

Top Charlotte Law Firm Makes the Case for Hybrid Storage in Virtualized Environments with Tegile Arrays



Charlotte, NC-based Hedrick Gardner Kincheloe & Garofalo LLP is one of the region's premier law firms serving the needs of the business community. With nearly 150 attorneys located in four offices across two states, Hedrick Gardner has become the leading law firm for conflict prevention, conflict management and conflict resolution. The company's clients range from small and medium size businesses to Fortune 500 companies.



Challenges

- Law firm's server consolidation, database and VDI projects were overworking their legacy storage infrastructure

Solutions

- Tegile IntelliFlash Hybrid Arrays

Results

- 20U of rack space reduced down to 4U
- VDI performance bottlenecks completely eliminated
- DR strategy simplified with native snapshots

Hedrick Gardner hosts its servers and storage onsite in the company headquarters in Charlotte, providing services to its other offices in Raleigh and Wilmington, NC and Columbia, SC. The company is planning to move its IT equipment offsite to a colocation data center and has consolidated its production servers down to three Dell PowerEdge R620 servers running VMware Infrastructure 3 and ESX. Hedrick Gardner has also virtualized its application delivery via Citrix XenApp. The company operates largely as a Microsoft shop and Aderant Holdings' Total Office software, a comprehensive legal office management application, including financial databases and case file management system, as a key critical application. As Hedrick Gardner increasingly moved to a virtual infrastructure, it reached the capacity limits with its existing HP/LeftHand iSCSI SAN arrays, encompassing 4TB of capacity across two arrays in a RAID 10 configuration, requiring 50 percent capacity overhead for the RAID redundancy on expensive Tier 1 storage. HP storage offered no option to increase capacity via data compression or deduplication, forcing Jeremy DeHart, Information Technology Manager, and his team to carve out some additional capacity by creating VMware Virtual Storage Appliances on server-attached storage but injecting performance degradation for the virtual machines with production applications running on slow Tier 2 SATA storage.

HP's upgrade path for its iSCSI storage was simply to keep adding paired appliances to the SAN to maintain the RAID 10 protection, an option that DeHart found wholly inadequate. "I had to add another 4 TB appliance and I would only gain another 2 TB of storage capacity because of the way the appliances are striped," he said. "So for an additional 2 TB with the HP system it was around \$20,000, which really didn't make sense financially because we needed 6 TB. To go with that same storage system to get the capacity we needed when it didn't have compression, it didn't have dedupe – and that doesn't even address the issues we would have seen in DR – we were well on our way to a completely new solution. Their upgrade path ultimately failed us price-wise."

With an eye toward further virtualizing Hedrick Gardner's IT operations with virtualized desktops, DeHart embarked on a project to evaluate solid state storage systems from Network Appliance as well as hybrid SAN arrays from Tintri, Nimble Storage and the Tegile arrays from Tegile Systems. Tintri was quickly eliminated from consideration as it only supported the NFS protocol,

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didn't provide any remote replication and was too expensive, while Nimble was pure iSCSI with no support for NFS or CIFS file storage protocols. NetApp met all of DeHart's requirements for protocol support but the licensing complexity issues made it cost prohibitive. "When we looked at the NetApp devices and saw here's the technology, here's the interface and then here's the licensing modules you can plug in to achieve dedupe, replication, go to NFS or iSCSI, everything's possible but it started adding onto the cost whenever you needed a feature."

Ultimately, DeHart decided on the Tegile HA2100 array from Tegile, a total solution that includes compression, deduplication and remote replication as standard features along with the most comprehensive unified storage protocol support – including Fibre Channel SANs – of any hybrid storage array. "With Tegile, I saw it as sort of a Swiss Army knife for the technology," said DeHart. "The technology portfolio that the Tegile devices have was paramount to our decision in this process. Tegile's approach to the technology is 'here's the device and you can pretty much do anything you want.'"

Hedrick Gardner has installed two Tegile HA2100 arrays, currently consuming 7 TB of capacity. The main Tegile array in Charlotte is replicated to an identical array for disaster recovery protection at the Raleigh office. DeHart said that the built-in replication was another factor that weighed heavily in the decision to go with Tegile. "That was a huge consideration in the purchase decision because Tegile was able to come in at the dollar mark we needed with a replication technology that was bundled into the price. It greatly enhanced the DR that we were looking to do. In the past we used storage in Raleigh for DR that was actually much

slower than the production storage that were using in Charlotte, so when we went to do a DR test, it would take 10 times as long. Tegile eliminated that storage bottleneck."

As soon as the Tegile storage was installed, it instantly proved to be the right choice, according to DeHart. "We immediately saw improved response times and we were able to consolidate all of our data on the hybrid appliance, instead of having to cross multiple appliances as we were doing in the previous environment," he said. Tegile's integrated snapshot functionality also gave the company an instant backup mechanism that it previously lacked with the HP storage. "The backup capabilities with the snapshotting has affected our entire backup strategy," he said. "We are now no longer looking to external products for instant restores but to the ability to utilize snapshots to create a staging area to extract the data."

Despite the superior performance, comprehensive product offering and cost advantages, Hedrick Gardner still had a concern about trusting its production storage environment to relatively new hybrid technology before committing to purchase the Tegile arrays. To alleviate this concern, DeHart's boss at Hedrick Gardner got on the phone to speak directly with Tegile Chief Executive Officer Rohit Kshetrapal. That conversation about Kshetrapal's vision for Tegile and the company's fanatical commitment to customer support convinced Hedrick Gardner and sealed the deal for Tegile. "That information helped consummate the deal probably more than anything else did," said DeHart. "It was a very good security blanket for the purchase as well as just getting first-hand experience with support

and seeing how proactive they were as well as how quickly they reacted when we submitted tickets."

Now after living with the Tegile arrays as his production storage for a few months, DeHart said that Tegile has delivered exactly as promised and then some. Along with the superior IOPS performance, elimination of storage bottlenecks, the capacity-saving benefits of integrated data compression and deduplication, and simple and fast replication, DeHart foresees an additional cost saving from Tegile as the company moves its IT equipment in a colo site. "One of the things it did was take about 20u of rack space down to about 4u. We regained a lot of rack space by consolidating everything into that one device. For colocation purposes that's huge."

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