



Frost & Sullivan 2009  
Emerging Company of the  
Year in the MPLS  
IP VPN services category



## XO<sup>®</sup> MPLS IP-VPN

For multi-location businesses that require secure T-1 or higher speeds, XO Communications offers flexible, intelligent, managed network solutions. These solutions provide more bandwidth for the dollar, faster application deployment, and lower network operating costs than traditional Wide Area Networking services.

### Overview

XO MPLS IP-VPN is a network-based, fully-managed, Wide Area Network solution that makes it easier to stay on top of your network budget and the technology curve. The intelligence of the XO MPLS IP-VPN resides in our network, so there's no need to purchase, update and maintain expensive equipment. You get the cost savings of consolidating your voice, data, and video networks onto a single IP-based platform. And XO helps you design, install and manage your IP-VPN, and customize it to meet the specific Class of Service and bandwidth requirements of your multi-location business.

### Custom Solution

Multi-location businesses that require T-1 or higher service need Wide Area Networking solutions that are flexible and cost effective, and that provide secure networks for sharing files and data between locations. With XO MPLS IP-VPN, you get all of that and more. Whether you require a fully managed solution, want XO to help you co-manage your network or help you meet your business continuity requirements, or simply want assistance with network monitoring and fault notification services, XO can custom design a solution to meet your specific needs.

### Competitive Performance

XO offers competitive Service Level Agreements (SLAs) on packet loss and jitter. You get 100% availability. 99.8% Packet Delivery. And Latency rates of 65 milliseconds. Our SLAs offer fault resolution within four hours. And with on-net speeds of up to 100 Mbps, you can easily use complex, data intensive applications across our IP-VPNs.

### Powered by MPLS Technology

With XO MPLS IP-VPN, you get all the advantages of the latest Multi Protocol Label Switching (MPLS) technology, including speedier deployment of critical business applications, like Voice over Internet Protocol (VoIP), supply chain management and other sophisticated back-end applications.

In short, you get the best of both worlds – the security and Quality of Service of ATM and frame relay, and the scalability and flexibility of IP networks. You also have the ability to add separate IP-VPNs on one network to distinguish different applications or traffic. What's more,

unlike ATM and frame relay, our MPLS-enabled IP-VPN solution offers universal site-to-network connectivity and multiple access options, including everything from T-1 speeds and above to a broad range of Ethernet access options over fiber and last mile copper — all with no rigid limits on bandwidth.

### XO Applications Performance Management

XO Applications Performance Management is a suite of analytical tools to help businesses optimize the performance of their XO MPLS Wide Area Network (WAN) service, and all of the critical business applications that run over those networks including Voice over IP (VoIP). XO Applications Performance Management is one of the industry's most comprehensive solutions to help analyze and predict the performance of applications you use every day across the enterprise.

### Maximize Your Network Investment

Our IP-VPN solutions make it easier to maximize your network investment than traditional Wide Area Networking services. That's because IP-VPNs use bandwidth far more efficiently than traditional wide area networking services. And they're more compatible with IP applications than ATM and Frame.

### Why XO

XO is the proven provider of telecommunications services for business. In fact, serving businesses is our only business, and we've been doing it for more than 10 years. We offer a broad portfolio of Voice over IP (VoIP), data and Internet, converged and managed services. XO handles more than 16 billion minutes of VoIP traffic per year, and coast-to-coast voice and data services on a secure, private IP network that includes more than 3,000 fiber-fed buildings, metro fiber rings, a nationwide IP network, and more than 900 central office collocations.

### Contact XO Today

For more information about our MPLS-enabled IP-VPN service, contact your XO Account Executive today.



## XO® ETHERNET SOLUTIONS

XO DATA SERVICES

*When your organization relies on data, or the Internet, to deliver intensive applications, Ethernet provides the simplest and most cost effective way for your information to flow seamlessly throughout the network. Use Ethernet to extend your Local Area Network or extend your Wide Area Network to your locations within and between cities, or across the country.*

*XO Communications combines a wide national footprint and multiple access capabilities—fiber, copper loops or trunks, and broadband wireless\*—to offer Ethernet to more locations than ever before. All so you can save money, simplify your network management, and increase your productivity.*

### With XO Ethernet Solutions, you:

- *Access the preferred, standards-based Ethernet protocol—to operate your data applications*
- *Increase your productivity—with the capability of transferring large data files at consistent speeds on a single network*
- *Save money—because XO typically provides more bandwidth at a lower cost per megabit than traditional private line services*
- *Simplify your network management—because Ethernet is easy to install, upgrade, and maintain*
- *Scale bandwidth speed as you need it—to keep pace with the demands of your growing business, since Ethernet is more scalable than traditional Time Division Multiplex (TDM) services*
- *Boost the efficiency and performance of your network and applications—because you no longer need to convert data to other formats such as Frame Relay or Asynchronous Transfer Mode (ATM) to transport it, and then convert it back to Ethernet for the “last mile” connection*
- *Ensure optimum speed performance when sending data between locations—because your data travels at consistent Local Area Network (LAN) speeds over guaranteed bandwidth from dedicated full port to dedicated full port across the entire network*

\* Not all connection types and speeds are available in all locations. Ask your XO sales representative to qualify your locations for Ethernet connectivity.

\*\* Available through Copper and Broadband Wireless access.

Winner, NXTComm Eos Excellence of Achievement Award for Best Backbone/Core Network, 2007

Finalist, Metro Ethernet Forum Carrier Ethernet Service Provider of the Year, 2007



### In addition, XO Ethernet Solutions:

- *Reduce the costs and responsibility of buying, configuring, and managing additional equipment—since XO handles all ongoing configuration and network management of the Ethernet transport*
- *Support converged applications—like Internet Protocol (IP) and IP-Virtual Private Network (IP-VPN) services*
- *Enable faster, easier network upgrades—than you would with other high bandwidth transport solutions such as T1, T3, Frame Relay or ATM*
- *Enhance the image of your organization among your target audiences—because you can rely on high performing XO Service Level Agreements (SLAs) to help you avoid network interruptions*
- *Fulfill Network Redundancy and Diversity Requirements—to comply with network redundancy and diversity requirements including government Continuity of Operations (COOP) mandates*
- *Rely on 24x7 customer service and proactive network monitoring—so you no longer need a large technical support staff to realize the benefits of broadband LAN interconnection*
- *Simplify your networking administration—by*
- *gaining everything on one invoice, through one provider*

**For more information, please contact your XO Sales Representative or 866.963-9696.**



# XO® ETHERNET SOLUTIONS

XO DATA SERVICES

<i>Benefit</i>	<i>Fiber</i>	<i>Loops or Trunks (Copper)</i>	<i>Broadband Wireless</i>
Scalable solution that keeps pace with the needs of growing businesses	✓	✓	✓
Select point-to-point (E-Line), any-to-any (fully meshed E-LAN), or one to any (hub/spoke configuration)	✓	✓	✓
Layer 2, customer-managed services—to connect your networks in one or more Metro areas together	✓	✓	✓
Support standard IEEE 802.3-compliant LAN protocol interfaces	✓	✓	✓
Protected SONET or Wavelength Division Multiplexing (WDM) service	✓		
Optional unprotected Single Fiber, point-to-point service available	✓		
Use to transport High Speed Dedicated Internet Access or XO Multitransport Networking Service (MTNS) or IP-VPN Layer 3 XO-managed services	✓	✓	✓
Eliminate the need for customer-owned Customer Premise Equipment (CPE)—unless requested by customer	✓	✓	✓
Demarcation: customer-facing port on the XO-transport Customer Premises Equipment (CPE)	✓	✓	✓
Makes Ethernet connectivity possible for businesses that do not have access to Ethernet solutions through fiber		✓	✓
Ideal for businesses who require redundant and diverse connectivity options to comply with disaster recovery or business continuity plans	✓	✓	✓

- Not all service types available with Ethernet transport in all locations.

### Connectivity:

*Fiber*—10 mbps, 100 mbps, 1000 mbps (GigE) and 10Gbps

*Copper loops or trunks*—10 mbps copper or DS-1; 44 mbps, 88 mbps, and 100 mbps DS-3 options

*Broadband wireless*—10 mbps, 100 mbps Ethernet

### Service Level Agreements:

*Fiber*—99.999% protected; 99.99% unprotected; latency < 2 ms; guaranteed bandwidth: port-to-port, full duplex port speeds at Layer 2

*Copper loops or trunks*—99.99%; latency < 2 ms; guaranteed bandwidth: port-to-port, full duplex port speeds at Layer 2

*Broadband wireless*—99.99%; latency < 2 ms; guaranteed bandwidth, port-to-port, full duplex port speeds at Layer 2



## XO<sup>®</sup> DEDICATED INTERNET ACCESS (DIA)

*High-speed, Business-critical Internet Connectivity*

XO INTERNET ACCESS

High-capacity bandwidth choices, service level agreements, Web-based monitoring and reporting tools, routers furnished at no cost with T1 and NxT1 service are all features with XO<sup>®</sup> Dedicated Internet Access.

### With DIA solutions, you can:

- Control costs by choosing exactly what you need from a wide variety of access speeds and billing options
- Optimize your resources by monitoring your bandwidth capacity with Web-based monitoring and reporting tools
- Maximize company performance with reliable communications via high-speed access to the Internet, your corporate intranet, and extranet resources
- Scale your bandwidth as your business grows and
- Increase productivity with a connection that can quickly transfer large data and multimedia files between networks.

### DIA:

- Provides dedicated, clear-channel, point-to-point connections and industry-leading public and private peering arrangements
- Offers expanded CPE options and managed router services
- Features optional Border Gateway Protocol (BGP4) for dynamic routing of information between different administrative routing domains without passing explicit topology information
- Includes Service Level Agreements on all DIA lines
- Provides high-quality, reliable data transfers over the XO nationwide, facilities-based Internet network and
- Offers complete solutions that include circuit and equipment ordering, installation, 24 x 7 customer support and proactive network monitoring, and single invoice billing.

When the Internet is fundamental to your business, you need more than high-speed Internet access. You need a reliable partner who can provide what you need today and tomorrow. XO understands your business-critical needs for top-performance, always-on, end-to-end network management.

Designed specifically to meet your requirements and grow with your business, the XO advanced private network delivers the utmost in performance and robust Internet access that's backed by world-class customer support, from start to finish.

### A Fast, Reliable Connection to the Internet

As one of only a few fully peered facilities-based, Tier 1 Internet backbone providers in the United States, XO has hundreds of private peering arrangements in most major metropolitan areas with speeds of up to OC-12.

By routing around congested public peering points, these private peering relationships with virtually all major Internet providers give you reliable connectivity and the best possible speed and throughput. That's how XO delivers your data to its destination securely, reliably, and along the fastest route possible.

And with self-healing SONET metro fiber rings and meshed SuperPOP network architecture, XO provides redundancy and high availability to all its customers.



## Comprehensive DIA Products

XO has the high-speed DIA solution to meet your growing needs. T1 and NxT1 products come with an XO provided router for no charge. Managed router services and expanded CPE options are available with all DIA higher speed solutions for an additional fee.

### T1

#### DIA T1

- Full T1 of bandwidth over a dedicated, non-fractional leased line
- Bandwidth: 1.544 Mbps
- Includes a highly reliable router
- NAT and BGP4 options available
- Flat-rate billing

#### Multiple T1

- An ideal multi-megabit bandwidth solution for companies that have outgrown their T1 needs, but cannot justify the cost of a DS3
- Bandwidth: 2 x 1.54 Mbps; 3 x 1.54 Mbps; 4 x 1.54 Mbps
- Includes a highly reliable router
- NAT and BGP4 options available
- Flat-rate billing

### T3

#### DIA T3

- Delivers a full T3 of bandwidth over a dedicated, non-fractional leased line
- Bandwidth: 45 Mbps
- Option to rent a BGP4-enabled Cisco® T3 router available
- Flat-rate commitment with burstable billing above commitment

#### Subrate DS3

- Predetermined level of bandwidth over a dedicated, non-fractional T3 leased line
- Bandwidth: 6 Mbps to 45 Mbps (in 3 Mbps increments)
- Option to rent a BGP4-enabled Cisco® T3 router available
- Flat-rate billing based on fixed rate chosen

### High Speed DIA (HSDIA)

#### Ethernet

- Ethernet Services at full port capacity to the network – no oversubscription of bandwidth from the port to the backbone
- Available as 10Mbps, 100Mbps (Fast-E), or 1000Mbps (Gig-E)

#### OC3 and OC12

- OC3 at 155Mbps and OC12 at 622Mbps available at full port speed into the XO backbone network

### Contact XO

For more information, please contact your XO Sales Representative or visit [www.xo.com](http://www.xo.com).



## XO<sup>®</sup> IP FLEX

**Converged Voice over IP (VoIP) solution offering voice and data service with unparalleled simplicity, flexibility and value via the XO IP Network**

XO IP Flex is one simple bundle containing a complete package of communications solutions for your business, including the XO<sup>®</sup> Anywhere Package for unified communications, local and long distance voice, Internet access and web hosting. All consolidated on one invoice. From a single provider. For a flat monthly rate\*. XO IP Flex is available with Business Lines, Digital Trunks or ISDN-PRI connectivity.

Finally, one source for all your communications needs. XO<sup>®</sup> simplifies the purchase and maintenance of local, long distance, Internet, and Web hosting services.

Each XO IP Flex package contains a standard set of features as well as optional à la carte services and applications, including a powerful unified communications package called XO<sup>®</sup> Anywhere. And XO IP Flex works with your existing analog phone system, so there's no new equipment to purchase.

XO IP Flex is available in port speeds of 1.5 Mbps, 3.0 Mbps, 4.5 Mbps and 10 Mbps and includes between 5 and 72 Voice Grade Equivalents, depending on port speed and connectivity selected. Connectivity choices include analog lines, T-1 CAS Digital Trunks and ISDN-PRI.

Every XO<sup>®</sup> Flex standard package includes \*\*:

- Unlimited local calling
- Unlimited site to site calling \*\*\*
- One Toll Free number
- A choice of calling plans
- Dedicated Internet access
- Dynamic Bandwidth Allocation, which increases Internet access speeds, while voice traffic always takes priority for maximum call quality
- Web-based Online Feature Management
- Web Basics Hosting Package with Junk Mail & Virus Filtering
- Call Forwarding
- 3-Way Calling
- Call Hold, Pick-up and Transfer
- Caller ID Name & Number and Caller ID
- Line Block
- Call Return
- Call Waiting
- Last Number Redial
- Do Not Disturb
- Hunt Groups (sequential, circular, uniform, simultaneous)
- Inbound Call Routing

- Voice Mail
- Call Acceptance and Rejection options
- Visual Voicemail
- Direct Inward Dialing extensions (DIDs)
- Direct Outward Dialing (DOD) and 2-way DID trunks
- Caller ID Name & Number

Optional features and applications can be added to XO IP Flex packages on an à la carte basis:

- Anywhere Package for unified communications
- Account Codes, Verified and Non-verified
- Additional DIDs in blocks of 20 and 100
- Additional Toll Free numbers
- Auto Attendant
- Business Call Center
- Calling Card
- Conferencing Services
- Directory Assistance
- International Outbound Calling
- Larger Web Hosting plans
- Managed Security
- Voice Virtual Private Network (VPN)

### Why XO IP Flex? Simplicity, Flexibility and Value.

**Flat Rate Pricing:** It's a great cost management and budget tool. In addition to unlimited local and site to site calling, XO IP Flex offers a choice of calling plans to fit your business calling needs.

**Dynamic Bandwidth Allocation:** Rather than assign fixed capacity for traditional voice and data traffic, XO IP Flex allows the full use of the IP circuit to support data traffic when voice lines are idle. However, voice traffic will always have priority so businesses get maximum utilization and value from their integrated access circuit while ensuring the highest quality of service.



**XO® Anywhere:** This powerful feature provides unified communications for customers with XOptions® Flex, IP Flex, and IP Flex with VPN service. It allows you to work from anywhere as if you were in the office. It gives your company a professional appearance no matter where your employees are working from. It simplifies communications with a single Flex number to help customers and co-workers find you and ensure you never miss an important call again. And it comes with an easy-to-use toolbar that allows you to manage your phone features in real time.

**Online Feature Management:** The web-based administrative portal – called Online Feature Management - allows a group administrator to provision and configure certain resources for a group of end users. The functions that can be performed via Online Feature Management include:

- Reset Voicemail passwords
- Enable / disable voice features on existing phone lines
- Configure group services
  - Call pick up groups
  - Hunt groups

**XO IP Network:** XO IP Flex leverages the XO National OC-192 IP network and softswitch technology to provide advanced IP-based voice and data services. And for security purposes, all voice calls travel over a dedicated IP connection rather than the public Internet.

### XO® IP Flex Optional Applications

**Auto Attendant** provides businesses with a powerful and flexible tool to field inbound calls and deliver them to the intended destination. The Auto

Attendant is reached by dialing an associated phone number or an extension. Once connected to the Auto Attendant, a greeting is played that provides a menu of options to complete call routing.

**Voice Virtual Private Network (VPN):** Enables multi-location businesses to configure private dial plans for on-net call routing. Your designated group administrator builds the dial plans in Online Feature Management and can add subsequent locations as your business grows. Users within an enterprise can call each other by dialing the appropriate location code and extension.

**Business Call Center:** Helps businesses establish technical assistance lines, customer support numbers, or order-taking centers. Business Call Center builds on the basic Hunt Group service to provide a complete, business-ready application. Hence, Business Call Center offers the routing capabilities of Hunt Groups service, plus provides sophisticated call-handling features like queuing and music on hold.

With a robust set of standard features and an optional suite of productivity-enhancing applications that work with your current phone system or PBX, XO IP Flex is a reliable and secure bundled solution for one or multiple office locations. Add to that the value of unlimited local and site-to-site calling, a choice of calling plans, and the flexibility of Dynamic Bandwidth Allocation, and you'll see why XO IP Flex is the perfect solution for all of your communications needs.

### Contact XO®

For more information, contact your XO Sales Representative today.

- \*Flat rates vary by market. Overage charges apply.
- \*\*Feature availability base on customer's selection of connectivity choice: analog lines, T-1 CAS Trunks or ISDN-PRI
- \*\*\* Unlimited free site to site calling between a customer's XO IP Flex, XO IP Flex with VPN and XO SIP locations



# XO TELCO COLLOCATION

*Provides customers with secure, controlled Telco-class space and network access*

XO COLLOCATION SERVICES

Separate, secured cage areas built to customer specifications, individual locking cabinets in common access area, 24x7 security and technical services, and AC and DC power are available with XO Telco Collocation.

## With Telco Collocation, you can:

- Lease physical space and associated facilities and features for your equipment and related systems;
- Benefit from a collocation facility that is designed specifically for Telecommunication carriers.
- Reduce operating costs and gain access to needed bandwidth and power to support mission critical voice, data, and internet services.
- Access our powerful broadband network, including our self-healing SONET fiber ring technology and 24/7 monitoring of customer systems and services;
- Expand quickly and economically into new markets or grow in existing ones.

## Telco Collocation:

- Features carrier-class Telco Collocation facilities with customized design, expedient implementation, power and back-up power supplies, temperature and humidity controls, and fire suppression systems;
- Provides 24/7 security, motion detectors, security cameras, individually-locking cabinets and cages, and card-key access;
- Offers 24/7 Technical Service support upon customer request; and includes 24-hour access with security escort where necessary.

Telco Collocation provides customers with secure, controlled Telco-class space and network access. An ideal solution for carriers, such as CLECs, IXCs and ISPs and commercial customers such as data storage, financial institutions and IT Integrators, Telco Collocation provides access to XO transport facilities via our cost-effective, readily available, high-capacity, metropolitan and long haul networks which provides greater performance and reliability while reducing your total operating cost.

## Cages

XO provides and installs the physical cage structure, complete with locking door and ladder racking above. The desired quantity and type of cables will be dropped into the caged space with enough slack to reach all corners of the cage. Installation is charged per square foot and requires a 100 sq. ft minimum. Power is purchased separately.

## Cabinets

XO provides and installs each cabinet, which includes a fan, a locking door. The desired quantity and type of cables will be dropped into the cabinet and terminated by the customer. Installation is charged per cabinet. Power is purchased separately.

## Contact XO

For more information, please contact your XO Sales Representative or visit [www.xo.com](http://www.xo.com).





# Hosted IT Solutions

877.932.2629

## XO Hosted IT Solutions

XO® Hosting Services helps small, growing, and large businesses create, support, and manage an Internet presence - from simple web sites to complex managed server environments with hosted corporate applications.

XO offers everything businesses need to get online with web hosting, domain management, email, junk mail and virus filtering, eCommerce, applications for online sales and marketing and more. XO Hosted IT solutions are an economical way for small-to-medium sized businesses to establish a web presence, manage email, and conduct eCommerce and online marketing.

**Hosted Microsoft Exchange** — Powerful enterprise-level email and collaboration tools for small and medium size businesses at a lower cost. Provides company-wide access to the latest Exchange and Outlook® capabilities through a secure, reliable, managed infrastructure without the cost or complexity of internal management.

**Enterprise Web Hosting** — Standard (Unix) or Windows hosting for companies that need high allocation plans or customized allocations to accommodate large corporate and high traffic sites.



**Corporate Domain Management** — A hosted solution that makes managing multiple domains easy, reliable, and secure. Manage all domains from one control panel and configure all aspects of DNS server service in near real-time.

**Business Email Hosting** — Email Hosting plans for shared hosting offer cost-effective solutions that get you started with business email, applications, and web site hosting.

**Perimeter Email Protection** — Complete email protection service for businesses with their own on-premise email servers. Filters and authenticates incoming email before it reaches your email infrastructure. Stopping spam, viruses, and email based attacks at the perimeter can reduce email load and spam by 90% or more.

**Professional Services** — Whether you need help to set up your account or with ongoing maintenance, or if you have more complex, even custom requirements XO Professional Services is an expert resource. You can rely on us to manage and help you grow your online business.

For more information about any of the XO services, visit us online at [www.xo.com](http://www.xo.com) or call us at 877.932.2629.