



Case Study: Real-time ASP

Dramatic Reductions in OPEX

Business Value

- Scalability accommodates 200 percent growth
- Deployment in six weeks
- Time-to-customer reduced 95 percent
- System administration reduced 66 percent; span of control improved 5X
- Zero failures in 18 months
- Forty percent performance boost
- Complexity reduced 80 percent
- Servers consolidated 15 percent
- Server repurposing in less than five minutes

Executive Summary

This real-time financial ASP chose Egenera utility computing technology for its advanced electronic trading system. The incumbent server architecture lacked high availability, SAN connectivity and scalability and was unable to keep up with the company's forecasted application user growth of 200 percent per year. This legacy solution was based on the standard white box approach wherein islands of resources are deployed with little sharing and unmanageable complexity.

The Egenera® BladeFrame® system and its PAN Manager™ software eliminated these problems by delivering failover capabilities, increasing reliability, simplifying infrastructure and reducing physical complexity. Within six weeks of project initiation, the mission-critical application running Microsoft® Windows® 2000 was successfully ported to Windows 2003 on the BladeFrame with a 3PAR® SAN (storage area network). Compared to the previous platform, Egenera's BladeFrame allowed the ASP to reduce the time needed to provision servers for a new customer by 95 percent, creating a significant increased annual revenue opportunity.

Business Challenge

The decision to look into utility computing initially arose from the company's need for an integrated, highly available, sharable platform that could reduce customer deployment time and cut costs in a complex regulatory environment. The company placed great value on the need to grow revenue by cross-selling and reducing expenses through its shared ASP hosting solution.

"To me, utility computing means pools of server, storage and network resources. Applications have access to these pools and use only the capacity they need precisely when they need it," explained a company IT executive. "It also means the ability to toggle between operating environments, say Microsoft Windows and Sun® Solaris™. The Egenera BladeFrame gives us these capabilities."

The ASP's former legacy-based infrastructure was unable to scale effectively and was taxing IT staff. With limited sharing of resources across customer deployments, system administrators had to manage, monitor, troubleshoot and fix an ever-increasing server sprawl—a very time-consuming process. The company wanted a new solution that was sharable across customers, had built-in high availability and would allow system administrators to manage more infrastructure and applications without expanding the team. They also wanted a platform that permitted rapid image deployment and cloning. The faster customers could be added, the more revenue for the firm.

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“Instead of interrupting production and redesigning infrastructure each time we added a client, we needed a server platform that could be installed once and scaled on the fly. Seamlessly adding capacity at just the right time is the name of the game,” the executive said.

Egenera’s solution for simplifying the datacenter covered all these requirements, resulting in a significant, positive financial impact on the ASP’s infrastructure and delivery strategy.

Egenera Benefits

Egenera technology has enabled this ASP to change its business process around customer acquisition, improving both revenues and competitiveness.

“Before Egenera, we didn’t think we could impact time to customer,” said the IT spokesman. “Now, we know that with the right technology we can be ready for expansion at any time. Egenera has given us total flexibility in bringing on new customers and setting future direction. What we used to think would take time, cost money and require additional resources is all built-in and automatic with the BladeFrame. Egenera’s technology has given our senior management a new level of appreciation for the datacenter’s contribution to business performance.”

Other Egenera benefits include:

Operational Efficiencies: “With our previous platform we had people involved in production-related issues 24 hours a day,” recalls the spokesman. “Adding a new customer meant stopping, reconfiguring and rebooting the environment. With Egenera, we perform server, network and storage provisioning once for every 24 servers, as opposed to 24 individual deployments. Configuration and subsequent changes are done on the fly, entirely through software. The system literally requires no human interaction. What used to take three people now takes just one. Our system administrator span of control has improved by a factor of five. Savings on the administrative side have been tremendous. The massive operational efficiencies and cost savings Egenera enables are far greater than the industry has acknowledged.”

Availability: The firm’s IT function has a 100 percent uptime service-level agreement with the business. “The datacenter is our business,” said the executive. “Every dollar is generated by our online services. We’ve had the Egenera system up and running non-stop for 18 months now. Not a single failure. Response from our clients has been extremely positive. With our previous architecture, service interruptions weren’t uncommon. Now, whenever customers need our service, it’s there.”

Time to Market: Egenera has significantly accelerated deployment of servers for new customers. With the previous platform, time to deploy was as much as 20 days. With the BladeFrame, this timeframe has been cut by up to 95 percent, allowing deployment in just one day and creating a significant increased annual revenue opportunity.

Performance: The electronic trading system saw record-breaking performance in the number of trades and symbols it could execute using the Egenera BladeFrame’s backplane. By connecting all of the servers to an ultra-fast, low-latency fabric, multicast data fly seamlessly and quickly across each of the application tiers. “We think of it as performance per dollar,” said the spokesman. “Simply put, we get more out of Egenera than we can from conventional servers. We’ve boosted performance up to 40 percent with lower utilization.”

Physical Simplicity: A drawback of the former solution was its complexity, which drove up operating costs. The Egenera architecture has reduced the number of physical components (KVMs, cables, SAN ports, LAN ports, NICs, HBAs, disk drives, etc.) by 80 percent. “The Egenera system is much cleaner than legacy architectures,” said the IT executive. “This makes it far easier to manage, lowering costs and improving datacenter efficiency.”

Server Consolidation: Egenera’s utility architecture, which can be shared across customers, has reduced and consolidated the number of application servers by 15 percent. “Server consolidation has become part of our operational lifecycle,” explained the executive. “Instead of adding more and more new servers, we measure capacity on the frame. If resources are available, that’s the way we go. Server consolidation with Egenera has saved us thousands of dollars in new server purchases.”

Repurposing: Shortly after the BladeFrame was installed, the firm experienced a significant, unexpected increase in demand for one of its online applications. With the previous architecture, this would have meant poor performance or even downtime. “But with Egenera, we had the option of repurposing,” the spokesman recalls. “We were able to avoid a tremendous problem that would have occurred if Egenera had not been there.” He also reports that the firm routinely repurposes resources in the production environment in a matter of minutes.

References Seal the Deal

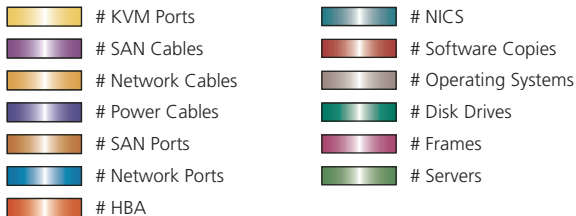
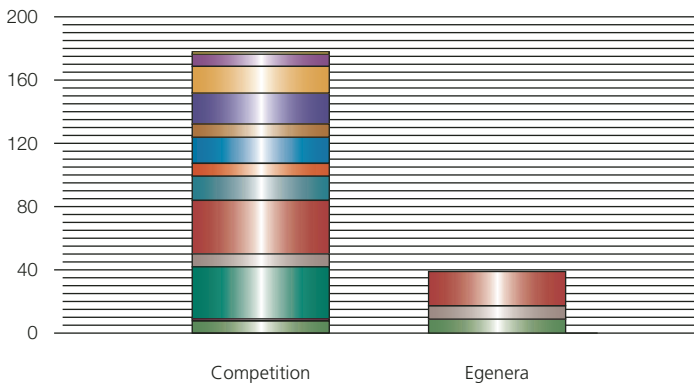
Before selecting the Egenera solution, IT management at the firm researched available technologies extensively.

“From what I could see, no other vendor has a system as advanced as Egenera’s when it comes to virtualization and utility computing,” said the IT executive. “What’s unique about Egenera is the direct relationship between the software and the hardware it’s controlling. While other vendors are cobbling technologies together in an effort to create a utility-like environment, the BladeFrame was designed as an integrated system. I spoke to IT shops that had implemented Egenera and to those who tried to do this with non-Egenera gear. Based on cost, risk and time to market, it was clear to me that Egenera’s integrated approach was the way to go.”

He concluded, “We also got to see a lot of new technologies during our due diligence, including IT consolidation, hypervisors and other approaches to virtualization. While some might be adequate for demo or testing purposes, none were ready for production. Based on customer references and our own experience, Egenera clearly is. I see the Egenera system as the true gateway into server virtualization.”

Complexity

(number of components)



Praise for the Egenera System

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