



## **AMD and Egenera® Create a Virtualized Environment to Help Commerzbank North America Better Prepare for Business Each Day and Better Service Customers**

*"Although we consolidated our servers we dramatically increased our availability. With the AMD Opteron™ processor and Egenera® BladeFrame™ system we reduced floor space by 60 percent and dramatically improved efficiency while increasing capacity three-fold. In addition, we now have a flexible solution to help us rapidly roll out new, in-demand services to our customers while maintaining almost perfect availability of our other applications." — Rich Arenaro, vice president, Information Technology, Commerzbank North America*

### **Challenge**

- Commerzbank North America's data center managed massive amounts of information. During the day, the system was taxed with heavy transaction processing; in the evening, the system ran batch processing. Both tasks required the utmost availability, reliability, and performance as the system needed to complete all transactions in the evening in order for Commerzbank North America to be prepared for the next business day.
- Additionally, due to a highly competitive market and rapidly changing business conditions, Commerzbank North America needed a highly flexible system that could quickly introduce new services to its customers.
- Lastly, as the business grew, so did the data center requirements. But with limited data center space and costly new real estate just to support a growing data center, the company explored vendors that could provide consolidation solutions that maximized space through virtualization technologies.

### **Solution**

- After carefully evaluating the world's largest IT vendors, Commerzbank North America selected a virtualized environment created by AMD Opteron™ processor-based Egenera® BladeFrame™ systems. Specifically,

- Commerzbank North America consolidated 140 servers into two AMD Opteron processor-based Egenera blade systems. Each of the two BladeFrame chassis included 24 Egenera Processing Blade™ modules, each powered by 4-way AMD Opteron processors and capable of running Microsoft® Windows® Server, VMware® virtualization infrastructure software and Novell® SUSE® Linux®.
- “We were looking for vendors with top-tier engineering solutions, who understood what we were trying to accomplish technically and how that aligned to the business, and AMD and Egenera were in sync with our needs,” said Rich Arenaro, vice president, Information Technology, Commerzbank North America. “As a company, a flexible consolidation solution is an important part of the company’s strategy. If I was just looking for computing power, I could cobble multiple, less expensive servers in a rack and say ‘this is my grid’. But AMD and Egenera understood our requirements, and their solutions are critical to our success.”

### **Impact**

- Since deploying the AMD Opteron processor-based Egenera BladeFrame systems, Commerzbank North America dramatically improved the reliability of its applications. “We improved our reliability by creating no single point of failure. Prior to this we had a 1:1 failover scheme with Unix; with the AMD Opteron processor-based Egenera BladeFrame systems we improved to a 1:6 failover,” said Arenaro.
- Arenaro elaborated on the availability and performance benefits of the system: “As loads increase during the night, we have decreasing windows of opportunity and any glitch closes the window more. Through increased processing power we were able to ensure data is available as needed. Previously, the process took three hours but with the AMD Opteron processor based-Egenera BladeFrame systems it now takes just one hour,” said Arenaro. “That’s two more hours for us to address customer demands. This consistent performance is very important to us.”
- The new system also alleviated both Commerzbank North America’s availability and space concerns. “Although we consolidated our servers we increased our availability. We reduced floor space by 60 percent and improved efficiency while increasing capacity three-fold,” said Arenaro.

- The system also provided the necessary flexibility and efficiency for Commerzbank North America: “Depending on the server requirements it could previously take us up to two days to configure a server. With the AMD Opteron processor-based Egenera BladeFrame systems it’s under an hour soup to nuts,” said Arenaro.
- The efficiency of the AMD Opteron processor-based Egenera BladeFrame system was also seen through connectivity. The solution provided consolidated connections to the SAN and IP networks, dramatically simplifying configuration and trouble-shooting, as well as lowering costs. “It’s an odd but welcome situation: the denser you get in an Egenera environment, the more you propagate the system, the cleaner your data center gets,” said Arenaro.

### **Organizational Profile**

Commerzbank North America (Commerzbank NA) deals in wholesale banking for corporate and institutional customers as well as banks. Its business includes corporate finance, trade finance, real estate finance, public finance, treasury and trading activities.

For more information on Commerzbank NA, visit [www.commerzbank-usa.com](http://www.commerzbank-usa.com)

### **Challenge**

Commerzbank NA’s data center managed massive amounts of information. During the day, the system was taxed with heavy transaction processing; in the evening, the system ran batch processing. Both tasks required the utmost performance, availability and reliability: the system needed to complete all transactions in the evening in order for Commerzbank NA to be prepared for the next business day.

“Our applications extract data from various resources including local and corporate systems. We needed to wait for a significant number of business closings to happen overnight and we found the window to process and reconcile that data got smaller and smaller. This processing determines the company’s financial position for the coming day’s work so there was no tolerance for downtime,” said Rich Arenaro, vice president, Information Technology, Commerzbank NA.

Additionally, due to a highly competitive market and rapidly changing business conditions, Commerzbank NA needed a highly flexible system that could quickly roll out new applications. “Whether we needed to prepare for disasters or quickly develop, test and deploy new applications, we required a system that allowed us to repurpose our resources on the fly,” said Arenaro. “Also, because so many critical applications run on our system we needed to maintain a specific level of performance while we added new applications and services to better serve our customers.”

Lastly, as the business grew, so did the data center requirements. But space was limited and new real estate was costly. “Our space was finite, so shrinking the footprint, and being able to fit all the equipment we needed in a pre-determined space while factoring in growth and moving forward was important,” said Arenaro.

### **Solution**

Commerzbank NA sought a processing platform that could complete its vision of a fully virtualized data center. It evaluated offerings from the world’s largest vendors, but found that none could toggle between operating systems due to their legacy architectures. In every case — including server blades — each server contained a local disk, network interface card and storage interface that gave it a fixed, permanent identity.

After conducting extensive research and tests, Commerzbank NA found that AMD and Egenera® met the company’s needs. Specifically, Commerzbank NA consolidated 140 servers into two AMD Opteron™ processor-based Egenera BladeFrame™ systems. Each frame included 24 Egenera Processing Blade™ modules, each powered by 4-way AMD Opteron processors, and capable of running Microsoft® Windows® Server, VMware® virtualization infrastructure software and Novell® SUSE® Linux®.

“We were looking for vendors with top-tier engineering solutions, who understood and were aligned with what we were trying to accomplish from both a technical and business perspective, and AMD and Egenera were in sync with our needs,” said Arenaro. “As a company, a flexible consolidation solution is an important part of the company’s strategy. If I was just looking for computing power, I could cobble multiple, less expensive servers in a rack and say ‘this is my grid’. But AMD and

Egenera understood our requirements, and their solutions are critical to our success.”

The design of the AMD Opteron processor-based Egenera BladeFrame systems delivered the required flexibility for Commerzbank NA: “We were coming from a model of dedicated resources and dedicated applications and services. We were missing the ability on the server side to provide a resource pool similar to what we had for storage and networking. We wanted to be able to share capacity, dynamically reconfigure resources to meet the needs of the business at any time; now, we can,” said Arenaro.

### **Impact**

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Arenaro elaborated on the availability and performance benefits of the system: “As loads increase during the night, we have decreasing windows of opportunity and any glitch closes the window more. Through increased processing power we were able to ensure data is available as needed. Previously, the process took three hours but with the AMD Opteron processor based-Egenera BladeFrame systems it now takes just one hour,” said Arenaro. “That’s two more hours for us to address customer demands. This consistent performance is very important to us.”

This dramatic, dependable performance improvement empowered Commerzbank NA’s team to load up the Egenera BladeFrame systems with other Microsoft Windows applications. Along with reporting, the bank now runs Microsoft Exchange® server, Microsoft SQL® Server databases and SMTP gateways on the Egenera platform. “If it’s got no tolerance for downtime and it runs on Windows, it goes on the BladeFrame,” Arenaro noted. “With the AMD Opteron processors, we’ve been able to add more and more to the system with no degradation in performance.”

The new system also alleviated both Commerzbank NA's availability and space concerns. "Although we consolidated our servers we increased our availability. We reduced floor space by 60 percent and improved efficiency while increasing capacity three-fold," said Arenaro.

Arenaro also further commented on the space and energy efficiencies: "We've gotten back 60 percent of our datacenter — we have rows and rows available now after consolidating on AMD Opteron processor-based Egenera BladeFrame systems. Also, the frame is the coolest thing in our datacenter and oddly enough it's the densest —this inspires confidence in the design and quality of engineering at both AMD and Egenera."

The system also provided the necessary flexibility and efficiency for Commerzbank NA: "Depending on the server requirements it could take us up to two days to configure a server prior to the migration. Now it's under an hour soup to nuts." The resource pool has also effectively delivered the flexibility to deploy and move applications as the IT department sees fit. According to Arenaro, it takes just minutes to move an application and well under an hour to create and provision a new server.

The efficiency of the Egenera systems was also seen through the connectivity. The solution provided consolidated, high-bandwidth connections to the SAN and IP networks, dramatically simplifying the configuration and trouble-shooting, as well as lowering costs. "It's an odd but welcome situation: the denser you get in an Egenera environment, the more you propagate the capability of the Egenera BladeFrame system, the cleaner your data center gets," said Arenaro.

"Our connectivity is simpler and neater, which yields massive cost savings," added Arenaro. "If a problem arises it is much easier to isolate issues, re-cable, or re-position a rack or cabinet. There is also an increase in uptime because there are fewer cables for people to accidentally kick out, blindly follow in search of a resolution or even create a new problem. The system is simply perfect for our environment."

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### **About Egenera**

Egenera is a global leader in delivering enterprise computing solutions that simplify data center operations and infrastructure. The Egenera BladeFrame system simplifies the data center with an innovative server architecture specifically designed to reduce complexity and enable IT to respond rapidly to business requirements. Market-leading enterprises around the world trust the Egenera BladeFrame system to run their most important business applications and achieve higher resource utilization, faster application time to market and lower total cost of ownership. Headquartered in Marlboro, Mass., Egenera has offices worldwide. More information is available at [www.egenera.com](http://www.egenera.com).

### **About AMD**

Advanced Micro Devices (NYSE: AMD) is a leading global provider of innovative microprocessor solutions for computing, communications and consumer electronics markets. Founded in 1969, AMD is dedicated to delivering superior computing solutions based on customer needs that empower users worldwide. For more information visit [www.amd.com](http://www.amd.com).

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