



The
Data Center
Virtualization
Company

Executive Brief

Data Center Virtualization

The Challenge: Enabling Business Growth and Agility

In most enterprises, the role of IT is changing from supporting the business to enabling business growth. The challenge is that 40 years of growth in computing has left a legacy of inflexible infrastructure, application silos and staggering inefficiency in most data centers. Moreover, providing infrastructure support for critical applications is costly and time intensive. The result is a highly complex environment that can be a management nightmare and a challenge to scale for today's rapidly changing businesses.

Data center complexity threatens the very core of IT as competitive advantage, undermining agility and making it difficult to capitalize on business opportunities or respond rapidly to competitive challenges.

Enter server virtualization—technology that divides one physical server into many logical ones to raise utilization and efficiency. This has been shown to be an effective way to consolidate servers and reduce some of the physical infrastructure in the data center. However, fast forward a few years and you can see how a few hundred servers might turn into thousands of virtual machines, all of which need to be provisioned and managed. With each physical server hosting numerous operating systems and applications, the need for high availability and disaster recovery goes up dramatically. In addition, there are many applications that will continue to need all of the processing and memory capacity of a full server and therefore not benefit from server partitioning.

The Solution: Simplicity through Data Center Virtualization

What is needed is an architecture that spans all of the data center, not just virtual machines, encompassing virtual machines and physical servers, networks, storage, and management. Data center virtualization, which combines server virtualization with network and storage virtualization, enables agility across the data center, while eliminating many physical components and simplifying the management of the environment. It creates resource pools of processing, networking and storage that can be allocated to applications as needed.

Egenera delivers data center virtualization through our patented Processing Area Network (PAN) architecture. Proven in production for over six years, Egenera technology supports some of the world's most mission critical applications. The PAN architecture attacks the root cause of data center complexity by combining diskless, stateless processing blades with unique virtualization software that manages processing across a pool of shared resources that are centrally managed. This assures high availability and flexibility, while enabling efficient use of resources and higher asset utilization overall.

The Result: Competitive Advantage

Data center virtualization enables IT to fluidly align resources with application demand, minimizing costs and maximizing agility to support a highly responsive business. Results are immediate and quantifiable:

Faster Time to Market

When a new processing resource is required, it can be installed and deployed—including automated configuration of the software stack—in minutes, versus the weeks required to provision traditional servers.

Better Application Availability

Because of cost and complexity, many organizations configure only the most mission critical applications for HA. Egenera technology enables you to make every application highly available at virtually no cost. The system eliminates the backup servers, redundant network and storage connections, complex clustering software and professional services required for traditional HA deployments. In addition, our patented N+1 disaster recovery software eliminates the human error, high cost and time consuming nature of traditional DR (disaster recovery) implementations.

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Faster Application Response Time

Often, IT delays server upgrades as long as possible because of the risks and difficulties of migrating mission critical applications. But avoiding these pain points means the most important services wind up running on the least capable equipment, compromising response time. The Egenera® BladeFrame® system's virtualized architecture routinely right-sizes servers to identify the optimal combination of utilization, price and performance.

Lower Costs

Capital spending for data center equipment—including servers and related infrastructure—drops by up to 70 percent as overprovisioning is eliminated. Software and ongoing maintenance charges are also slashed while labor costs are reduced by as much as 80 percent. The result is dramatic acceleration of the return on your IT investment.

The Proof: Customer Testimonials

"During one of our DR tests with Egenera, we had the application up and running again in three minutes. I've had experiences where even under planned power downs we would build-in two to three weeks to failover complex, legacy systems—and the actual move would have taken seven hours. With Egenera—in concert with 3PAR® storage—we are able to literally push a button to get everything up and running again."

James Crum, Manager of Infrastructure Technology Services Farm Bureau-Western Computer Services, Inc.

"Supporting any mission critical system means the platform has to be low-latency, scalable, secure and always available—those are givens. But we also knew we needed a better way to get more out of our infrastructure—dynamically reallocating resources as needed, depending on the time of day or night. Egenera proved they could meet all of our growing needs."

Christopher Chapin, VP of Infrastructure Services, Pioneer Investments

"When you look at a virtualized environment, you start to get significant benefits that make centralization the right approach. With Egenera, we cut total cost of ownership in half compared to a traditional x86 solution due to superior I/O and performance. We expect that ratio to improve still further as we get more countries up and running and can leverage the system's repurposing capabilities across time zones."

Egenera was the only vendor with an integrated solution for virtualization and the I/O fabric, and the only one with a proven product. Their technology's track record with other world-class customers gave us the financial data we needed to justify the investment and the confidence to deliver on our strategy."

Jan Verplancke, CIO, Group Head Technology & Operations, Standard Chartered



Corporate Headquarters
Egenera, Inc.
165 Forest Street
Marlboro, MA 01752
U.S.A.
Main: 508-858-2600
Sales: 508-858-3600
Fax: 508-481-3114
www.egenera.com

Europe/Middle East/Africa
Egenera Ltd.
FSC Campus
The Boulevard, Cain Road
Bracknell, Berkshire RG12 1HH
United Kingdom
Voice: +44 (0)1344 475237
Fax: +44 (0)1344 475775
www.egenera.com

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

Japan
Egenera, K.K.
Shinjuku NS Bldg. 6F,
2-4-1 Nishishinjuku,
Shinjuku-ku
Tokyo 163-0806 Japan
Voice: +81-3-5321-7157
Fax: +81-3-5321-7158
www.egenera.com/jp/