Training: Extreme Networks
Extreme Platform ONE™ - Wireless - Advanced Configuration

TRAINING GOALS:

This two-day instructor-led course provides the knowledge and hands-on skills required to configure, install, deploy, and validate the advanced capabilities of a network managed with Extreme Platform ONE. It picks up where the Install & Configuration course ends and takes engineers deep into the services a real deployment depends on — RADIUS/AAA and certificate infrastructure, identity federation and SSO, SPBM fabric and Auto-Sense, Layer 3 and advanced network services, advanced wireless authentication, the complete PPSK / Private Client Group / Credential Distribution model, advanced RF and 6 GHz AFC, advanced user profiles with firewall and QoS, and wireless security, third-party management and analytics operations. The course is structured as an operational deployment workflow rather than a menu tour. Theory is interleaved with labs sequenced in the order an engineer would follow on a live project. Every topic explains what a feature is, why it matters, how to configure it (with menu paths, default values and recommended settings), when to use it and when not to, how to validate it, and what commonly breaks — so the course also serves as a durable field reference engineers return to when performing real work. The two days conclude with an end-to-end validation capstone that walks a single client from association through monitoring.

Course Objectives

Upon completion of this course, students will have gained the working knowledge to:

- Build RADIUS server groups and integrate external RADIUS, Extreme A3, the built-in Extreme RADIUS server, Active Directory and LDAP; configure RADIUS proxy realms and manage approved clients, shared secrets, and certificates (CA, CSR, import/export, bundles)
- Configure identity federation (Entra ID, Google Workspace, Okta) with JIT and SCIM synchronization, role mapping, and Credential Distribution Groups — while retaining a break-glass admin
- Bring switches into an SPBM fabric, configure Auto-Sense and Fabric Attach, and harden the edge (MSTP, storm control, MAC locking, ELRP, PoE), using supplemental CLI safely
- Configure Layer 3 interfaces and routing, Subnetwork Space, DHCP server/relay with custom options, IP tracking and DNS services, and validate the full reachability path
- Deploy advanced wireless authentication: Enterprise 802.1X, MAC authentication, WPA3 transition mode, and Hotspot 2.0 / Passpoint
- Design and deploy PPSK (Cloud vs. Local DB), key delivery, MAC binding, classification and Active Directory synchronization
- Configure AP-Based and Key-Based Private Client Groups, the RadSec proxy requirement, guest

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onboarding with employee sponsorship, Cloud Config Groups and the Guest Manager role

- Tune radio profiles, channel selection, DCS/DFS, Multi-Link Operation, 6 GHz AFC/GeoLocation, and IoT/Thread and Electronic Shelf Labeling
- Build advanced user profiles with ordered IP/MAC firewalls, classifier/marker maps, rate control, WMM QoS, availability schedules and client SLA
- Configure WIPS/AirDefense and URL filtering, deploy a Third-Party Management Engine, enable Presence/BLE/Location analytics, create API keys, and perform VIQ backup/restore
- Execute a complete end-to-end validation of a client from association through authentication, addressing, policy, tunneling and monitoring, naming the Platform ONE tool that proves each step

Audience

This course is for personnel who install, deploy, configure, and troubleshoot wireless networks using Extreme Platform ONE. It is designed for those responsible for investigating, validating, isolating, and resolving real customer Wi – Fi problems — from intermediate issues to highly complex, multi – layer faults.

- Network administrators
- Wireless network engineers
- Solutions and deployment engineers
- Pre/Post sales Partner engineers
- Technical support personnel
- Implementation and professional services personnel

CONSPECT:

- Advanced Deployment Architecture & the Configuration Model (the four configuration scopes, blast radius, Common Objects, Save vs. Deploy, configuration audit, clone-instead-of-edit)
- RADIUS/AAA Services & Certificate Management (RADIUS server groups, external / A3 / built-in RADIUS, Active Directory & LDAP, RADIUS proxy & realms, approved clients, CA / CSR / import, certificate bundles)
- Identity Federation, SSO & Credential Distribution (IdP profiles, JIT vs. SCIM, network vs. application access, role mapping, break-glass admin, Credential Distribution Groups)
- Advanced Switching & Fabric (SPBM, Auto-Sense port states, Fabric Attach profiles, MSTP, storm control, MAC locking, ELRP, PoE/PSE, supplemental CLI)
- Layer 3, Routing & Advanced Network Services (interfaces & routing, Subnetwork Space, DHCP server / relay & custom options, IP tracking, DNS services)
- Advanced Wireless Authentication (Enterprise 802.1X, MAC authentication, WPA3 transition mode, Hotspot 2.0 / Passpoint & NAI realms)

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- PPSK Deep Dive (Cloud vs. Local DB, user groups & expiration, bulk create / import & delivery, MAC binding, classification, AD sync)
- Private Client Groups, CCGs & Guest Onboarding (AP-Based vs. Key-Based PCG, RadSec proxy & TCP 2083, guest onboarding with employee sponsorship, Guest Manager role, Cloud Config Groups)
- Advanced RF, Radio/AP Templates & AFC/6 GHz (radio profiles, channel selection / DCS / DFS, WMM QoS, Multi-Link Operation, 6 GHz AFC & GeoLocation, IoT/Thread & ESL)
- Advanced User Profiles, Firewalls & QoS (IP/MAC firewall & rule order, classifier / marker maps, rate control & queuing, availability schedules, client SLA, per-user-group profiles)
- Advanced Security, Third-Party Management & Analytics Operations (WIPS / AirDefense, URL filtering, Third-Party Management Engine, Presence / BLE / Location / Bonjour, AI Expert, API keys, VIQ backup / restore, end-to-end validation review)

REQUIREMENTS:

Mandatory Pre-Requisite: There are no formal prerequisites for this course. However, completion of the Extreme Networks Certified Administrator, ENCA, for Extreme Platform ONE, or equivalent hands-on experience, is strongly recommended. The Extreme Platform ONE ENCA curriculum includes Install, Configure, Manage & Operate, and Troubleshooting. Attendees should also have a working knowledge of core LAN technologies, including Ethernet, VLANs, TCP/IP, DHCP, DNS, and IP routing, along with basic 802.11/Wi-Fi concepts and an understanding of RADIUS and 802.1X fundamentals.

Difficulty level



CERTIFICATE:

Participants who pass the Extreme Networks Certified Professional in Extreme Platform ONE™ - Wireless Lab Assessment will receive a certificate signed by Extreme Networks - Extreme Networks Certified Professional in Extreme Platform ONE™ - Wireless.

TRAINER:

Authorized Extreme Networks Trainer

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