

GOVERNMENT EMPLOYEES HEALTH ASSOCIATION (GEHA) POWERS CORE CLAIMS PROCESSING WITH VIOLIN SYSTEMS



IT ENVIRONMENT

- Data center transition from mainframe to distributed SQL- based architecture
- Over 98% virtualized with VMware
- Traditional disk-based storage could not handle the workload
- Violin All Flash Arrays deliver the performance and reliability required
- Standardizing on flash as primary storage; SATA for secondary

Government Employees Health Association (GEHA), a major provider of health insurance plans for federal employees, embarked on an initiative to migrate business-critical applications from a mainframe to a modern distributed architecture. GEHA turned to Violin Systems for the performance and enterprise reliability of Violin All Flash Arrays as the strategic storage solution for their core Claims Processing application.

GEHA is the second largest national health plan and the second largest national dental plan serving federal employees, federal retirees and their families. GEHA provides health and dental plans to more than one million covered lives worldwide. Processing insurance claims is the core function of the business and requires a solution that ensures performance for customer satisfaction and high reliability.

The Challenge

GEHA faced the challenge of a major IT transition project: moving their primary business critical application (Claims Processing) from a mainframe environment to a modern distributed solution based on Microsoft SQL. GEHA also operated a highly virtualized data center with over 98% of servers virtualized and based on VMware.

“Violin not only gave us the confidence that we could support and scale our most critical application, we see it as a strategic solution that provides us with a long term direction where flash is our primary storage platform and non-critical data is housed on low cost SATA disk.”

— Brenden Bryan, Director of Enterprise Architecture at GEHA

Brenden Bryan, Director of Enterprise Architecture for GEHA stated “We needed a distributed environment that matched the uptime and reliability of the mainframe. We were well aware that storage is critical to the performance of a VMware environment and storage issues can manifest themselves in lots of different ways.”

Virtual infrastructure places a high demand on storage to deliver I/O operations in a mixed read/write environment. Traditional disk-based storage is often not up to the task while a single Violin All Flash Array can deliver up to one million IOPS.

One option GEHA considered was the use of traditional disk-based storage. The team performed stress testing on existing NetApp infrastructure that demonstrated it would not support the claims processing workload.

The Solution: Violin All Flash Arrays

GEHA then turned to Violin Systems.

“I was fairly positive flash memory storage would solve our problem,” said Bryan. “I knew Violin was a leader so we engaged with them quickly.”

Using the initial application stress test as a baseline, GEHA then tested Violin and saw an over 10x improvement in I/O performance, providing the assurance that Violin would support the production workload. The next step was to integrate the Violin solution into the GEHA environment, based on an Ethernet fabric, with iSCSI.

“Our data center is somewhat unique, as we don’t employ fiber channel interconnect,” stated Bryan. “The technical skills of the Violin team, and the ease of integration gave us a lot of confidence and allowed us to deploy quickly.”

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Results and Benefits

GEHA not only moved the Claims Processing application to Violin, but all tier 1 SQL applications. Storage I/O bottlenecks that previously created hours or a day of delays were eliminated. The read and write operations for huge amounts of data for reporting, data extract, and nightly batch processing no longer suffered from performance constraints. Other storage was able to be re-purposed for separate projects, providing additional savings.

“We didn’t want to move to a new system and worry about performance issues on day one,” said [Brenden]. “Violin not only gave us the confidence that we could support and scale our most critical application, we see it as a strategic solution that provides us with a long term direction where flash is our primary storage platform and non-critical data is housed on low cost SATA disk.”