Tintri Fuels Storage Innovation for Ireland's Coal Marketing Company

Zero-Management Storage Enables CMC to Improve VDI Performance, Simplify IT Management, and Cut Storage Costs

CMC Overview

Ireland's CMC Coal Marketing Company Ltd. (CMC) coordinates the sale and delivery of high-quality thermal coal to numerous power stations around the world. Over 32 million metric tons of coal are produced each year at the Cerrejón Mine in Colombia, the world's largest export coal mine. CMC sells 100% of the mine's production capacity from its headquarters in Dublin, Ireland and sales office in Atlanta, Georgia. Europe is CMC's largest market for the coal, followed by Central and South America, the United States, and Asia.

CMC's IT manager Geoff Grice is responsible for the company's IT applications and systems, including all phone services, e-mail, ERP applications, and electronic document imaging systems. "We serve as the marketing arm of the Cerrejón Mine," explained Grice. "As an important link in the order to cash process, it is critical that when we make IT buying decisions, we choose the highest quality technology with the best possible performance to support our international operations."

Upgrading the IT Environment

CMC started its virtualization journey in 2007 by migrating all of its servers to VMware. Several years later, they implemented VMware Horizon View so they could provide virtual desktops for all of the company's remote employees. CMC's entire IT environment is now 100% virtualized.

CMC embarked on an ERP implementation using Ventyx MineMarket software in 2010. The objective of the project was to integrate all of the company's forecasting, sales, logistics, finance, and contract management processes into one system. The unified system would provide the ability to obtain better market intelligence, and also build in administrative efficiencies to prepare for larger mine export volumes in the future. The MineMarket ERP integration was a great success from an information perspective, but the existing IT infrastructure was placed under a heavy load in order to do so.

Coping with Inadequate Storage Performance

Although CMC's server and network equipment were still performing adequately, the read/write times of the company's legacy SAN storage environment were slowing things down. "Our Data ONTAP based storage was a good unit and served us well for many years," explained Grice. "But we needed a newer approach that would give us even better performance to meet the growing data demands of our management team."

CMC
Coal Marketing Company Ltd

Industry
Energy

Location
Dublin, Ireland

Key Challenges
- Storage performance was inadequate for VDI and business applications
- Current storage environment was difficult to manage
- TCO of the existing storage solution was too high

Tintri Solution
- Tintri VMstore™ T540s storage arrays
- Tintri ReplicateVM™

Business Benefits
- Increased performance of virtual desktops
- Improved SQL reporting times by 3x
- Simplified storage management
- Obtained a cost-effective storage platform

For More Information:
(866) 787-3271
Sales@PTSdcs.com

PTS DATA CENTER SOLUTIONS

www.tintri.com

CMC's legacy storage arrays were also running out of disk space. "We knew we needed more capacity, but we didn't want to just add more disk at the same level of performance," Grice noted. "We wanted to find something that was going to make a bigger difference in performance – a solution that would work well for us for at least the next five years."

Grice then created a list of requirements for the company's new storage platform. The chosen solution must:

- Enable virtual desktops to perform like high-end laptops
- Complement the company's existing VMware environment
- Be compatible with VMware disaster recovery software
- Meet (or preferably reduce) the administrative complexity of the current SAN
- Provide good value for the money

In addition, the chosen storage vendor should have a sufficient number of local support resources on the ground in both Dublin and Atlanta, and must be able to provide local references or case studies of other corporations using the Tintri system, preferably in the energy industry.

Evaluating the Alternatives

As part of CMC's 'shortlisting' exercise, Grice requested proposals from vendors including Tintri, EMC, Hitachi, IBM, Tegile, Nimble, HP, Dell, and several other storage vendors. Some of the players were ruled out at an early stage due to not meeting the required objectives. Others were eliminated on the basis of excessive costs, the lack of local support resources, or an insufficient track record with their proposed solutions. Overall, only three vendors made it to the final evaluation phase.

"I did some checking around and concluded that the conventional storage providers were offering greater capacity and some speed improvements, but using the same legacy approach," Grice reported. "But with Tintri, I found something very unique in the way that data was being handled. I liked the way that Tintri works on a per-VM basis. Because we are already 100% virtualized, Tintri was a very easy fit into our environment because it talks the same language as VMware. That's a huge benefit for us, since it provides a natural release of administrative overhead. With Tintri, we don't have to interpret all of the VMs, LUNs, RAID groups, volumes, and all of the other different elements that traditional storage vendors use to organize their systems. Tintri does everything for us – it truly is a zero-management solution."

Deploying the Tintri Arrays

After shortlisting the final three options, it was clear that Tintri was the best overall fit for CMC. CMC purchased three Tintri T540 arrays – two for the company's Dublin headquarters, and one for its remote DR location in Atlanta. "In the twenty-plus years that I have been in IT, I would rate Tintri as one of the simplest systems to set up – it took less than two hours to deploy," Grice said. "For such an advanced system, it was an incredibly intuitive process!"

"The business and technical benefits achieved with the Tintri products have all been excellent," reported Grice. "The entire Tintri experience has been very positive – speedy delivery, very fast installation, and overall great performance from the Tintri arrays. We now have much happier users, more productive sys admins, and have dramatically reduced the time required for reporting and upgrade testing."

Improving Disaster Recovery

CMC is now using Tintri ReplicateVM to copy data from its production Tintri T540 in Dublin to a second T540 at the same location, serving as a hot standby unit. "The Tintri local replication utility is working very well," Grice reported. "If we ever have a problem, we can bring up our entire network on the hot standby unit in under 10 minutes. This is a big benefit in keeping company productivity high if we encounter a disaster. We are also using VMware SRM to replicate data to a third T540 in Atlanta for off-site disaster recovery."

Achieving High Performance for VDI

CMC employees rely heavily on their virtual desktops systems. "Virtual desktops are an essential part of supporting our remote workforce," Grice explained. "In my experience, storage performance has a very noticeable impact on user experience. If remote users struggle with a poorly performing system response then it can be hard to keep productivity high. My goal is to give my system users a fantastic VDI experience, regardless of if they are working from the office or travelling the world on business. Tintri has been the most important enabler for us in meeting this challenge.

Expanding the Deployment

Although CMC initially chose Tintri for its VDI environment, they have now expanded the deployment significantly. "VDI opened the door for Tintri, and the T540s did a great job at improving the performance of our virtual desktops," noted

Grice. "But we didn't stop there, we have now moved all of our systems onto Tintri, including our Microsoft Exchange 2010 HA cluster, SQL reporting, and our Laserfiche document management system. Across the board, we are seeing significant performance improvements on the Tintri platform. The MS SQL reports that used to take three minutes to run, now finish in less than a minute. Moving everything to Tintri also increased the response on some of our older systems. It was almost like we installed entirely new servers!"

Offering Some Valuable Advice

Grice offered several pointers for other enterprises that are starting to evaluate new storage options:

- Start out by deciding what capacity and functionalities you need, what is a nice to have, and what is a 'must have'. Be prepared to adjust your thinking as you go through the evaluation process.

- Push yourself out of your comfort zone – look beyond the 'traditional' storage vendors. Nothing ventured = nothing gained.

- Look at as many systems as you can in a short period of time. The easiest way to do this is via WebEx meetings with vendors on their demo systems. If you write out all of your requirements before starting this process, you should be able to tell what will and won't work for you in a 'blink moment'.

- Read and learn about your shortlist of vendors. Is their technology sound? Are their commercial aspects sound? Do they have evidence to back up their claims?

- Don't take the vendor's case studies as gospel, ring the customer references and talk to them yourself. If the customer is happy with the technology, they are generally happy to talk about it.

Concluding Thoughts

"Out of all of the systems we looked at, my feeling was that Tintri was the leading innovator," Grice concluded. "Many were taking the approach of throwing SSD at a problem and hoping for the best. By taking a clever approach to tackling storage challenges, Tintri has helped me keep our systems at peak performance, but it has also reduced storage management and enables fantastic per-VM reporting. I can honestly say that installing Tintri technology has made a positive impact on our international operations."

> "By taking a clever approach to tackling storage challenges, Tintri has helped me keep our systems at peak performance, but it has also reduced storage management and enables fantastic per-VM reporting. I can honestly say that installing Tintri technology has made a positive impact on our international operations"
>
> —Geoff Grice, IT Manager, CMC Coal Marketing Company

"Tintri stuff is really great, but..."

Geoff Grice recently posted a comment about his experience with Tintri to the Spiceworks' user community bulletin board. The title of the piece was quite intriguing, but his blog explains it all:

"...but nothing... their stuff is really awesome and so is their support!"

"In the last month I deployed three T540s, two in our Dublin HQ and one for our Atlanta DR/office. We did get a minor fault develop on one of the units and I have been super impressed by the 24x7 support team. I have been contacted by resources from three different time zones, including Sunday morning phone calls and support, to get a priority 2 issue resolved. The country support manager personally got in to his car and drove for three hours to our site to help in resolution and make a 'face to face' introduction. On top of that, Tintri sent me their own systems engineers to run the implementation. Really, there is no chance of me getting that kind of support from Dell, IBM, HP etc. (all of which we had bought previously)."

"Prior to buying, I ran a 'light' evaluation against seven other well-known industry players and we chose Tintri because they had the best combination of ease of management, VDI performance, management tools, and capacity for the price. Tintri's technology approach is different to the other storage vendors I saw, and I think their innovation gives us (the sys admins) a hell of an advantage in today's demanding business environment."

PTS
DATA CENTER SOLUTIONS

For More Information:
(866) 787-3271
Sales@PTSdcs.com

Tintri

201 Ravendale Dr.,
Mt. View CA 94043
650.810.8200
info@tintri.com | **www.tintri.com**