

White Paper

Building a New IP Contact Center Mindset

IP Telephony can be an upgrade, a catalyst, and a fastlane to the future. How will you transform your conventional contact center?

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Contact Center
Practice



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How will you transform your conventional contact center?

Contact center leaders are looking for new ways to improve customer experiences, take advantage of sophisticated and groundbreaking new interaction capabilities, and continually improve their operations, revenue generation and cost savings. Many of the newest capabilities such as web/voice integration, dialog marketing, SMS integration, sophisticated voice recognition, or distributed virtual workforces promise these benefits. These and other capabilities define the contact center of the future.

Knowing this, seasoned contact center leadership must look beyond what's hot and what's not. New contact center capabilities have to be justified in the eyes of the shareholders and ultimately in the satisfaction of the customers. In almost all cases, the contact center cannot remain at a static point of development. Even the most well-tuned contact centers today will need to compete in the future through advanced capabilities and reduced operating expense. The competition will drive it. The customers will demand it. The bottom line will dictate it. For most, change is not optional – it is a mandatory imperative.

Building out new capabilities becomes more than just choosing them. Companies must determine whether they stretch their conventional PBX systems to perform new tricks on the web, or whether they can rebuild their old ACD systems to distribute calls to India or to a Kentucky suburban home with the same ease it did on campus. “How much will this cost, and how easily can it be done?” should be some of the first questions savvy managers ask.

Think IP Telephony

IP Telephony (Internet Protocol, often referred to as “Voice over IP”, or “VoIP”) changes the answers to many of these questions. Although some in the business may simply view IP Telephony as the new cheaper version of conventional telecommunications systems, its true profile is much more expansive and transformational. By its nature, IP Telephony is software-based and thereby resident in the very types of systems it needs to integrate with. This means more flexibility in routing over networks and the Internet, more features that can be tied to web technology, and easier integration into Small Message Services, video, databases, reporting technology, and a host of other systems and technologies.

IP Telephony Technology defined

- *It's the latest generation of telecommunications network technology based on Internet Protocol (IP).*
- *It is an application that resides on a converged voice/data network.*
- *Its functionality resides in software, greatly reducing the complexities and costs of traditional hardware-based TDM systems.*
- *It delivers new capabilities that simplify integration with other applications, improve productivity, lower cost and increase customer satisfaction.*

What this means from a business point of view is that many of the new features and capabilities contact centers are building can be done easier and faster than they can by retooling existing systems. Plus, IP Telephony has the ability to be cheaper at a transactional level. These factors together should give serious pause to any contact center manager looking to juice his operations and should make the short list of near-future considerations.

Building a new mindset towards the IP Contact Center

There are many views and approaches to advancing the contact center to the next generation of capabilities. Many of these views include good instincts and common sense, but most could also be improved by taking a more expansive look at IP Telephony. At a high-level, this paper hopes to shed new light on the contact center manager's perspective on the IP Contact Center.

The table below compares a good IP contact center mindset, or one that seems reasonable, with a better IP contact center mindset, or one that takes a more strategic view.

IP Telephony Mindset Shifts

Good IP Contact Center mindset	Better IP Contact Center mindset
<p>1. "We're going to retool our existing technology to achieve next generation capabilities."</p> <p>Most companies have serious investment in their existing systems, from their hardware costs, to service agreements, to the skills of their people. Doesn't it make sense to keep what is there and build off of it?</p>	<p>It will be easier to adopt IP than to teach your old dog new tricks.</p> <p>Keeping the best of what you have is generally a good instinct, but many of the new capabilities today are built with the IP Telephony in mind. Its base in software and the internet make it easier to build out these new capabilities. Some capabilities, such as virtualization and real-time collaboration, may be impossible or catastrophically expensive using conventional hardware-based solutions.</p>

<p>2. “We’re looking at IP Telephony to replace the functionality we have today at a lower cost structure.” You get it. IP Contact Centers have a lower total cost of ownership than traditional systems plus lower telecom fees. But are you missing something? Does it make sense to “pave cow paths” and adopt a new technology that does what the old one already can do?</p>	<p>Let IP Telephony be your catalyst for change and take advantage of the new capabilities it can enable. Reexamine your vision for the next gen contact center and understand how it can be different with the capabilities and features that the IP Contact Center can deliver. What may have started as a cost cutting exercise could turn into a valuable strategic transformation.</p>
<p>3. “We’re going to deploy IP, but only where it has the most visible impact” You understand that IP Telephony can be used for web integration and some other cool apps, but it makes sense to keep your bread and butter business on what’s already there.</p>	<p>Reconsider what you could do better with an IP Contact Center. Smart transformation strategies usually WILL pick partialities to start, but don’t let the vision stop there. Even if you start small, you should understand how IP can transform the entire operation. Managers should also consider the costs of connecting new and old systems together, and how that could change if the core of the operations is also based on IP.</p>

Obviously, some people will be at varying degrees of thought and often in-between different mindsets. Others will have much more advanced or more basic views of the IP Contact Center. Admittedly, these statements may gloss over issues at specific companies or environs, but in general represent the new best practices emerging within contact centers. The next chapter focuses on the advances of the IP Contact Center and places them counterpoint to conventional call technology. In almost all instances, the IP Contact Center delivers far beyond what current or reworked conventional technology can provide.

Key questions contact centers are trying answer

- How do we maximize our labor resources?
- Is there a way to improve the way we route calls between our contact centers?
- How can we migrate callers to self-service?
- What impact will multimedia transactions have on our center?
- What is the best way to deploy remote agents?
- Do our agents have the right information to serve our customers?
- How can we personalize service more effectively?
- What is the best way to deliver service consistently, regardless of channel?
- Can we improve our revenue generation through more-effective cross-selling and up-selling?
- Can use of other media improve our bottom line?
- How can we align the contact center with our CRM strategy?

Hot strategies, trends and capabilities contact centers are seeking

- SIP (Session Initiation Protocol) compliance
 - Virtualization of contact centers
 - Effective deployment of home agents
 - Use of remote subject-matter experts
 - Unified communications
 - Advanced conferencing
 - Video communications
 - Improvement of self service options
 - Cross-channel integration e.g., Web/voice integration
 - Presence and real-time collaboration
 - Instant messaging
 - Personalization
 - Multimodal transaction support
 - Softphones
 - Speech recognition
 - SMS integration
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II. Shifting the IP Contact Center Mindset: Capabilities and Business Benefits

IP Contact Center transformation, or migrating to an IP Contact Center, is more than just upgrading technology or adding new features. It is transferring to a technology that enables organizations to literally change the fundamental ways in which they do interact with their customers. Savvy contact center managers should be asking themselves questions such as:

How would my contact center change if...

- Agents could be economically located anywhere in the world without losing any control or capabilities?
- Multi-site contact centers could be arranged to function as if they were a single contact center?
- Multiple contact centers could be managed by a single, central location?
- Support applications, such as workforce management and quality management, could be deployed and managed from a single location?
- Our services could easily be customized and personalized for each customer?
- Employee productivity could be improved dramatically through more efficient transaction routing?
- Agents were able to collaborate with customers using multiple media including web and video?
- Customers were treated with consistency, regardless of which media they chose to communicate?
- First-call resolution increased dramatically by giving agents access to assistance in real-time?
- Our contact center could easily adjust to periodic spikes in transaction volumes?
- “Cradle-to-grave” reports could be generated on all transactions, not just telephone calls?
- Our system was capable of unlimited future growth?

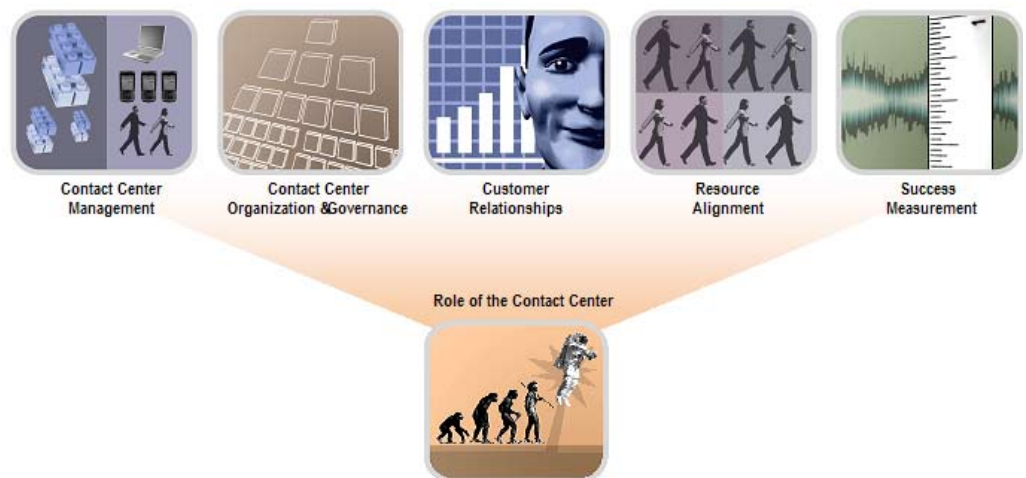
In short, the IP Contact Center enables transformation through its functional simplicity.

Monumental improvement vs. incremental improvement

The IP Contact Center is capable of transforming the traditional center well beyond replicating today's operations with newer technology. Unlike advancements in conventional telephony infrastructure or systems, IP Telephony is not an incremental improvement or generational shift in technology development. The IP Contact Center represents an entirely new mode of capturing, managing, transporting and storing voice and interaction data. This is the 'monumental improvement'.

The IP Contact Center's innate usage of software, digital technology, databases, packet switching and Internet infrastructure make it readily able to integrate with strategic applications and other electronic channels (such as web, e-mail, SMS devices, etc.), whereas conventional phone technology was always an adjunct. As its very core is software-based, the capabilities and resulting benefits are able to extend into every aspect of the modern content center environment, from transforming its connectivity to non-voice channels, to improving call tracking and performance metrics. In short, the IP Contact Center enables transformation through its functional simplicity.

Listed below are the transformations and benefits leading contact centers can envision when adopting the IP Contact Center.





Contact Center Management

The IP contact center will have more dynamics and flexibility in its operations and interactions with customers. Arguably, conventional technologies can enable these features, but the simplicity and inherent ease of integration of IP telephony will make these dynamics more achievable, available faster, deployed more effectively, and reflect a higher return on investment. These features include:

- “Customer Value” and “Most Appropriate Agent” routing evolve out of more conventional “FIFO” Queuing and “Next Available Agent” routing strategies in the IP Contact Center.
- Collaboration enables more complex, more effective communications, allowing agents to quickly receive real-time assistance while assisting customers.
- Web-based live assistance options will encourage higher self-service usage.
- Presence and instant messaging will make assistance readily available to agents as they serve customers, reducing handle time and increasing first-contact resolution.
- Unique media types, such as email, chat and video, may be easily added, enabling new service levels and response times.
- Workforce management processes take on new levels of sophistication and importance.
- Unique agent skills will be more readily accessible, regardless of where they exist in the enterprise.



Contact Center Organization and Governance

A new world of contact center operations exist that may be largely invisible to the customer, but provide a major impact on how contact centers operate. IP telephony radically extends the feasibility and effectiveness of inventive and cost-effective operating models. The most intriguing and most popular are those strategies that break the geographical constraints of central, localized contact centers and drive flexibility by opening the world and virtual workplaces into the resource mix.

- Virtualization streamlines transaction handling and routing throughout the enterprise, thus eliminating traditional geographic and business unit contact center boundaries.

- Global resources, including outsourcing partners, may be more easily leveraged as required to increase capacity and support “follow the sun” strategies.
- Administration of multi-site contact centers and technology is centralized, resulting in greater flexibility, more consistency and lower costs.
- Home agents, remote experts and branch offices can be quickly added to handle unforeseen spikes in activity.



Customer Relationships

IP telephony technology won't necessarily improve relationships with customers by itself, but it can certainly fast-track, enable, and improve key customer-focused strategies that will improve relationships. These strategies often have multiple operational implications (such as training or communications development) but are often rooted within the contact center technologies and capabilities. Example benefits include:

- Customer segmentation and personalization are enabled more effectively by the robust integration capabilities of IP systems. Recognition of customers by their preferences or profitability is easier to enable through integration with CRM and analytical systems.
- Data can be better shared and managed across systems, including the IP Contact Center, IVR, and agents, driving more effective personalization, cradle-to-grave reporting, and management of all components.
- Channel integration and historical contact data allow contact center agents to observe the entire customer contact interaction and history, not just telephone calls. IP improves this process.
- Multimodality. Customers will be able to choose the media through which they intend to communicate while the company is better equipped to manage communications across media. Interactions may use one or more media on any given interaction resulting in more effective communications, higher first-contact resolution and higher customer satisfaction.
- Cross-selling and up-selling is tailored to the profiles of specific customers through tighter integration with CRM applications.
- Collaboration capabilities will provide a more effective communication option for customers and will improve agent productivity by providing more immediate access to information and assistance.



Resource Alignment

The IP contact center has the ability to transform the resourcing model into one less dependent on geography and more focused on skills. This can have a two-fold effect: greater productivity and better employee utilization by the contact center; and defining better, more rewarding, more enticing careers for contact center agents. Some of the benefits and features include:

- Advanced transaction routing (driven by customer data, business rules, media type and agent skillsets) drives agent productivity higher.
- Higher degrees of specialization and new transaction types will drive changes in agent competency requirements and utilization. Agents will be able to specialize, creating deeper pockets of expertise available to the organization and to customers.
- Home agent capabilities create new opportunities that benefit the organization and the employee. It can reduce infrastructure expense, while creating an attractive lifestyle for the employee.
- New career opportunities and variety are introduced. As the mix of skills and specialties shift, new careers and modes of working are created.



Success Measurement

The IP contact center will transform the measurement of the contact center in a variety of ways. Firstly, as the contact center processes themselves change (e.g., to address more tailored customer experiences, greater use of skill routing, etc.) the resulting measurements will shift to address these changes. At a technical level, the IP technology itself will integrate into more databases and analytic systems, providing new and deeper levels of data.

- Contact center metrics will change from typical production-oriented measures, such as handle time, to more customer-focused metrics, such as first-contact resolution.
- Profitability and customer loyalty will rise in importance as the core strategic CRM goals are facilitated and demonstrated within the contact center environment.
- Revenue generation goals will become more prevalent in the contact center purview, especially in traditional 'service' functions. The overall customer experience continues to rise in importance, and a view of revenue beyond the initial sale will continue to be critical.

- Emotive measurement and other historically abstracted measurements will become available as voice tone recognition and other voice analysis technologies are deployed. Businesses will be able to read beneath survey responses or the content of what's said to understand the emotive qualities of the voice itself, such as anger, delight, frustration, or satisfaction.

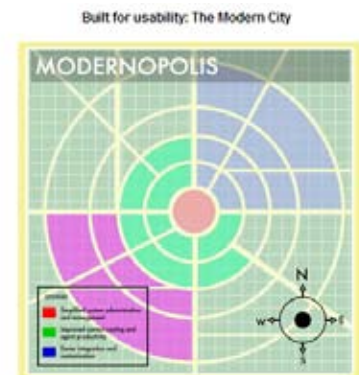
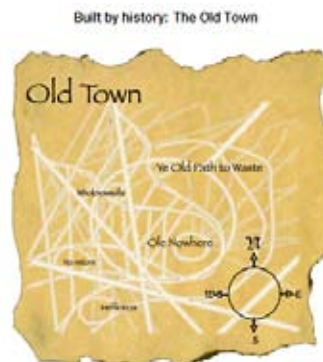


Role of the Contact Center

It is not hard to imagine the role of the contact center itself wildly changing within the broader enterprise. A stronger multi-channel and multi-functional focus will create higher-level visibility, accountability, and responsibility for the contact center in the organization. The contact center will become a key creator and consumer of critical customer data. The value of the contact center itself will rise within the organization. What was previously a bottom-line intensive, operational quandary (or “cost center”) will transform into its more strategic complement as a profit center.

Function and benefit breakdown:

One way to think about the shift from conventional call center systems to an IP contact center is to compare an ancient city built through random adjuncts versus a purposefully designed and architected contemporary city built with modern use in mind. Both cities function on a day-to-day basis, allowing for travel, shared resources, and commerce. But in the old city that sprung up through the vagaries of time creates barriers, delays and difficulties in change or performing basic activities. The modern city, on the other hand, is built for speed and convenience, with roads clearly marked, highways logically mapped out, commerce centers clearly distributed, and infrastructure upgrades made quickly and easily. IP is our modern city.



Conventional technology has found its peak

This metaphor of old town/modern city can be used to illuminate another point: conventional technology has generally developed as far as it’s going to. Like an old city that has packed its streets and has built out to every practical border and corner, there is no room for growth or improvement. IP technology, on the other hand, has seemingly unbounded room for growth and improvement. Even accepting the truism that all technologies are eventually replaced, it can be confidently believed that IP will be the technological basis of contact centers for the next decade and beyond.

Examining IP Telephony’s functions vs. traditional systems (e.g., ACD, PBX) illustrates the transformation at a detailed, technological level. Shown below is a comparison of IP telephony against conventional call center technologies, and the resulting benefits at a feature level the IP Contact Center delivers.

IP Benefit: System administration and management is simplified

Supporting shifts in technology:

Function	Constraints of Traditional Call Center Technology	IP Contact Center Improvements	Business Benefit
Centralized system administration and customization.	Typically site specific. Limited enterprise administration available without adjunct systems. Often requires administration of multiple systems.	Centralized administration and customization can be performed from a single location, using a single system. Workflow, business rules, contact flows, routing and personalization can be managed from a central site.	Reduces administrative costs and streamlines the process of evolution, allowing organizations to adapt to the changing needs of their customers.
Cradle-to-grave, centralized interaction reporting	Not available without external adjunct systems. This inherently limits reporting capabilities.	Records data on all customer interactions regardless of media type. Provides comprehensive “end-to-end” reporting.	Improves management by consolidation of information, supporting better customer support, business decisions, and operational optimization.

Benefit: Contact routing and agent productivity improves
Supporting shifts in technology:

Function	Constraints of Traditional Call Center Technology	IP Contact Center Improvements	Business Benefit
Multimedia, universal routing	Adjunct systems, software, and custom integration are required.	Software based multimedia integration. Routes calls, emails, chat sessions, etc. based upon predefined rules. Provides detailed reporting of all transactions.	Improves employee productivity and increases customer satisfaction.
Multi-site contact routing	Adjunct systems, software, and ongoing management are required. Additional network costs incurred. Limited options for routing.	Allows multiple, dispersed contact centers, remote centers and remote agents to function as a single contact center.	Increases workforce utilization rate, lowers capital outlays, reduces operational expense and ongoing network costs.
Personalized, data-driven, multimedia routing	Limited capabilities without external adjunct systems.	Integrated system capability able to use customer information to personalize and route calls, email, chat and other communications. Improves support of customer segmentation strategies.	Allows contact center agents to provide better service to callers, improves internal efficiency and increases customer satisfaction.
Remote branch/ remote agent	Adjunct systems are required. Dedicated, limited bandwidth voice/ data circuits are required.	Easily supports remote branch or remote office. Full functionality anywhere high speed Internet access is available.	Improves capacity, increases employee satisfaction, improves productivity, provides seamless call routing.

Benefit: Integration and customization is easier
Supporting shifts in technology:

Function	Constraints of Traditional Call Center Technology	IP Contact Center Improvements	Business Benefit
Open Systems Standards	Closed, proprietary hardware, software-based system.	Open system architecture (in most cases) simplifying the task of integrating applications.	Reduced cost, resource requirements and timeframe associated with integration.
Multi-vendor computer telephony integration	Adjunct systems and software are required. Requires additional hardware with limited functionality.	Integrates easily with most third-party software applications.	Enables simpler CTI implementation, reduces costs and decreases the lead time for CTI implementations.
Enterprise systems and applications integration	Integration with multiple databases and applications is difficult and expensive.	Data access and associated business rules are defined in a customized environment and is accessible to workflows, agent scripts, and other business applications in a common way.	Reduces implementation costs, enables consistent customer treatment options across multiple channels, increases customer satisfaction and revenue generation.
Workflow/ database integration	Adjunct systems and software are required.	Workflows, business rules and customer information are centrally managed and may be invoked using predefined parameters.	Reduces agent handle time and improves customer satisfaction through automation of workflow and key business processes.
Adjunct applications (IVR, workforce management, quality monitoring, etc.)	Site Specific. Requires system hardware at all locations in most cases.	Enterprise specific. 3rd party applications and systems can support all locations from a single site. Simplifies management of multimodal transaction environments.	Reduced capital, ongoing, and administrative costs. Simplified, more effective resource utilization.

Voice and Presence as an Application	Not available	Supported by SIP (Session Initiation Protocol). Allows voice and presence applications to be embedded in other, non-telephony applications, enabling users to conveniently initiate communications, including email, voice, chat, etc., from within non-traditional applications.	Literally transforms the traditional methods of communications by providing users with simple, immediate, context-sensitive access to live or self-service resources, regardless of where resources may be available, from within other business applications. Improves customer satisfaction, increases first-contact resolution, and reduces overall costs.
Bundled, out-of-the-box functionality	Limited. Most applications require separate, stand-alone servers or applications.	Highly integrated, bundled applications providing a higher level of integration and lower resource investment.	Reduced capital investment, less support requirements, reduced cost of ownership.

III. How smart companies make the transition

Creating a case for IP Telephony, in many ways, is easier than ever due to the multiple lines of value it can deliver. Still, making the transformation has all of the inherent risks and challenges of any large-scale technology transformation. The organization must be able to make the decision, the plans, and the transformation itself with a full understanding of the business and organizational implications.

- Smart companies would be wise to consider the following practices upon making the shift to the IP Contact Center:
- Customer strategy: Understand how IP Telephony connects to and enables the overall customer experience strategy, including how interactions will change, how satisfaction metrics will improve, how customer value and profitability will be impacted, and how the new technology supports key sales, marketing, and service goals.

- **Current environment:** develop a keen understanding of how IP Telephony will affect the current environment, including its impact on people, technology staff, existing metrics, connectivity to key strategic systems, retirement of older systems, and shifts in management and organization.
- **Business case:** Create a compelling business case that includes both the growth-oriented business benefits as well as cost reduction elements.
- **A compelling vision:** Create a compelling vision for the new contact center with VoIP and the capabilities it can bring so that the organization can direct its efforts and energies towards the same goal.
- **Operational blueprint:** Like a blueprint for a house, an operational blueprint shows where all the components, infrastructure, software, hardware, people, and process will be constructed. A blueprint can then be used to consolidate efforts across business units and organize implementation efforts.
- **Deployment model:** Consider how the IP Contact Center will be enabled in terms of deployment and management. Options include managing the technology in-house, hosting the solution externally, or a hybrid solution that include multiple configurations. Companies should consider the relative costs over time, the ease of deployment, and the specifics of their particular business needs in terms of usage and customization.
- **Multi-phased implementation roadmap:** Develop a roadmap, or implementation plan, that defines blocks of work in achievable, measurable phases. Build phases of work that deliver benefits and return on investment in the short-term to ensure the future viability of the transformation.
- **Executive buy-in and organizational consensus:** Ensure that all relevant constituents understand and are on board with the shift to the IP Contact Center. Garner excitement and enthusiasm for the projects across the appropriate stakeholders.
- **New metrics:** Realign performance metrics for both the transformation and the ongoing management of the IP contact center.
- **Business component-based Architecture:** Consider an architecture of business components that enables flexibility and reusability across technology, infrastructure, resources and processes. Component based architectures allow for components to share investment and functionality, limits the impact of upgrading or replacing systems in the future, and creates efficiencies across the entire environment.

- Creative sourcing and management: Explore alternative and hybrid solutions for developing and managing technology as well as staffing transformation and day-to-day staff. Consider hybrid models of on-demand, outsourcing, offshoring, and in-house solutions. Get external help when needed.
- An eye on innovation: Build an understanding of what the IP Contact Center can hold for the future. Identify new ways of using and connecting IP contact center infrastructure to continually extend and improve the company's customer-facing operations.

In summary

The most commonly understood benefits of IP Telephony focus on its ability to lower network costs in contact centers. Most of IP Telephony's strengths and benefits are not in simply replacing existing functionality or adding on stand-alone capabilities. IP's usage of internet infrastructure to move voice data will certainly save money, but more importantly, its ability to integrate more directly with key strategic channels and technologies will improve service, enable new modes of customer interaction, and ultimately increase advocacy. This is where IP has the ability to transform much of the modern contact center. Smart companies will use a 'best practices' approach to making the shift to IP Telephony, carefully aligning the technology with both their business strategy and operational reality.

IV. Appendix: About IBM GBS Service Management Consulting Services

Based upon our extensive experience and understanding of the contact center industry and IP Telephony, our specific knowledge of your industry, our proven methodology, our strategic alliances, the scope of our offerings and our experienced team of consulting professionals, IBM offers the most comprehensive solution for design and implementation of a new IP Contact Center tailored to our client's specific needs and resulting in lower overall costs, higher return on investment, and the highest long term client satisfaction. IBM is the right partner to help transform your contact center.

IBM Global Business Services offerings comprehensive VoIP planning, integration and management services:

- IBM's IP Contact Center Transformation Solution leverages the simplicity, power and flexibility of IP Telephony.
- IBM offers the best choices for migration to IP Telephony, including Managed IP systems, Hosted options and hybrid TDM/IP solutions.
 - Our solution is designed to impact:
 - Improved Customer Experience
 - Greater Operational Efficiency
 - Higher Revenue Generation
- We leverage IP's capabilities to enable measurable transformation of the Contact Center environment.

With 5,700 consultants serving thousands of clients across the globe, IBM offers a wide spectrum of contact center-specific services, positioning us as a strategic partner to our clients.

- Contact Center Strategic Consulting
- Systems Integration
- Telephony Systems
- Self-Service Applications
- Desktop and Support Applications
- Contact Center Outsourcing
- IP Contact Center Transformation



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