Tintri VMstore™ Helps Law Firm Improve User Productivity by Unlocking VDI

VMstore

WOMBLE CARLYLE®

Womble Carlyle Sandridge & Rice (WCSR) is one of the largest and most technologically advanced business law firms in the mid-Atlantic and Southeast regions with more than 550 lawyers and 1,200 staff across thirteen regional offices in the US.

The Challenge: VDI Growth Creates Inconsistent Storage Performance and High Latency

The firm's existing storage suffered from inconsistent performance and high latency in a VDI deployment, leading to a poor end-user experience that affected productivity. WCSR wanted to create a dedicated infrastructure for the legal staff's virtual desktops that would increase productivity and enable VM administrators to manage the environment more efficiently.

WCSR used iSCSI block storage systems to support their virtual desktop environment. As the performance needs for the VDI infrastructure grew, other database and backup workloads began creating latency issues for the virtual desktops. "High latency on our desktops affected the user experience. Our lawyers used them for remote access, and inconsistent performance affected their work," said Tim Washburn, Systems Engineer at WCSR and a VMware vExpert. "We wanted to move our virtual desktops to a self- contained infrastructure to provide a consistent user experience with our remote access platform."

"Management of existing virtual desktop storage was also problematic on two fronts," said Washburn. "First, we wanted the VMware administrators to be able to manage the infrastructure. Our existing storage required dedicated storage area network (SAN) expertise and forced us to spend more time managing the storage than the desktop environment. Second, troubleshooting the environment required jumping around from the storage system's console to the vCenter console and was cumbersome and time consuming."

The Solution: Tintri VMstore

"The IO characteristics of VDI VMs are quite different from those of server VMs. We had three key criteria for the VDI storage platform," said Washburn." It had to support both spikes in IO and steady-state write-intensive IO in a VDI environment without degrading performance and affecting end-user experience, be something that the virtualization team could manage without storage expertise, and integrate well with VMware." WCSR did a PoC with their existing legacy storage solution, another converged disk-based storage solution with a flash read-cache, and the VMstore appliance. The firm ran a benchmarking tool to simulate 300 VMs running the firm's typical workloads.

"We chose Tintri VMstore for our VDI deployment for the consistent performance it delivered while providing very simple-to-use VM-level management and tight integration with VMware products," said Washburn. "We saturated our vSphere hosts and could barely push the VMstore appliance." The VDI deployment consists of three HP DL380 compute servers, one VMstore appliance, and dedicated network switches.

The Result: Storage Complexity Eliminated

The difference between standard infrastructure and Intelligent Infrastructure became evident very quickly. "The single VMstore appliance is able to handle more desktops than our existing storage and is able to provide consistent performance for the end-users. With VMstore, our legal staff is getting a seamless, problem-free experience using their desktops," said Washburn. "We currently run 225 desktops on the VMstore appliance and still have plenty of performance and storage capacity left to expand the footprint."

The VM and vDisk level management eliminated storage complexity and allowed the VMware administrators at WCSR to manage the storage required for their VDI environment effortlessly.

Challenges

- Inconsistent storage performance reduced attorneys' productivity
- Legacy storage required increasingly specialized SAN knowledge
- Time-consuming and complex troubleshooting in virtual environments

Solution

- Tintri VMstore

Results

- Consistent performance for smooth end-user experience and increased productivity
- Granular VM level metrics integrated with vCenter enable easy trouble- shooting
- Plenty of performance and capacity head room for future growth

Tintri Intelligent Infrastructure

"Simple administration and seamless integration with vCenter, allowed me, primarily a VMware administrator, to manage the system with little effort," said Washburn.

"Since day one when we set up the VMstore appliance, I haven't had to manage the storage environment. The few times I did need to check on performance, it was a breeze given the native vCenter integration and visibility at VM level–and I uncovered problems I didn't know about that weren't storage related!," said Washburn. "Tintri has exceeded our expectations in providing support, responding at all hours to even minor questions. I could not have asked for more."

"With VMstore, deploying and managing our VDI environment is an incredibly straightforward, stress-free task," said Washburn. "We achieved our goal of creating a high-performance VDI environment that requires minimal management to enable VM administrators to manage the entire environment."

Experience Different! For more information on how Tintri VMstore can turbo-charge your business success through a simple, Intelligent Infrastructure, visit tintri.com/vmstore.

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Tim Washburn, Systems Engineer at WCSR and VMware Expert

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