

How Xsigo Enhances Cisco by Reducing Cost and Management Complexity

Highlights:

Complementary Solution

- Xsigo provides server connectivity
- Transparent to the network and storage switching infrastructure
- Provides dedicated, isolated links to specific servers and virtual machines
- Supports all Cisco data center infrastructure solutions, including Catalyst, Nexus, and MDS products

How Xsigo Adds Value

- 50% less capital cost than traditional I/O
- 70% fewer cards, cables, and switch ports
- 30% less power consumption
- 20Gbps bandwidth to each server
- Storage and network QoS for predictable application performance

Xsigo virtual I/O enhances Cisco data center solutions by providing a simple, lightweight, more easily managed connectivity layer between servers and the network and storage infrastructure. The result is less capital expense, simplified management, and reduced operational costs.

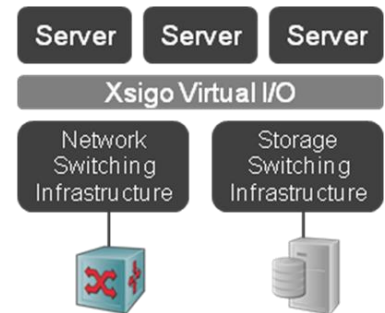
Driven largely by the demands of server virtualization, server connectivity has become significantly more complex in recent years. A virtualized server requires far more network and storage connections and more I/O bandwidth than a traditional server. The result is greater I/O cost and complexity. The Xsigo I/O Director is a purpose-built solution designed for one specific task: to consolidate and manage server connectivity, and thereby enable a simpler, more efficient, less costly link between racks of servers and the data center infrastructure.

Interoperates with Cisco Infrastructure

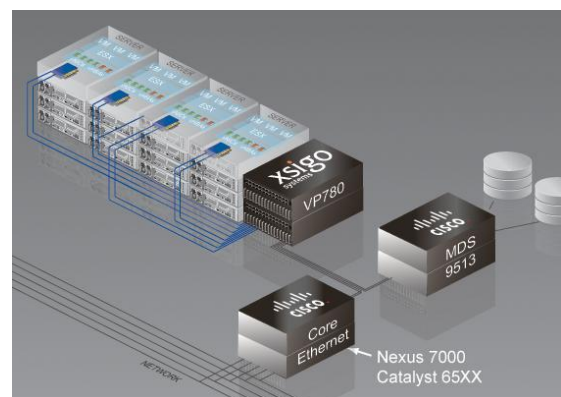
The Xsigo I/O Director can be thought of as cross-platform I/O device that provides both physical connectivity and I/O management for multiple servers. The I/O Director does not replace traditional network functionality, but augments it and accelerates management by delivering a far more powerful solution than traditional server-based host adapters.

The Xsigo I/O Director is not a switch. In fact, it is transparent to the switching infrastructure, which ensures seamless management and complete interoperability with all Cisco switching infrastructure, including but not limited to the Nexus 7000 and Catalyst 65XX.

From the viewpoint of the LAN and SAN, all network and storage connections appear to be made directly to the servers themselves. They are dedicated and isolated connections that retain the attributes of physical I/O. Consequently, switching functionality performs exactly as it would without Xsigo.



Xsigo provides an efficient, lightweight connectivity layer between servers and the switching infrastructure.



Transparent to the switching infrastructure, Xsigo complements all switch functionality while simplifying connectivity management.

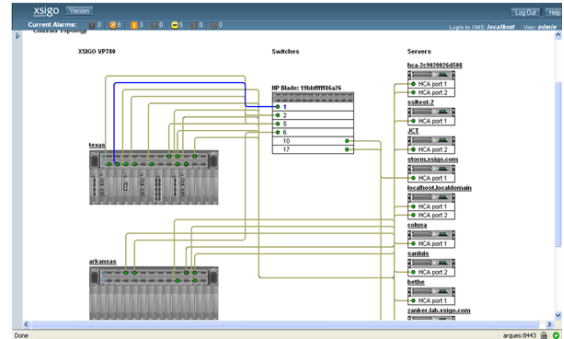
Xsigo delivers:

- Dedicated, isolated, high-bandwidth connectivity
- Deploy, manage, and migrate on-the-fly
- Up to 64 connections per server
- The benefits of fixed connectivity with 70% fewer cards, cables, and switch ports

How Xsigo Boosts Performance and Management Simplicity

By consolidating server I/O, Xsigo increases the infrastructure's efficiency and overall utility. Enhanced capabilities enabled by Xsigo include:

- 1) **Dynamic I/O resources:** Software-controlled connectivity with virtual NICs and HBAs that are deployed and migrated on-the-fly.
- 2) **Predictable application performance:** A 20Gbps link to each server delivers the bandwidth required by I/O intensive servers. Hardware-enforced quality of service controls (both network and storage) ensure predictable application performance.
- 3) **Consolidated management:** Single-screen control of I/O resources across all servers allows connections to be viewed on a Visio-like screen for simple analysis and de-bug.



A global view of I/O resources makes it simple to deploy and manage connectivity across hundreds of servers and blades.

How Xsigo Reduces Costs

Xsigo extends the I/O bus from the server to the I/O Director via a single link that carries both network and storage traffic.

Compared with traditional I/O, the Xsigo infrastructure costs 50% less to buy and install, requires 70% fewer cards, cables and switch ports, and consumes 30% less power.

Offloads Traffic From the Network

Because Xsigo provides global I/O capabilities across servers, it provides another capability that a switch cannot: fast, off-network server-to-server communications. When a virtual NIC on one server is "connected" to a virtual NIC on another, communication between those devices travels entirely over the I/O Director. It therefore takes full advantage of the 20Gbps link and it never becomes subject to network congestion.

Summary

Xsigo simplifies the data center and reduces parts count with next-generation server connectivity that both supports and augments network and storage switching infrastructures. With cross-platform management and a high-speed interconnect, it provides a faster and easier way to connect any server to any network or storage resource.

About Xsigo Systems

Xsigo is the technology leader in data center I/O virtualization, a solution that dramatically reduces operational expense by changing the way that servers are connected to networks and storage.



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