Extreme Fabric

Simplify network operations across Campus, Branch, and Data Center

Organizations face significant challenges from increasing network complexity, driven by rapid growth in VLANs, network segments, devices, applications, and security risks. This is especially true for medium to large organizations that have small IT teams but complex business technology challenges. These difficulties are further compounded by limited IT budgets post-Covid. As a result, IT teams frequently work at or past their capacity. Consequently, Gartner predicts, "By 2026, 30% of enterprises will automate more than half of their network activities, an increase from under 10% in mid-2023."[1]

Extreme offers the industry's most widely deployed and only end-to-end, automated, and secure network fabric solution across campus, data center, and branch. Based on Shortest Path Bridging and IS-IS routing protocols, Extreme Fabric is a network abstraction technology that provides virtualized network services to connect users and devices across the network. It enables multiple, discrete, and secure virtual networks to run seamlessly over a common infrastructure, independent of topology. These virtualized networks are inherently secure, with automated provisioning that minimizes manual configuration and the risk of network errors.

Industry's only End-to-End, Automated and Secure Network Fabric

Unify

Highly scalable fabric solution that spans campus, data center and branch locations over wired, wireless, and third-party devices.
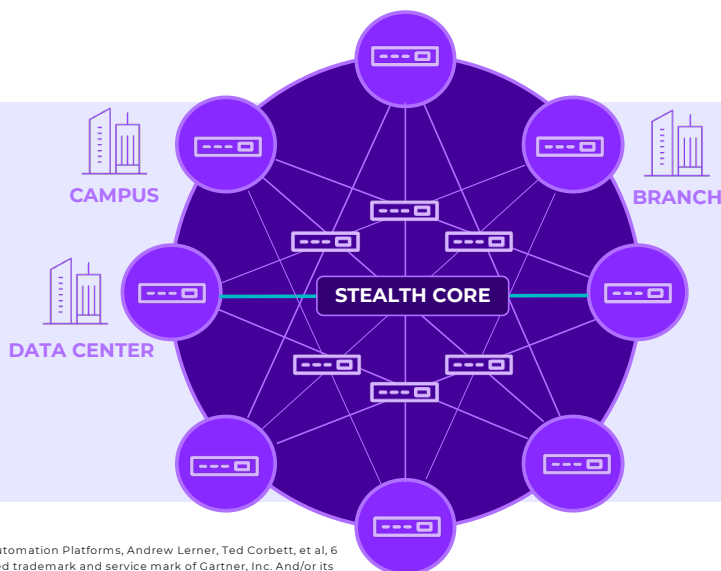
Automate

Built-in automation helps eliminate manual processes to enable faster deployments, easier troubleshooting, and better network resiliency.

Secure

Inherently secure design isolates network services and protects against network breaches.

CAMPUS

BRANCH

DATA CENTER

STEALTH CORE

Kreski

[1] Gartner® Market Guide for Network Automation Platforms, Andrew Lerner, Ted Corbett, et al, 6 November 2023. GARTNER is a registered trademark and service mark of Gartner, Inc. And/or its affiliates in the U.S. and internationally and is used herein with permission. All rights reserved.

Unify

Extreme Fabric is a highly scalable network fabric solution that spans campus, data center and branch, to deliver a full suite of services including Layer 2, Layer 3 and IP Multicast.

Virtualized services are seamlessly delivered across the entire network. Extreme Fabric is included with all Universal Switches and Universal Access Points, to simplify deployment and accelerate service delivery. In addition, Extreme Fabric supports third-party devices including wired switches, wireless access points, IP phones, IoT devices, and security cameras.

Extreme Fabric also supports multiple fabric areas that can be interconnected and managed holistically as a single end-to-end fabric. This enables deployment of tens of thousands of devices while delivering services that can extend across multiple fabric areas.

Extending fabric to the edge:

Extreme Fabric enables organizations to extend fabric services seamlessly from the campus or the data center to the branch locations in two ways: natively over metro ethernet services and across the internet using ExtremeCloud SD-WAN. SD-WAN leveraging Internet as transport enables a flexible, cost-effective, and low risk means to connect geographically diverse sites via secure IPsec encrypted tunnels. In addition, ExtremeCloud SD-WAN application performance management delivers high quality user experiences. Once linked via ExtremeCloud SD-WAN, auto-discovery and device configuration enables hypersegmentation of users and devices at remote branches reducing security and compliance risks.

Automate

Extreme Fabric offers an automated approach that helps eliminate manual configurations and makes it easy to deploy fabric across wired and wireless devices on the network.

With Extreme Fabric, the fabric core is built once and remains "hands-off". Configuration and provisioning are done only at the source and destination nodes, which are dynamically propagated throughout the network. This eliminates hop-by-hop configurations, simplifying network operations, and drastically improving time to service.

Zero-touch provisioning and auto-sensing capabilities of Extreme's Universal Switches and Universal Access Points further speed up deployment at the edges.

Extreme Fabric consistently delivers automatic sub-second recovery across, Layer 2, Layer 3 and IP Multicast services. As a result, it offers superior application availability.

ExtremeCloud IQ Site Engine is natively designed to provide end-to-end network visibility, fabric monitoring, and management capabilities. It provides in-depth details into the performance of applications and the network. In addition to Extreme devices, Site Engine also provides management for third-party switches. ExtremeCloud IQ Site Engine not only helps unify network management but also automate daily tasks across the lifecycle.

Secure

Extreme Fabric provides a secure framework that helps protect the network and reduce security risk. Hypersegmentation enables organizations to segment applications, data, and users easily at scale. It facilitates the creation of secure, isolated end-to-end virtual service networks (VSNs). Users, devices and services are bundled into these VSNs that are completely isolated from each other. Users and devices in one segment cannot communicate with users and devices in another segment, preventing lateral movement enhancing network security.

Ethernet-centric shortest path bridging technology makes network topology invisible from IP-perspective as there are no inherent hop-by-hop paths to trace. This helps safeguard and secure the network against IP-based attacks.

Additionally, Extreme Fabric extends network services to the edge only as required and only for the duration of a specific application. As applications terminate, or end-point devices closedown or disconnect, the now-redundant services retract from the edge devices. As a result, it reduces the network's exposure and attack profile.

Summary

Growing complexity and lean IT team are driving the need for a network fabric with automation. Extreme offers the industry's most widely deployed and the only end-to-end, automated, and secure network fabric solution spanning campus, data center and branch. Extreme Fabric is a leading network abstraction technology that helps IT teams simplify operations, save time and effort, and reduce risk.

- Unified network and infrastructure - delivers high scalability across campus, data center, and branch via fabric over SD-WAN.
- Automation for networking – eliminates manual configurations, accelerates deployment, and instantly self-heals the network.
- Secure framework – helps protect network, data, users and devices from core to edge.

To learn more about Extreme Fabric, please click here.

Extreme networks®