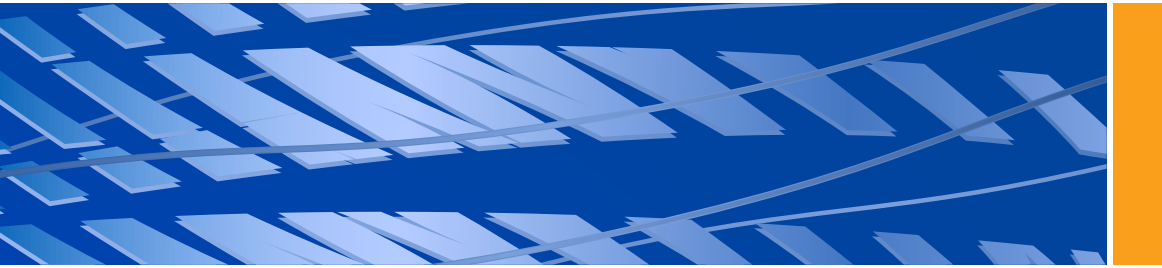




Bringing SANity to Storage Costs



“Celeros has delivered the best of all worlds to us. We are now recommending Celeros SAN solutions to our customers who need flexible, reliable, cost efficient storage and easy, rapid access to critical enterprise data.”

– Al Alaverdi, Vice President of Technology, SigmaQuest



High Performance, Cost Effective, iSCSI-Based Storage Area Network Solutions from Celeros Enable SigmaQuest to Deliver Flexible, Reliable Oracle Database Storage to its High Tech Manufacturing Customers

The Company

SigmaQuest provides Product Performance Intelligence software and data analysis solutions that enable high technology manufacturers to access, analyze and share information about every part and every component within every product throughout their extended supply chains.

Test and quality data related to parts and finished products is captured by SigmaQuest, aggregated and analyzed in real time so that product quality and process integrity can be assured. This assists manufacturers and their partners in complying with product specifications and industry regulations, and in optimizing product design, quality, costs and time-to-market objectives.

“Since our software captures literally every bit of data about a manufactured product during its lifecycle, we are dealing with very large volumes of data,” said Al Alaverdi, Vice President of Technology for SigmaQuest. “This includes test results on components being supplied to contract manufacturers, test data associated with the assembly and test processes at contract manufacturing sites, and analytical data collected by RMA centers.”

Unique Mass Storage Requirements

Customer data is collected in real time by SigmaQuest and consolidated in a central repository where the test results and quality of every component is analyzed by SigmaQuest’s enterprise applications. Even before assembly begins, component quality is checked and corrective actions are taken to prevent quality issues downstream.

“Our typical customer is a high-tech products manufacturer with 20 or more components suppliers, a number of contract manufacturers and several RMA centers that serve thousands of customers. We need to bring all this data into one analysis platform housed at one location,” Alaverdi explained.

Manufacturers who implement SigmaQuest’s product quality systems can experience a 60 percent or better improvement in quality. This all translates into lower product defect rates, lower warranty and repair costs, higher customer satisfaction and greater profitability for the manufacturer.

FOCUS:
Storage Area Networks

INDUSTRY:
Enterprise Software / Database Storage

ORGANIZATION:
SigmaQuest, Inc.
www.SigmaQuest.com

SPECIALTY:
Enterprise Software, Performance Intelligence and Data Analysis

LOCATION:
Santa Clara, CA

APPLICATIONS:
Massive Oracle Database Storage and Rapid XML Data Transfer

CELEROS SOLUTION:
EzSAN XL23 w/ 3.0TB

“Celeros now allows us to transfer and store about 18,000 XML files per hour compared to the 9,000 files per hour rate that we had previously. Celeros is substantially faster.”

“The quality and speed of Celeros’ solutions, and their service and support are extraordinary. Other storage area network solutions we evaluated were substantially more expensive. Celeros provided us with a very affordable solution that fit our needs perfectly.”

— Al Alaverdi, SigmaQuest

Why Celeros?

The biggest challenges for SigmaQuest in scaling out its platform to its many customers were in implementing and managing the infrastructure needed to support their extensive data repositories.

“We enable Product Performance Intelligence for our customers,” Alaverdi noted. “Before we partnered with Celeros, maintaining multiple Oracle database servers was a significant challenge for us. A few of our customers were underusing their database servers and others were overusing them. There were different levels of complexity in their various supply chains. It was hard for us to find one storage solution that was a good fit for everyone.”

The direct-attached database storage arrays that SigmaQuest employed previously did not allow them to connect servers together and efficiently share available storage capacity among different customers. SigmaQuest’s technology team looked for ways that they could decouple the storage from the database servers and put underused storage assets to work.

Flexibility and Performance

After an extensive search, SigmaQuest discovered Celeros’ iSCSI-based Storage Area Network (SAN) appliances. iSCSI is a protocol that encapsulates SCSI commands and data into IP packets that are easily transported to storage devices shared over Ethernet and IP infrastructure.

“Celeros brought the ideal solution to us,” Alaverdi explained. “Their high-performance SAN appliances and an extremely attractive price allowed us to detach our storage from individual servers that were not being used in an optimal way.”

“As a result, we’ve been able to centralize our storage, pool storage resources and improve our storage utilization by sharing SAN storage assets across our customer base over inexpensive Ethernet and IP connections, he added.”

Issues related to storage availability and performance were also eased by Celeros

solutions. In a direct-attached storage environment, SigmaQuest’s Oracle database network had to be tuned for both read and write operations. It was difficult to optimize read-write traffic and get maximum use of the available storage. Celeros resolved these problems by enabling SigmaQuest to implement and fine tune several raid storage sets within the same storage appliance.

Manageability and Reliability

“Celeros helped us significantly improve the manageability of our data centers,” Alaverdi noted. “Previously, it was difficult and expensive for us to maintain multiple databases operating on multiple database servers. We had some tough challenges managing our database server licenses. After we switched over to the Celeros iSCSI-based SAN architecture, most of our performance and license management issues went away.”

For example, when SigmaQuest wanted to replicate data between two or more physical storage devices to provide failover and fault tolerance, this was easy to accomplish with just one Oracle database license and multiple SAN appliances, all running in a cluster. Because database applications were not being replicated, only one database license was needed. And yet, it was possible to distribute the data to optimize performance and provide failover reliability.

Speed, Simplicity and Economy

Celeros’ iSCSI-based SAN solutions offer the speed and simplicity of Ethernet and IP architecture. This made it easy and inexpensive for SigmaQuest to rapidly deploy and manage solutions that worked well for all of their enterprise customers.

“Celeros offers extremely affordable pricing, which is important for us to deliver competitive solutions to our customers,” Alaverdi said. “On top of that, they also provided excellent consulting services, trial storage units, and other hands-on assistance that made our SAN implementations easier and more successful.”



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Key Benefits of Celeros iSCSI-based SAN Storage Appliances

- Pooled Centralized Storage, detached from servers and hosts
- Improved Manageability of Resources, better security, easier access to data
- Reduced Operational Costs and lower total cost of ownership
- Improved Storage Utilization, redundancy and failover
- Expanded Global Connectivity using Ethernet, IP/Internet resources
- Domain Expertise and Tier 1 Technical Support that ease implementation

