Faster WAN Increases Branch Office Productivity

Managed services and LAN-like application performance over a WAN help Finning control costs and improve productivity.

EXECUTIVE SUMMARY

FINNING (CANADA), A DIVISION OF FINNING INTERNATIONAL INC.

- Heavy Equipment
- Edmonton, Alberta, Canada
- 4000+ employees

CHALLENGE

- Improve productivity in remote offices
- Support fast business expansion

SOLUTION

- Managed services and Cisco WAAS let workers in remote offices access business applications at LAN-like speeds over the WAN

RESULTS

- Improved application performance increases productivity
- Managed services free IT to focus on core business objectives
- Consolidated data center and high-speed WAN support business growth

Challenge

In the western Canadian province of Alberta lie the Athabasca Oil Sands, a rich deposit of crude oil that is driving a massive economic boom. Workers need tractors, loaders, excavators, and other types of heavy equipment to mine this natural wonder. Much of that need is fulfilled by Caterpillar, which is the world's largest maker of construction and mining equipment. Fortunately for the workers in the oil sands, central Canada is also home to Finning (Canada), the world's largest Caterpillar equipment dealer. Finning sells, rents, and provides customer support services for Caterpillar equipment and engines in British Columbia, Yukon, Alberta, the Northwest Territories, and a portion of Nunavut.

The fast expansion of work in the oil-producing region and the growing need for Caterpillar equipment and service has driven strong growth for Finning. A number of years ago Finning realized its rapid expansion would be best served by outsourcing its network management and freeing its internal IT resources to focus on core business objectives.

Finning elected to work with TELUS, one of Canada's leading telecommunication companies. TELUS was already providing managed WAN services, but Finning looked to TELUS to play a larger and more strategic role by managing help desk, LAN and WAN management, server hosting, desktop support, and a unified communications solution.

Together, Finning and TELUS also determined that consolidating Finning's data center into a single location managed by TELUS was the best approach for supporting rapid growth and controlling costs. The data center consolidation was successful, but had one unintended side effect. As the company's business application suite expanded offices had a greater need for accessing data housed in the centralized data center. When that data consisted of very large spreadsheets, and the office was located in a remote region with only a 256 K link, application performance suffered, and so did the users.

"We actually had a user find that it was more productive to drive 30 minutes to an office with a higher-performance line for some tasks," says Doug Pettapiece, director of systems for Finning (Canada). "We had to either add more bandwidth or find some way to boost performance."

Solution

As the managed service provider for Finning's extensive Cisco® infrastructure, TELUS was responsible for a large network that connected the data center with 45 sites in western Canada, including the Yukon and other remote territories. These sites needed daily access to critical business applications, some of which involved data-intensive files such as very large spreadsheets and schematics of Caterpillar equipment.

TELUS had recently installed a managed Cisco Unified Communications solution and was continually looking for ways to add more value to the Finning network environment. As part of this work, TELUS was aware of the performance issues at the more remote offices. Finning encouraged TELUS to proactively bring new solutions to their attention, and TELUS was on the lookout for a cost-effective way to boost application performance for remote workers. The solution was Cisco Wide Area Application Services (WAAS).

Cisco WAAS is a comprehensive WAN optimization solution that accelerates applications to provide LAN-like performance across a WAN. Cisco WAAS software runs on a Cisco Wide Area Application Engine (WAE) platform in the data center, and on appliances attached to the LAN or as network modules (Cisco NME-WAE) integrated with the branch router in remote offices.

TELUS was so convinced that Cisco WAAS could solve Finning's remote performance issues that they suggested a "try and buy" pilot program. "We have an excellent relationship with Finning, and they trust that what we bring to the table is going to help them," says Sumeet Donnelly, product manager for TELUS.

TELUS installed a Cisco WAE 512 appliance and a Cisco WAAS Central Manager in its Vancouver data center, and another Cisco WAE 512 appliance in Finning's Edmonton headquarters. A remote office in Whitehorse, which was connected to the data center via a fractional T1 circuit, received a Cisco NME-WAE module for its Cisco Integrated Services Router (ISR).

The pilot program identified which applications in each site were used the most, so those applications could be benchmarked for improvements after Cisco WAAS was installed. The test results showed that Cisco WAAS improved the performance of TCP-based applications, accelerating customer maintenance and repair queries as well as internal file sharing, email, and intranet application performance. The solution also provided insight into traffic patterns, so TELUS could easily identify and optimize application traffic and identify IP addresses to quickly isolate server-related issues.

> "Cisco WAAS improved our throughput so much that we can meet our growing application needs with our existing infrastructure, and avoid the cost of adding bandwidth."
>
> **— Doug Pettapiece, Director of Systems**

Results

The pilot results were instantaneous and positive. "When WAAS was put into those locations we immediately saw improvements from a user perspective," says Pettapiece. "It's absolutely transparent to our users; the only thing that they see is their applications running faster."

The results of the pilot were sufficiently impressive that Finning and TELUS signed a long-term agreement for Cisco WAAS services. The two companies developed a plan to deploy the solution in two more sites initially, and possibly in multi-national sites as well. TELUS is also performing demand assessments that monitor spikes in bandwidth utilization to help determine how to best expand Cisco WAAS across the Finning organization.

Future growth is an important consideration as Finning's business expands. The company believes that its bandwidth needs will increase dramatically as it modernizes its ERP system, continues to develop applications in-house, and makes greater use of its intranet. Finning sees Cisco WAAS as an important tool for protecting its network investments. "Cisco WAAS improved our throughput so much that we can meet our growing application needs with our existing infrastructure, and avoid the cost of adding bandwidth," says Pettapiece.

The Cisco infrastructure has also played an important role in the success of the Cisco WAAS deployment. “I have not heard of a single problem with the Cisco technology since we deployed,” says Pettapiece. TELUS attributes that success to the expertise of the Cisco and TELUS support teams as well as the Cisco technology. These teams have extensive experience, and many team members hold a Cisco Certified Internetwork Expert (CCIE) certification, which is the highest level of professional certification offered by Cisco.

“Finning recognizes the value of that expertise. It’s an important part of why they’re comfortable partnering with TELUS to maintain their IT infrastructure and make decisions on their behalf,” says Donnelly.

Next Steps

As Finning continues to deploy Cisco WAAS across its organization in Canada, the company is also communicating that success with Finning International organizations in South America and the United Kingdom. “We are starting to think about moving to a more integrated network and doing more consolidation,” says Pettapiece. “Cisco WAAS is going to be a big part of that, internationally and globally.”

For More Information

To find out more about Cisco WAAS, go to: http://www.cisco.com/en/US/products/ps9523/index.html.

Americas Headquarters
Cisco Systems, Inc.
San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
Singapore

Europe Headquarters
Cisco Systems International BV
Amsterdam, The Netherlands

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