



## Case Study: Investment Bank Savings of \$17M versus mainframe

### Business Value

- Application-development cost reduced by one-third
- Headcount reduced by 15 percent
- N+1 failover
- Release schedule from six months to six weeks

### Executive Summary

For this customer, meeting the challenges of cost-efficient processing and scalability meant increasing automation by moving away from mainframe-based technologies. Utility computing has enabled the bank to take advantage of an open architecture while slashing server count and total cost of ownership (TCO). Migration to a new securities-processing platform based on BEA, Egenera and Intel technologies has lowered capital costs and headcount requirements, reduced errors and failed trades, and decreased operational risk.

### Business Challenge

For this customer, meeting the challenges of cost-efficient processing and scalability meant increasing automation by moving away from mainframe-based technologies. Automation has increased processing capacity, reduced the number of failed trades, lowered risk by mitigating human error and shortening the time transactions remain open, and moved the bank closer to straight-through processing by eliminating manual workflows.

Migration to the new system began with an assessment of the current environment and test cases utilizing a customer-defined workload conducted by Intel Solution Services, Intel Corporation's professional services organization. Having determined that a \$17 million mainframe upgrade was too expensive, as were proprietary UNIX systems, these tests measured the performance of two-, three- and four-node Intel® Xeon™ processor MP-based database clusters. The analysis included iterative testing to eliminate bottlenecks, improve application reliability and increase transaction throughput.

### System Benefits

The business-integration platform for the securities-processing application is BEA® WebLogic Platform, including both BEA WebLogic Server and BEA WebLogic Integration. The hardware environment is the Egenera® BladeFrame® system with Intel Xeon processors MP running Red Hat Linux. With business-process management and application and data integration built into BEA WebLogic Platform, process automation became significantly more manageable—enabling the customer to focus on business-specific functionality instead of “plumbing” to move trade data.

“Cost-effective scalability is the key benefit with this package,” said one IT director. “Egenera Processing Blade™ modules are ideal for the horizontal expansion of the WebLogic components, while providing a low-latency transport for inter-node messaging. Intel completes the picture with top performance at commodity price levels.”

*“We operate one of the world’s largest, most complex securities processing environments, spanning every major market and security type. When selecting underlying technologies, we were looking for a high-performance, industrial-strength solution that was easy to use and offered the flexibility and time-to-value we demand from IT investments. BEA, Egenera and Intel provided the ideal platform for us to meet current market needs and establish a robust infrastructure to meet future requirements.”*

*Managing Director*

## Case Study: Investment Bank

After implementing the BEA-Egenera-Intel solution, the bank streamlined mid- and back-office processes. Specific benefits include:

**Lower costs per trade:** By automating much of the processing, and reducing manual steps and errors, the operational overhead per trade was reduced significantly. In one geography, the new system lowered headcount related to trade processing by 15 percent.

**Fewer errors and failed trades:** Implementing an umbrella business-process monitoring and management framework reduced the number of errors and accelerated reconciliation to lower the number of failed trades. With 1.5 million trades per day, and that number increasing steadily, reducing errors and speeding reconciliation are crucial steps in increasing capacity.

**Decreased operational risk:** The new application reduced the time required to process a trade, thereby reducing exposure. Moreover, consistent, real-time visibility into trade status throughout the process improved policy compliance and facilitated audit-trail maintenance.

### Quantifiable Savings

The BEA-Egenera-Intel architecture also lowered total cost of ownership to improve the bank's return on investment through:

**Lower operating expense:** With the BladeFrame, consolidated power, network and storage connections are established just once for the entire system. The BladeFrame architecture consolidates ports, eliminating expensive SAN and network connections and maintenance. In the words of one manager, "It takes no more effort to network an Egenera chassis than one legacy server. Then, we can slide in 24 blades as needed, without any more wiring complexity or physical work."

**Built-in high availability:** The bank has a pool of three shared failover blades on each system, bringing high availability (HA) to more applications and lowering costs by eliminating the need for 1:1 backup. The firm also notes that there's no need for expensive HA software and that administering an HA environment is far easier.

**Resource sharing:** The BladeFrame's virtualization software and diskless Processing Blade architecture enable the bank to reprovision and share resources, thereby lowering server count. IT has allocated a pool of blades to the development team which are reused as needed for various tasks. As a result, the firm gets new applications to market faster than ever before. Also, the firm is running its quality assurance (QA) and user acceptance testing (UAT) on the BladeFrame system procured for disaster recovery (DR). In the event of an emergency, production applications restart automatically on the DR system while QA and UAT shut down. By eliminating redundant hardware to support testing and DR independently, this configuration reduced the cost of application deployment by one-third.

Overall, the customer estimated that modifying and expanding its previous mainframe-based clearing and settlement infrastructure would have cost more than \$17 million without yielding a true long-term fix. Instead, the BEA-Egenera-Intel solution cost a fraction of that amount and provides the performance, scalability and flexibility to address current and future requirements. Today, the bank rolls out a new application release every six to eight weeks as regulations, laws and technical requirements change. By contrast, updates to the mainframe required up to six months and the scope of changes was limited.



Corporate Headquarters  
Egenera, Inc.  
165 Forest Street  
Marlboro, MA 01752  
U.S.A.  
Phone: 508-858-2600  
Fax: 508-481-3114  
www.egenera.com

European Headquarters  
Egenera Ltd.  
Venture House  
Arlington Square  
Bracknell, Berkshire RG12 1WA  
United Kingdom  
Phone: +44 (0)1344 475237  
Fax: +44 (0)8703 305946  
www.egenera.com

Asia Pacific Headquarters  
Egenera (Hong Kong) Limited  
Suite 1903  
Central Plaza  
18 Harbour Road,  
Wanchai, Hong Kong  
Phone: 011 852-2877-9101  
Fax: 011 852-2877-8611  
www.egenera.com