



Highlights

Industry

IT Services and Lease/Financing

Location

Chicago, IL

IT Environment

- Web application with Cisco Nexus and Cisco servers
- Hard Disk Drive based storage slowing response time
- Virtualized VMware SQL Server 2012

Violin Results

- Reduced software development costs
- Increased web application performance
- Eliminated expensive caching solution

"Violin Memory changed the way we developed our web applications at a fundamental level."

Bernal Schooley
LaSalle Chief Software Architect

LaSalle Moves @ The Speed of Memory

How Violin Memory provided a different way to develop applications.

The Customer

LaSalle Solutions is a leading value-added reseller of technology products and services. LaSalle makes a commitment to their customers that goes beyond the initial engagement or sale by providing support throughout the life of an asset. Customers rely on LaSalle to provide a complete solution covering the ongoing management and renewals of maintenance contracts, and the disposal and migration to the next generation of hardware.

The Challenge

LAMPSM is the on-premises cloud-based web application that LaSalle developed to serve their customers requirements for the management of their technology assets. These highly sophisticated customers depend on LAMP as an integral part of their business processes. LaSalle needed industry-leading performance from their LAMP application to make a statement about the quality of their services and commitment to their customers.

Web applications, such as LAMP, are extremely demanding. Each user experience can be highly variable since there are a large variety of users accessing the application with diverse workloads. Meeting these performance demands required attacking the problem from multiple directions.

Network performance is a critical factor in any multi-server web application. LaSalle approached this requirement by utilizing the latest high-end Cisco Nexus network switches to provide the fastest possible communication between the key servers in the environment.

The second key element in delivering high performance for a web application is storage. With the large amounts of data involved, LaSalle needed exceptionally fast storage in order to provide the highest level of performance for their customers.

The slowest element in a traditional storage system is the mechanical delay inherent in hard disk drives. This typically limits performance of the whole environment and the CPU is left idle while waiting for storage I/O to complete. Caching solutions are often employed to address this problem; however, the application requirements in the next release of LAMP 4.0 led to an ever-increasing level of difficulty in managing the expiration of the cached data. Reducing the effects of slow storage through caching of data was leading to additional development costs and delays.

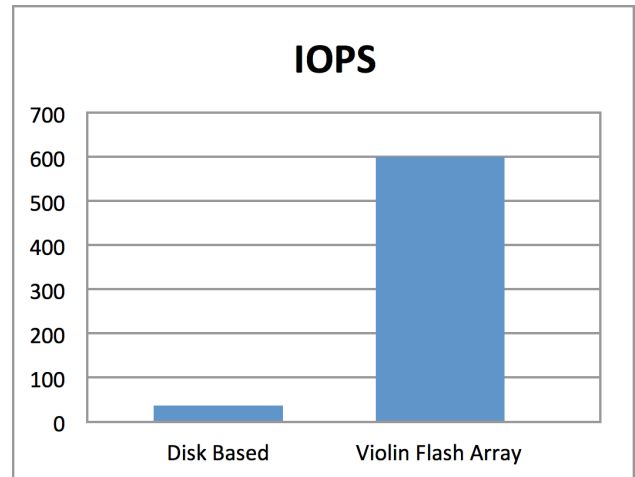
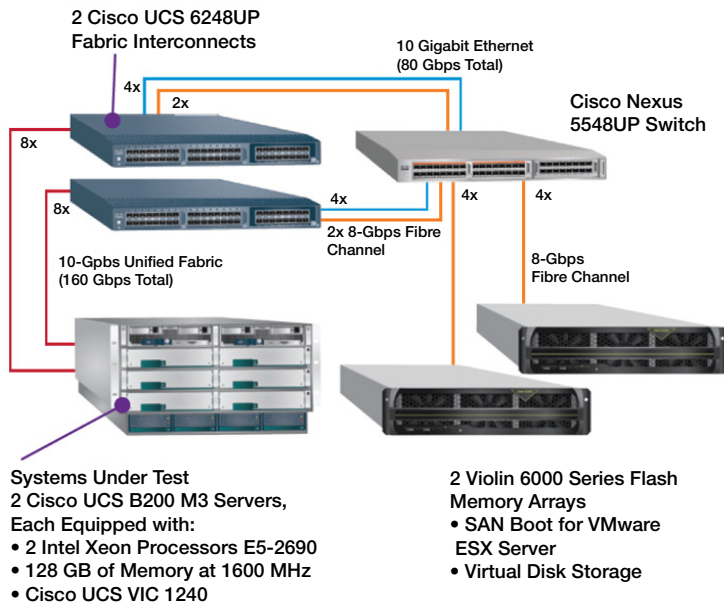
Steven Robb, president of LaSalle's Solutions Group, did some in-depth analysis of different technology-based offerings. He discovered that Violin Memory, which offers all-flash storage solutions, topped his list. One of the deciding factors in looking at Violin was the benchmark that Cisco had completed*. He dared the Violin Memory team to "Prove your solution will do what you say, and I'll buy it". The Violin Memory team configured an all-flash solution eliminating the mechanical delay found in legacy storage systems and delivered the performance LaSalle required.

* http://www.cisco.com/en/US/prod/collateral/ps10265/vmm_infrastructure.pdf

The Solution: Violin Flash Memory Arrays

The surprising results far exceeded LaSalle's expectations.

The company's Cisco UCS servers were originally delivering 30K IOPS and are currently delivering 600K IOPS due to Violin Memory. The high level of storage performance ran into a bottleneck in the Cisco network requiring an upgrade of the Nexus switches. With newly gained confidence, Steven Robb decided to use Violin Memory for the solution as LaSalle prepared to release the latest version of LAMP 4.0 to their hundreds of demanding customers.



* http://www.cisco.com/en/US/prod/collateral/ps10265/vmm_infrastructure.pdf

Results and Benefits

After acquiring the Violin Memory array and seeing the immediate impact to the business, LaSalle has become a premier partner. They have set new benchmarking records with their customers using Violin Memory. With the latest LAMP implementation, customers are able to receive quotes and estimates on the fly. Steven Robb has satisfied customers as well as provided a new product line of all-flash storage from Violin Memory. Bernal Schooley, LaSalle Solutions chief software architect states, "In my twenty plus years of database-driven web development, the performance of the database has almost always been the limiting factor in web site performance. With SQL Server running on Violin Memory, the rules have changed. Our web servers are no longer waiting as long for data and as a result the response time and throughput have improved dramatically."

Violin Memory is the storage technology that LaSalle customers are already using with LAMP, yet they do not even know it. All they know is it is insanely fast!

"Violin Memory changed the way we developed our web applications at a fundamental level. When we saw our database requests completing in sub-millisecond speeds from SQL Server on Violin Memory, we realized it was no longer necessary to create complicated web server based caching and cache expiration schemes. This single change led to faster, less complicated code that noticeably cut our development costs."

Bernal Schooley



Violin Memory, Inc.

4555 Great America Parkway, Suite #150, Santa Clara, CA 95054
 Ph: 1-888-9VIOLIN (984-6546)
 Email: sales@vmem.com