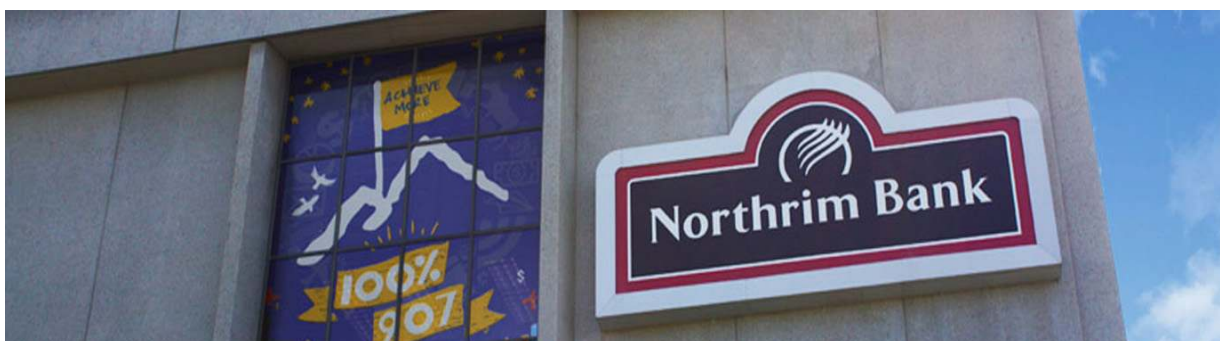


Alaskan Bank Virtualizes Branches for Productivity Benefits



Cisco ISR G2s with UCS E-Series Servers provide flexible “office-in-a-box” solution to fit varied business needs.

EXECUTIVE SUMMARY

Customer Name: Northrim Bank



Industry: Financial services

Location: Headquartered in Anchorage, Alaska; 12+ branch offices, 4 data centers

Network Users: 250 employees, 15 percent remote and mobile users

BUSINESS CHALLENGE

- Business continuity and strong security are important competitive differentiators
- Slow bandwidth delivery hampered employee productivity and affected customer service
- Different WAN configurations and server setups among branch offices create IT support challenges

NETWORK SOLUTION

- Cisco Integrated Service Router Generation 2 (ISR G2) 2900 Series and 3900 Series routers
- Cisco UCS® E-Series Servers on ISR G2
- Integrated, locally hosted VMware View and ESXi Hypervisor Branch Office Desktop VDI software and Atlantis ILIO storage optimization software

BUSINESS RESULTS

- High availability and reliability significantly improve business continuity
- 50 percent drop in branch office system infrastructure operating costs by eliminating segregated server management, maintenance, licensing, and energy consumption
- Users experience consistent, reliable connectivity, and application performance in any location
- Integrated solution easier to manage and remotely provision, helping to accelerate branch expansion efforts

Business Challenges

Northrim is a commercial bank, headquartered in Anchorage, Alaska, committed to providing customer-first service. The bank specializes in serving businesses, professionals, and individual Alaskans who are looking for personal service and value. The bank employs 250 people, half of whom work in the main office in Anchorage; the rest work in branches as far north as Fairbanks. Fifteen percent, most financial specialists or bank executives, travel by car or plane between branch locations, which can span hundreds of miles.

Three years ago, Erick Stoeckle, network system manager and IT architect for Northrim Bank, faced the challenge of upgrading the bank’s 10- to 15-year-old data center and WAN infrastructure to meet the growing needs of bank customers.

Due to WAN limitations, many branch offices could not sustain a high number of data-rich user VDI sessions. Slow serial connections between banking applications accessed over WAN VDI sessions and local printer and terminal devices also created customer delays at the teller line. “Our move to virtualization was driven by business continuity and performance issues: slow connectivity, WAN outages, and application latency,” says Stoeckle.

Network Solution

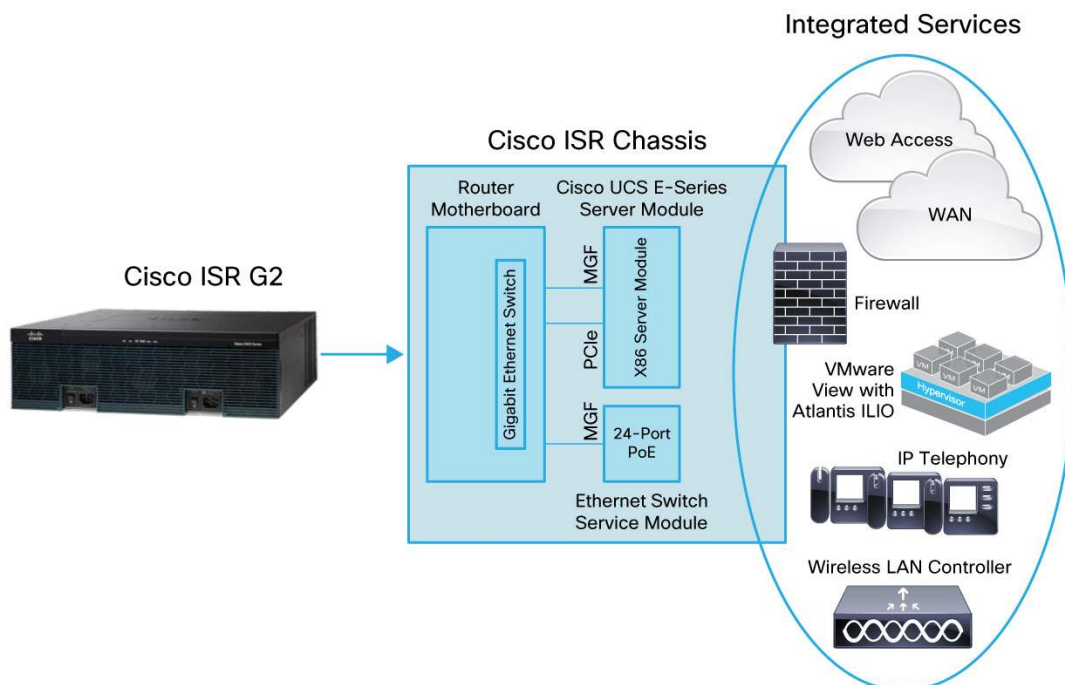
In the initial phase, Stoeckle turned to Kovarus, a leading systems integrator specializing in increasing IT efficiency, to create a solution that aligned with the bank's unique business needs while staying within existing budget constraints. Together with Kovarus and Cisco Systems®, Stoeckle and his staff revamped Northrim's entire network, virtualizing server hardware and co-locating the data service center to strengthen business continuity. The network was upgraded to an Ethernet Multiprotocol Label Switching (MPLS) architecture with Cisco Nexus® 5010 switches in the distribution layer. MPLS technology helps enable scalable VPNs with rapid link and node fault correction for high availability, and offers simpler configuration and management for differentiated end-to-end IP services.

Stoeckle and his staff also used Cisco dynamic multipoint VPN (DMVPN) technology to build a full-mesh VPN network to encrypt all branch communications. By securing web transmissions, they could employ the Internet as a cost-effective secondary communications path to back up their primary private WAN links.

Stoeckle says, "The data center virtualization project was very successful, so we decided to look at desktop virtualization." He and his staff did performance stress testing, loading the Cisco-VMware-Atlantis Computing VDI platform with multiple demanding end-user applications. The results convinced them that the platform was mature and stable enough to use in their bank operations.

Next, he and his staff, with assistance from Cisco and Kovarus, conducted a hands-on demonstration with bank executives to illustrate how the technology could produce real-world performance and business benefits. "The demonstration was a big step in getting project approval," he says.

The Cisco Office-in-a-Box solution that Northrim chose consists of the award-winning Cisco Integrated Services Routers Generation 2 (ISR G2) routers with Cisco UCS E-Series Servers, VMware Horizon View desktop virtualization software and Atlantis ILIO storage optimization software.



Bank employees typically run a mix of desktop-based, server-based, and web-based applications on their desktops, and some VDI applications must be located out at the branch to counter latency-sensitive equipment such as specialized serial printers. Stoeckle says, "The beauty of the Cisco, VMware and Atlantis Computing solution is that it gives us the flexibility to run centralized or distributed applications at each branch, so we can apply whatever works best for a particular situation."

"Not only does our VDI solution on the Cisco UCS E-Series improve the employee-customer experience today, but because of the capacity of the UCSE platform, we expect to sustain an additional two to three times the current load moving forward."

— Erick Stoeckle, network system manager and IT architect, Northrim Bank

The ISR G2 UCS E-Series server modules provide plenty of power and capacity, Stoeckle says, to run server and desktop virtualization, data and web security applications, and more. For example, the IT staff uses virtual storage area network (SAN) software that replicates branch databases to one of the data centers to further maintain business continuity. Additional UCS E-Series Servers can be added to the ISR G2 router to support services such as video surveillance, IP telephony, and wireless integration, among many others.

Stoeckle has already included plans for Cisco Unified Communications IP telephony in next year's budget. He says, "We'll then have a complete "branch in a box", with the router-server running network and voice services, and server and desktop virtualization."

Business Results

Stoeckle says, "Cisco did an amazing job with us on the network data center project, so our expectations were high, but we found it was just as stellar with our virtual server project." He and his bank are excited by their VDI solution on the Cisco UCS E-Series server and its many business benefits.

- **Significant cost savings** - Stoeckle estimates that Northrim will recoup 75 percent in physical space by eliminating the UPS, keyboard-video-mouse (KVM) switch and patch cabling, and 50 percent on server maintenance and software license expenses from the VDI solution, because physical servers and support equipment have been virtually eliminated.

In addition, thanks to Atlantis ILIO storage optimization software, Northrim doubled its virtual desktop density, resulting in a lower cost per virtual desktop.

- **Powerful, compact design recoups space** - The small Cisco form factor was a key selling point because Northrim's sleek redesigned branch offices no longer have the storage space to store bulky networking and telecom equipment. Other vendor solutions required separate racks and uninterruptible power supply (UPS) and were not integrated. Stoeckle says, "Instead of taking up an entire room, our Cisco solution lets us fit everything for the branch office into a small, lockable wall-mount rack that fits in a break room, or anywhere, really."
- **Integrated solution enhances employee productivity and the customer experience** - The Cisco Office-in-a-Box solution provides the benefits of VDI across a WAN without introducing unnecessary delay or requiring higher bandwidth by placing latency-sensitive workstations closer to users and file and print resources at the branches.

With the single-solution Cisco approach, all Northrim employees experience the same level of network performance, access, and reliability. Stoeckle says that VDI is particularly important for mobile workers, because they can now count on the same setup, regardless of their location.

Employees report that computer response times have increased significantly and application errors have disappeared. "Not only does our VDI solution on the Cisco UCS E-Series improve the employee-customer experience today, but because of the capacity of the UCSE platform, we expect to sustain an additional two to three times the current load moving forward," says Stoeckle.

- **Integrated solution and centralized management save IT support and travel time** - Cisco ISR G2s also use the same monitoring alerts, IOS and power supply, and are covered under the same Cisco SMARTnet® service as their existing data center equipment. "We have a very lean IT staff, so we find SMARTnet technical support, software upgrades, intelligent diagnostics, and hardware replacement extremely valuable; and Cisco customer service is second to none," says Stoeckle. He works with many other network companies and notes that they have a lot to learn from the way Cisco treats its customers. Northrim has left the old days of managing disparate systems behind. As Stoeckle says, "We can peer into individual Cisco hardware modules as well as software applications and monitor network performance within and between branches from one VMware View Virtual Center console." Centralized management also saves staff time and reduces travel, because the IT staff can troubleshoot and fix issues from anywhere, even from home. Faster and more stable bandwidth delivery has also reduced trouble ticket resolution time.

PRODUCT LIST

- Cisco ISR G2s with UCS E-Series Servers
- VMware ESXi 5.0, VMware Horizon View and Atlantis ILIO storage optimization software embedded in Cisco UCS E-Series Servers
- Cisco SMARTnet support service

From his vantage point, Stoeckle sees Cisco as integral to Northrim's business in the long term, providing stable, reliable solutions that are backed by strong corporate support and a leading position in the industry. "We believe that Cisco has aligned itself in the digital age for the digital future," he says.

For More Information

- To learn more about Cisco UCS E-Series Servers, go to <http://www.cisco.com/go/ucse>.
- To learn more about Cisco UCS servers for the data center, go to <http://www.cisco.com/go/ucs>.
- To learn more about Cisco ISR G2s, go to http://www.cisco.com/go/ISR_G2.
- To learn more about Cisco Office in a Box Solution with VMware go to http://www.cisco.com/en/US/prod/collateral/ps10265/ps12629/white_paper_c11-715347.html.
- To learn more about Cisco SMARTnet service, go to <http://www.cisco.com/go/smartnet>.



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