



Cox Communications

Citrix Application Delivery
for Communications

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Shirland Whipple
Director of IT Infrastructure,
Cox Communications

Key benefits

- Cut call center costs by \$3,300 per agent per year
- Reduced environmental impact of commuting and power usage
- Enhanced employee productivity by 10 percent
- Improved Web application performance by 70 percent
- Provided a platform for disaster recovery

Cox Communications supports the environment with a “green call center” program

Cox Communications, the third-largest cable provider in the U.S., delivers full telecommunications, high-speed Internet connectivity and cable TV services to more than six million residential and commercial customers. The Arizona business unit has experienced strong growth of more than 20 percent per year due to sharp increases in population, new service offerings and the acquisition of a small cable company. Cox Enterprises, the parent organization, places a high value on environmental responsibility and community involvement.

The Challenge: An economical, eco-friendly alternative to call center expansion

Although Cox Communications was experiencing an enviable growth rate, the expanding demands on its call center required about 15 percent more agents every year — and that was causing a space problem. “Basically, our call center facility was running out of room,” said Shirland Whipple, director of IT Infrastructure. “Enlarging the center was a very expensive proposition, and we wanted to find a less-costly solution. We decided the best approach was to give our top agents the opportunity to work from home. Telecommuting would not only avoid the need for more space, but also reduce the environmental impacts of driving and increased power usage at the office. And it would give employees more work/life flexibility.”

To support home-based agents, Cox experimented with providing laptops and connecting them to the corporate network with a basic VPN product. However, the costs of the computers plus licenses for the operating system and applications quickly added up, and the VPN connectivity was slow — creating user dissatisfaction and additional IT support calls.

“When we looked at a Citrix solution, we decided pretty quickly that with the agent using their home computer and high-speed Internet provided by Cox, we could offer secure application delivery with high performance. And it wouldn’t require us to purchase laptops for everyone.”

Implementing a Citrix Application Delivery Infrastructure solution

Cox implemented Citrix Presentation Server™ with Microsoft® Windows Server® 2003 to deliver custom billing applications and telephony applications to selected agents at home. Cox then added secure application access capabilities with the Citrix Access Gateway™ solution, which provides granular control of users’ application access levels and permitted actions via SmartAccess technology. Then

Networking environment

- Citrix Presentation Server™ running on 35 Dell servers
- Citrix® NetScaler®
- Citrix Access Gateway™
- Citrix® GoToAssist®
- Microsoft® Windows Server® 2003
- Mix of PCs

Whipple and his team implemented Citrix® NetScaler® — initially for acceleration of internal Web applications, and subsequently to load-balance the 35 Citrix Presentation Servers, which are located in two geographically dispersed datacenters for redundancy. In addition, Cox uses Citrix® GoToAssist® for online technical support.

“We basically built an end-to-end Citrix solution that solves all our problems,” Whipple stated.

The Citrix solution is the foundation for Cox Connect, the company’s work-at-home program for call center agents. Currently, about 10 percent of the Phoenix agents, or about 245 people, work at home full time using applications delivered by Citrix Presentation Server over the Access Gateway. The total number of telecommuting agents is slated to increase to about 400 — about 13 to 15 percent center staff — by the end of 2008, as the program expands to include new hires.

In addition, the Phoenix office uses Citrix Presentation Server to deliver enterprise applications such as Microsoft® Office and Oracle financials to other company sites.

Expanding “green” efforts

Cox Connect is an important addition to the company’s environmental initiatives, which encompass solar energy, hybrid cars and energy-efficient lighting, and enhances Cox’s reputation as a leading environmental advocate. The program reduces commuting across the greater Phoenix metropolitan area, saving fuel and lowering vehicle emissions. Maintaining or reducing the size of the call center facility helps lower power consumption and other overhead. Cox Communications is a member of the Governor’s Telework Partnership — a program recognizing Arizona companies that have embraced teleworking.

Reducing costs by \$3,300 per agent per year

One of the most impressive benefits of the Citrix solution has been cost reduction. Right away, Cox found the Citrix infrastructure to be less than half the cost of building additions to the call center facility. Cox employees working from home enjoy secure, anytime application access and call center telephony. This increases worker satisfaction and retention, while saving the company more than \$3,300 per agent per year in space, equipment and operational costs. Citrix technology supports Cox’s business objectives to lower costs, increase productivity and support growth, all while providing excellent customer service and support.

Some of the ways in which the Citrix solution reduces costs are: enabling the use of virtually any home computer instead of having to supply company laptops with software licenses installed; providing online technical support and training instead of having to send a technician to the home or send workers to a training facility; and reducing the load on servers through technologies such as caching and compression.

Improving employee productivity, recruitment and retention

The Cox Connect program is helping the company attract and retain call center employees, as well as boosting productivity and satisfaction for a competitive advantage. “Initially, we looked for top performers with a situation that made working from home desirable,” Whipple explained. “These home-based agents are showing about a 10 percent increase in productivity, based on statistics we’ve collected. So we’ve seen a real reward from our investment in Citrix.”

While originally limited to long-time employees, Cox Connect has been expanded to new employees, who have the option to work from home at the start of their employment.

Providing IT with a good marriage of technologies

Whipple and his IT team have found the Citrix solution to be scalable, flexible and easy to maintain. "The Citrix solution is very scalable, and we're currently extending it. It's very easy to do. We can add NetScaler and Access Gateway appliances and Presentation Servers as we add more users." And a few administrators can maintain all these components through centralized interfaces in the datacenter. "For us, the ease of administration is a high point," he said.

Another IT benefit has been a significant improvement in application performance. "We've seen about a 70 percent boost in application response time with our NetScaler implementation. This has helped address user complaints about availability and speed of internal Web applications. Further, Access Gateway provides much faster delivery of Presentation Server hosted applications than the previous VPN solution. Overall, user satisfaction is much higher with Access Gateway."

The Citrix solution also provides a foundation for disaster recovery. Cox created a fault-tolerant, active-active multi-site configuration using NetScaler appliances to load-balance the Citrix servers.

He concluded, "Citrix has become a strategic partner, enabling us to deliver applications to a wide range of users across the enterprise. Not only did we get a nice marriage of technologies from a single vendor, but Citrix allows us to grow the platform dynamically to meet our future needs."

Applications delivered

- Call center billing and telephony applications
- Oracle financials
- Microsoft® Office
- Internal Web applications
- Office Communicator
- Network monitoring & diagnostic tools
- Application and database development tools
- Field & Care Center scheduling and routing applications
- Customer Service monitoring tools

About the Citrix Solution

Citrix Presentation Server™ is the de facto standard for delivering Windows® applications at the lowest cost—to any user, anywhere. Citrix® NetScaler® is an application networking solution that optimizes the delivery of Web applications—increasing security and improving performance and Web server capacity. Citrix Access Gateway™ is the only SSL VPN to securely deliver any application with policy-based SmartAccess control. Citrix® GoToAssist® is an industry-leading, remote technical-support solution that enables organizations to provide best-in-class support over the Internet.

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