

Meridian Credit Union Moves Enterprise Applications and Virtual Desktops to Tintri



Tintri VMstore systems dramatically simplify management and increase performance for all mission-critical applications and services

www.meridiancu.ca

Industry

- Banking / Finance

Geography

- Toronto, Canada

Virtualization environment

- VMware vSphere, VMware Horizon View

VM profile

- Mixed workloads, including internal office apps, customer-facing banking apps, and 300 virtual desktops

Key challenges

- Existing environment was difficult to manage, high IOPS on one system would affect performance on other systems

Tintri solution

- Four Tintri VMstore™ systems

Primary use case

- All enterprise applications and virtual desktop deployment

Business benefits

- Eliminated two days per week of storage management tasks
- Reduced installation time to under an hour
- Obtained 4.3x space savings factor for VDI infrastructure, 2.5x space savings factor Enterprise Data warehouse system
- Achieved 90% power savings for production / dev environments
- Reduced processing time for enterprise data warehouse system by 48%

Meridian Credit Union

With over 70 years of banking history, Meridian is Ontario's largest credit union, helping to grow the lives of its more than a quarter of a million Members, including over 23,000 business Members. Meridian has \$14 billion in assets under management and delivers a full range of financial services online, by phone, by mobile and through a network of 85 branches and commercial banking services in 11 locations. Meridian Members also have access to THE EXCHANGE® Network, with more than 3,300 no-fee ABMs across Canada and 500,000 ABMs in the United States. For more information, please visit: meridiancu.ca.

IT Challenges

Meridian had been using legacy monolithic storage systems for its internal office applications, customer-facing banking systems, and for 300 virtual desktops using VMware Horizon View. 99% of the credit union's production workloads have been virtualized using VMware vSphere.

"Our (legacy) storage environment was very complex," said Brent Sodtke, infrastructure design lead at Meridian. "Performance was lagging and the day to day management was very time-consuming. Load balancing and LUN sharing were always a big challenge. Whenever we would experience high I/O on one system, it would affect all of our other workloads. We needed to find a solution that would enable us to minimize infrastructure complexity and provide more consistent performance for our business critical workloads."

The Search for a New Storage Solution

Meridian's IT team started looking for a new storage platform early last year. "I follow the blogs written by Chris Mellor and Trevor Pott who write for The Register. They have both mentioned Tintri in their storage solution reviews, so we added it to our list of solutions to investigate." Sodtke said.

“We used to spend two days per week managing our older (legacy) storage systems. With Tintri, we don't have to think about storage anymore. We just set it and forget it.”

Brent Sodtke, Infrastructure Design Lead, Meridian Credit Union

Meridian's IT team evaluated storage options from their legacy providers, as well as solutions from more recent entrants like Tintri, Nimble, and Tegile for the infrastructure upgrade project. After reviewing solutions from each vendor, they made the decision to run a POC on Tintri. “We signed up for a 30-day POC on the Tintri system, but since we were fairly busy on other IT projects during that timeframe, we extended it to 60 days. Tintri was happy to accommodate our request for more time.”

After the highly successful two-month POC, Meridian purchased two Tintri systems for its VDI environment, and a larger third system for its production workloads. “Tintri was by far the best fit for our needs,” Sodtke reported. “The possibility of not having to deal with LUNs anymore was simply too hard to resist. We have now moved our VDI environment, database systems, banking applications, and our gateway to external vendors over to the three Tintri systems.”

Easier Management and Better Analytics

“It was amazingly easy to install and configure the Tintri system,” Sodtke reported. “We were able to get the demo system up and running, move some of our workloads over, and complete the firmware upgrade within an hour. That pretty much sold it for us.”

The Tintri systems are also much easier to manage than traditional storage environments. “The fact that we don't have to deal with LUNs anymore is a huge time savings for our IT team,” Sodtke said. “We used to spend two days per week managing just one of our (legacy) storage systems. With Tintri, we don't have to think about storage anymore. We just set it and forget it.”

Meridian's current infrastructure lacked the analysis tools and metrics needed to proactively control and troubleshoot the virtual environment. “Tintri's powerful analytics—with the deep dive into the VM level—helps us diagnose issues anywhere in our infrastructure, including the VMs, CPU, and memory,” Sodtke explained. “We can easily see where the actual problem lies or where a future one is starting to crop up.”

Better Performance

The Tintri systems are providing much higher performance for Meridian's demanding banking and office applications. “We were able to push the full 10 GB that we had connected to more than 150,000 IOPS on just one Tintri system during the POC,” Sodtke said. “Tintri's performance has been amazing—it feels like an all-flash system, even though we decided on a hybrid unit. It provides more than enough power for all of our mission-critical applications.”

The credit union's IT users immediately noticed a huge increase in speed and performance when the workloads were moved over to Tintri. “Tintri improved the performance of our filesystems and MS Exchange environment significantly,” Sodtke reported. “We run nightly batches to process on our enterprise data warehouse system. One of our overnight processing jobs dropped from 9.1 hours down to 4.75 hours—for a 48% savings in processing time.”

>90% Reduction in Footprint and Power

“The Tintri systems enabled us to cut footprint and power by 90%,” reported Sodtke. “We went from 90u in our (legacy) environment, down to about 8u for our production and development environment on Tintri. Our enterprise data warehouse system went from 5.6 TB down to 2.2 TB (2.5x space savings), and our VDI Infrastructure went from 6 TB down to 1.4 TB (4.3x space savings). The smaller form factor is enabling us to cut our ongoing OpEx costs significantly.”

Great Tintri Support

“We haven't needed to call Tintri Tech Support for any major problems yet, because everything is running so well,” noted Sodtke. “We have periodically contacted them for advice and help fine-tuning our systems, and they have always been very responsive. I also like how you can just log on to the Tintri support web site, pick your VMstore from the list, and open up a ticket. It's very convenient. If there ever is an alert, the system automatically ‘phones home’ and sends us a response within minutes.”

Datacenter Migration Project

Meridian Credit Union is currently in the process of moving from its two older data centers to two new facilities. “One of our new data centers will be used for our production workloads, the other for DR,” noted Sodtke. “We are using the Tintri ReplicateVM functionality to move everything to the new data center, and that is working amazingly well. Once the migration is done, I'd like to push the replication and the SyncVM options over to our DR department. Tintri will be a great help in overhauling that process as well.”

Future Plans

“Our experience with Tintri has been amazing and we hope to incorporate it further into our disaster recovery plans in the future. DR is something that we haven't been able to leverage with our previous storage systems—which is also another testament to the replication ease of use with Tintri,” noted Sodtke.

“We have already taken most of the older (legacy) systems out, but ... the more powerful Tintri systems will be used for our production workloads that require higher performance and more capacity. Eventually, we expect to be a 100% Tintri shop,” concluded Sodtke.

“Admittedly I had initial concerns when my team introduced the idea of moving core workloads to a newer entrant to the storage marketplace. Claims that Tintri made about performance left me skeptical but the evidence was in the Proof of Concept. In short order, and with little effort, we had migrated mission critical applications, reduced our physical disk footprint and significantly increased I/O. It was eye opening to say the least.” states Blake Merritt, VP Infrastructure Solutions and Cloud Computing for Meridian Credit Union.

“The Data Centre migration has many moving parts and risks associated, however the automated replication between the Tintri units at both centres quickly became the least of our worries. Logical data migration quickly transformed from one of my largest concerns to one that wasn't even on my radar,” reports Merritt.

