



# TRANSACTION SERVICE PROVIDER BOOSTS AGILITY

## Global online transaction service provider uses Xsigo virtual I/O for fast server deployment

This US-based company provides online transaction services to over 50 customers worldwide, serving hundreds of thousands of consumers daily. A division of a Fortune 500 firm, the company processes annual transactions in excess of \$10 billion. The IT infrastructure supporting these operations spans three continents, with each data centers housing over 1,000 x86-based servers and handling transactions for multiple clients.

### VIRTUALIZATION DEPLOYMENT

Operations initially employed a traditional one-application-per-server model, which was adequate as a starting point but proved to be too inflexible as the company's client base grew. That model was difficult to scale and costly to deploy since the firm required highly-redundant configurations to ensure zero downtime and zero data loss in the event of failure.

To increase flexibility, the company deployed the VMware ESX hypervisor. This transition significantly reduced

the cost of building a highly available infrastructure since high-end servers could run up to 40 virtual machines each, providing the headroom to move customer applications from one device to another.

“We can deploy new customers faster”

But cost and scalability remained issues. Each server demanded over a dozen storage and network connections, an expense that nearly equaled the cost of the servers themselves. Furthermore, that complex I/O had to be replicated for each new server brought online. This slowed the process of adding new servers, which in turn slowed new customer deployments.

To address the cost and scalability issues of traditional server I/O, the company turned to Xsigo I/O virtualization. The objective was to arrive at an I/O infrastructure that would match the efficiency, scalability, and cost effectiveness of the virtual server environment.

### TSP BENEFITS WITH VIRTUAL I/O

- Average server provisioning time reduced from 216 hours to 12 hours
- I/O power requirements cut by 30%
- I/O infrastructure capital reduced by over 50%
- Cabling reduced by 70%

Transform your IT infrastructure with the Xsigo I/O Director, a hardware and software solution that streamlines server I/O management. Instead of deploying multiple I/O cards and cables to every server, Xsigo lets you connect servers with a single cable and then create virtual I/O resources instantaneously. The result is 100x faster server management, 70% fewer cables and cards, and up to 50% less capital cost.

## Global online transaction service provider uses Xsigo virtual I/O for fast server deployment

“...Insane speeds make complex and CPU consuming NIC teaming obsolete...”

“...Our cost per server node is a fraction of what traditional HBA and NIC costs are...”

- TSP CIO



The Xsigo VP780 I/O Director consolidates server I/O by replacing a server's multiple Ethernet and Fibre Channel interfaces with a single high-speed low-latency 20 Gb/s link.

### THE POD ARCHITECTURE

To do this, they adopted a “pod” architecture. Each pod consists of several racks of servers and two Xsigo VP780 I/O Directors. Every server is connected to both I/O Directors, which are in turn connected to all needed network and storage resources. This provides a fully redundant infrastructure with all needed I/O. Just two physical connections are needed for each server, providing immediate savings due to 80% fewer cables and the elimination of edge switches.

More importantly these “pods” can be quickly deployed to meet new customer requirements, and are remotely configurable to decrease operating costs and enhance response times.

### DEPLOYMENT BENEFITS

Once deployed, the virtual server / virtual I/O combination proved to be the right choice. According to an IT manager at the firm, the benefits of the solution have exceeded expectations on every metric.

- **Simplicity:** “The Xsigo solution provides a single deployment, all protocol solution set which never requires revisiting the servers for HBA or NIC upgrades. Insane speeds make complex and CPU consuming NIC teaming obsolete.”
- **Cost:** “Our cost per server node is a fraction of what traditional HBA and NIC costs are. Cost per port on the switch side is much, much lower than Cisco's 10GbE and only slightly more than a non-blocking GbE port. On strategic accounts we can beat our competition on a price basis and still make profit.”

- **Stability:** “The solution set has been rock solid; we have not had one outage on our dual switch configuration with VMware. This allows us to write aggressive SLAs with penalties; essentially making the customer's business unattractive to our competition.”

### BUILDING THE BUSINESS

- **Predictability:** “Our sales and project management teams need predictable deployments to keep their customers informed and happy. Deployments are now all easy to manage and configure when they're on the same fabric and visible from one location.”

“The benefits of the solution have exceeded expectations on every metric.”

- **Time to money:** “We can deploy new customers faster and this accelerates our deployment and revenue pipeline. We can now sell deployment timeline bonus clauses to our contracts; still beat our competition and increase our margins.”

### FUTURE

With the success of the initial deployments, the company plans to continue deploying pods as new demands arise and as servers become due for a refresh. For this transaction service provider, VMware server virtualization and Xsigo I/O virtualization provide the ideal combination to deliver an efficient, scalable, and highly available data center.

