



CASE STUDY

Giant Eagle

LOCATION: USA

INDUSTRY: RETAIL

Giant Eagle Turns to StorMagic to Improve Uptime and Add Encryption at more than 200 In-Store Pharmacies



BUSINESS CHALLENGE

Giant Eagle, Inc., ranked among the top 40 on Forbes magazine's largest private corporations list, is one of the United States' largest food retailers and distributors with approximately \$9.7 billion in annual sales. Founded in 1931, Giant Eagle, Inc. has grown to be the number one food, fuel and pharmacy retailer in the region with more than 470 stores throughout western Pennsylvania, north central Ohio, northern West Virginia, Maryland and Indiana. More than 200 of these stores include an onsite pharmacy.

Nearing end of life with its current solution, Giant Eagle wanted to transform into a Hyper Converged Cluster Platform with Solid State Flash as the

primary storage and software based encryption as the data protection layer for pharmacy.

STORAGE SOLUTION

After evaluating over a half dozen technologies in a one year time frame, Giant Eagle found that [StorMagic](#) stood apart from the competition and was chosen for its lightweight high availability, low cost virtual storage, and means to encrypt pharmacy applications inside more than 200 Giant Eagle supermarkets. Giant Eagle deployed a three-node cluster configuration per location for maximum resiliency and uptime, with all-flash drives for high performance, and StorMagic encryption and [SvKMS](#) for centralized key management to protect Giant Eagle pharmacy customers' sensitive medical information.

With the StorMagic implementation, Giant Eagle pharmacies can keep all applications up and running, even if two

servers fail or are taken offline for maintenance. They are now achieving a level of redundancy with just three nodes per store that would have required four or five nodes with several other solutions evaluated. Giant Eagle has experienced increased performance of all their applications due to the upgrade in servers, all-flash disk drives and StorMagic's lightweight approach to virtual storage and high availability.

SECURITY SOLUTION

Previously, Giant Eagle was using expensive, hard-to-find self-encrypting disk drives for data security. Giant Eagle initially implemented another vendor's key vault as the third-party key manager to work with StorMagic's built-in encryption, but found that the solution wasn't scaling well enough to support all the pharmacies. They decided to implement StorMagic's enterprise



Giant Eagle selected StorMagic's three-node configuration for increased resiliency and availability to deliver a superior end user experience while providing a highly secure platform. The SvKMS key management solution has provided additional integration within the StorMagic platform and provides the encryption we require to keep our customers' critical data secure.



Jeff Moore

Senior Manager Enterprise Server, Giant Eagle, Inc.

key manager, SvKMS, because it was designed to be lightweight, run in any environment and scale to thousands of sites. With StorMagic SvKMS, Giant Eagle was able to solve a common edge site issue and plans to extend the StorMagic solution to its core datacenter workloads over time by expanding into the primary datacenter and cloud environments.



WHY STORMAGIC

Uptime

High data availability is critical to Giant Eagle and its loyal pharmacy customers. SvSAN delivers 100 percent uptime with a three-node cluster and has eliminated the outages and downtime that are common with physical SANs.

Enterprise Encryption and Key Management

Giant Eagle is using SvSAN's built-in encryption engine along with StorMagic SvKMS which is delivering centralized key management. The pharmacy application data is now well-protected and they saved a lot of money and time by deploying both products.

Reduced Hardware and Associated Costs

SvSAN has reduced Giant Eagle's server requirements (compared to competing virtual SAN solutions) by one or two servers per store. With only three servers, the StorMagic solution is able to keep applications running even in the unlikely event that two servers fail or are offline for maintenance.

Ideal Solution for Retail Environments

StorMagic gives retailers affordable application uptime, shared storage, high availability and security while eliminating the need for large physical storage networks. SvSAN is compatible with any x86 server, requires a minimal IT footprint and is designed to be easily managed by any IT professional remotely. SvKMS includes key management that can be deployed anywhere and delivers enterprise-grade features at a surprisingly low cost.

SvSAN Configuration

SvSAN License	SvSAN 6TB Platinum and SvKMS
Key Management System	StorMagic SvKMS 2.3
Servers	Three Lenovo SR250 Servers
CPU	Intel E-2146G (Coffee Lake) with 6 Cores (18 cores total)
Memory	64GB RAM per node (192GB total)
Storage Capacity	Approximately 5.76TB per node, and ~16TB per cluster
Disk Configuration	1x M.2 128GB SSD (Boot/VSA); 7x 960GB SSD 2.5"; ThinkSystem 930-8i 2GB Cache RAID Controller, RAID-5, for a total of 5.76 TB SSD per node (includes standby spare)
Networking	10GbE, 2 cards per server (1x 4-port 10GbE Base-T, 1x 1GbE RJ45 LOM)
Hypervisor	VMware vSphere
Applications	In-house pharmacy application
Data Protection	QNAP physical backup device at each location

