

## Global Consulting Firm Improves Productivity and Responsiveness

Consultants with BearingPoint, Inc. can log on to any IP phone in 80 global offices, with a Cisco Unified Communications solution.

### EXECUTIVE SUMMARY

#### BEARINGPOINT, INC.

- Management and Technology Consulting
- McLean, VA
- More than 17,000 employees

#### BUSINESS CHALLENGE

- Provide a consistent voice experience in any global office
- Reduce total cost of ownership for voice systems

#### SOLUTION

- Deployed Cisco Unified Communications solution
- Provided global extension mobility
- Subscribed to managed VPN service

#### BUSINESS RESULTS

- Experienced cost of ownership 38 percent less than that of a PBX system
- Increased employee productivity and responsiveness

### Business Challenge

One of the world's largest management consulting, systems integration, and managed services firms, BearingPoint, Inc. serves customers in public services (government and education), commercial services, and financial services. Until 2001, BearingPoint contracted with its then parent company, KPMG LLP, for voice and data services in its global offices. When it became an independent entity, BearingPoint needed to establish its own network services.

BearingPoint consultants, who travel often, need to be easy to reach and able to reach their global colleagues easily. "Learning a different phone system in every office impedes productivity," says Steve Powsner, senior manager for VoIP

architecture. "We wanted to provide the same voice experience in any global office, including checking voicemail or asking an assistant in the home office to provide phone coverage."

Before investing in a new voice system, BearingPoint wanted to compare the total cost of ownership (TCO) of traditional private branch exchange (PBX) systems to voice over IP (VoIP). The company turned to its own public services practice, which had developed a model for analyzing TCO for public services institutions. The analysis revealed that VoIP would cost less to acquire and maintain than new PBX systems.

### Network Solution

BearingPoint selected the Cisco® Unified Communications solution after deploying and testing it and another leading solution in its labs. Ease of deployment emerged as a major advantage of Cisco Unified Communications because it would help ensure a consistent global implementation. BearingPoint also liked that it could test and deploy software updates for Cisco Unified Communications Manager in its own lab and according to its own schedule.

Beginning in September 2004, BearingPoint converted two sites each week, working after normal business hours. Even the main office, with 1700 Cisco Unified IP Phones on nine floors, was transitioned over a single weekend. By December 2005, BearingPoint had converted 80 sites and 12,000 users in the United States, Canada, Germany, Russia, and Netherlands. “We created each site at our implementation center, tested it, and then shipped the equipment to the locations,” says Powsner.

In the 20 sites with 200 or more Cisco Unified IP Phones, BearingPoint installed redundant Cisco Unified Communications Manager servers and a Cisco Unity voicemail server. The 60 smaller sites take advantage of the centralized telephony services from the nearest of those 20 sites. If the WAN link from a small office to the centralized Cisco Unified Communications Manager server becomes unavailable, the Cisco router automatically routes voice traffic to the public switched telephone network (PSTN) so that staff and callers experience no interruption—a capability called Cisco Unified Survivable Remote Site Telephony. For inter-office connectivity, BearingPoint subscribed to Equant’s global Multiprotocol Label Switching (MPLS) VPN service for voice and data. Equant is a member of the Cisco Powered Network program, which means that it uses Cisco networking equipment and technology and meets Cisco standards for network support.

**“Employees like the fact that they have the same phone experience in any global office, including log in, voicemail retrieval, and call coverage from an assistant in their home office.”**

—Steve Powsner, Senior Manager for VoIP Architecture, BearingPoint, Inc.

Employees log into a Cisco Unified IP Phone each morning with their seven-digit employee identification number and password, which automatically personalizes the phone with their extension number, fast dial numbers, and personal address book. Employees can take advantage of extension mobility in any global location—not just locations served by the same Cisco Unified Communications Manager server. The Cisco Unified Application Environment enabled BearingPoint to integrate the Cisco Unified Communications system with the company’s centralized employee database, which stores each employee’s phone log-in information.

“If someone dials my U.S. number and I happen to be logged into an IP phone in Germany, my phone in Germany rings,” says Powsner. “Similarly, no matter where I am, I can retrieve my voicemail simply by pressing the voicemail soft key.”

BearingPoint followed Cisco design guidelines to establish a separate VLAN for voice traffic, both to help ensure that voice traffic receives priority over data traffic and to protect the voice system from attack or eavesdropping. In addition, Cisco firewalls help prevent unauthorized access by outsiders, and Cisco Security Agent detects and stops anomalous behavior on the Cisco Unified Communications Manager server.

## Business Results

### Cost Savings

Major cost savings from using VoIP include:

- **A 50 percent reduction in international toll charges.** When employees dial a BearingPoint office anywhere in the world, the call is toll free because it travels over the BearingPoint WAN. If they dial a location other than a BearingPoint office, the call travels over the BearingPoint WAN to an office close to the destination, and only then is switched over the PSTN. The toll charge is as low as if the call were initiated from the nearby office.
- **Lower cost for extension moves, adds, and changes.** BearingPoint now pays its provider US\$7 apiece for moves, adds, and changes compared to \$28 apiece when it used a traditional PBX system.

### Increased Productivity

BearingPoint consultants no longer have to spend time learning how to use different phone systems when they travel. "Employees like the fact that they have the same phone experience in any global office, including log in, voicemail retrieval, and call coverage from an assistant in their home office," says Powsner. "We just log into a Cisco Unified IP Phone in any office and it rings when someone dials our home office number. We're also more responsive to our clients when we are working in another office because they can reach us directly instead of leaving a voicemail and waiting for a return call."

### Improved Real Estate Utilization

The Cisco Unified Application Environment allows BearingPoint real estate space managers to more accurately measure utilization of conference rooms, offices, and cubicles, helping them anticipate when office space needs to be increased or decreased. "The ability to use IP phones for real estate management helped to cost-justify the investment in Cisco Unified Communications," says Powsner.

### More Effective Employee Communications

In more than 80 locations, BearingPoint uses the Cisco Unity voicemail distribution lists to provide an additional communications channel to all employees. "Employees are more likely to notice important information when it is sent to their IP phones instead of through more congested channels such as e-mail," says Powsner.

### Simplified Lifecycle Management

The Cisco Unified Communications system is less costly to manage than the previous PBX systems because of easier addition of new sites, consolidated directory and dial-plan administration, and lower cost upgrades.

## PRODUCT LIST

### Security

- Cisco PIX Firewalls
- Cisco Security Agent

### Voice and Unified Communications

- Cisco Unified Communications Manager
- Cisco Unified IP Phone 7960G and Cisco Unified IP Phone 7940G
- Cisco Unity
- Cisco Unified Survivable Remote Site Telephony
- Cisco Unified Application Environment
- Cisco Voice Gateways 2651XM and 3745

## Next Steps

BearingPoint is investigating mobility solutions such as dual-mode phones, which can connect wirelessly to the Cisco Unified Communications Manager server when the consultant is in the office, and connect over a cellular network when the consultant is outside the office's wireless coverage area.

"Unlike the voicemail box for an employee's cellular phone number, the voicemail box for the dual-mode phone number will belong to BearingPoint, helping us to sustain client relationships if a consultant leaves the company," says Powsner.

BearingPoint also looks forward to supporting telework by providing employees with a Cisco Unified IP Phone, a voicemail box owned and managed by BearingPoint, and a secure VPN connection to the BearingPoint network. "Support for telework will enable us to more efficiently manage all our office space, creating additional cost savings in the process," says Powsner.



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