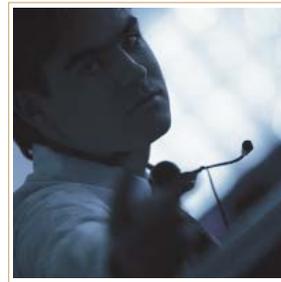


White Paper:
FINANCIAL SERVICES

IP TELEPHONY PUTS THE SERVICE
BACK INTO FINANCIAL SERVICES




BearingPointTM
Business and Systems Aligned. Business Empowered.SM

IP TELEPHONY PUTS THE SERVICE BACK INTO FINANCIAL SERVICES

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The convergence of voice and data systems into a single, intelligent network is revolutionizing the way financial services institutions conduct business. Internet protocol telephony can help financial institutions boost customer satisfaction and retention while reducing costs, addressing risks, streamlining business processes and, ultimately, achieving significant return on investment.



INTRODUCTION

Internet protocol (IP) telephony leverages a single, converged network to transmit voice, data, video and fax information packets. This combination of telecommunications and information technology (IT) systems has been steadily supplanting more traditional methods of communication, such as telephone, videoconferencing and fax machine, by capitalizing on the speed, convenience and economy offered by the Internet.

Trendy? Only at first glance. A close examination of IP telephony reveals impressive benefits that financial institutions can use to their advantage. Everyone is looking for ways to enhance the customer experience, reduce costs, and increase employee productivity and organizational flexibility. An IP telephony solution offers standout performance in precisely these areas and can also deliver impressive return on investment (ROI) within one to five years.

Adoption of IP telephony systems is on the rise. Equipment revenue from voice communication servers and IP telephones exceeded \$4 billion in 2002, and IP telephony port shipments surpassed legacy voice communication lines in 2003. Experts predict that only 25 percent of all voice traffic will be transmitted via the traditional telephone infrastructure by 2007. Apart from a few remaining regulatory squabbles, IP telephony is clearly here to stay. Who can argue with loyal customers, cost savings and productivity enhancements?

Furthermore, since IP telephony solutions enable contact center employees to improve the customer's experience significantly, calls can be automatically routed to the employee best equipped to help each

customer and problems can be resolved collaboratively with the immediacy of the Internet.

A Chance to Boost the Customer Experience

For once, customers who have been frustrated by impersonal interactions with automatic teller machines or online self-service menus can rejoice. They can now connect with a helpful human being who calls them by name and accesses their account information instantly to give them the level of advice and service they require.

IP telephony handsets have also greatly simplified and taken cost out of employee and equipment moves. Employees can simply plug in their handsets at their new locations, without waiting—or paying—for engineers to answer service requests, with no corresponding loss of productivity.

In addition to reducing voice communication costs associated with cabling, equipment, toll bypass, support and management, this technology has proven its efficacy in providing the reliability and scalability required by the financial services industry. At the same time, it offers higher quality and lower costs than legacy voice solutions.

With the unified messaging made possible by an IP telephony system, loan officers, call center agents and other financial institution employees are empowered to increase responsiveness to customers and significantly enhance productivity. They can check voice mail, fax urgent documents or listen to e-mail—all via the Internet—to provide the prompt service and personal touch that help retain customers.

IP telephony also offers the following benefits to financial services businesses:

- Greater mobility with unified messaging that combines e-mail, voice mail and fax
- Desktop integration
- Skills-based call routing that automatically directs customers' calls to employees with appropriate levels of expertise
- Full business continuity and disaster recovery capabilities
- Reduced costs associated with call center management
- Enhanced service levels and availability with centralized system administration

STATE-OF-THE-ART OR STATE OF CHAOS?

Many financial services institutions are grappling with vintage PBX, Centrex and analog phone systems that are nearing the end of their life cycles. The cost to maintain, staff and operate discrete voice and data networks is considerable. Long-distance calls associated with contact centers add significant costs, as do move, add and change orders.

Who pays the tab? Ultimately, it is the financial services institution because customers who pay more than necessary for services and products quickly move on.

If a bank cannot deliver real-time loan and interest rate information to its loan officers, the impatient customer may not wait. Similarly, an investment

counselor who requires a week to prepare a financial plan should not be surprised to find that his customer has also gone elsewhere. IP telephony is demonstrating its ability to offer financial institutions a very real competitive advantage with time and cost savings.

EVALUATING THE SOLUTION PROVIDERS

Once an institution has made the decision to implement an IP telephony solution, selecting the appropriate IT provider is vital to the success of the implementation. The right vendor should have extensive knowledge of the financial services industry and specific expertise in applying technology to achieve business improvements for financial services customers.

A detailed understanding of the company's business requirements, expectations and concerns is imperative. The selected provider should be an experienced network implementation integrator with a solid command of strategic business drivers and strong project management capabilities.

Important criteria in vendor evaluation include the following:

- **Costs**
 - Initial equipment and installation costs
 - Ongoing operating costs
- **Vendor**
 - Experience
 - Tenure
 - References

- **User experience**
 - Reliability of equipment
 - Appearance and ease-of-use of phone set
 - Scalability to large numbers of users
 - Advanced features and applications
- **Deployment and support**
 - Soundness of architecture
 - Ease or difficulty of deployment
 - Pilot performances, including downtime, voice quality and user disruption
 - Ease of remote site and station administration and deletion
- **Call center integration**
 - Integration of call center with home office and branches
 - Compatibility with legacy call center application
- **Future capabilities**
 - Vendor product innovation, including instant messaging integration, wireless and video support
 - Adaptability to next-generation applications

The vendor should provide an understanding of the value of the IP telephony solution while addressing the company's risk and ROI issues. Experience, methodologies and tools that employ a systematic, comprehensive, company-specific approach are key.

As previously noted, it is essential to investigate the vendor's skills and experience in conducting assessments of an individual company's network requirements and providing a complete solution that can perform well now and in the future to meet the needs of individual enterprises.

The assessment should provide the company with comprehensive answers to the following questions:

- What impact will IP telephony have on my customers, organization and operations?
- Will IP telephony provide a competitive advantage above and beyond my current business and contact center locations?
- Can my existing infrastructure investment support voice as an application transported over my private data network?
- Are equipment and service vendors prepared to offer the solution and services for IP telephony?
- What are the cost-saving benefits of an IP telephony solution, and when can I expect to see a positive ROI?
- How should my organization prepare itself for the deployment and operation of my solution?



ASSESSING THE ENVIRONMENT

Financial services enterprises that are ready to make the shift to IP telephony should create a business case that explores specific issues that will have an impact on the quality and viability of the chosen solution. Through an initial analysis of the organization's environment, business requirements can be clearly identified so both strategy and vision can be developed accordingly.

Creating a business case to support a telephony network upgrade ought to include three basic stages: voice-of-the-customer, ROI analysis and pilot implementation.

Voice-of-the-Customer

Voice-of-the-customer prioritizes the company's needs and expectations about ways IP telephony can improve its business communications, reduce expenses and offer strategic benefits. As a compo-

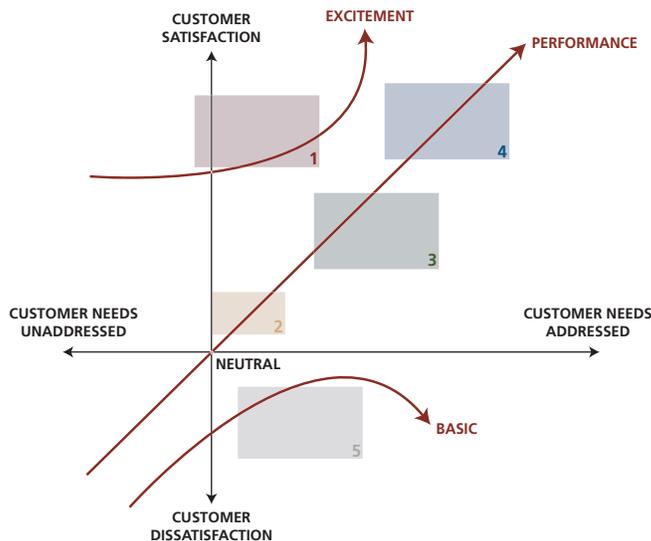
"By implementing IP telephony, an enterprise can dramatically restructure its costs in many areas, including communication and operations, and provide a platform for tomorrow for enhanced, flexible and versatile communication solutions within the enterprise as well as with its business partners and customers."

—Frederic Veron, Managing Director, BearingPoint

nent of the Six Sigma methodology, the voice-of-the-customer tool provides a structured approach to gathering and quantifying the company's requirements. This approach includes an examination of the following:

- Basic telephony feature usage
- Customer interfaces and business strategies
- User location and mobility
- Voice-mail usage (see Figure 1)

FIGURE 1.
KANO MODEL



1.
 - Message delivery indication
 - Voice-mail commands on display of telephone
 - Service-level agreements on distribution list management
 - Store messages in voice-mail folder
 - One-touch dialing to create a reply message
 - Block voice-mail messages
 - Schedule messages
2.
 - Send/receive fax over voice mail
 - Notification of changes to distribution list
 - More single-key shortcuts
3.
 - Access voice messages on PC
 - Ability to audit system distribution list (e.g., online viewing, etc.)
 - Ease of change (i.e., office relocation and voice-mail moves)
 - Easier and skippable instructions
 - Multiple greetings
 - Maintain control of distribution list
 - Indicate message priority
 - Direct calls to specific mailboxes based on caller inputs
4.
 - 800# access to voice mail
 - Call a sender of a message
 - Consistent dialing plans
 - Need more storage capacity
 - Restore deleted messages
 - Global interoperability
 - Message backup
 - Notification of voice messages while out of office
 - Message distribution by a group of users
 - Easily create distribution list
 - Global distribution reliability
 - Global 24x7 help desk support
 - Access to features in a consistent manner
 - Multilanguage instructions/commands
5.
 - Easy transfer from attendants to voice mail
 - Training on commands and features
 - Timely message delivery
 - Message archive for long period of time
 - 24x7 availability "no ring no answer," etc.
 - Global remote accessibility
 - Message forwarding
 - Dial by name
 - Easily create messages and send broadcasts
 - Global distribution list accuracy
 - One-way announcement to an entire line of business/entire firm

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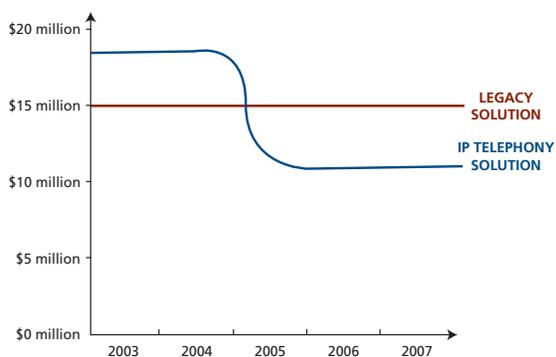
- Dial plans
- Support processes and service levels

ROI Analysis

Ideally, the business case approach should follow the rigorous Six Sigma methodology, incorporating the customized, total cost of ownership (TCO) and ROI analyses that accurately identify relevant costs and benefits over the lifetime of the company’s IP telephony investment. Critical benefits of IP telephony typically fall into the following three categories:

- *Hard-dollar savings*—for example, network convergence and reduced costs for moves, adds and changes
- *Increased staff productivity due to advanced features and functionality*—for example, extension mobility

FIGURE 2.
SAVINGS—PROFIT & LOSS IMPACT



SAMPLE DEPLOYMENT SCENARIO

- Retail branch environment with 15,000 users
- Legacy solution run rate: \$14.4 million
- Capital investment: \$7 million; one-time: \$3 million
- IP telephony solution steady-state run rate: \$10.8 million
- IP telephony “hard” savings in three categories:
 - 27 percent lower support costs
 - 5 percent lower total bandwidth cost
 - 4.5 times lower maintenance and repair costs

FIGURE 3.
DEPLOYMENT SCENARIO

DEPLOYMENT SCENARIO	Green Field	REPLACEMENT			
		Centrex	Branch	Old PBX	New PBX
Reduced network infrastructure costs—converged voice and data network cabling, elimination of branch	\$\$\$		\$\$\$	\$	\$
Lower maintenance and support cost due to increased staff productivity	\$		\$\$	\$	\$
Simplified provisioning and network management, easy addition of new sites	\$	\$	\$\$	\$	
Lower move/add/change (MAC) costs	\$	\$	\$	\$	\$
Toll bypass, on-net calling for free		\$	\$\$	\$	
OVERALL COST SAVINGS	Best	High	Best	High	Med.

- *Life cycle benefits that are difficult to quantify*—for example, easier addition of new sites and low-cost upgrades

It is important to focus on hard-dollar savings in the ROI calculation, as well as to estimate and quantify less-tangible benefits that may be relevant to the company’s particular business environment. Figure 2 provides a savings scenario that might be developed in an ROI analysis using the Six Sigma methodology.

Both the deployment scenario and the desired level of service affect the business case significantly. Key parameters with large impacts on TCO for IP telephony include the existing, distributed or stand-alone PBX voice environment, data network condition, integration with existing infrastructure, service-level requirements and preferred support model.

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FIGURE 4.
COST COMPONENT—MONTHLY TCO PER USER

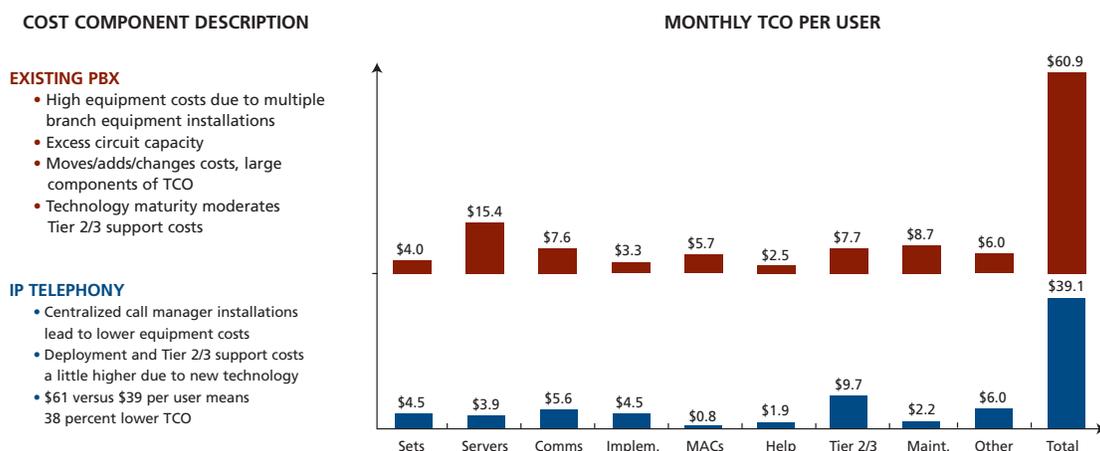


Figure 3 illustrates the various impacts on TCO of different deployment scenarios.

In the following example, a large retail bank in the United States wanted to evaluate and compare the total cost per user for an IP telephony solution versus its existing combination of Centrex lines and key systems. All relevant voice costs in that specific environment were identified in support of a business case for an IP telephony solution, which resulted in 38 percent lower TCO for the bank.

The analysis for this financial institution addressed an array of costs, including equipment such as handsets and call processing equipment, implementation and deployment, transport, moves, adds and changes, help desk and other support, maintenance, and inter-business unit overhead. Figure 4 summarizes the results of the analysis.

Pilot Implementation

Pilot programs are critical to gaining user acceptance of IP telephony. For an IP telephony pilot to be successful, the network organization must not only demonstrate the value of the technology but also confirm the validity of the underlying operating model and readiness of the existing infrastructure while providing proof of buy-in within the organization.

A pilot needs to go beyond lab-based technology testing, which, in most cases, has already been completed. Everyone has a role to play. The financial services company must provide a “wish list” of its expected telephony strategy and user requirements. The technology services provider must identify opportunities, conduct the ROI analysis and create the business case, as well as handle system architecture and design, program management, installation and support, and equipment procurement.

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FIVE STEPS TO GETTING STARTED WITH IP TELEPHONY RIGHT NOW

Current usage of IP telephony among financial services companies runs the gamut from:

- A few early adopters that have begun deploying it across their enterprises.
- A fair number that are conducting pilot tests in small operational environments—they are using it but do not yet have broader plans for deployment.
- Others that are testing it in a lab—they may think it is a good technology, but may not yet see the application of it on the business side.
- Some in which the IT department have the technology up and running but may not know how to develop the business case to promote it across their organizations.
- Some that have looked and said they are not interested.

Unless you have already deployed IP telephony, says BearingPoint Managing Director Frederic Veron, the next steps toward making a decision about the technology are the same, regardless of how you approach them:

1. Strategy for voice technology—If you do not have a clearly articulated voice strategy, the IP telephony opportunity makes the present a good time to develop one. If you do have a well-articulated voice strategy, does it incorporate IP telephony? If not, revisit the strategy and determine if there is a logical place in the business to test this opportunity.

2. Financial considerations—No doubt every company will ask, how much does IP telephony cost and how much will it save us, both immediately and in the long term? A solid, well-constructed business case will answer these questions.

3. Operational readiness—A critical aspect that may not be obvious is whether your data network is currently capable of handling IP traffic. If your data network needs updating, and you have a plan in place to do it, layering IP telephony on top of that upgrade

is not that much more expensive. If a major overhaul of the data network is in order, why not include IP telephony as part of it? This may not be considered “low-hanging fruit,” but it may well be worth integrating it into your network strategy.

4. Voice-of-the-customer—Understanding the business requirements and linking them back to the business case for IP telephony will add substantial credibility to any proposals to deploy IP telephony. In this analysis you may want to consider a plan for rationalizing existing, disparate voice networks or even developing a “sunset scenario” for phasing out obsolete PBX and Centrex systems.

5. Implementation—Essential to any evaluation is a move from the lab testing environment into a live operational setting. Likely candidates for pilot tests include locations with outdated equipment, “green field” locations that are under construction, or acquired locations that already have very different types of voice equipment in place.

Two final considerations:

- **Enterprisewide deployment is not necessary**—IP telephony can be integrated into your existing voice strategy a step at a time, still allowing you to take advantage of its benefits in key areas where you will achieve the greatest ROI in the shortest time. As time goes on and the solution proves itself, you can migrate it to other areas that make sense.
- **Call centers are low-hanging fruit**—Regardless of what you choose to do in the rest of the organization, look at call centers as areas of great potential for leveraging IP telephony. If your call centers are offshore, for example, you may find that the voice over IP (VoIP) component of IP telephony—a data transport component—offers significant potential. You could also consider one of the IP technologies that are available today for linking IP telephony with distributed call center software, computer telephony integration solutions, automated call managers and other call center technologies. The potential for operational cost savings and improved customer experience is strong.

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It is important to evaluate various IP technologies according to the following criteria:

- Business value of the proposed technology
- Validity of the operating model going forward
- Readiness of the current infrastructure
- Readiness of the organization

IP TELEPHONY:
ADVANTAGES ACROSS THE BOARD

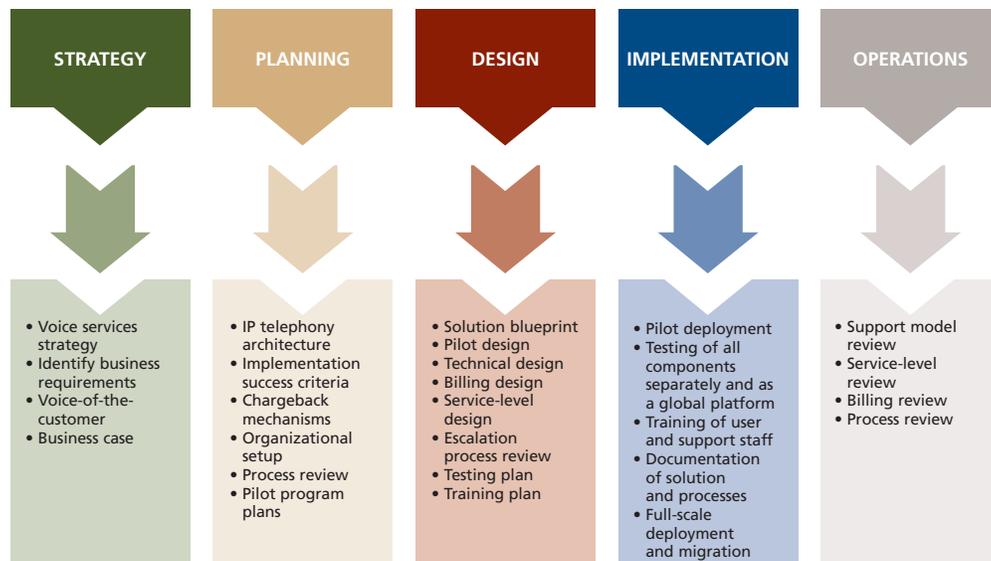
IP telephony solutions offer numerous economic benefits to financial services institutions, not the least of which is the enhanced ability to compete that results from cost reductions and improved speed-to-market. Extended communications avenues help retain customers by enabling contact center staff to offer services with a personal touch while seizing expanded cross-selling opportunities.

Employees enjoy increased mobility and a system that is easy to use, responding, in turn, with increased productivity.

BEARINGPOINT'S IP TELEPHONY
SOLUTIONS HELP CLIENTS COMPETE

BearingPoint focuses on leveraging the technologies, applying the proven methodologies and selecting the strategic alliance partners to design and implement the best IP telephony solution for each client's unique needs. We apply our standard infrastructure approach to the deployment of IP telephony technology and have developed a rigorous, systematic series of phases and activities to assist our clients' deployment teams. See Figure 5 for an overview of a typical BearingPoint IP telephony solution engagement profile.

FIGURE 5.
BEARINGPOINT IP TELEPHONY SOLUTION ENGAGEMENT PROFILE



A MAJOR FINANCIAL INSTITUTION MAKES THE SWITCH

Challenge

A leading global financial services company wanted to deploy an IP telephony solution to its retail banking branches. Saddled with an antiquated data network infrastructure, the company felt the burden of aging equipment that was no longer supported by the manufacturer.

Operational costs, as well as the cost of expanding its existing network, were prohibitive, and the company also faced the challenges associated with a merger. They included disparate systems, the absence of voice mail in some branches, and disgruntled customers and employees who were frustrated with inconsistent customer interfaces. Rather than continue to endure escalating human resources costs and the threat of missed business opportunities, the company opted for an IP telephony solution.

Solution

BearingPoint developed a business case and services that minimized risk and addressed the ROI issues of IP telephony relative to the company. We conducted a voice-of-the-customer survey to meet the client's specific requirements using the Six Sigma process in the development of our solution. Gathering this intelligence enabled us to accurately document our client's needs. We also operated the project management office during the implementation, overseeing the competitive pilots and measuring potential ROI.

Results

With our alliance partner, we designed and implemented an end-to-end networking solution that integrated voice and data with IP telephony to fulfill our client's need to refresh its retail branch infrastructure. Our solution leveraged the financial institution's investment by delivering advanced features that improved productivity and customer satisfaction, reduced TCO, and created a more stable environment. The company will soon have a fully functional IP telephony solution that is enhancing its competitiveness in the financial services marketplace with the following features and benefits:

- An end-to-end, converged network that integrates voice and data in an architecture that is scalable to accommodate future growth
- Advanced features such as call forwarding, personal assistant and increased mobility to enhance productivity and increase employees' availability to customers
- Business flexibility that allows for greater scalability at a lower cost than that of the legacy system and enables fast addition of new facilities
- Cost takeouts that include reduced PBX maintenance costs as well as consolidation of voice/data engineering and operations teams, help desk and support organizations
- A more stable voice and data environment that increases quality of service

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BUSINESS AND SYSTEMS ALIGNED.
BUSINESS EMPOWERED.

BearingPoint is a leading global business advisor, systems integrator and managed services provider. Our experienced professionals help organizations around the world set direction to reach their goals and create enterprise value. By aligning their business processes and information systems, we empower our clients with the right business solutions to gain competitive leadership advantage—delivering measurable results in an accelerated time frame. To learn more, contact us at 1.866.BRNGPNT (+1.703.747.6748 from outside the United States and Canada) or visit our Web site at www.bearingpoint.com.





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