

XO[®] ETHERNET HUB

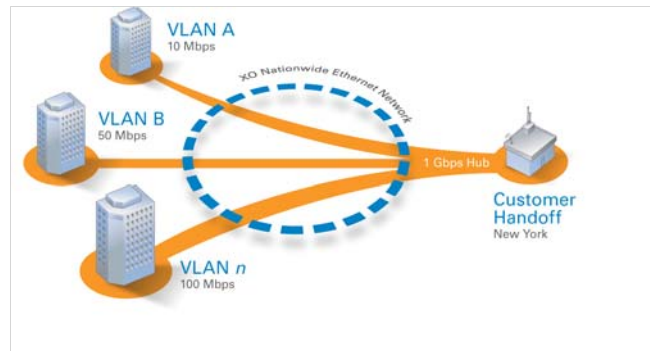
XO Ethernet Hub is an Ethernet Virtual Private Line (EVPL) service that combines the efficiencies of Ethernet with the resiliency and performance of business-grade, Layer 2, point-to-multipoint networking. This solution is ideal for healthcare, financial services or other enterprises with widely distributed branch offices—that want to simplify the management of data traffic to and from smaller locations and one central location or data center. The service allows these enterprises to simplify network management by only having to manage one connection between the XO network and their primary data center or corporate headquarters and branch locations, while maintaining separation of distinct types of traffic over one network.

A Single Interconnection

XO Ethernet Hub provides a simple, scalable and cost-effective way to connect separate Virtual Local Area Networks (VLANs) without having to deal with multiple connections to each of their local, branch locations. Customers only need to manage a single Hub interconnection for data traffic distributed across the entire enterprise.

XO has answered the call for reliable, widely available Ethernet connectivity by building a nationwide, next generation network that is capable of providing Ethernet connections to many metro markets and nearly 4 million buildings. With a 1 Gig, dedicated “Hub” connection, you gain access to this entire XO nationwide Ethernet footprint. Your Ethernet Hub service then fans out to lower-bandwidth, Ethernet end link connections to sites across the country. Each remote site connects directly to the Hub, and all end links have dedicated bandwidth at speeds ranging in Ethernet incremental bandwidth options from 5 Mbps to 500 Mbps.

Dedicated bandwidth is a key advantage. Since the Ethernet Hub is never oversubscribed with traffic, and each end link is connected only with the Hub, XO provides a highly reliable and manageable solution at lower costs than traditional private line alternatives. Dedicated bandwidth also means that traffic travels in real-time, just as it would on a traditional private line. Moreover, since XO was an early pioneer in creating scalable Ethernet over Copper solutions, XO offers a full range of incremental bandwidth options on Ethernet Hub end links to locations that other carriers don't often support. Today, XO is the only provider making use of Ethernet over Copper access as part of a Hub service on a nationwide basis.



Hub and Spoke, Point-to-Multipoint Configuration

More Benefits

- **Accelerate changing service delivery requirements**
 - Scalable, dedicated bandwidth options
 - Honors the Class of Service treatment you assign
 - Maintains privacy of your data
- **Simplify network management**—using Ethernet technology, and end link aggregation for a single handoff
- **Reduce operational expenses**—with lower costs, and the value-added benefits of improved productivity and competitiveness
- **Maintain separation of traffic**—converge distinct traffic types like VoIP, or departments like Finance or Operations from different VLANs onto a single network and still keep the traffic separated
- **Wide Nationwide coverage**—so you can connect all sites to the Hub
- **24-hour network monitoring and maintenance**

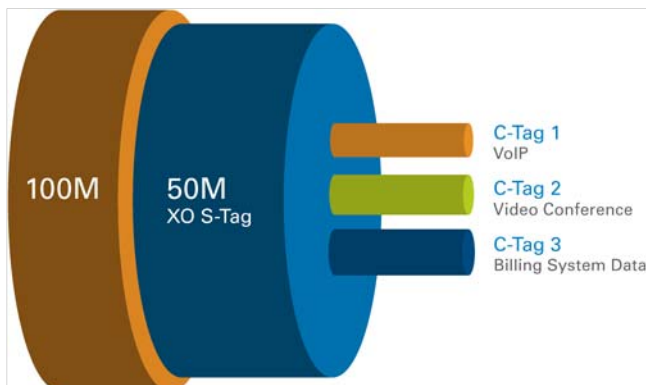
Simplify Networking

Ethernet is widely accepted and understood, so it works well as an end-to-end networking technology. Extending Ethernet LANs to the Wide Area Network eliminates the need to convert data to other formats to transport it, and then convert it back to Ethernet—conversions that could decrease efficiency and performance.

Support for Key Ethernet Features

XO Ethernet Hub supports popular Ethernet features in real time, with 100% delivery guaranteed:

- **IEEE VLAN tagging standards (802.1Q)** used to identify how data should be separated and distributed by group, project teams or applications.



VLAN tags distinguish traffic types like VoIP, or departments like Finance or Operations. Through XO Ethernet Hub service, you can converge these traffic types onto a single network and still keep them separated. To ensure that the network is completely available for all end users at any given time, XO supports VLAN Tag Stacking. As tags enter the XO network, XO stacks its own supplier tag on top of each Customer tag within the Ethernet frame. This tag stacking directs the data by the outer S-tags, enabling the traffic to be preserved and transported through the network in real-time. VLAN Tag Stacking ensures that C-tags from unrelated VLANs don't conflict and limits the quantity of VLANs being consumed within the network.

Support for Jumbo Frame data transfer rates

- XO Ethernet Hub service can support transfer rates with payloads in excess of 9,000 byte jumbo frame sizes. Jumbo frames are determined by access and equipment types.

Savings, Simplicity and Scalability

With XO Ethernet Hub service, you can save money, simplify your network management, protect the separation and privacy of your traffic, and increase productivity.

Moreover, you gain unmatched value from the combination of XO Ethernet Hub service and access to the entire XO nationwide network that reaches more than 4 million buildings across the country. This means that XO has greater coverage than most carriers for Ethernet Hub configurations—plus, the savings, simplicity and scalability that your enterprise requires.

Call XO Today

Call your local XO Sales Account Representative today.