

Retail Accelerates Performance of Centralized Applications

VF Corporation uses Wide Area Application Services to deliver an excellent application experience over the WAN

EXECUTIVE SUMMARY

VF CORPORATION

- Retail
- Greensboro, North Carolina
- 46,000 Employees

BUSINESS CHALLENGE

- Centralize critical business applications
- Maximize employee productivity
- Minimize branch-office IT costs

NETWORK SOLUTION

- Deployed Cisco Wide Area Application Services (WAAS) solution in central data center and branch offices

BUSINESS RESULTS

- Accelerated image access time from 2 to 5 minutes to 45 seconds or less
- Reduced overall bandwidth usage on circuits by 20 to 40 percent
- Reduced bandwidth used for email by 50 to 70 percent

Challenge

VF Corporation is a global leader in branded lifestyle apparel with more than 30 brands, including Wrangler, The North Face, Lee, Vans, Nautica, and 7 For All Mankind. In 2009, company revenues exceeded US\$7 billion. Consumers can purchase VF brands through 47,000 retailers in 150 countries.

VF's workforce is distributed across 770 global offices. To reduce branch-office IT infrastructure costs, the IT department is consolidating branch servers in centralized data centers. The Product Lifecycle Management (PLM) application used for apparel design, however, was hosted on costly local servers that VF designers accessed over the LAN. Designers work with the application throughout the day to create the fresh new looks that have made the brands so popular. To design a new jeans style, for example, a designer might access dozens of images of buttons, zippers, trims, and fabrics.

When VF decided to internally develop a new apparel-design application, the IT department wanted to host it in the main data center, to eliminate the high capital and operational expense for high-end servers in each branch. To centralize the application, the IT department needed a way to quickly transfer multiple 1- to 20MB images over the WAN. VF offices connect to the data center over fractional DS3 lines delivering speeds from 6 to 25 Mbps, ordinarily too slow to deliver a good user experience for large file transfers. "When we tested the new application during development, downloading images over the WAN took an average of 2 to 3 minutes, and up to 5 minutes," says Billy Yawn, network architect, VF Corporation. "Before deploying the application to branch offices, we needed a WAN acceleration solution."

The IT department began looking for a WAN acceleration solution. VF would use it for the PLM application as well as other centrally hosted applications, including Lotus Notes email, Microsoft file services, web browsing, and SAP enterprise resource planning (ERP).

Solution

After evaluating two leading WAN acceleration solutions and speaking with industry analysts, VF selected Cisco Wide Area Application Services (WAAS). Cisco WAAS software resides on a Cisco Wide Area Application Engine (WAE) in the data center and in each office, and accelerates application performance using TCP optimization, caching, and compression techniques.

"Our tests proved that the combination of prepositioning and flow optimization in Cisco WAAS significantly increased performance for the apparel-design application," Yawn says. Other factors influencing VF's decision to use Cisco WAAS included the low-price point, which is an especially important consideration in the competitive retail industry, and VF's excellent experience with other Cisco solutions for the network, such as Unified Communications. "We prefer to work with just a few, trusted vendors," Yawn says.

VF began by deploying Cisco WAAS in 13 large offices. The IT department prepositioned approximately 100 GB of design images on the Cisco WAAS appliances in each office. Designers access these images over the LAN, and only the changes travel across the WAN, accelerating response time and conserving WAN bandwidth.

Designers who work in other offices will begin using the centralized apparel-design application when their offices receive Cisco WAAS during scheduled network refresh activities.

“Cisco WAAS is reducing WAN bandwidth usage by 20 to 40 percent, and even more in locations where people receive a lot of email attachments. This will enable us to wait longer before upgrading our WAN circuits.”

—Billy Yawn, Network Architect, VF Corporation

Results

Increased Productivity for Apparel Designers

Cisco WAAS reduces the time to access apparel images through the PLM application from 2 to 5 minutes to 45 seconds or less, 160 to 560 percent faster. “Fast application performance is important for designers because we’re constantly trying new features to get just the right looks. When we don’t have to wait a long time to download images, I can try a few new ideas without worrying about missing a deadline,” says Billy Yawn.

Faster Application Performance Overall

In offices that have Cisco WAAS, employees enjoy faster application performance for all TCP applications, including email, web browsing, and ERP. Acceleration for Microsoft file services allows users to share more files on remote servers. Previously, downloading Word files, spreadsheets, and presentations from remote Windows servers took so long that employees often asked a coworker to email the file instead, an inefficient process that decreased productivity. Now a 10MB PowerPoint presentation downloads in just seconds, so employees tend to retrieve it directly from the server, saving time for themselves and coworkers.

Reduced Bandwidth Usage

Data compression techniques not only accelerate application performance, they also conserve WAN bandwidth. For example, Cisco WAAS compresses a 20-30MB email attachment to about 5-7MB. Employees receive the email sooner, which increases productivity, and bandwidth usage decreases, lowering costs. “Cisco WAAS is reducing WAN bandwidth usage by 20 to 40 percent, and even more in locations where people receive a lot of email attachments,” Yawn says. “This will enable us to wait longer before upgrading our WAN circuits.”

PRODUCT LIST

Switches and Routers

- Switches 2960, 3560, 3750, 4500, 6500
- Routers, 2800, 3800, 7200

Data Center

- Cisco WAAS Software
- Cisco Wide Area Application Engine (WAE) 7341 in data center
- Cisco WAE 512 and 612 in branches

Next Steps

Other VF offices will receive Cisco WAAS appliance during scheduled network refreshes. When they do, designers in those locations will begin using the centralized apparel-design application. After an office receives Cisco WAAS, the IT department will be able consolidate its local file, print, and domain name services (DNS) services in a centralized data center. “The WAN acceleration is so effective that users won’t necessarily notice that their servers are no longer local,” says Yawn. Consolidating branch server infrastructure will increase utilization, reducing hardware costs as well as management, power, and cooling requirements.

VF is also considering using Cisco WAAS to accelerate streaming video so that executives can broadcast live video to employees in retail stores, on digital signs. "Our vision is to eventually eliminate in-store servers," says Yawn. "Cisco WAAS is part of that vision, along with Cisco Digital Signs and Cisco IP Video Surveillance."

For More Information

To find out more about Cisco WAAS, visit: <http://www.cisco.com/go/waas>

To find out more about Cisco Data Center 3.0 solutions, visit: <http://www.cisco.com/go/datacenter>



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