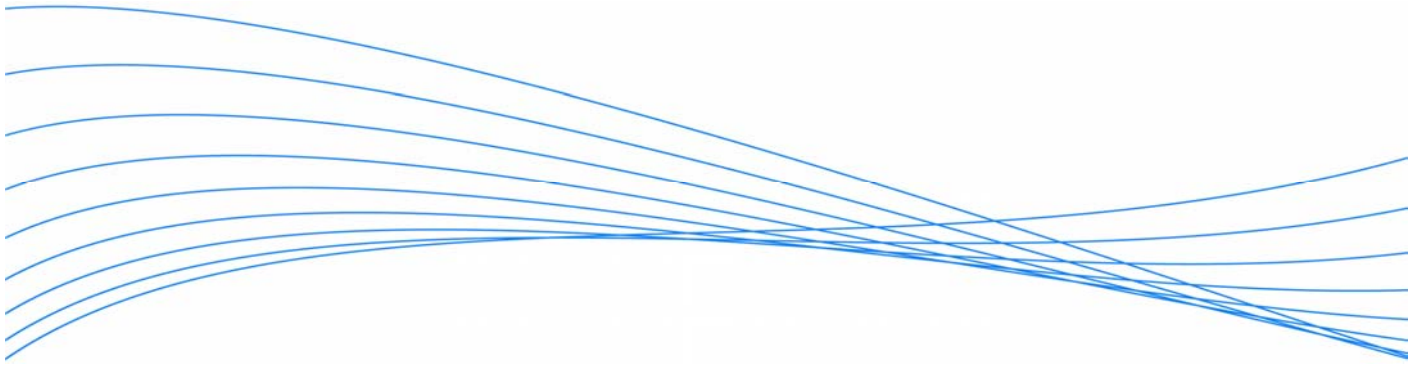


Adaptive EDGE Fundamentals v6.11



At a glance

This course is designed to prepare systems engineers to install, configure, and troubleshoot ProCurve Networking by HP switching, routing and mobility products.

Format offered

- 4-day, instructor-led course
- 40% lecture with 60% labs

Audience

ProCurve Networking channel partner systems engineers or end-user network engineers who deploy network solutions

Prerequisites

ProCurve Networking Primer (available at: <http://www.hp.com/rnd/training/technical/primer.htm>)

eLMS code

32443

Cost

US \$500.00/day. Cost may vary by region.

Certification

This course will prepare the participant for one of the required exams for AIS – ProCurve Networking certification within the HP Certified Professional program. The exam number for ProCurve Networking Adaptive EDGE Fundamentals is HP0-207. For more information on ProCurve Networking training and certification, go to <http://www.hp.com/go/procurvetraining>

Adaptive EDGE Fundamentals (AEF) v6.11

Benefits of attending the course

- Students will gain an understanding of ProCurve's Adaptive Edge Architecture, and learn how to design and implement Adaptive Edge networks.
- Students will get hands on experience performing initial configuration tasks for ProCurve products including Ethernet switches, wireless access points, the Secure Access 700wl series, and the Secure Router 7000dl Series.
- ProCurve Manager (PCM) and ProCurve Manager Plus (PCM+) lecture/labs will provide the students with a basic understanding of managing ProCurve networks.
- Students learn troubleshooting techniques for Ethernet networks and ProCurve products while participating in fun, exciting lab activities, and have the benefit of a trained instructor providing troubleshooting tips and methodologies during the lab activities.
- AEF v6.11 will help prepare the student for the AEF v6.11 exam required for AIS certification. The AIS certification sets the foundation for students to pursue higher ProCurve certifications including the various ASE and MASE specialty tracks.

Student performance objectives

After completing the course, students will be able to:

- Describe basic Ethernet technologies and their relationship to technologies used in contemporary enterprise networks
- Describe IP addresses and IP addressing schemes
- Describe how switches and routers interconnect networks in larger topologies
- Describe VLANs and their basic usage in contemporary networks
- Describe how the ProCurve Adaptive EDGE Architecture™ enables the network to meet an increasing need for bandwidth and functionality
- Specify appropriate solutions for several network connectivity scenarios
- Enable remote management for a ProCurve switch
- Describe the characteristics of the four privilege levels available at the CLI, and how to navigate between them
- Upgrade the firmware on a ProCurve switch
- Configure and implement VLANs
- Describe the features and architecture of ProCurve Manager (PCM) and ProCurve Manager Plus (PCM+)
- Describe the differences between PCM and PCM+
- Describe how ProCurve switches balance traffic over aggregated links and enable port trunking on ProCurve switches
- List the differences between the IEEE 802.1D Spanning Tree, IEEE 802.1w Rapid Spanning Tree, and IEEE 802.1s Multi-instance Spanning Tree protocols and configure the appropriate versions on ProCurve switches
- Describe how HP Switch Meshing can be used to improve availability while increasing capacity within a Layer 2 switched network and how it functions within routed networks
- Describe basic Wide Area Networking technologies and their relationship to technologies used in contemporary enterprise networks
- Configure and troubleshoot a T1 or E1 physical connection and its data-link-layer PPP protocol
- Identify the standards and technologies used to prioritize IP traffic on converged networks
- Identify the technologies and implementations of 802.3af Power-over-Ethernet (PoE)
- Describe the standards and technologies used to manage multicasting
- Describe how ProCurve switches support prioritization, PoE, and multicasting
- Describe the ProCurve family of wireless products
- Describe 802.11 a/b/g fundamentals
- Configure, monitor and manage a ProCurve wireless access point
- Describe how the ProCurve Networking Secure Access 700wl series meets the data privacy and authentication requirements of wireless networks
- Describe how custom access policies, profiles, and traffic filters to meet the needs of specific organizations and users
- List the factors to consider when designing a switched network

- Design an adaptive switched network that supports high performance, high availability, and convergence, based on a set of customer requirements
- Describe a framework for basic network troubleshooting
- Identify tools that can be used to resolve problems with the network.
- Interpret the output from the event log and system status displays

Topics covered

- **Module 1: *Device Configuration and Monitoring*** demonstrates initial configuration procedures for ProCurve switches. After performing the associated lab activities, students will be able to perform basic configuration and monitoring. The second part of this module covers the ProCurve Product Overview which describes the ProCurve Adaptive EDGE Architecture™ and introduces the ProCurve product line.
- **Module 2: *Configuring VLANs*** describes the steps necessary to plan and configure VLANs on HP ProCurve switches. It includes configuring multiple VLAN per device and their layer 2 & 3 characteristics. Topics such as directly connect routes and DHCP helper addresses are also addressed.
- **Module 3: *HP ProCurve Manager and HP ProCurve Manager Plus*** describes how these tools simplify management of a ProCurve network. Topics include installation, configuration, device discovery and performing network monitoring and maintenance using ProCurve Manager Plus.
- **Module 4: *Increasing Capacity and Improving Availability*** describes ProCurve support for link aggregation, Rapid Spanning Tree and Multiple Spanning Tree, and HP Switch Meshing.
- **Module 5: *Introduction to Wide Area Network Configuration*** provides students with a basic overview of wide area networking technologies including a hands-on lab installing and configuring ProCurve Secure WAN Routers. IP Static routing is also covered demonstrating how to interconnect networks using directly connected, static and default routes.
- **Module 6: *Introduction to Dynamic Routing & 10Gb Ethernet*** provides the students with a basic understanding of how to dynamically distribute routes across a network using the RIP protocol. 10Gb Ethernet is also discussed to highlight the technology and the variety of mediums it supports as well as showing implementation examples.
- **Module 7: *Enabling Convergence*** discusses technologies implemented by ProCurve Networking network products to enable traffic prioritization for converged data, voice and video networks. A hands-on lab provides students the opportunity to configure these technologies on their classroom network. Other topics in this module include 802.3af Power over Ethernet (PoE) and guaranteed minimum bandwidth settings.
- **Module 8: *Introduction to Wireless Access and Access Control Configuration*** describes the ProCurve mobility infrastructure solution including basic access point installation and configuration and access control with the Secure Access 700wl series.
- **Module 9: *Network Design and Deployment*** provides a high-level overview of the Layer 2 design process and gives students an opportunity to practice a design methodology.
- **Module 10: *Network Troubleshooting*** describes basic troubleshooting techniques and tips for ProCurve switches, routers and access points.

To find out more about ProCurve Networking products and solutions, visit our web site at

www.hp.com/go/procurve



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