

# Time Warner Cable wields HP technologies to strengthen customer contact

Customer service productivity jumps five points in updated call center



“HP thin clients and ProLiant servers enable us to bring our requirement to the business: great technology that is easy to use and manage. It’s a great investment. And what I like most is the technology is transparent to our business—doing what it’s supposed to do.”

— Cesar Beltran, vice president of Information Technology, East Region, Time Warner Cable

## Objective

Serve customers better and faster by improving the call center infrastructure

## Approach

Evaluate, select, and implement user-friendly call center software and industry-standard technologies

## Business technology improvements

- Integrates back-office systems, enabling quicker access to relevant information and response to customer calls
- Reduces security vulnerabilities with the HP client virtualization solution, allowing protection of customer data and Securities Exchange Commission compliance
- Enables the IT department to sustain call center growth without employing more system administrators
- Improves system availability 95% and provides disaster recovery, which reduces the risk of customer disappointment and revenue loss
- Allows the IT staff to meet growing demand for new end-user applications

## Business outcomes

- Lowers total operational costs by 31%
- Improves customer service representative (CSR) productivity by five points and speeds call fulfillment, which builds customer retention and satisfaction
- Saves 20% in energy costs compared with previous hardware
- Reduces personnel costs by mitigating the need for high-paid UNIX expertise



## The need for speed and functional technology

At Time Warner Cable, the second largest cable operator in the United States, technology is critical in serving its 14.4 million customers. Time Warner Cable installs software on cable TV boxes to enable customers to receive programming in their homes, while mission-critical back-office systems support cable service installation, repair, and billing. Answering 50,000 service calls daily on average, the company’s customer service representatives (CSRs) help people with a myriad of requests—from buying a pay-per-view movie to scheduling a repair technician. Consequences can be steep if the call center goes down. As a regulated cable company, Time Warner Cable could be subject to penalties and fines and potentially lose customers and revenue.

## HP customer case study:

HP Services, HP ProLiant servers, HP ProLiant BL460c Server Blades, HP thin clients, HP StorageWorks Scalable NAS, HP StorageWorks P4000 SAN Solution, and HP StorageWorks 4400 Enterprise Virtual Arrays

**Industry:** communications, media and entertainment



**“With HP, we addressed our main concerns about having industry-standard technology and being able to integrate our back-end systems. The solution is very cost-efficient; we save money on both the capital and operating expenses long term. And we have a great ROI.”**

**— Cesar Beltran, vice president of Information Technology, East Region, Time Warner Cable**

To resolve customer issues accurately and quickly, CSRs need fast databases and back-office systems. But two issues challenged customer care: an outdated call center system at the end of its support lifecycle and an 11-year-old infrastructure that hosted the call center system. The infrastructure was based on Sun SPARC servers and thin clients running the Oracle Solaris operating system. The hardware required frequent repair, which made it expensive to support. To compensate for the lack of capacity on the Sun servers, Time Warner Cable invested in memory upgrades on the UNIX® thin client workstations.

In addition to needing a new call center system, the IT staff had to respond to increased demand from internal users for front-end application components with ActiveX controls. On the Oracle Solaris platform with the Java programming language, the staff could not provide ActiveX controls easily so that the company’s software developers could build new applications for the business.

Another problem was that the UNIX-based programs and workstations were not as familiar to most of the CSRs as Microsoft® Windows®-based programs and workstations. Instead of using text-based interfaces and typing commands, CSRs preferred software with standards-based access and a graphical user interface (GUI).

“The UNIX workstations worked well for the first two years, but as Microsoft Windows programs evolved, the UNIX programs lagged behind. We needed to go to something with an easy human interface that our CSRs understood,” says Cesar Beltran, vice president of Information Technology, East Region, Time Warner Cable.

**Switching to energy-efficient, industry-standard technologies to reduce TCO**

Time Warner Cable chose an Aspect communications and contact center solution and set about to revamp the supporting hardware. Beltran and his staff evaluated three options: later models of Oracle Solaris-based Sun servers and thin clients; traditional PCs/workstations; and HP thin clients and HP ProLiant DL-series servers and HP ProLiant BL460c Server Blades with Intel® Xeon® processors. The HP thin clients attach through Microsoft Windows Server 2008 and the Microsoft Remote Desktop Protocol (RDP) Thin Client Infrastructure to ProLiant servers with VMware ESX.

“We went out looking for the latest and greatest and landed with HP,” Beltran says.

By implementing the HP client virtualization solution, Time Warner Cable lowered its hardware administration and maintenance costs. Previously, the company hired highly skilled staff to work in the complex UNIX environment, but moving to industry-standard technologies, such as Intel’s x86-based Xeon processor technology and Microsoft Server 2008, Time Warner Cable reduced the need for such high-paid expertise. The UNIX administrators easily retrained on the new architecture and some were reassigned to other IT priorities. As the HP systems are easy to provision and manage from a central location, Beltran’s staff has sustained growth in the residential and commercial call centers without employing more system administrators.

“Our operating cost is 31% lower for the Xeon-based HP servers and thin clients. And they made us greener because they consume 20% less power than our previous Sun hardware. We expect these savings to grow over time,” Beltran says.

**Higher productivity in the call center**

Along with the Aspect solution, CSRs access separate billing, order entry, information networks, travel ticket systems, and regional outage management systems to deliver customer satisfaction. In the past, the GUI was not integrated from system to system, so CSRs had to log in and out of one system regularly to access another and obtain the appropriate content to fulfill customer requests. They also waited for information to download to their terminals.

## Customer solution at a glance

Name: Time Warner Cable (NYSE: TWC)

Headquarters: New York City, New York

Founded: 1989

Telephone: 212-364-8200

Number of employees: 47,000

Annual revenues: \$17.9 billion (2009)

URL: [www.timewarnercable.com](http://www.timewarnercable.com)

“We were able to integrate all of the back-office systems seamlessly using the new HP thin clients with Microsoft connectivity behind the scenes, so our CSRs can now access all systems with one click. The investment in HP was to make our reps more effective, and that was a major win for us. We asked them which system they felt comfortable with and everybody voted for the HP thin clients,” Beltran explains.

A number of customer contact activities—such as responding to cable billing and technical support inquiries—that used to take minutes are now completed in seconds. In fact, CSR productivity jumped five points in terms of call response time and time to fulfillment. This rise in productivity has enhanced customers’ overall experience with the call center.

In the past when the call center lost service due to server outages, the CSRs could not answer phone calls or respond effectively. The fallout would be angry customers, more calls on the following day, and probable revenue and customer loss. “Imagine the impact on our customers and CSRs who struggled through the situation on an ongoing basis. That’s all gone. With HP ProLiant servers, availability has improved about 95%,” Beltran notes.

Sam Gupta, vice president of IT for Time Warner Cable, credits ProLiant servers and the Intel Xeon Processor Series for improving the performance of mission-critical applications. With the ability to increase clock speed automatically when needed, Xeon 5500 and 5600 processors in HP servers provide faster, intelligent processing.

“Intel has invested in research and development, and they are leading the industry when it comes to CPU processing speed, so we’ve gained that benefit automatically with ProLiant servers,” Gupta says.

### Flexible, secure infrastructure

The IT staff now delivers new application services, allocates sessions, and balances compute resources with greater speed and ease from a central location. “Our HP infrastructure is so flexible and dynamic that when the business needs a new application, two days later it’s there. We deployed an entire call center

with HP servers and thin clients in two weeks for our commercial subscribers,” Beltran says.

“These systems are great tools to protect customer information and the company,” Beltran adds. “The environment provides safeguards that lock USB ports against intrusions. We can restrict users from taking customer data out of the call center or installing software that could transport viruses.”

In addition to ProLiant servers running call center applications and Oracle databases, the company counts on HP ProLiant DL360 servers and an HP StorageWorks P4000 SAN Solution to host an automated workforce management system on its technicians’ laptop computers. The environment updates customer information in real time to help technicians in the field provide installations and repair services. Technicians can access the same information as the CSRs do, which enable them to answer technical questions and also provide insight about billing.

### Meeting high expectations

HP and Microsoft assisted Time Warner Cable with an extremely complicated migration and integration, made all the more complex because the call center is a gateway to a number of systems related to high-speed, digital, switch video, and other services. HP helped design, test, tune, and deploy the architecture. “We had our fair share of integration problems during the implementation, but HP engaged the right people who needed to hear our concerns and address them,” says Gupta.

After the thin client and ProLiant server implementation, HP provided consulting and integration services for a replicated site with disaster recovery capabilities and redundancy. Unlike previously, when an outage could cripple the entire call center and impact costs, today the company has a load-balanced environment with bidirectional failover and continuous two-way replication between two data center clusters. If one data center goes down, users can continue to get into their information systems and serve customers. The replicated data centers serve five Time Warner Cable call centers.

The data centers contain HP StorageWorks Scalable NAS solutions and HP StorageWorks 4400 Enterprise Virtual Arrays (EVA4400), which HP Services configured in storage area networks (SANs). On the SANs, the company stores customer information, transaction records, order requests, and billing data. The IT team manages remote replication on the EVA4400 with HP StorageWorks Continuous Access EVA software. HP StorageWorks Business Copy EVA software provides snapshots to meet the company's data retention and business continuity requirements.

"Our idea was to bring in a single provider and have an end-to-end solution with disaster recovery and resilience. Our HP storage environment gave us these benefits, and it's a happy family with the servers and software," Beltran says.

Included with the end-to-end solution to help maintain consistent technology services are HP Mission Critical Services and Support Plus 24. "HP is able to meet our service expectations, and I do feel that HP and Intel have met our very high standards," Gupta says.

Looking back on the achievements related to the call center revamp, Gupta concludes, "It was an absolutely fantastic experience for me to get involved with the HP team and trust them. It was a big risk, and I'm glad we took it."

## About Time Warner Cable

Time Warner Cable owns and manages advanced, well-clustered cable systems in the United States, serving approximately 14.4 million subscribers of its video, digital phone, and high-speed data services. The company also provides broadband Internet access to about 9 million customers primarily through ISP Road Runner. Time Warner Cable operates from five main geographic areas: Texas, Ohio, the Carolinas, New York State (including New York City), and Southern California (including Los Angeles).

## Customer solution at a glance:

### Primary applications

- Call center unified communications (UC) and collaboration software, workforce management system, and databases

### Services from HP

- Technology Implementation Services
- Consulting and Integration Services
- Storage Installation and Implementation
- Mission Critical Services: Proactive 24 Services (storage)
- Support Plus 24 (servers)

### Primary hardware

- 94 HP ProLiant BL460c G6/G7 Server Blades (Intel Xeon processors 5500 and 5600 Series)
- 20 HP ProLiant DL360, DL380, and DL580 servers
- 2 HP BladeSystem c7000 Enclosures
- HP Thin Clients
- 2 HP StorageWorks Scalable NAS
- 2 HP StorageWorks 4400 Enterprise Virtual Arrays (EVA4400)
- 2 HP StorageWorks P4000 SAN Solutions

### Primary software

- HP StorageWorks Continuous Access EVA software
- HP StorageWorks Business Copy EVA software
- Microsoft Windows Server 2008
- Microsoft Active Directory
- Microsoft Office Communications Server 2007 R2
- VMware ESX 4.0
- Oracle Database Server 9i and 10g
- OpenOffice 3.2 open-source application
- Aspect Unified IP 6.6 service pack 2



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