



## Investment Bank

Capital Costs Lowered by 70 percent

### Business Value

- Capital costs reduced 70 percent
- Management costs reduced 50 percent
- N+1 failover
- Better IT responsiveness

### Executive Summary

This global securities firm wanted to increase the throughput of its order-management system. To leverage Linux®, lower capital expenditures and simplify administration—without sacrificing the high availability of its existing solution—the bank turned to Egenera. The firm estimates that selecting PAN Manager® Software by Egenera® reduced its capital costs by 70 percent and lowered management costs by 50 percent.

### Business Challenge

This global securities firm wanted to increase the throughput of its order management system. With several billion dollars in underlying securities moved each day, the bank needed an extremely reliable, high-performance data center infrastructure that would enable it to execute trades more quickly and help its portfolio managers secure better per-share prices for their customers. However, the needed upgrade would have entailed significant capital costs based on the proprietary Unix platforms then being used. The goal was to source an x86-based Linux system with the enterprise-class functionality needed to run a mission-critical application.

The application—a combination of middleware, C and C++ code, and a Java-based program-trading system—was running on several Sun Microsystems® E4800 machines networked to enable the hot clustering needed to balance the load. To guard against unplanned downtime, the trading system also used high availability software, which introduced a high degree of complexity in both setting up and managing the systems. To leverage Linux, lower capital expenditures and simplify administration—without sacrificing the high availability of its existing solution—the firm turned to Egenera.

### PAN Manager Solution

During a pilot phase, the team evaluated the PAN Manager running on industry-standard x86 servers in several areas:

**Virtualization:** With PAN Manager, server, network and storage resources can be easily reallocated as requirements dictate, enabling the bank's IT personnel to right-size applications and better support business customers. Moreover, by eliminating per-server connections to networks and storage, PAN Manager's I/O virtualization has also lowered capital and operational costs.

**Networking:** The team perceived that the PAN Manager's internal high-performance, low-latency, intelligent fabric could be much faster than traditional networking among discrete servers, enabling a faster response to market changes.

**High Availability:** Traditionally, the bank backed up every production server with a dedicated failover machine, at great cost and complexity. With PAN Manager, a few servers are leveraged for backup across many production servers, with no third-party software required.

**Investment Protection:** With proprietary systems, forklift upgrades are the norm to move to next-generation servers. PAN Manager enables the bank to create a processing network comprised of a mix of processor capacities, protecting earlier investments.

# Finance

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Ultimately, Egenera replaced the firm's legacy infrastructure management environment, including high-availability software, with PAN Manager. With multiple systems in the U.S. and the U.K., the firm is now able to dynamically reallocate resources as needed, reducing provisioning and management time and creating a more stable environment during peak trading hours. The firm estimates that selecting PAN Manager reduced its capital costs by 70 percent and lowered management costs by 50 percent while delivering the performance and high availability required for this mission-critical application.



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