



Springpath Hyperconvergence Delivers Always-On Infrastructure, 8X Performance Improvement at 50% of the Cost of Traditional Architecture

OVERVIEW AND CHALLENGE

Superior Document Solutions provides document management services for more than 3,500 companies. Its customers include everything from one-man shops with a single printer or copier to large organizations with many thousands of devices (copiers, printers, fax machines, scanners, etc.)

IT is critical at Superior because the company doesn't just sell devices and walk away. Every device the company sells – and there are hundreds of thousands by now – is connected to Superior's network where it is constantly monitored, 24 hours/day. IT makes this level of service possible, and it is what differentiates the company from others that just sell devices. As a result, an IT failure can have serious consequences for the business, and it is something Corey Taylor, Superior's Director of IT, works very hard to avoid.

The company's SQL-based ERP system is particularly critical. "Without ERP, we are completely down," Taylor explains. Phones are vital too, of course, so keeping the Asterisk VOIP system up and running is another key part of his job. Other business-critical applications include Microsoft Dynamics (CRM), KnowledgeBase, and Microsoft Exchange.

Taylor previously had what he calls "a hard lesson" regarding failure. "One of my hosts failed and it took down all the servers on that machine" he says. He was able to restore from his Unitrends backup system, but that failure cost him a weekend and started his search for a more resilient IT infrastructure.

SOLUTION

Taylor had been using a three-host (Dell R620s) VMware deployment. With his focus on resiliency, he ruled out network attached storage. "I wanted to stay away from the single point of failure, and if a SAN goes down my entire infrastructure goes down," Taylor explains.

Tech Field Day introduced him to hyperconvergence, and after looking into several hyperconvergence offerings, Taylor determined that Springpath Data Platform was the best solution for Superior's needs for a number of reasons.

USE CASE

Business-Critical Applications

INDUSTRY

Business Services

CHALLENGES

- Keep business-critical applications running at all times
- Monitor hundreds of thousands of devices 24/7
- Eliminate a single point of failure
- Solve problem of snapshots causing system freeze

SOLUTION

- Springpath Data Platform running on a 4-node cluster

BENEFITS

- Eliminated single point of failure
- 50% lower deployment costs compared to traditional approach
- Adaptive scaling keeping costs down
- Improved and consistent application performance
- Simple management using vCenter
- Non-disruptive backups using native snapshots



First, Springpath would deliver the resiliency Taylor was looking for. Springpath Data Platform is based on the patent pending HALO (Hardware Agnostic Log-structured Objects) architecture. HALO has a robust rebalancing engine that is always on and self-healing, so that hardware failures trigger automatic rebuilding and distribution of the data that was on the failed server.

Second, Springpath offered the most cost-effective way to get the right infrastructure for Superior's needs. Because Springpath Data Platform is a software-only solution, users can scale compute, caching and capacity resources independently of one another. This capability, called adaptive scaling, was something Taylor could not find in other hyperconvergence solutions.

I'd been looking for years for a way to avoid having a single point of failure. To me, that is the number-one benefit of Springpath.

— Corey Taylor, director of IT at Superior Document Solutions

Always-On Infrastructure at 50% of the Cost

Going with Springpath gave Taylor exactly what he'd been looking for in terms of Superior's IT architecture. "I'd been looking for years for a way to avoid having a single point of failure," he explains. "To me, that is the number-one benefit of Springpath."

Along with this comes improved resiliency of the entire environment, thanks to the always-on, self-healing, rebalancing engine within Springpath Data Platform. So far, the system has performed perfectly. "I have not had a hiccup yet," Taylor adds.

We were able to dramatically simplify our IT environment and management requirements with vCenter integration and improve operational efficiency while ensuring always-on infrastructure resiliency.

The Springpath team set Superior up with a four-node cluster. Three of the nodes have both storage and compute. The fourth is a compute-only node that is used to run applications while leveraging storage off the other three nodes. By taking advantage of Springpath adaptive scaling in that way, Taylor was able to control the cost of the new infrastructure by buying only the capacity he needed.

Compared to a traditional, non-hyperconverged, IT environment, the Springpath solution was much less expensive. Superior's infrastructure cost was under \$50K, while a traditional solution would have cost twice as much, around \$100K.

Six-Minute Report Now Takes 45 Seconds

With all of Superior's critical applications now running inside Springpath, people are noticing improved and consistent application performance. For example, an employee utilization report that previously took five or six minutes to run now takes only 45 seconds. Even Superior's owner, who logs in remotely sees the difference. "He said, 'Wow. The system works a lot faster now,'" Taylor notes.

Simple Management Using vCenter

Springpath's seamless integration within vCenter has made life easier for Taylor. A single interface shows the real-time status of all resources including VMs, CPU, memory and storage. And because it's within vCenter, Taylor was spared the task of learning another management tool. "The hook into vCenter is very important," he says. "You get to manage everything from a single pane of glass."

With Springpath, Superior Document Solutions gets resiliency, great performance, scalability, and ease of management – all with standard x86 servers. "Springpath is a very good solution for us," Taylor concludes.

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Frequent, Non-Disruptive Backups

Taylor uses snapshots extensively. Before Springpath, Taylor used the VMware snapshotting functionality, which locked the database for about a minute during the process and caused the system to shut down. Users were kicked out and had to log in again. Even clients were affected if they were using Superior's web portal at the time.

Springpath replaces VMware snapshots with its own native, space-efficient and non-disruptive snapshots. Taylor now takes snapshots as often as he wants, at any time of day, without worrying about disrupting the work of others.