



Business Benefits of an IP-based Contact Center Infrastructure

In today's competitive business environment, companies need to expand their traditional channels of customer interaction to cement customer loyalty and maintain competitive advantage. The Internet provides heightened business opportunities by enabling a whole new realm of interaction channels above and beyond traditional telephone calls and face-to-face interactions—and increased pressure, because today customers are demanding the freedom and flexibility to contact and interact with businesses using the communications medium of their choice.

Integration of PSTN and Web-based communication channels is key to optimizing customer service and improving customer retention rates. However, many companies are finding this difficult to implement within the confines of proprietary voice switching equipment, which can be difficult to integrate with newer Web-based interaction channels. These time division multiplexing (TDM)-based platforms cannot seamlessly interface with new multimedia channels such as Web collaboration, text chat, e-mail, and video—all of which are requirements for a 21st century customer contact center. As a result, meeting customer service objectives in a call center based on legacy TDM platforms alone can be both cumbersome and expensive—but this is not the case with open telephony platforms that leverage standards-based IP data networks.

This white paper presents an overview of the business benefits of an IP-based contact center infrastructure, discusses options for migrating from TDM to IP, and introduces and summarizes the primary benefits of the Cisco IP Contact Center (IPCC) Solution.



BUSINESS BENEFITS OF AN IP-BASED CONTACT CENTER INFRASTRUCTURE

Location Independence

Location independence is a key benefit of an IP-based contact center infrastructure. No matter where agents are physically located, as long as they have access to the corporate WAN they can still function as if on-site, receiving and responding to contact center inquiries as appropriate. With an IP-based virtual call center, companies can better utilize contact center staff located in branch offices, or allow them to work from their homes, functioning as remote knowledge workers. With this flexible model, companies can bring additional agents on-line as needed—making it easy and cost-effective to implement follow-the-sun customer support programs, with live operators around the world providing 24x7 assistance.

Deploy And Maintain A Single Network

The cost benefits of converging voice and data have been well documented; use a single network and cut overhead costs in half. But less well known are the distinct operational advantages of an IP-based contact center to the customer service side of the company. These benefits are so great; in fact, companies may well want to consider convergence from this perspective alone.

By supporting IP voice, companies can converge their voice and data networks onto a single infrastructure. A single network is not only less expensive to purchase and operate, but business rules can be configured and managed in a single place to ensure a consistent experience for the customer. In addition, with a converged network that supports IP voice, new applications from multiple vendors can be implemented and leveraged across the network and organizations can leverage new service offerings from IP-based carriers.

Introduce Multimedia Channels Into The Contact Center

Of equal importance is the ability of IP-based contact centers to support multiple contact channels. Competitive forces have rendered simple telephone support inadequate; customers now expect to be able to choose from Web collaboration, text chat, e-mail, or video communications as well. Since almost all of these capabilities are developed using open standards, adding them to an openly architected, IP-based contact center is seamless and can be managed in an integrated fashion to support a unified customer experience across all interaction channels. To remain competitive in today's business environment companies are learning that it makes sense to manage all customer interactions through a centralized corporate resource—i.e., the contact center—in an ongoing effort to personalize customer interactions and increase overall customer satisfaction.

CISCO'S STRATEGY – OPEN TELEPHONY AVVID

Cisco AVVID (Architecture for Voice, Video and Integrated Data) provides a standards-based, open systems architecture for building converged networks. AVVID was designed to enable server and agent-level IP telephony to coexist with traditional time-division multiplexing (TDM) networks that support Automatic Call Distributors (ACDs), private branch exchanges (PBXs) and Interactive Voice Response (IVR) systems and desktop applications. The AVVID architecture is supported by an Internet ecosystem that thrives on open standards, encouraging the development and interoperability of multi-vendor and multi-product solutions. As a result, AVVID enables a seamless migration path from the legacy call center to the IP-powered, multimedia contact center, enabling an organization to incrementally add IP telephony, IP-based services, new media channels and IP-based applications at its own pace while taking advantage of its existing IP data infrastructure and preserving legacy system investments.

As a result of Cisco AVVID, Cisco's contact center strategy supports unified user interactions that bridge the worlds of IP and telephony. This strategy enables multimedia customer contacts originating from different contact channels to be intelligently distributed to agents or resources over traditional circuit-switched and IP networks—providing a seamless migration path from a legacy call center infrastructure to an IP-enabled, multimedia contact center.

CISCO'S SOLUTION: IPCC

An integral part of Cisco AVVID, the Cisco IP Contact Center (IPCC) delivers intelligent call routing, network-to-desktop CTI, and multimedia contact management to contact center agents over an IP network. By combining software ACD functionality with IP telephony in a unified solution, IPCC enables companies to rapidly deploy a distributed contact center infrastructure to support their global e-sales and e-service initiatives.

The Cisco IPCC delivers an integrated suite of proven products—including Cisco ICM, Cisco CallManager, Cisco IP-IVR, Cisco VoIP gateways and Cisco IP phones—that combine Cisco IP telephony and contact center solutions. Specific capabilities include intelligent call routing, ACD and IVR functionality, call queuing, and consolidated reporting. IPCC integrates easily with legacy call center platforms and networks, enabling your organization to continue to leverage its investment in legacy systems while providing a smooth migration path to an IP infrastructure.

The Cisco IPCC is designed for implementation in both single-site and multi-site contact centers as well as service provider hosting environments. It utilizes a company's existing IP network, allowing organizations to leverage their wide-area network (WAN) infrastructure, lower administrative expenses and extend the boundaries of their contact center enterprise to include branch offices, home agents, and knowledge workers. In the case of a pure IP-based environment, calls may be routed over the WAN, thus reducing PSTN transport costs. Whether a company is expanding an existing operation or establishing its first contact center, the Cisco IPCC can help it realize the cost and performance benefits of converged networking. And as new technologies emerge, IPCC's open, standards based architecture allows organizations to reap the benefits of technological advancements as they occur.



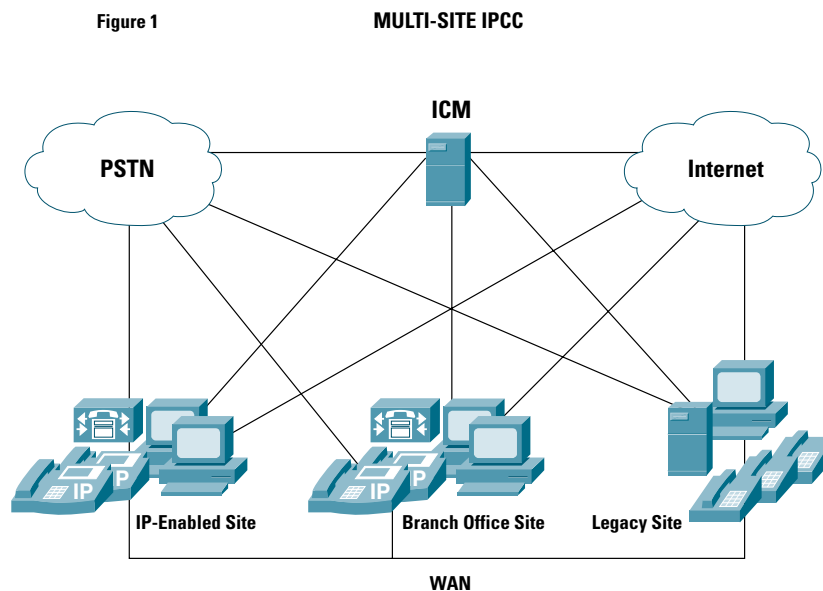
The Cisco IPCC solution enables an organization to take advantage of new IP-based applications at its own pace while preserving legacy investments and leveraging existing IP data infrastructure. Thus IPCC deployment can be incremental; IP telephony, new media channels, and new IP-based services can be added at the desired rate necessary to meet business demands and budget challenges. The implementation flexibility of the Cisco IPCC solution reflects Cisco's understanding of the high-speed development of Internet-based technology, the pressure to provide more and better customer services, and the complexity of maintaining profitability and competitive position in the process.

TDM-TO-IP MIGRATION STRATEGY

Any introduction of new technology to a mature market must be compatible with the incumbent technology. This is especially true in the call center market, where over the years companies have made tremendous investments in telephony hardware and software which cannot be simply written-off and replaced. New technology solutions must integrate with legacy infrastructure investments, allowing a smooth, painless migration to occur at the customer's own pace. This strategy not only minimizes downtime, but also allows the new technology to be fully integrated before a complete transition is made and for users to grow accustomed to the similarities and differences compared to the old technology.

Cisco IPCC supports a migration strategy whereby state-of-the-art IP technology can co-exist with TDM-based telephony systems. Cisco IPCC links these disparate technologies into a unified solution that allows IP- and TDM-based agents to share skill groups, real-time displays and statistical reports. IP-based agents can receive customer inquiries and be managed and reported on in the same way as agents connected to the TDM ACD, giving the IPCC a migration strategy that is unmatched by other IP contact center products.

As either a migration and/or an implementation strategy, IPCC can enable large-scale movement from TDM-based to IP-based operations or implementation of new, IP-based features that can coexist in a telephony environment. While the ultimate goal of full migration is clear, the path each contact center must take to achieve it requires maximum flexibility and powerful capabilities. Cisco IPCC was developed to meet this challenge (Figure 1).



BUSINESS BENEFITS OF IPCC

Cisco IPCC delivers on each of the core IP infrastructure benefits summarized previously—including location independence, the ability to deploy and maintain a single network, and the opportunity to introduce multimedia channels into the contact center—and provides several additional benefits:

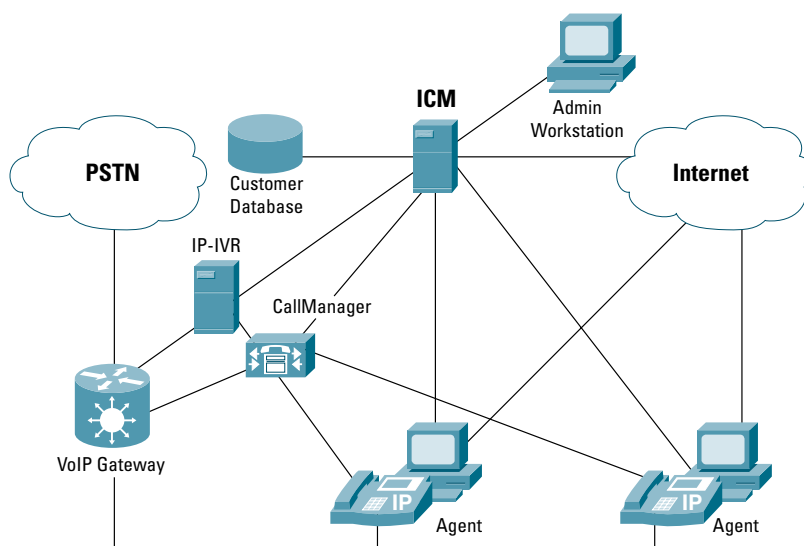
Intelligent Contact Routing And Reporting

To ensure optimum routing, IPCC agents are grouped according to skills. The system receives real-time skill group and status information directly from each agent's desktop and can even reserve an IPCC agent to ensure availability. The scripting environment provides a set of standard route selection criteria as well as tools to easily customize call distribution to meet business requirements. For multi-site operations, the ability to include IPCC agents in enterprise resource selections improves both contact center performance and customer service.

The open architecture of Cisco IPCC allows for the consolidation of timely and accurate information from the Internet, carrier networks, Cisco CallManager, ACDs, IVRs, agent desktops, and other resources. This information is stored in a Microsoft SQL Server (Structured Query Language) database for use in real-time and historical call-center reporting. The IPCC reporting package enables users to generate reports using provided templates; add specific, monitored thresholds to particular data elements; drill down to more granular reports; and schedule reports to run at specified intervals. Users can also build customized reports using the report writer provided with Cisco IPCC, use any number of third-party database access tools to manipulate and display information, or export data to industry-standard file formats for use in other applications. Reports can be viewed from an admin workstation, any authorized browser-enabled desktop, or any other Open Database Connectivity (ODBC)-compliant desktop application.

In addition, the IPCC delivers agent-level reporting functionality, including both real-time and historical agent data, allowing contact center managers to view consistent information from the enterprise level down to a specific agent. (Figure 2)

Figure 2 IP CONTACT CENTER ARCHITECTURE



Support For Multiple Interaction Channels Over The Same Infrastructure

Cisco IPCC does away with the separate, incompatible technologies of the past by providing a converged IP network infrastructure that accommodates multiple interaction channels such as voice, Web collaboration, text chat and e-mail. Not only is this converged network infrastructure less expensive to purchase and operate, but business rules can be configured and managed in a single place to ensure a consistent customer experience.

Rapid Deployment Of New Applications

Another key benefit of Cisco IPCC is its ability to enable innovative applications to be developed and quickly deployed more rapidly than their Old World counterparts. Because applications run over a converged network based on IP, applications can be written independent of operating systems and connectivity and compatibility with other IP-based applications is assured.

Multi-site Support

If your enterprise has multiple locations serving your contacts, the IPCC can intelligently route customer inquiries to the best available resource regardless of location. Just as the Web relies on multiple servers and resources in disparate locations to provide redundancy and peak coverage, the Cisco IPCC uses a similar architecture to create a distributed multi-nodal contact center. This powerful functionality allows your enterprise to receive the most value out of its locations and resources and provide optimal customer service while maximizing efficiencies of scale. The Cisco IPCC's skills-based pre-routing function makes a routing decision for each call while it is still in the IP network or PSTN and before it is sent to an agent or other target—enabling the system to segment customers and deliver each contact to the best available resource the first time. Moreover, IPCC's centralized administration functionality enables you to manage and support all your contact center locations from a single, centralized location.

Preserve Legacy Equipment Investments And Prepare For The Future

The Cisco IPCC solution enables an organization to take advantage of new IP-based applications at its own pace while preserving legacy investments and leveraging existing IP data infrastructure. Because IPCC deployment can be incremental, organizations can add IP telephony, new media channels, and new IP-based services at a rate that meets business demands and budget challenges.

SUMMARY

The Cisco IPCC solution provides organizations with a powerful edge in their quest to provide better customer service, cement customer loyalty and maintain competitive advantage. By allowing companies to seamlessly and painlessly migrate their existing TDM-based contact center operations to an IP network, IPCC delivers the flexible architecture businesses need to deploy a distributed contact center infrastructure that supports their global e-sales and e-service initiatives—at their own pace.



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