Building and managing networks utilizing the Extreme Networks Campus Fabric networking environment. This knowledge will be reinforced through actual hands-on experience with networking equipment in a lab environment, where students will perform real world tasks.

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

- To integrate and implement Extreme Networks Fabric Networking core and complex solutions based on reference architectures from Extreme Networks customer scenarios
- Take the ECS Fabric Switching & Routing Exam

**Who Can Benefit**
This course is designed for individuals responsible for the configuration, management, maintenance, and support of the Extreme Networks family of switches.

**Prerequisites**
Students should possess a solid grasp of LAN concepts, including advanced Ethernet and TCP/IP skills.

**Course Details**

**Course Agenda**
Fabric Connect Introduction

- Shortest Path Bridging based network including Backbone Edge Bridge (BEB) and Backbone Core Bridge (BCB)
- User Network Interfaces (UNI) and Network to Network Interfaces (NNI) in an SPB network
- SPB forwarding plane using shortest path trees and the role of IS-IS routing
- B-VLAN and B-MAC in the SPB core

Product Overview

- Extreme Networks products that support Fabric Connect and Fabric Attach
- Product features, scaling, and license requirements
- Extreme Networks products in Fabric deployments

Fabric Connect Infrastructure

- IS-IS routing protocol link state database and shortest path
• Reverse Path Forwarding Check (RPFC) and Simple Loop Prevention Protocol (SLPP) to prevent loops
• SPB implementation following best practices

Operations, Administration, Management

• Connectivity Fault Manager (CFM) providing ping, traceroute, and trace-path tools at Layer 2
• Configuring CFM on a SPB network

Implementing Layer 2 VSN

• Fabric Connect services using Layer 2 Virtual Service Networks

Implementing Inter-VSN Routing

• Inter-VSN Routing over Fabric Connect

Implementing IP Shortcuts

• Fabric Connect services using IP Shortcut Routing

Implementing Layer 3 VSN

• Layer Three Virtual Service Networks over Fabric Connect

IS-IS Accept Policies and Route Redistribution

• IS-IS and other routing protocols

Fabric Services for Security Products

• Fabric services to provide security

EFO, COM Plus and VPFM Plus

• Extreme Fabric Orchestrator, COM Plus, and VPFM Plus.

Switch Clustering

• Switch Clustering including Inter-Switch Trunking and Virtual Inter-Switch Trunking.
• Loop Prevention and Link Health
• Best practices for link health and loop prevention using SLPP, SLPP Guard and VLACP

ToR Switching

• Top-of-Rack switching in the Data Center

Extreme Management Center Introduction

• Extreme Networks Management Center to:
  • Monitor the network health
  • Use of automated tools
• Visibility of end user devices
• Remote management of devices

Extreme Management Center Configuration

• Manage your network using the following tools within the Extreme Management Center:
  • SNMP
  • CLI Credential
  • Site Template
  • Adding Devices

Implementing Multicast over SPB

• IP Multicast in a Fabric Connect solution

Quality of Service

• Quality of Service (QoS) in the Fabric Connect network

Fabric Extend

• Fabric Extend and Open Network Adapter

Fabric Attach

• Fabric Attach and SPB Fabric