Case study

Carmichael: coordinating the flow of goods and information

Customs broker gains disaster recovery and 100% server virtualization with HP Networking solutions and HP Converged Infrastructure

Industry
Independent customs broker

Objective
Deliver exceptional service by ensuring continuous availability of mission-critical customs processing and logistics systems

Approach
Engage HP partner Datalink Networks to implement HP Networking solution and HP Converged Infrastructure, including a disaster recovery (DR) site

IT matters
- Modernized network infrastructure
- Supported Microsoft Lync implementation and 100% server virtualization
- Enhanced compatibility and streamlined maintenance with HP Converged Infrastructure

Business matters
- Saved $58,000 up front by switching to HP Networking solutions for routing
- Improved collaboration and reduced phone and compute costs
- Accelerated business processes for more responsive customer service
- Increased profits and went green by reducing paper use

Carmichael INTERNATIONAL SERVICE
An APL Logistics Company

"We turned to Datalink Networks and HP and found a superior, high performance solution that saved us approximately $58,000 and met all of our bandwidth needs and performance. At the same time, we cemented a solid partnership that gives us confidence that we are aligning our technology capabilities to the ever-changing and growing needs of the business."

– Asim Faiz, Director of Strategic Operations, Carmichael International Service

Carmichael International Service (CIS) is an independent customs broker and freight forwarder. The company requires extreme bandwidth and always-on uptime. Cisco routers could not provide the needed bandwidth, prompting CIS to contact Datalink Networks. Datalink designed and implemented a revamped network, as well as new HP servers and thin clients. The solution saved an initial $58,000 over the Cisco alternative.

Carmichael International Service (CIS) operates out of 12 US ports from 11 offices nationwide. The company is committed to providing superior service by combining the knowledge and experience of its professional staff of 245 with advanced information technologies and systems to seamlessly coordinate the flow of goods and information through today's complex trade environment. The company offers a broad range of services, from import and export to customs administration, insurance, duty processing, and warehousing.

Taming complex business processes

To serve customers, CIS receives massive volumes of documents such as invoices, packing lists, and bills of lading from all over the world, seven days a week. Previously, documents arrived as hard copies delivered by courier or overnight services. The documents were scanned, processed, and printed out again for presentation to US Customs and Border Protection. Although documents today are initially submitted by email, they still must be completed, checked, and submitted to US Customs either on paper or electronically.

To exceed customer requirements, CIS needed to improve and accelerate its business workflows. Customers rely on CIS for their livelihoods and market competitiveness, whether it is a clothier importing a new line of sweaters or a farmer exporting crops overseas. Moving the goods through US Customs requires a comprehensive package of paperwork, completed perfectly.

"Our labor- and paper-intensive workflow was taking a big toll on our bottom line," says Asim Faiz, director of strategic operations for CIS. "It was also having an impact on customer service. We needed to accelerate processes and provide better visibility into the status of customers' goods."

Advanced information technologies required

Technology is pivotal to the CIS business. For years, the company has implemented customized solutions for customs processing and freight forwarding. These tailor-made solutions, running on an IBM AS/400 mainframe accessed via terminal servers, are complemented by commercial software running on PCs such as Microsoft® Outlook and Word for communications and Omtool Accuroute for document capture and routing.

In addition to software applications and email, CIS is heavily reliant on phone communications, because some problems are too complex to resolve by email. Previously, however, the company had an aging PBX system that prohibited customers from contacting CIS employees by phone to revolve issues. CIS wanted to adopt Microsoft Lync to reduce phone costs by moving to Voice-over-IP (VoIP) and take advantage of features such as instant messaging and conferencing services. By integrating Microsoft Lync and Outlook, CIS could further improve productivity and customer service through better-coordinated, more unified communications.

When CIS looked into what was necessary to deploy Microsoft Lync, it found the existing network insufficient. Another factor driving the need for more network performance: The company wanted to virtualize all of its servers using MIcrosoft HyperV. "As we reviewed our network needs when we were implementing our new MPLS network and taking speeds up to 100 MB, we realized that our current Cisco equipment was incapable of that and we needed to make a new investment in routers," says Faiz. "When we looked at the Cisco solution, it wasn't cost-effective."

The need for continuous operations

Networking was not the only issue holding the business back—the entire CIS infrastructure was in need of modernization. Although the incumbent HP servers were reliable and fully operational, the company wanted to boost performance to support 100% server virtualization with Microsoft HyperV. Another business requirement was to equip employees with two, or sometimes three, monitors for use with thin client terminals, using one to process documents in Omtool and another for ongoing client communications using Microsoft Outlook and Word. The incumbent HP thin clients could only be used with one monitor.

The tipping point came when Hurricane Sandy hit Long Island in 2012, taking down CIS operations in New York. During a rough time when employees lost houses and electricity was out for days on end, Faiz and a team of 30 employees set up shop in a hotel hall, using the hotel WiFi to take care of customers. Due to the aging PBX system, customers could not contact the employees by phone.

"The experience reinforced the fact that we must be up and operating, and can't have downtime," says Faiz. "We solidified our decision to move to Microsoft Lync and a more redundant infrastructure with disaster recovery."

A Converged Infrastructure with HP Networking solutions

To meet its always-on business needs, CIS began looking for a company to design and implement the new solution and chose HP Partner Datalink Networks. Datalink designed an HP Converged Infrastructure using HP BladeSystem with ProLiant server blades virtualized with Microsoft HyperV and HP storage servers. The partner also recommended HP Networking solutions and thin clients. The updated Converged Infrastructure solution includes two HP MSR30 Routers—one in New York and the other in Los Angeles—that interoperate with Cisco routers in the remaining offices. HP BladeSystem c7000 Enclosures, HP ProLiant BL460c Gen 8 Server Blades, HP t510 Flexible Thin Clients and HP P4800 G2 BladeSystem SAN are central to the solution.

"Our Converged Infrastructure from HP offers exceptional technical benefits and compatibility," says Faiz. "We have been with HP for a long time, with the exception of our routers. HP technologies are well-rounded, high quality, and comprehensive. By expanding our HP Networking solutions to include routers, we are moving closer to becoming an all-HP shop. When our remaining Cisco routers in our remote offices become out of date, HP will be our first choice."

Productive and flexible

The CIS environment is completely virtualized using Microsoft HyperV, with four blade servers at headquarters hosting 35 virtual machines (VMs). The remaining four blade servers run the company's terminal servers and support 200 employees connecting to them. Due to complete server virtualization, CIS requires servers that are high performing, and HP servers provide power to spare.

"Virtualization has given us the ability to bring up VMs without investing in hardware," says Faiz. "Our needs are growing, and now we're able to spin up new servers on the fly when needed for greater business speed and agility."

The revamped solution provided a much-needed performance upgrade that allows employees to tap multiple applications

Customer at a glance

Application
- Omtool Accuroute
- Microsoft Word
- Microsoft Outlook

Hardware
- HP A-MSR30-40 Multi-service Routers
- HP BladeSystem c7000 Enclosures
- HP ProLiant BL460c Gen8 Server Blades
- HP t510 Flexible Thin Clients
- HP P4800 G2 BladeSystem SAN

Software
- Microsoft HyperV
- Microsoft Lync

Our partners support

datalinknetworks

through HP Flexible Thin Clients with speed and ease. The HP Thin Clients also boost productivity by supporting multiple monitors, allowing employees to multitask their way through the day on large screens to complete processes more efficiently.

Disaster recovery for continuous operations

The holistic infrastructure upgrade also included establishing a disaster recovery (DR) site to avoid unplanned outages. The infrastructure in the Los Angeles headquarters office was upgraded, and the HP equipment from the Los Angeles office was moved to New York. There, a DR site that is almost identical to the set-up in Los Angeles was established. The dual data center structure, which replicates servers between the two locations, gives CIS greater failover and resilience to help ensure always-on business operations and continuous customer service.

Superb network performance, reduced costs

In addition to improving customer responsiveness, the HP solution is driving down costs. Moving to HP MSR30 Routers has already saved the company tens of thousands of dollars. And, additional cost savings are accruing by implementing Microsoft Lync and moving from a legacy primary rate interface (PRI) to a VoIP session initiation protocol (SIP) service for telephony across all the offices.

On an ongoing basis, network maintenance is less expensive and resource-intensive. Datalink monitors and maintains the entire infrastructure, including servers and network solutions, using streamlined, centralized HP Intelligent Management Center (IMC) software. Datalink also participates as a trusted advisor in all of Carmichael's technology moves. "Datalink is incredibly responsive," says Faiz. "Whatever we need, we can call on them. They are always involved in our technology decisions and processes."

For CIS, the decision to work with Datalink Networks to upgrade to a high-performance HP Converged Infrastructure and HP Networking solutions, including routers, has been a wise one that has saved money and set the company up for future growth. "We turned to Datalink Networks and HP and found a superior, high performance solution that saved us approximately $58,000 and met all of our bandwidth needs and performance," Faiz says. "At the same time, we cemented a solid partnership that gives us confidence that we are aligning our technology capabilities to the ever-changing and growing needs of the business."

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