 1-3 years of experience in technology area.		Hewlett Packard Enterprise – Professional – Campus Access – HPE Aruba Networking Certified	Hewlett Packard Enterprise – Professional – Data Center – HPE Aruba Networking Certified	Hewlett Packard Enterprise – Professional – Network Security – HPE Aruba Networking Certified	Hewlett Packard Enterprise – Professional – Switching – HPE Aruba Networking Certified
Associate ⓘ Min. 6 months of experience in technology area.		Hewlett Packard Enterprise – Associate – Campus Access – HPE Aruba Networking Certified		Hewlett Packard Enterprise – Associate – Network Security – HPE Aruba Networking Certified	Hewlett Packard Enterprise – Associate – Switching – HPE Aruba Networking Certified

Advanced Product Certifications

Those new certifications replace the HPE Aruba Networking Product Specialist (APS) credentials, validating your in-depth knowledge in HPE Aruba Networking products.

Hewlett Packard Enterprise – Advanced Product – ClearPass – HPE Aruba Networking Certified

Hewlett Packard Enterprise – Advanced Product – Comware – HPE Aruba Networking Certified

Hewlett Packard Enterprise – Advanced Product – CX 10000 – HPE Aruba Networking Certified

Entry-level Certifications

This entry-level certification is targeted to candidates with little to no experience with computer networking.

Hewlett Packard Enterprise – Technician – Network – HPE Aruba Networking Certified

Switching

HPE Associate Switching

Course Training

Summary

Course ID	0001208242
Course format, Typical duration	**Select one:** VILT - Virtual Instructor Led, 5 days ILT - Instructor Led, 5 days
Skill level	Entry (ENT)
Delivery languages	English
Lab required	Yes
Related certifications	HPE Aruba Networking Certified Associate - Switching
In preparation for these exams	Selected items from this course are included in these exams: HPE Network Switching Associate Exam
Additional study materials	HPE Aruba Networking Certified Associate - Switching Study Guide (HPE6-A86)

Details

Ideal candidate for this course

The ideal candidate is someone starting a career as a networking IT professional. They have six months of experience in the field. Supporting or operating limited-scope wired network used in SMB, edge, and simple core environments. They are the junior member of the IT Operations team.

Suggested prerequisites

It is highly recommended that candidates already have basic knowledge of networking (knowing the OSI model, IP addressing, basic routing, etc.). The Aruba Certified Network Technician (ACNT) course and certification is the perfect primer for this course. The ACNT certification validates that you understand the different aspects of campus access both wireless and wired methodologies.

Topics:

- **AOS-CX Switching Portfolio**
  - Network designs
  - Switching Portfolio
- **Switching Fundamentals**
  - Switching contexts
  - Command Line Interface (CLI)
  - Basic configuration
- **VLANs**
  - Domains - Collision and broadcast
  - LANs and VLANs
  - 802.1Q
  - Forwarding Tables
- **Spanning Tree**
  - Purpose
  - Redundant networks
  - Spanning Tree Protocol (STP)
  - Rapid Spanning Tree Protocol (RSTP)
  - Multiple Spanning Tree Protocol (MSTP)
- **Link Aggregation**
  - Overview and interface requirements
  - Static and dynamic LAGs
  - Load sharing
- **Switch Stacking and Extension**
  - Operational planes
  - Virtual Switching Framework (VSF)
- **Layer 3 Routing**
  - Intro to routing
  - IP routes and default gateways
  - Inter-VLAN routing
  - Packet delivery
- **IP Routing Fundamentals**
  - Principles of routing
  - Routing tables
  - Routing protocols
- **Dynamic IP Routing**
  - Intro to OSPFv2

    - Neighbor relationships
    - OSPF network types
- **Quality of Service**
    - Intro to Quality of Service (QoS)
    - Packet classification and marking
    - Queuing
    - Rate Limiting
- **Network Security Fundamentals**
    - Security fundamentals
    - Port access
    - Captive Portal
- **Secure Management and Maintenance**
    - Secure management
    - Maintenance

EXAM:

Requirements for candidates new to this certification

There are no prerequisites for this path.

Requirement 1 - Complete:

HPE Network Switching Associate Exam
Exam HPE6-A86
Register for this Exam

Recommended Training
AOS-CX Switching Fundamentals, Rev. 24.31
Course 0001208242
Register for this Course

Summary

Exam ID	HPE6-A86
Exam type	Proctored
Exam duration	1 hour 30 minutes
Exam length	60 questions
Passing score	73%
Delivery languages	English
Additional study materials	HPE Aruba Networking Certified Associate - Switching Study Guide (HPE6-A86)

Details

Ideal candidate

Typical candidates for this exam are HPE customers, partners, and team members with at least six months of experience working as a junior team member who supports and maintains wired networks or works independently on limited-scope projects.

Examples of job roles include network operator, tier 1/2 support, support technician, field technician, and network administrator.

Exam contents

This exam has 60 questions.

Advice to help you take this exam

- Complete Aruba Certified Network Technician certification to obtain basic knowledge of networking
- Complete the training and review all course materials and documents before you take the exam
- Exam items are based on expected knowledge acquired from job experience, an expected level of industry standard knowledge, or other prerequisites (events, supplemental materials, etc.)
- Successful completion of the course or study materials alone, does not ensure you will pass the exam

Objectives

This exam validates that you can:

Percentage of Exam	Sections/Objectives
24%	1. Identify, describe, and apply foundational networking architectures and technologies. • 1.1 Describe and explain the OSI Model. (2%) • 1.2 Describe and explain the most common layer media (Layer 1). (2%) • 1.3 Describe the basics of Layer 2 Ethernet, including broadcast domains. (3%) • 1.4 Describe the basics of Layer 3 addressing, including subnetting, ARP, and routing. (4%) • 1.5 Define and recognize the purpose and interaction of Layer 4 (Transport) protocols in an IP network. (1%) • 1.6 Identify the role of various network management protocols such as TFTP, SFTP, FTP, Telnet, and SNMPv2 (2%) • 1.7 Identify and describe the concept of QoS and explain its significance in converged networks. (1%) • 1.8 Describe and explain the basic network security setup on HPE Aruba Networking switches. (2%) • 1.9 Describe Layer 2 redundancy technologies such as STP/RSTP and VSF, including their benefits. (2%) • 1.10 Describe and apply link aggregation. (2%) • 1.11 Identify, describe, and explain VLANs (3%)
21%	2. Identify, describe, and differentiate HPE Aruba Networking products' and solutions' functions and features. • 2.1 Identify basic features and management options for HPE Aruba Networking wired products (5%) • 2.2 Identify the software capabilities and differentiators in the HPE Networking switching product line (6%) • 2.3 Identify the hardware capabilities and differentiators in the HPE Networking switching product line (5%) • 2.4 Identify and describe available tool sets for managing HPE Aruba Networking products (CLI-based, web, scripted, SNMP, Aruba Central, mobile app, and API). (5%)
22%	3. Install, configure, set up, and validate wired network solutions. • 3.1 Configure basic features on HPE Aruba Networking switches, including initial settings and management access. (7%) • 3.2 Configure HPE Aruba Networking switches with Layer 2 technologies such as RSTP/MSTP, link aggregation, VLANs, and LLDP. (6%) • 3.3 Configure HPE Aruba Networking switches with Layer 3 technologies including IP addressing, routing (5%) • 3.4 Validate the installed solution via show commands. (4%)
17%	4. Troubleshoot, operate, and maintain HPE Aruba Networking solutions. • 4.1 Troubleshoot switched and routed networks. (10%) • 4.2 Use general troubleshooting tools. (7%)
16%	5. Manage and monitor HPE Aruba Networking solutions. • 5.1 Perform network management and administrative tasks according to best practices. (16%)

HPE Professional Data Center

Course Training

Summary

Course ID	0001205541
Course format, Typical duration	**Select one:** VILT - Virtual Instructor Led, 5 days ILT - Instructor Led, 5 days
Skill level	Advanced (ADV)
Delivery languages	English
Lab required	Yes
Related certifications	HPE Aruba Networking Certified Professional - Data Center
In preparation for these exams	Selected items from this course are included in these exams: HPE Network Data Center Professional Exam

Details

Ideal candidate for this course

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

Suggested prerequisites

- AOS-CX Switching Fundamentals
- Implementing AOS-CX Switching

Or

- Campus Access Fundamentals
- Implementing Campus Access

Topics

- **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
- **HPE Aruba Networking Fabric Composer**
    - Define the purpose of Fabric Composer
    - Navigate menus and identify icons
    - Manage network services using Guided Set Up
    - Explain the benefits of integrating Fabric Composer with VMware vSphere, HPE ILO, and Pensando Policy Service Manager
    - Integrate Fabric Composer with VMware products and solutions
    - Integrate Fabric Composer with HPE iLO to configure, monitor securely, and update your HPE servers
    - Integrate Fabric Composer with Pensando Policy Services Manager to set up policy for securing your network
- **Securing the data center with the HPE Aruba Networking CX 10000 Switch**
    - Define and describe 10K Switch features that improve network performance, security and design
    - Manage network services with HPE Aruba Networking Fabric Composer
    - Implement policy and network segmentation using 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
- **HPE Aruba Networking Central on Prem (COP)**
    - Describe COP
    - Explain COP use cases for DCN

EXAM

Requirements for candidates new to this certification

There are no prerequisites for this path.

Requirement 1 - Complete:

HPE Network Data Center Professional Exam

Exam HPE7-A05

Register for this Exam

Recommended Training

Implementing Data Center Networks, Rev. 23.41

Course 0001205541

Register for this Course

Summary

Exam ID	HPE7-A05
Exam type	Proctored
Exam duration	2 hours
Exam length	75 questions
Passing score	65%
Delivery languages	English, Japanese, Latin American Spanish

Details

Ideal candidate

Typical candidates have a minimum of three years of experience implementing and supporting data center networks.

They can:

- Design and validate data center networks that meet customer requirements.
- Deploy HPE Aruba Data Center Networking switches into greenfield or brownfield network environments.
- Integrate data center networking switches with other products such as servers, storage, hypervisors, etc. from HPE or 3rd party vendors.
- Troubleshoot, monitor, and maintain the data center network.

Exam contents

This exam has 75 questions.

Advice to help you take this exam

- Complete the training and review all course materials and documents before you take the exam.
- Exam items are based on expected knowledge acquired from job experience, an expected level of industry-standard knowledge, or other prerequisites (events, supplemental materials, etc.).
- Successful completion of the course or study materials alone does not ensure you will pass the exam.

Read the entire question and consider all options before you answer. If the question includes an exhibit, study the exhibit and read the question again. Select the answer that fully responds to the question. If the question asks for more than one answer, select all correct answers. There is no partial credit.

Exam policies

Click here to view exam security and retake policies.

Objectives

This exam validates that you can:

Percentage of Exam	Sections/Objectives
14%	1. Plan the low-level design 1.1 Based on a high-level network design, create a low-level design for deployment based on HPE Aruba Networking data center switches 1.2 Based on the low-level design, create and/or validate the BoM 1.3 Determine if the physical environment and data center infrastructure meet the needs of the solution and recommend changes as needed.
13%	2. Install the solution 2.1 Stage the network equipment to enable testing prior to the final installation 2.2 Execute the physical installation of equipment 2.3 Validate the installation
23%	3. Configure the solution 3.1 Using various interface mechanisms, implement the low-level design 3.2 Verify that the configuration meets the design requirements 3.3 Configure monitoring tools
15%	4. Troubleshoot 4.1 Diagnose issues using embedded diagnostic tools 4.2 Determine the severity of issues and develop a plan of action to remediate the problem 4.3 Resolve the issues using the appropriate tools
12%	5. Create a monitored environment 5.1 Use available monitoring and reporting tools to monitor performance, availability, and system resources 5.2 Establish baselines and define alert thresholds 5.3 Generate reports to determine switch and data center health
12%	6. Maintain and optimize 6.1 Monitor HPE and third-party release cycles 6.2 Maintain licenses and subscriptions 6.3 Optimize traffic 6.4 Optimize security 6.5 Optimize automation
11%	7. Integration 7.1 Implement specific switch features that integrate and interoperate with server, storage, workload, and applications

HPE Professional Switching

Summary

Course ID	0001208243
Course format, Typical duration	**Select one:** VILT - Virtual Instructor Led, 5 days ILT - Instructor Led, 5 days
Skill level	Intermediate (INT)
Delivery languages	English
Lab required	Yes
Related certifications	HPE Aruba Networking Certified Professional - Switching
In preparation for these exams	Selected items from this course are included in these exams: HPE Network Switching Professional Exam
Additional study materials	HPE Aruba Networking Certified Professional - Switching Study Guide

Details

Ideal candidate for this course

Typical candidates for this course have experience in advanced level implementation and maintenance of wired solutions. They possess experience assessing and interpreting existing networks and network design documentation. They regularly troubleshoot, resolve issues, and perform ongoing support of large network environments. They have familiarity with wired network security best practices and perform duties independently with at least two years of experience working as a member of the team that supports maintaining multiple campus topologies, edge branches, and data center networks.

Suggested prerequisites

It is highly recommended that candidates already have some advanced knowledge of networking (routing, switching, and security). Candidates are encouraged to have taken the AOS-CX Switching Fundamentals, Rev 24.31 course and achieved the ACA - Switching certification.

Topics

- **Intro to AOS-CX Switching**
  - AOS-CX switch overview
  - Legacy management systems
  - Modern management approach
  - The REST API and URIs
  - NAE and the Time-series database
  - Dynamic Segmentation
  - Always on POE
  - Virtual Output Queuing
- **Virtual Switching eXtension**
  - Virtual switching technologies
  - VSX components
  - VSX synchronization
  - Split brain scenarios
- **Layer 2 Optimization**
  - UDLD
  - Private VLAN
  - Basics of Spanning Tree Protocol
  - RPVST+
- **Advanced OSPF**
  - OSPF overview
  - Multi-area OSPF
  - Route redistribution using ASBRs
  - OSPF area types
  - OSPF redundancy
  - Additional OSPF features

- **Border Gateway Protocol**
  - BGP overview
  - BGP neighbor connections
  - BGP route advertisements
  - BPG route selection metrics and tuning
  - Controlling eBGP routes
- **Additional Layer 3 Features**
  - Virtual routing and forwarding (VRF)
  - Policy-based routing
  - ARP protection
  - DHCP snooping
  - IPsec and NAT
- **IGMP**
  - Multicast introduction
  - IGMP overview
- **Multicast Routing**
  - PIM introduction
  - PIM-DM
  - PIM-SM
  - PIM-SM build-up process
  - BSR mechanism
  - VSX and PIM
- **Access Control Lists**
  - ACL introduction and creation
  - ACL application scenarios
  - Applying ACLs
  - Object groups
  - Classification policies
  - Restrictions and resource utilization
- **802.1X Authentication**
  - Authentication overview
  - 802.1X authentication overview
  - Configuring 802.1X on switch ports
  - RADIUS attributes for the dynamic settings
  - User roles overview
  - Device fingerprinting overview
- **MAC Authentication**
  - MAC authentication overview
  - MAC-auth with multiple clients
  - MACsec overview
- **Dynamic Segmentation**
  - Dynamic Segmentation overview
  - User-based tunneling
  - Configuring UBT
  - UBT with MC cluster
  - Troubleshooting

- **REST API**
  - REST API introduction
  - REST basic concepts
  - Enabling the REST interface on an AOS-CX switch
  - Sending requests to the REST API
  - Accessing the REST API reference interface
  - Use cases and resources
- **Quality of Service**
  - QoS overview
  - Classifying traffic and applying policies
  - LLDP-MED and device profiles
- **Network Analytics Engine (NAE)**
  - NAE overview
  - NAE agents
  - Agent actions
- **Troubleshooting**
  - Troubleshooting overview
  - Troubleshooting principles
  - Components of effective troubleshooting
  - Need for a methodical approach
  - Problem-solving methodology
  - Network troubleshooting tools

EXAM

Summary

Exam ID	HPE7-A08
Exam type	Proctored
Exam duration	2 hours
Exam length	75 questions
Passing score	65%
Delivery languages	English
Additional study materials	HPE Aruba Networking Certified Professional - Switching Study Guide

Requirements for candidates new to this certification

There are no prerequisites for this path.

Requirement 1 - Complete:

HPE Network Switching Professional Exam

Exam HPE7-A08

Register for this Exam

Recommended Training

Implementing AOS-CX Switching, Rev. 24.31

Course 0001208243

Register for this Course

Details

Ideal candidate

Typical candidates for this exam are individuals with at least two years of experience working as a team member that supports and maintains multiple campus topologies, edge branches, and data center networks.

Example job roles such as: network engineer, senior network engineer, network consultant, tier 2/3 support

Exam contents

This exam has 75 questions.

Advice to help you take this exam

- Complete the training and review all course materials and documents before you take the exam.
- Exam items are based on expected knowledge acquired from job experience, an expected level of industry standard knowledge, or other prerequisites (events, supplemental materials, etc.).
- Successful completion of the course or study materials alone, does not ensure you will pass the exam.

Exam policies

Click here to view exam security and retake policies.

Objectives

This exam validates that you can:

Percentage of Exam	Sections/Objectives
18%	1. Create the implementation plan for the wired network solution. • 1.1 Describe the HPE switching portfolio and how each product can be used to solve various customer needs. (8%) • 1.2 Given a design and/or customer requirements scenario, determine an appropriate implementation plan. (10%)
33%	2. Install and configure the wired network solution. • 2.1 Provision HPE Aruba Networking switches in HPE Aruba Networking Central. (3%) • 2.2 Configure HPE Aruba Networking switches directly via CLI (3%) • 2.3 Given an implementation plan, explain how to configure the switches physically. (3%) • 2.4 Given the implementation plan, explain how to configure Layer 2 technologies. (5%) • 2.5 Given an implementation plan, explain how to configure and validate Layer 3 interfaces, services, routing protocols, and overlays. (6%) • 2.6 Explain multicast features and configuration concepts. (2%) • 2.7 Explain HPE Aruba Networking Switch security features and configuration concepts. (4%) • 2.8 Explain QoS HPE Aruba Networking Switch features and configuration concepts. (3%) • 2.9 Explain HPE Aruba Networking solutions integration and configuration concepts. (4%)
27%	3. Troubleshoot the wired network solution. • 3.1 Given a scenario, identify a network failure (IP mismatch, VLAN mismatch, hardware configuration or failure, port configuration). (9%) • 3.2 Determine remediation plan. (9%) • 3.3 Given a scenario, determine the cause of the performance problem (QoS issue, Configuration issue hardware and Software, end node). (9%)
22%	4. Manage, maintain, optimize, and monitor the wired network solution. 4.1 Given a scenario, determine a strategy to implement configuration management (maintenance, auditing, backup, archiving.) (8%) 4.2 Interpret data that represents the operational state of a network and determine the appropriate action. (11%) 4.3 Audit and configure HPE Aruba Networking switches programmatically. (3%)

HPE Architect Data Center

Summary

Course ID	0001204405
Course format, Typical duration	**Select one:** ILT - Instructor Led, 4 days VILT - Virtual Instructor Led, 4 days
Skill level	Intermediate (INT)
Delivery languages	English
Lab required	Yes
Related certifications	HPE Aruba Networking Certified Network Architect - Data Center
In preparation for these exams	Selected items from this course are included in these exams: HPE Network Data Center Architect Exam

Details

Ideal candidate for this course

The ideal candidate for this certification is a senior technical professional. Examples of appropriate experience may include: principal engineer, network consultant, presales consultant, solutions architect, networking SME, network security architect, or technical member from architecture teams.

Suggested prerequisites

It is strongly recommended that the candidate already:

- Holds the Aruba Certified Switching Professional (ACSP) or
- Has taken Implementing ArubaOS-CX Switching, Rev. 20.21
  or
- Has experience deploying HPE Aruba Networking solutions in an enterprise environment.

Topics

- **Discovering Requirments**
  - Identify stakeholders and sponsors
  - Understand the objectives
  - Identify initial environment
  - Collect information
- **Analyze the Requirements**
  - Determine the possible high-level solutions

- Map the requirements into technical solutions
- Analyze requirements and constraints
- Document assumptions
- Determine the options to meet the business needs

- **Architect the Solution**
  - Create preliminary solution
  - Select the correct products
  - Determine network segments and protocols for the design
  - Design security for the network
  - Validate that the design meets the original requirements
- **Prepare and Present the Solution**
  - Create the design documentation
  - Preset the solution
  - Review the solution and modify as needed
  - Deliver the completed solution

EXAM

Requirements for candidates new to this certification

There are no prerequisites for this path.

Requirement 1 - Complete:

HPE Network Data Center Architect Exam
Exam HPE7-A04
Register for this Exam

Recommended Training
Designing HPE Data Center Solutions, Rev. 23.31
Course 0001204405
Register for this Course

Summary

Exam ID	HPE7-A04
Exam type	Proctored
Exam duration	2 hours 30 minutes
Exam length	70 questions
Passing score	65%
Delivery languages	English, Japanese, Latin American Spanish

Details

Ideal candidate
Typical candidates are senior technical professionals such as principal engineers, network consultants, presales consultants, solutions architects, networking SMEs, network security architects, or technical members of an architecture team. Candidates have vast technical knowledge of the products and solutions that may require a migration and/or deployment strategy from/into an existing architecture. They also have extensive experience building solutions and optimizing applications and workloads.

Exam contents
This exam has 70 questions.

Here are types of questions to expect:
Multiple choice (multiple responses), scenario based
Multiple choice (single response), scenario based
Matching
Multiple choice (multiple responses)
Multiple choice (single response)
Drag-and-drop
Scenarios with multiple questions
Pull down menu selection
Point and click

Advice to help you take this exam
- AOS-CX 10.12 is the valid release for all of the questions on this exam.
- Complete the training and review all course materials and documents before you take the exam.
- Exam items are based on expected knowledge acquired from job experience, an expected level of industry-standard knowledge, or other prerequisites (events, supplemental materials, etc.).
- Candidates will be expected to read multiple detailed customer scenarios and respond to questions about designing the Data Center Network for the customer.
- Successful completion of the course or study materials alone does not ensure you will pass the exam.

Exam policies
Click here to view exam security and retake policies.

Objectives

Candidates will be expected to read multiple detailed customer scenarios and respond to questions about designing the Data Center Network for the customer.

Some questions are in a different format than usual. You may see questions with more options than usual to select from or fewer options to select from. Any questions that require more than two correct answers will give partial credit for each option that is correctly selected.

This exam validates that you can:

Percentage of Exam	Sections/Objectives
20%	Discover Requirements 1.1 Identify stakeholders and sponsors 1.2 Understand the objectives 1.3 Identify initial environment 1.4 Collect information
27%	Analyze the Requirements 2.1 Determine the possible high-level solutions 2.2 Map the requirements into technical solutions 2.3 Analyzing requirements and constraints 2.4 Document assumptions 2.5 Determine the options to meet the business needs
32%	Architect the Solution 3.1 Create the preliminary solution 3.2 Select the correct products 3.3 Determine network segments and protocols for the design 3.4 Design security for the network 3.5 Validate that the design meets the original requirements
21%	Prepare and Present the Solution 4.1 Create the design documentation 4.2 Present the solution 4.3 Review the solution and modify it as needed 4.4 Deliver the completed solution

Campus Access

HPE Associate Campus Access

Course Training

Summary

Course ID	0001199937
Course format, Typical duration	**Select one:** VILT - Virtual Instructor Led, 5 days ILT - Instructor Led, 5 days
Skill level	Entry (ENT)
Delivery languages	English
Lab required	Yes
Related certifications	HPE Aruba Networking Certified Associate - Campus Access
In preparation for these exams	Selected items from this course are included in these exams: HPE Network Campus Access Associate Exam
Additional study materials	Aruba Certified Associate - Campus Access Study Guide

Details

Ideal candidate for this course

The ideal candidate has 1+ years of experience with networking, and a vendor-agnostic understanding of basic network protocols. Under the direction of a Professional or Expert, can apply the configuration and verify the status of a campus network.

Suggested prerequisites

It is recommended that candidates have foundational networking experience or attend HPE Aruba Networking's Essentials eLearning series to glean knowledge on HPE Aruba Networking's Campus Access design solution.

TOPICS:

- **Networking Fundamentals**
  - Define networking, LAN, WAN and their components
  - Explain OSI model & encapsulation
  - Discuss different types of physical media
  - Compare unicast, multicast, and broadcast
  - Explain TCP/IP stack
  - Discuss different types of networking devices
- **Switching Fundamentals**
  - Explain how to connect to and access a switch
  - Describe initial switch setup

    - Describe how to and configure VLANs, tagging, and IP addressing
    - Explain how to use LLDP and ICMP for network discovery and diagnosis
    - Explain how to configure link aggregation to improve performance/resiliency
- **Basic IP Setup**
    - Discuss Inter-VLAN routing
    - Explain DHCP relay
    - Discuss static IP routing
    - Explain how to configure single-area OSPF
- **Network Redundancy**
    - Discuss Spanning Tree
    - Explain VRRP and VSX
- **VSF**
    - Describe VSF
    - Explain how to configure VSF
    - Describe Auto-VSF
    - Explain VSF MAD
- **Introduction to HPE Aruba Networking Solutions**
    - Discuss ESP
    - Introduce HPE Aruba Networking switching products
    - Introduce HPE Aruba Networking WLAN portfolio
    - Introduce HPE Aruba Networking Central
    - Introduce HPE Aruba Networking ClearPass
- **Central for Device Management**
    - Explain how to perform device onboarding
    - Describe how to create HPE Aruba Networking Central Groups
    - Describe UI config mode
    - Describe template config mode
    - Describe HPE Aruba Networking Central licensing
- **Device Profiling and AP onboarding**
    - Describe the use of device profiling
    - Describe LLDP and MAC profiling
    - Explain how to connect APs to HPE Aruba Networking Central
    - Explain how to perform initial AP setup
- **WLAN Fundamentals**
    - Describe the fundamentals of 802.11, RF frequencies and channels
    - Explain RF Patterns and coverage including SNR
    - Roaming Standards and QOS requirements
    - Describe aspects of RF design
    - Explains how to configure WLANs
- **Implementing Secure WLANs**
    - Explain AAA
    - Describe 802.1X authentication
    - Explain how to configure secure WLANs
    - Discuss roles and access rules
- **Guest Access**
    - Describe guest access

- Explain how to set up captive portal authentication
- Describe how to configure guest WLANs

- **WLAN Security**
  - Describe WLAN security
  - Explain certificates
  - Describe cloud authentication
- **Monitoring and Maintenance**
  - Explains the use HPE Aruba Networking Central monitoring capabilities
  - Describe how to identify LED status
  - Explain how to perform firmware upgrades
  - Describe how to enable SNMP on devices
  - Describe AI Insights
  - Describe Alerts & Reports
  - Explain UXI
- **Troubleshooting**
  - Describe how to perform password recovery and factory reset procedures
  - Explain HPE Aruba Networking Central connectivity troubleshooting
  - Describe how to enable spectrum analysis
  - Explore HPE Aruba Networking Central troubleshooting tools

EXAM

Requirements for candidates new to this certification

There are no prerequisites for this path.

Requirement 1 - Complete:

HPE Network Campus Access Associate Exam
Exam HPE6-A85
Register for this Exam

Recommended Training
Campus Access Fundamentals, Rev. 22.41
Course 0001199937
Register for this Course

Summary

Exam ID	HPE6-A85
Exam type	Proctored
Exam duration	1 hour 30 minutes
Exam length	60 questions
Passing score	67%
Delivery languages	English, Japanese, Latin American Spanish
Additional study materials	Aruba Certified Associate - Campus Access Study Guide

Objectives

This exam validates that you can:

Percentage of Exam	Sections/Objectives
7%	Network Stack 1.1 Describe and differentiate various OSI Model layers and architectural elements 1.2 Describe and differentiate TCP/IP stack
10%	Connectivity 2.1 Identify foundational networking architectures and technologies. 2.2 Describe network infrastructure deployment
8%	Network Resiliency and virtualization 3.1 Describe mechanisms for resiliency, redundancy, and fault tolerance 3.2 Manage an infrastructure device (AP, gateway, switch)
19%	Switching 4.1 Describe the basics of Layer 2/3 technologies 4.2 Review and apply a campus architecture and elements based on a given template
18%	WLAN 5.1 Describe fundamental RF attributes and wireless functions 5.2 Create a AP GUI configuration group
9%	Routing 6.1 Differentiate between basic routing topologies and functions 6.2 Evaluate and deploy basic routing topologies
9%	Security 7.1 Define fundamental security standards and concepts 7.2 Integrate wireless SSID into an existing ClearPass deployment
6%	Authentication/Authorization 8.1 Describe and differentiate between AAA concepts
7%	Management and Monitoring 9.1 Define and differentiate between common tools used for network monitoring 9.2 Evaluate and interpret UXI test results 9.3 Use Central to monitor network health
4%	Troubleshooting 10.1 Define Basic Troubleshooting methodologies
3%	Performance Optimization 11.1 Describe QoS

HPE Professional Campus Access

Course Training

Summary

Course ID	0001199936
Course format, Typical duration	**Select one:** VILT - Virtual Instructor Led, 5 days ILT - Instructor Led, 5 days
Skill level	Intermediate (INT)
Delivery languages	English
Lab required	Yes
Related certifications	HPE Aruba Networking Certified Professional - Campus Access
In preparation for these exams	Selected items from this course are included in these exams: HPE Network Campus Access Professional Exam
Additional study materials	Aruba Certified Professional - Campus Access Study Guide

Details

Ideal candidate for this course

The ideal candidate has 2 to 5 years experience with the HPE Aruba Networking portfolio and an understanding of the implications of their actions on the network, impact and risk of change management. They have a distinguished understanding of different protocols across vendors, performance optimization across network disciplines, and a basic understanding of API calls and configurations. They can identify and fix configuration issues.

Suggested prerequisites

It is recommended that candidates have proficient networking experience or attend Campus Access Fundamentals to glean knowledge on HPE's Campus Access design solution.

Topics

- Introduction to HPE Aruba Networking Solutions
- Building the Wired infrastructure
- Building the Wireless infrastructure with HPE Aruba Networking gateways
- Introducing the HPE Aruba Networking Tunneled WLAN Architecture
- Wireless Authentication using 802.1X
- Guest or Captive Portal
- Wireless Authentication for IOT PSK SSID
- Gateway Forwarding Modes
- Gateway Cluster Deployments
- Authentication on the Wired access layer
- Building a VXLAN tunnel and use GBP
- Security / Availability features
- Traffic optimization and QOS
- Monitoring
- Troubleshooting

EXAM

Requirements for candidates new to this certification

There are no prerequisites for this path.

Requirement 1 - Complete:

HPE Network Campus Access Professional Exam

Exam HPE7-A01

Register for this Exam

Recommended Training

Implementing Campus Access, Rev. 23.11

Course 0001199936

Register for this Course

Summary

Exam ID	HPE7-A01
Exam type	Proctored
Exam duration	2 hours
Exam length	75 questions
Passing score	68%
Delivery languages	English, Japanese, Latin American Spanish
Additional study materials	Aruba Certified Professional - Campus Access Study Guide

Details

Ideal candidate

The typical candidate for this exam is an NOC Level 2/3 network analyst or network engineer with 2-5 years of experience with the HPE Aruba Networking portfolio and an understanding of the implications of their actions on the network, impact, and risk of change management. They understand vendor protocols, network performance optimization, and a basic understanding of API calls and configuration. They can identify and fix configuration issues.

Exam contents

This exam has 75 questions.

Advice to help you take this exam

- Complete the training and review all course materials and documents before you take the exam.
- Complete the preassessment to determine your readiness for the professional-level course and exam. https://quiz.computerdata.com/laca/laca.html
- Exam items are based on expected knowledge acquired from job experience, an expected level of industry-standard knowledge, or other prerequisites (events, supplemental materials, etc.).
- Successful completion of the course or study materials alone does not ensure you will pass the exam.

Objectives

This exam validates that you can:

Percentage of Exam	Sections/Objectives
4%	Network Stack • Describe and differentiate between 802.11, 802.1, and 802.3 technologies
8%	Connectivity • Implement foundational networking architectures and technologies. • Deploy devices
8%	Network Resiliency and device virtualization • Implement mechanisms for resiliency, redundancy, and fault tolerance
14%	Switching • Implement and validate Layer 2/3 technologies
17%	WLAN • Implement RF attributes and wireless functions • Build a configuration based on customer requirements
13%	Routing • Implement routing topologies and functions
9%	Security • Implement security standards and concepts • Integrate wireless SSID with EAP-TLS
8%	Authentication/Authorization • Implement wired AAA configurations based on customer requirements
6%	Managing and Monitoring • Implement and Analyze the output from common network monitoring tools • Configure Port Mirroring to collect PCAPs • Configure NAE agents • Configuring UXI sensors for internal and external tests • Describe how APIs can be used to configure, manage, monitor, and troubleshoot your network
6%	Troubleshooting • Define and Perform troubleshooting on wired and wireless networks
7%	Performance Optimization • Describe QoS • Implement QoS • Optimize Wireless Performance

HPE Expert Campus Access Mobility

Summary

Course ID	0001203922
Course format, Typical duration	**Select one:** ILT - Instructor Led, 5 days VILT - Virtual Instructor Led, 5 days
Skill level	Advanced (ADV)
Delivery languages	English
Lab required	Yes
Related certifications	HPE Aruba Networking Certified Expert - Campus Access Mobility
In preparation for these exams	Selected items from this course are included in these exams: HPE Campus Access Mobility Expert Written Exam HPE Campus Access Mobility Expert Practical Exam

Details

Ideal candidate for this course

Typical candidates for this course have 5+ years of experience with complex networks, mastery of configuration, and troubleshooting. They are very familiar with HPE Aruba Networking wired and wireless solutions, including the ability to implement and optimize enterprise level HPE Aruba Networking campus access solutions.

Suggested prerequisites

The suggested prerequisite for this course is to attend the Implementing Campus Access, Rev. 23.11 training under Course ID: 0001199936 and/or pass the HPE Network Campus Access Professional Exam under Exam ID: HPE7-A01 acquiring HPE Aruba Networking Certified Professional - Campus Access certification.

Topics

- **Troubleshooting**
  - Diagnostic principles
  - Troubleshooting zone
  - Logs
  - Packet analysis
- **Wired Campus Network**
  - Best practices and recommendations
  - Functional underlay network
  - Central options to configure the wired network
- **Wireless Campus Network**
  - HPE Aruba Networking Gateway cluster
  - Corporate SSID
  - IoT SSID
  - Guest SSID
- **Wired Authentication**
  - AOS-CX user-roles
  - Port authentication
  - HPE Aruba Networking AP authentication
  - User-Role flow and assignation
  - High-availability
  - Troubleshooting
  - Cloud authentication
- **Overlay Network**
  - Centralized Tunnels – UBT
  - Distributed Tunnels – VXLAN

- Distributed Campus-wide fabric
- Securing the Overlay network
- Troubleshooting

- **Network Optimization**
  - Implementing QoS on a campus network
  - User Experience – UXI
  - Other techniques to apply
- **Reporting Information and Network Management**
  - Management access using TACACS+
  - Online reports
  - VisualRF AP coverage
  - Central API interface
  - Postman as API software
  - Webhooks
- **Trouble tickets**

EXAM

Summary

Exam ID	HPE7-A07
Exam type	Proctored
Exam duration	2 hours
Exam length	70 questions
Passing score	67%
Delivery languages	English

Requirements for candidates new to this certification

There are no prerequisites for this path.

Requirement 1 - Complete:

HPE Campus Access Mobility Expert Written Exam

Exam HPE7-A07

Register for this Exam

Recommended Training

Advanced Campus Access for Mobility, Rev. 23.41

Course 0001203922

Register for this Course

Details

Ideal candidate
The typical candidate for this certification is a senior Radio Frequency (RF) network engineer or solutions architect. The ideal candidate has 5+ years of experience with complex wireless networks, mastery of configuration, and troubleshooting.

Exam contents
This exam has 70 questions.

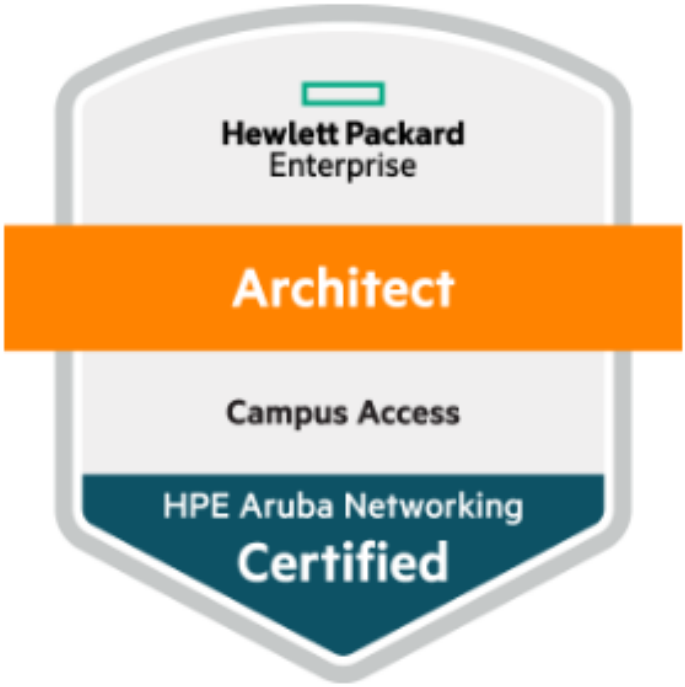
Advice to help you take this exam
- Complete the training and review all course materials and documents before you take the exam.
- Exam items are based on expected knowledge acquired from job experience, an expected level of industry standard knowledge, or other prerequisites (events, supplemental materials, etc.).
- Successful completion of the course or study materials alone, does not ensure you will pass the exam.

Objectives

This exam validates that you can:

Percentage of Exam	Sections/Objectives
4%	Network Stack Given a customer issue, analyze a solution and troubleshoot
9%	Connectivity Develop configurations based on customer requirements Apply advanced networking architectures and technologies Identify problem areas of a design Design and troubleshoot device deployment
6%	Network Resiliency and virtualization Design and troubleshoot mechanisms for resiliency, redundancy, and fault tolerance
10%	Switching Implement, troubleshoot, and remediate Layer 2/3 including broadcast domains and interconnection technologies
25%	WLAN Design and troubleshoot RF attributes and wireless functions Build a configuration based on customer requirements Implement, troubleshoot, and remediate Layer 2 including broadcast domains and interconnection technologies
9%	Routing Design and troubleshoot routing topologies and functions
11%	Security Design and troubleshoot implementation of security and concepts in customer networks Given a scenario, troubleshoot wireless SSID with EAP-TLS Build and troubleshoot GBP
10%	Authentication/Authorization Design and troubleshoot AAA configurations based on requirements Create and analyze ClearPass integration
10%	Troubleshooting Perform advanced troubleshooting and remediation of campus networks
6%	Performance Optimization Analyze and remediate performance issues

HPE Architect Campus Access



Summary

Course ID	0001204406
Course format, Typical duration	**Select one:** ILT - Instructor Led, 4 days VILT - Virtual Instructor Led, 4 days
Skill level	Intermediate (INT)
Delivery languages	English
Lab required	Yes
Related certifications	HPE Aruba Networking Certified Network Architect - Campus Access
In preparation for these exams	Selected items from this course are included in these exams: HPE Network Campus Access Architect Exam

Details

Ideal candidate for this course

We strongly recommended that the candidate have their Campus Access professional level certification (ACP – CA) prior to taking this course and the associated exam. The ideal candidate for this certification is a senior technical professional. Examples of appropriate experience may include: principal engineer, network consultant, presales consultant, solutions architect, networking SME, network security architect, or technical member from architecture teams.

Suggested prerequisites

It is strongly recommended that the candidate already hold the Aruba Certified Switching Professional (ACSP) or have taken Implementing ArubaOS-CX Switching, Rev. 20.21 or have
experience deploying HPE Aruba Networking solutions in an enterprise environment.

Topics

- **Discover Requirements**
  - Define the goals
  - Identify current environment (possible constraints, depending on project)
  - Identify the objectives
  - Collect information
- **Analyze Requirements**
  - Determine possible high-level solutions
  - Map the requirements into technical solutions
  - Evaluate the proposed solution against the known dependencies and project objectives
  - Document assumptions
- **Architect the Solution**
  - Identify the solution options that meet the business needs
  - Design high-level topologies
  - Select the correct products
  - Determine the appropriate overlay and underlay design
  - Validate that the design meets the original requirements
- **Propose the Solution**
  - Create the design documentation
  - Present the solution
  - Create final design

EXAM

Summary

Exam ID	HPE7-A03
Exam type	Proctored
Exam duration	2 hours 30 minutes
Exam length	70 questions
Passing score	67%
Delivery languages	English, Japanese, Latin American Spanish

Requirements for candidate new to this certification

There are no prerequisites for this path.

Requirement 1 - Complete:

HPE Network Campus Access Architect Exam

Exam HPE7-A03

Register for this Exam

Recommended Training

Designing HPE Campus Access Solutions, Rev. 23.31

Course 0001204406

Register for this Course

Details

Ideal candidate

Typical candidates are senior technical professionals such as principal engineers, network consultants, presales consultants, solutions architects, networking SMEs, network security architects, or technical members of an architecture team. Candidates have vast technical knowledge across the products and solutions that may require a migration and/or deployment strategy from/into an existing architecture. Candidates will also have extensive experience building solutions and optimizing applications and workloads.

Exam contents

This exam has 70 questions.

Here are types of questions to expect:

Multiple choice (multiple responses), scenario based
Multiple choice (single response), scenario based
Matching
Multiple choice (multiple responses)
Multiple choice (single response)
Drag-and-drop
Scenarios with multiple questions
Pull down menu selection
Point and click

Advice to help you take this exam

- AOS-CX 10.12 is the valid release for all of the questions on this exam.
- Complete the training and review all course materials and documents before you take the exam.
- Candidates will be expected to read multiple detailed customer scenarios and respond to questions about designing the Campus Access network for each customer.
- Exam items are based on expected knowledge acquired from job experience, an expected level of industry-standard knowledge, or other prerequisites (events, supplemental materials, etc.).
- Successful completion of the course or study materials alone does not ensure you will pass the exam.
- Some multiple select items allow for partial credit to be earned if some but not all correct options are selected.

Exam policies

Click here to view exam security and retake policies.

Objectives

Candidates will be expected to read multiple detailed customer scenarios and respond to questions about designing the Campus Access network for each customer.

Some questions are in a different format than usual. You may see questions with more options than usual to select from or fewer options to select from. Any questions that require more than two correct answers will give partial credit for each option that is correctly selected.

This exam validates that you can:

Percentage of Exam	Sections/Objectives
21%	Discover Requirements 1.1 Define the goals 1.2 Identify the current environment (possible constraints, depending on the project) 1.3 Identify the objectives 1.4 Collect information
26%	Analyze Requirements 2.1 Determine possible high-level solutions 2.2 Map the requirements into technical solutions 2.3 Evaluate the proposed solution against known dependencies and project objectives 2.4 Document assumptions
32%	Architect the Solution 3.1 Identify the solution options that meet the business needs 3.2 Design high-level topologies 3.3 Select the correct products 3.4 Determine the appropriate overlay and underlay design 3.5 Validate that the design meets the original requirements
21%	Propose the Solution 4.1 Create the design documentation 4.2 Present the solution 4.3 Create the final design

Network Security

HPE Associate Network Security

Course Training

Summary

Course ID	0001210364
Course format, Typical duration	**Select one:** VILT - Virtual Instructor Led, 5 days ILT - Instructor Led, 5 days
Skill level	Foundational (FND)
Delivery languages	English
Lab required	Yes
Related certifications	HPE Aruba Networking Certified Associate - Network Security
In preparation for these exams	Selected items from this course are included in these exams: HPE Network Security Associate Exam
Additional study materials	HPE Aruba Networking Certified Network Security Associate, Second Edition (HPE6-A78) Study Guide

Details

Ideal candidate for this course

Typical candidates for this course are network or help desk engineers working in a customer or partner environment with six months to a year of experience in networking in both wired and wireless environments.

Suggested prerequisites

It is highly recommended that candidates have a basic understanding of networking and security concepts before taking this course.

Topics:

- Security Threats and Security Strategy
- Security Technologies
- Hardening AOS-CX Switches
- Hardening AOS Devices
- Secure LAN Protocols
- Network Authentication and Encryption Technologies
- Edge Security with HPE Aruba Networking

EXAM

Requirements for candidates new to this certification

There are no prerequisites for this path.

Requirement 1 - Complete:

HPE Network Security Associate Exam

Exam HPE6-A78

Register for this Exam

Recommended Training

Network Security Fundamentals, Rev. 24.41

Course 0001210364

Register for this Course

Summary

Exam ID	HPE6-A78
Exam type	Proctored
Exam duration	1 hour 30 minutes
Exam length	60 questions
Passing score	63%
Delivery languages	English, Japanese, Latin American Spanish
Additional study materials	HPE Aruba Networking Certified Network Security Associate, Second Edition (HPE6-A78) Study Guide

Objectives

This exam validates that you can:

Percentage of Exam	Sections/Objectives
70%	Protect and Defend • Describe common security threats (MIM, DDOS, spoofing, zero day, etc.) and identify the difference between a threat and a vulnerability. • Explain common security protocols and their use cases • Describe PKI components • Describe firewall (PEF), dynamic segmentation, RBAC, AppRF • Describe user roles and policy enforcement • Explain the purpose and methods of a packet capture • Explain social engineering and defense • Disable insecure protocols and follow best practices for implementing secure management protocols such as SSH, HTTPS, authenticated NTP, and CPsec • Describe best practices to protect network infrastructure devices with passwords, physical security, and out-of-band management. • Use external authentication for network managers • Compare and contrast wireless LAN methodologies • Deploy basic WLAN security Deploy basic WLAN security • Describe and deploy basic user roles for wireless users • Compare and contrast wired LAN methodologies • Define and deploy basic user roles for wired users • Compare endpoint classification methods
24%	Analyze • View and acknowledge WIPS and WIDS, alarms • Explain attack stages and kill chain • Collect logs • Troubleshoot with access tracker • Collect and monitor historical network pattern data • Identify and evaluate discovered endpoints
6%	Investigate • Collect logs • Identify the chain of custody • Initiate an investigation

HPE Professional Network Security

Summary

Course ID	0001210365
Course format, Typical duration	**Select one:** ILT - Instructor Led, 5 days VILT - Virtual Instructor Led, 5 days
Skill level	Intermediate (INT)
Delivery languages	English
Lab required	Yes
Related certifications	HPE Aruba Networking Certified Professional - Network Security
In preparation for these exams	Selected items from this course are included in these exams: HPE Network Security Professional Exam
Additional study materials	HPE Aruba Networking Certified Network Security Professional, Second Edition Study Guide

Details

Ideal candidate for this course

Typical candidates for this course are network engineers responsible for implementing security controls on enterprise networks. Learners can describe the network security stack (firewall, proxy, remote access, IDS/IPS, access control, NTA, UEBA).

Suggested prerequisites

It is strongly recommended that the candidate has attended the HPE Aruba Networking Security Fundamentals course prior to attending this professional level course. Or have equivalent experience and knowledge of network security fundamentals.

Topics

- HPE Aruba Networking Security Strategy and ClearPass Fundamentals
- Deploy Trusted Certificates
- Implement Certificate-Based 802.1X
- Implement Advanced Policies on the Role-Based AOS Firewall
- Evaluate Endpoint Posture
- Implement a Trusted Network Infrastructure
- Implement 802.1X and Role-Based Access Control on AOS-CX
- Implement Dynamic Segmentation on AOS-CX Switches
- Monitor with Network Analytics Engine (NAE)
- Implement WIDS/WIPS

- Use CPPM and Third-Party Integration to Mitigate Threats
- Implement Device Profiling with CPPM
- Device Profiling with HPE Aruba Networking
- Deploy ClearPass Device Insight
- Integrate Device Insight with CPPM
- Use Packet Captures To Investigate Security Issues
- Secure Remote and Branch Access
- Configure HPE Aruba Networking Gateway IDS/IPS
- Use HPE Aruba Networking Central Alerts

EXAM

Summary

Exam ID	HPE7-A02
Exam type	Proctored
Exam duration	1 hour 45 minutes
Exam length	70 questions
Passing score	67%
Delivery languages	English, Japanese, Latin American Spanish
Additional study materials	HPE Aruba Networking Certified Network Security Professional, Second Edition Study Guide

Requirements for candidates new to this certification

There are no prerequisites for this path.

Requirement 1 - Complete:

HPE Network Security Professional Exam
Exam HPE7-A02
Register for this Exam

Recommended Training
Implementing Network Security, Rev. 24.41
Course 0001210365
Register for this Course

Details

Ideal candidate
Typical candidates for this exam are network engineers responsible for implementing security controls on enterprise networks. Candidates can describe the network security stack (firewall, proxy, remote access, IDS/IPS, access control, NTA, UEBA) and have worked from two to three years in networking with a one-year security focus.

Exam contents
This exam has 70 questions.

Advice to help you take this exam
Updates to the certification exam and course went live on October 15, 2024. See Release Notes
- Complete the training and review all course materials and documents before you take the exam.
- Complete the preassessment to determine your readiness for the professional-level course and exam. https://quiz.computerdata.com/ians/ians.html
- Exam items are based on expected knowledge acquired from job experience, an expected level of industry-standard knowledge, or other prerequisites (events, supplemental materials, etc.).
- Successful completion of the course or study materials alone does not ensure you will pass the exam.

Objectives

This exam validates that you can:

Percentage of Exam	Sections/Objectives
26%	**Protect and Defend** Define security terminology • Describe PKI dependencies • Mitigate threats by using CPDI to identify traffic flows and apply tags and CPPM to take actions based on tags • Explain the methods and benefits of profiling • Explain how Aruba solutions apply to different security vectors • Explain Zero Trust Security with Aruba solutions • Explain WIPS and WIDS, as well as describe the Aruba 9x00 Series • Describe log types and levels and use the CPPM ingress event engine to integrate with 3rd party logging solutions • Explain dynamic segmentation, including its benefits and use cases • Explain VPN deployment types and IPsec concepts such as protocols, algorithms, certificate-based authentication with IKE, and reauth intervals
6%	**Protect and Defend** Device hardening • Set up secure authentication and authorization of network infrastructure managers (with a focus on advanced topics such as TACACS+ authorization and multi-factor auth) • Secure L2 and L3 protocols, as well as other network protocols such as SFTP
12%	**Protect and Defend** Secure WLAN • Deploy AAA for WLANs with ClearPass Policy Manager (CPPM) • Define and apply advanced firewall policies (appRF, PEF, WIPS, WebCC, UTM) • Set up integration between the Aruba infrastructure and CPPM, allowing CPPM to take action in response to events • Configure rogue AP detection and mitigation
	Protect and Defend

19%

Secure wired AOS-CX

- Deploy AAA for wired devices with CPPM
- Configure 802.1x Authentication for AP
- Deploy dynamic segmentation
- Deploy certificate-based authentication for users and devices
- Set up integration between the Aruba infrastructure and CPPM, allowing CPPM to take action in response to events

Protect and Defend

5%

Secure the WAN

- Understand that Aruba SD-Branch automates VPN deployment for the WAN
- Design and deploy remote VPN with VIA

Protect and Defend

8%

Endpoint classification

- Deploy and apply endpoint classification to the device
- Define endpoint classification methodology using active and passive methods
- Define, deploy, and integrate ClearPass and CPDI

Analyze

9%

Threat detection

- Investigate Central alerts
- Interpret packet captures
- Recommend action based on the analysis of the Central alerts
- Evaluate endpoint posture

Analyze

6%

Troubleshooting

- Deploy and analyze Network Analytic Engine (NAE) scripts for monitoring and correlation
- Perform packet capture on Aruba infrastructure locally and using Central

Analyze

8%

Endpoint classification

- Analyze endpoint classification data to identify risk
- Analyze endpoint classification data on CPDI

Investigate

1%

Forensics

- Explain CPDI capabilities for showing network conversations on supported Aruba devices