

## NCR

### EXECUTIVE SUMMARY

#### PRODUCTIVITY IMPROVEMENTS

- Less employee time spent setting up virtual conferences
- Ability to have fully secure web-based meetings with external customers and partners
- Less time spent managing voice mails, improving employees' ability to stay in touch with their colleagues, business partners and customers
- Less IT support staff time required to help manage voice mail boxes and basic user settings
- Faster, self-administered MACs
- Better IT management visibility into the voice communications network
- Greater customer service flexibility through IP contact center virtualization and teleworking

#### DIRECT COST SAVINGS

- Multi-million dollar annual savings from bringing global audio and video-conferencing in-house
- Cost savings from consolidated network cabling for voice and data

#### Company Overview

NCR Corporation (NYSE: NCR) is a leading global technology company helping businesses build stronger relationships with their customers. NCR's automated teller machines (ATMs), retail systems, Teradata data warehouses and IT services provide Relationship Technology solutions that maximize the value of customer interactions and help organizations create a stronger competitive position. Based in Dayton, Ohio, NCR ([www.ncr.com](http://www.ncr.com)) employs approximately 28,000 people worldwide and generated US\$6 billion in global revenue during fiscal year 2004.

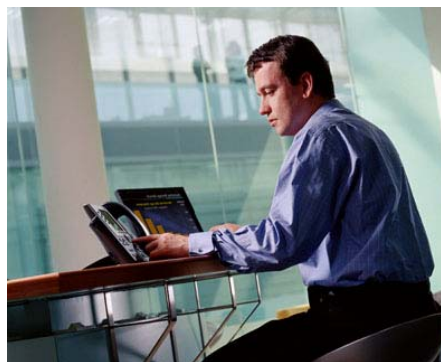
#### Business Challenge

Prior to 2004, NCR's voice communications were based primarily on Avaya private branch exchanges (PBXs) and the Avaya AUDIX voice messaging platform. For audio, video, and Web conferencing, the company relied on externally-hosted conferencing services from telecom carriers. The proprietary nature of an architecture based on time division multiplexing (TDM), combined with reliance on externally-hosted conferencing capabilities resulted in a high total cost of ownership (TCO) for voice communications. The company was spending US\$3 million annually in maintenance fees for its PBX systems, with an additional \$3 million annually dedicated to software and hardware upgrades for these systems. The company knew it needed to reduce its telecom ownership costs and prepare for the convergence of its voice, data and video networks by starting the migration to an IP-based communications network.

#### The Solution

NCR had been working on IP Communications solutions since late 2002, and formed a management team specifically for this transition. The first trial deployment was in April, 2003, and after a thorough financial analysis, executive management gave approval to begin deployments at the company's large sites in 2004.

NCR made its first major Cisco® IP Communications deployment in May, 2004 at its global headquarters in Dayton, and currently has this deployed at most of its larger locations. After the initial major deployment, the company has been migrating individual site locations to Cisco IP Communications as it has consolidated office space or had other real-estate activity. NCR



currently has nearly 8,000 employees using the Cisco CallManager servers and IP phones. Additionally, there are approximately 5,000 users on a Cisco Unity™ Unified Messaging platform around the globe.

Cisco MeetingPlace is also deployed, with 912 user licenses for audio conferencing and 300 user licenses for web conferencing. Both Cisco MeetingPlace and Cisco Unity are fully integrated with the company's global corporate directory and with the Microsoft Outlook application on a global basis.

The company also has an extensive global deployment of Cisco IP Contact Center (IPCC) solution, totaling 541 agent seats in North America, Europe and Asia.

## **Benefits**

As of June, 2005, the Cisco IP Communications solution in its current form has been deployed at NCR for approximately one year. The migration to Cisco IP Communications has already resulted in a drastically lower recurring TCO for the company's voice communications system compared to their previous architecture. The greatest immediate impact of the deployment has been in direct, out-of-pocket cost savings. "The whole project was built on operational expenditure savings," says Sandy Davis, IP Telephony project manager for NCR. Now that the system is operational, NCR has also realized a variety of wide-reaching productivity benefits for both IT and non-IT employees throughout the company.

### **(1) Multi-Million Dollar Annual Savings Realized from Internal Conferencing Capabilities**

One of the biggest sources of cost savings for NCR has come from replacing its third-party hosted conferencing services with a Cisco MeetingPlace internal conferencing system. Given NCR's high volume of conferencing traffic (over 4 million global minutes per month, on average) the change has resulted in millions of dollars in annual savings. These savings come from both the elimination of recurring third-party conferencing service fees as well as a significant reduction in toll charges related to voice conferencing. Domestic conferencing traffic now travels on NCR's internal Wide Area Network (WAN) infrastructure, while incoming international calls from the company's various locations in Europe and Asia can be routed directly over IP networks to the Cisco MeetingPlace server at company headquarters in Dayton using AT&T's Global Inbound Service. This has eliminated much of the international long distance bill the company used to pay in support of these meetings.

### **(2) Less Time Spent Establishing Virtual Meetings**

In addition to out-of-pocket cost savings, Cisco MeetingPlace has reduced the time required by NCR employees to organize, set up, and manage any type of virtual conference (audio, video or Web). More than 90 percent of NCR's meetings are now set up through a Microsoft Outlook interface, which is integrated with company-wide calendaring and the corporate directory. This integration has helped cut down significantly on the collective employee time required to schedule, notify users and attend these meetings. According to Steve Murphy, NCR's director of Global Network Services, "It's a self-service feature that allows users, as they set up their meetings, to schedule the conferencing capabilities and all the security with a couple of mouse clicks." The time required from employees to set up and arrange voice and/or data meetings is "significantly better" than what it was prior to the deployment of Cisco MeetingPlace, according to Murphy.

In addition to internal virtual meetings, NCR's multi-server Web conferencing architecture of the Cisco MeetingPlace platform also allows for fully secure virtual Web-based meetings with external customers and partners.

### **(3) Less Staff Time Spent Managing Voice Mail**

The wide-spread deployment of the Cisco Unity Unified Messaging platform has resulted in employees spending less overall time managing their voice mails. NCR has 5,000 employees taking advantage of the capability to view, sort, and listen to voice mails from their Microsoft Outlook e-mail inbox. As Davis explains, "We certainly are not seeing the [same levels of] traffic coming across the voice mail interface as we used to with the traditional, typical voice mail environment. We know that a lot of people are using their PCs to access their voice mail along with their e-mail." Unified messaging is also having an impact on employees' ability to stay in touch with their colleagues, business partners, and customers. This is particularly relevant for employees who work remotely or travel frequently. For teleworkers, "the advantage of having your voice mails accessible to play back on your PC speakers is a great enabler," according to Murphy.

### **(4) Less IT Support Staff Time Required to Help Manage Voice Mail Boxes**

The Cisco Unity Unified Messaging platform has also saved IT staff time because they are receiving far fewer support calls from employees. According to Davis, "Cisco has a Web interface that allows end users to change a lot of their mailbox setup items and customize their mailboxes themselves. That has certainly

affected the operations team. They don't need to be involved in setting up or helping people change their menus, as they might have without that Web interface."

In addition to fewer support-related calls, Cisco Unity has simplified NCR's voice-mail system architecture. Under the existing PBX infrastructure, there were isolated groups of voice mail boxes associated with physical company locations. It took some fairly complex middleware to interconnect them. According to Murphy, "We've been able to make obsolete some of our hardware previously required to bridge all these components together. We've taken that directory complexity out of our equation and replaced that with the Cisco Unity Unified Messaging environment, which was already supported by the e-mail team."

#### **(5) Faster Moves, Adds, and Changes**

In addition to voice mail administration, NCR's IT staff is spending much less time managing basic moves, adds and changes (MACs) than it did a year ago. "It has allowed us to push a lot of self-service out to our end users," Davis explains. "When people change cubicles they just pick up their phones and move them themselves," Murphy elaborates. "We no longer have to send a technician out to do that for them and no longer need to visit a wiring closet in order to effect the change. That has substantially reduced the time and expense."

The self-administration capabilities of the Cisco CallManager server has made many different types of phone changes faster and easier to implement, without any professional support required. Murphy cites programming soft keys for things like speed-dialing as another example of a process that's much simpler now than it was before. "In the former environment, I would go out to the Web and submit a request. Often, it would take as long as 48 hours for someone to respond and reprogram my speed dial so that I could call a frequent number. In this self-serve mode now, I can change that in seconds, as can everybody else on [the Cisco CallManager server] here at NCR."

#### **(6) Improved IT Management Capabilities of the Voice Communications System**

The overall network monitoring and management capabilities of Cisco IP Communications have been an improvement over the management tools available to NCR with the existing PBX infrastructure. According to Murphy, "We have better visibility into what's going on in the network than we had in the former environment." This visibility has given the IT department a better sense of control and enhanced the department's ability to preempt problems over the global voice communications network of the company, and reduced their time requirements for most ongoing monitoring and management tasks.

#### **(7) Cost Savings from Consolidated Network Cabling**

For any new facility or for wiring a new room, the IT staff now only has to run a single Cat 5 cable rather than separate cabling for the data and the voice jack. "Not having to pull two wire runs to the desk—being able to pull one and running both our PCs and our phones off of one jack—[has given us] significant savings," according to Murphy. "We have seen an average of 40 percent savings on the cost of wiring in all new projects."

#### **(8) Increased Customer Service Flexibility through Contact Center Virtualization**

Cisco IP Communications has made it easier for NCR's customer-facing employees to be available anytime. By deploying the Cisco IPCC, NCR has the ability to globalize its global customer service operations. As Murphy explains, "A call center in North America can be logged into a European call center, as though they were sitting right on premise, across the IT backbone. We now have the ability to virtualize our teams, in contrast to the past where you would have to be sitting actually on that campus to participate in that agent pool." The customer service experience is the same, however the ability for NCR to load balance customer support resources globally and provide ubiquitous, 24-hour support has been enhanced. In addition, this provides significant benefits for business continuity and disaster recovery.

In addition to the flexibility of contact center virtualization, the Cisco IPCC allows employees in product support roles to be available from home on an as-needed basis in the future. Either through a Cisco IP Communicator soft phone agent or through a physical Cisco IP Phone, any employee could be reachable at the same extension, have the same access to the corporate directory and have all other voice system capabilities from anywhere they have a broadband internet connection.

#### **Conclusion**

In the future, NCR plans to take fuller advantage of more productivity-enhancing and cost-saving applications that are possible now that the core Cisco IP Communications system is in place. A few examples of the applications that NCR is currently testing in the lab and plans to deploy shortly include:

- Fuller use of the Web-based data collaboration capabilities of Cisco MeetingPlace in order to increase the effectiveness of virtual meetings
- Information broadcasting capabilities that would push text-based information to the displays of any designated group of Cisco IP phones for corporate alerts and other relevant announcements to employees
- Text-to-speech capabilities within the Cisco Unity Unified Messaging platform so that e-mails can be read to an employee
- Cisco's IP Communicator soft phone clients on laptops for traveling employees and teleworkers

Murphy and Davis have learned lessons from their experience deploying large-scale Cisco IP Communications solutions. The first one, according to Murphy is "Don't wait—the cost savings are real." Additionally, they both stress the importance of both technical and organizational pre-planning. As Murphy explains, "New people need to work together that haven't had to work together in the past." And finally, they stress the need to "think big." Davis stresses that other companies considering IP Communications should "think about the applications that [they] want to add on [their] phones *before* you do a complete rollout and then have to circle back and do justification and business cases for it."

**For more information**

[www.cisco.com/go/ipc](http://www.cisco.com/go/ipc)

[www.cisco.com/go/voice](http://www.cisco.com/go/voice)

<http://www.cisco.com/en/US/products/sw/custcosw/ps1846/>

This interview for this story was conducted and documented by Sage Research, and sponsored by Cisco Systems.

**Sage Research, Inc.** is a full-service market research and consulting firm providing global demand-side research to technology companies. With in-depth experience in the networking and telecommunications markets, Sage has conducted thousands of depth interviews with IT, networking and telecom professionals at enterprises and service providers. For more information, visit [www.sageresearch.com](http://www.sageresearch.com).

**Cisco Systems, Inc.** (NASDAQ: CSCO), the worldwide leader in networking for the Internet, celebrates 20 years of commitment to technology innovation, industry leadership, and corporate social responsibility.