Design and build your own private WAN

Introducing Switched Ethernet from Windstream Enterprise

CONNECT. TRANSFORM. ELEVATE.

Build a fast, reliable and highly secure network to optimize your application performance

Enterprise WANs are growing in complexity. Cloud connectivity, third-party resources and each site's unique bandwidth requirements all add up.

Growing bandwidth demands and the need for highly secure connectivity to cloud service providers are increasing the complexity of designing and managing a network. Competing applications and user needs compound the challenge of delivering a great customer and employee experience.

Enterprise networks are complex by nature—much more than a simple point-to-point or hub-and-spoke topology. External connectivity requirements to third-party resources and locations add to the complexity.

As enterprises move to hybrid cloud environments, they need private data networking options that deliver the security and performance needed to drive business forward—ideally connecting to both internal locations and external resources over a single, underlying transport technology.

And as bandwidth demands continue to escalate, enterprises need an easily scalable solution that provides them full control over their switches and routing decisions, all at the right cost.

of WAN decision makers cite their network as important or critically important to the success of their company's digital transformation.[1]

88% of WAN decision makers regard reliability, resilience and low latency as critically/very important features of their network.[1]

85% of WAN decision makers regard high-bandwidth capacity as critically/very important to their network performance.[1]

Meet the Switched Ethernet WAN solution

Switched Ethernet gives organizations the ability and the freedom to create a secure, high-performing and flexible private network that meets their bandwidth and control requirements.

Windstream Enterprise will design, implement and support a reliable, scalable and cost-effective solution. Organizations will gain all the benefits of network ownership without having to build the physical network themselves.

Switched Ethernet enables organizations to optimize their network with a high-bandwidth private WAN that supports their most demanding applications, enabling a hybrid cloud model.

Switched Ethernet offers an ideal solution when:

Bandwidth-intensive cloud applications are driving rapid network traffic growth.

Unpredictable bandwidth utilization patterns, including rapid growth, leave networks under-provisioned or over-provisioned.

You need predictable latency and real-time data transmission.

You have the IT expertise to build and manage your own network.

You want simplicity to extend the plug-and-play characteristics of the LAN to the WAN.

You plan to connect internal and external locations using one underlying transport technology.

You require a standards-based solution to remove complexity and cost.

Highly secure. Cost-effective. Cloud-ready.

Secure: Control your own highly secure, private network on a dedicated infrastructure that is not shared and does not use the public Internet.

Cost-effective: Build a private network without the physical construction and operational maintenance costs, using standard Ethernet interfaces and hardware to eliminate higher-priced legacy connections and routers.

Scalable: Accommodate increasing data loads with bandwidths from 1.5 Mbps to 10 Gbps, lowering upfront capital costs. Pay for the bandwidth you need and adjust as traffic levels change.

Easy to manage: Easily manage hybrid cloud deployments supporting point-to-point, hub-and-spoke and any-to-any connectivity with the de facto standard plug-and-play technology for metro and multi-site WANs.

Advanced technology: Achieve the highest degree of network performance and ease of implementation with a solution that meets MEF standards.

Performance: Ensure application transparency and control with multiple classes of service to support customer experience and employee productivity using our Cloud Core™ architecture.

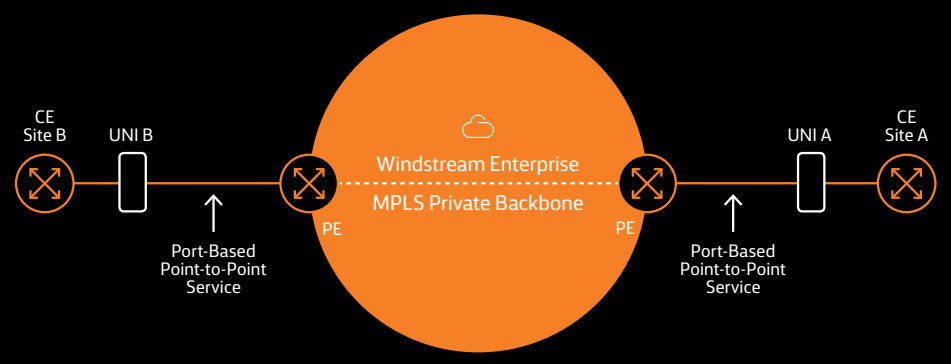
Cloud connectivity: Design a cloud architecture that seamlessly and securely connects public and private networks and leverages the Windstream Enterprise Cloud Connect service.

Control: Create your network from a blank slate with the freedom to choose hardware and standards that best suit your business and application requirements while controlling routing decisions.

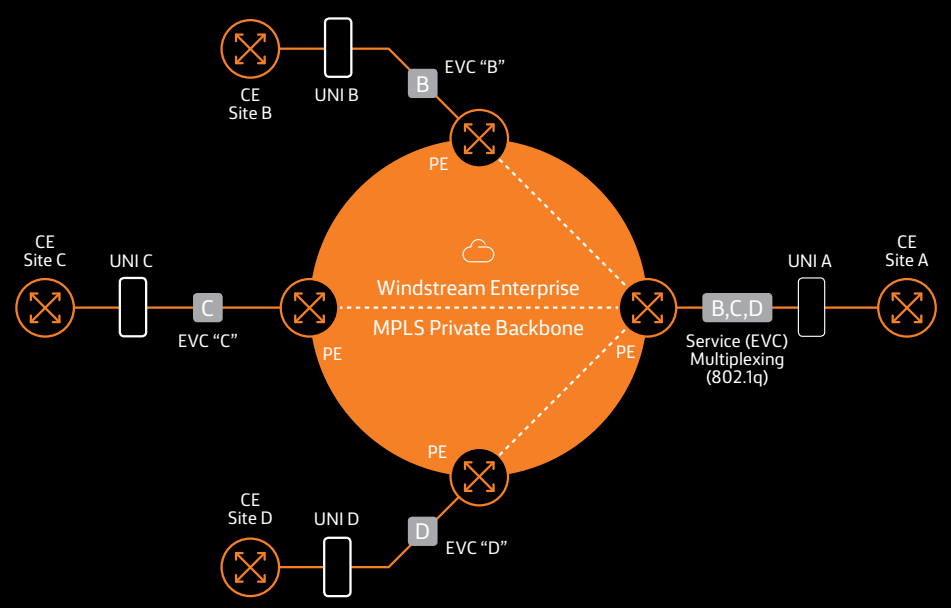
A network configuration that fits your needs

Switched Ethernet from Windstream Enterprise enables your organization to design, build and manage the configuration that best meets your needs, including Ethernet Private Line, Ethernet Virtual Private Line, Ethernet Private LAN and Ethernet Virtual Private LAN.

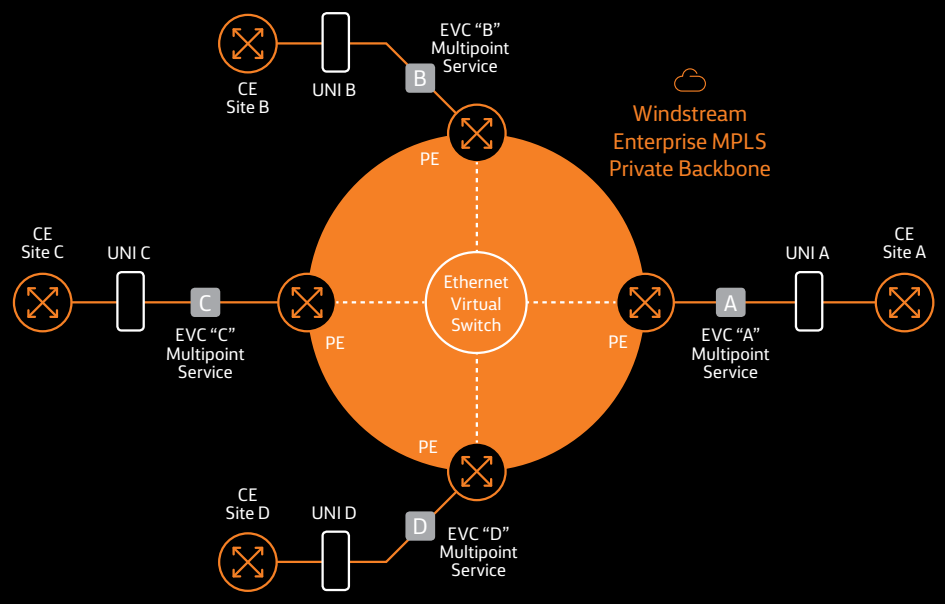
Ethernet Private Line (E-Line)



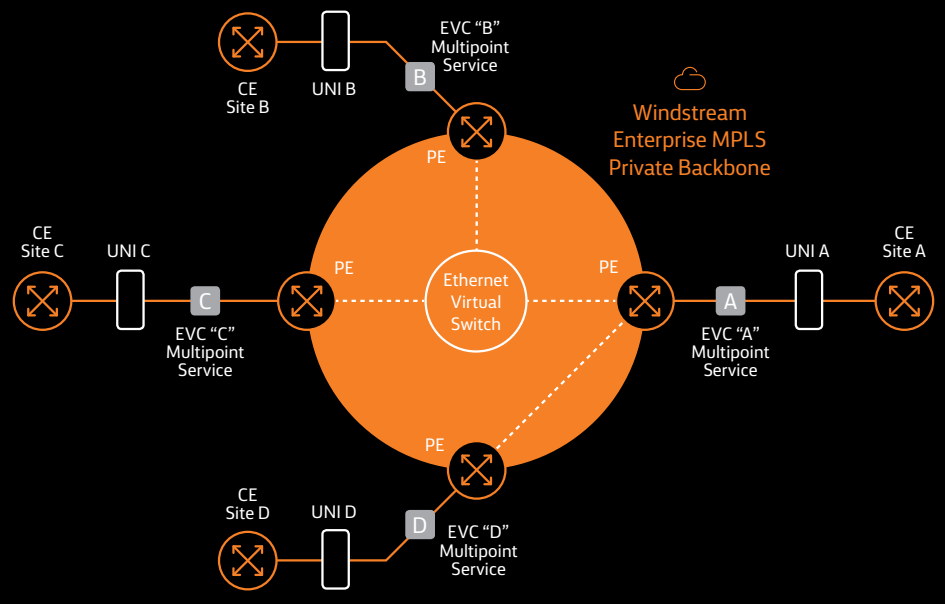
Ethernet Virtual Private Line (EVPL)



Ethernet Private LAN (EP-LAN)



Ethernet Virtual Private LAN (EVP-LAN)



Why Switched Ethernet?

Optimized network

Switched Ethernet enables organizations to optimize their network with a hybrid cloud-enabled, high-bandwidth private network model that supports their most demanding applications.

- Cloud-ready with direct connectivity to all leading cloud service providers via Cloud Connect.
- Cloud Core architecture delivers SDN benefits—rapid deployment, visibility and scalability.
- Highly scalable from 1.5 Mbps to 10 Gbps for flexible upgrades.

Improved security

As enterprise businesses move to hybrid cloud environments, they need private data networking options that deliver high performance while protecting their data and their brand's reputation.

- Private, dedicated access to cloud service providers, bypassing the public Internet.
- End-to-end security with complete control to define the level of security required.
- Carrier-grade private network.

Reduced complexity

Switched Ethernet is easy to implement and manage as an extension to the LAN environment.

- Extends simple plug-and-play LAN characteristics to the WAN.
- Connects to internal and external locations using one underlying transport technology.
- Supports multiple bandwidth consumption models for on-site and off-site applications.

Reduced TCO

Windstream Enterprise will design and support a reliable, scalable and cost-effective solution.

- Gain all the benefits of network ownership without building the physical network.
- Less expensive to manage than traditional networks.
- Pay only for the bandwidth needed and adjust as traffic levels increase.

Customized solution

Windstream Enterprise engineers partner with you to tailor a design that meets your business's unique bandwidth, affordability and critical application needs.

- Flexibility to deploy any technology platform to ensure application performance and diversity.
- Traffic prioritization with single and multiple QoS options.
- Enables all MEF 2.0 configuration types for E-Line and E-LAN services.

Complete control

Freedom to design, develop and deploy a network to meet requirements for application and bandwidth with control of internal and third-party components.

- Choose the hardware, features and configurations you want to deliver your preferred user experience.
- Self-managed network using Switched Ethernet as the underlying transport methodology.
- Maintain control of Layer 3 routing protocols and decisions.

Improved performance

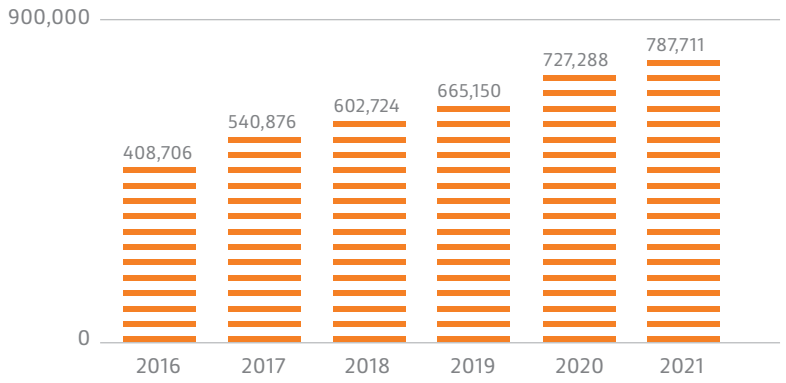
Switched Ethernet is a simple-to-use advanced technology, built utilizing MEF standards to ensure the highest degree of compatibility, network performance and reliability.

- End-to-end availability SLAs for on-net locations and POP-to-POP for off-net.
- Application performance SLAs for jitter, latency and packet loss.
- Select the appropriate Quality of Service (QoS) for every application.

The Windstream Enterprise advantage

Switched Ethernet connections are projected to increase by more than 60% from 2016 to 2021.[2]

U.S. Switched Ethernet connections



Cloud Core™ architecture

Switched Ethernet is built on the Windstream Enterprise proprietary Cloud Core network, which combines SDN, NFV and programmable network innovation enhancements with our nationwide 150,000-fiber-route-mile network to deliver a high-performing networking solution.

Cloud Connect

Optimize CSP application performance with dedicated, cloud-ready connectivity to reduce latency and jitter and improve reliability.

Standards-based

The core Windstream Enterprise transport infrastructure delivers a standards-based MEF 2.0–compliant service for full compatibility with all major networking hardware and Ethernet interfaces.

1. A commissioned study conducted by Forrester Consulting on behalf of Windstream Enterprise, March 2017.

2. U.S. Retail Carrier Ethernet Services Market 2018, used with permission from Vertical Systems Group.

About Windstream Enterprise

Windstream Enterprise collaborates with businesses across the U.S. to drive digital transformation by delivering solutions that solve today's most complex networking and communication challenges.

To learn more about Switched Ethernet, visit windstreamenterprise.com

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