

# Business Benefits of an **IP-based** Customer Interaction Network 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. The result is a business environment that is no longer constrained by the traditional call center; instead, businesses can interact with their customers where and how they desire via a customer interaction network.**

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 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 Unified Contact Center 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 customer inquiries as appropriate. With an IP-based customer interaction network, companies can better utilize employees 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 Multiple Channels into the Contact Center**

Of equal importance is the ability of IP-based customer interaction networks 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 common, centralized rules in a customer contact engine in an ongoing effort to personalize customer interactions and increase overall customer satisfaction.

### **The Cisco 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, multi-channel customer interaction network, enabling an organization to incrementally add IP telephony, IP-based services, new contact 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 multi-channel 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, multi-channel customer interaction network.

### **The Cisco Solution: Unified Contact Center Enterprise Edition**

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

The Cisco Unified Contact Center Enterprise Edition is a strategic platform that enables customers to move into the next phase of customer contact—beyond today's Contact Center to a Customer Interaction Network. The Customer Interaction Network is a distributed, IP-based customer service infrastructure that comprises a continuously evolving suite of innovative, multi-channel services and customer relationship management applications. These services and applications provide



enhanced responsiveness and streamlined customer exchanges to help your organization deliver superior customer service. A Customer Interaction Network extends customer service capabilities across the entire organization, giving your business a more integrated and collaborative approach to customer satisfaction.

The Cisco Unified Contact Center Enterprise Edition delivers an integrated solution and a single implementation for multi-channel ACD, IVR, CTI, and outbound campaign management. Cisco Unified Contact Center Enterprise Edition delivers intelligent contact routing and ACD functionality for the market leading IP Telephony solution, Cisco Unified Communications Manager. The solution also delivers TDM to IP connectivity with Cisco VoIP gateways, and media termination with Cisco IP phones. Cisco Unified Contact Center Enterprise 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.

Cisco Unified Contact Center 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, Cisco Unified Contact Center can help it realize the cost and performance benefits of converged networking. And as new technologies emerge, the open, standards based architecture of Cisco Unified Contact Center allows organizations to reap the benefits of technological advancements as they occur.

The Cisco Unified Contact Center Enterprise 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 Unified Contact Center Enterprise deployments can be incremental; IP telephony, new contact channels, and new IP-based services can be added as desired to meet business demands and budget challenges. The implementation flexibility of Cisco Unified Contact Center Enterprise 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**

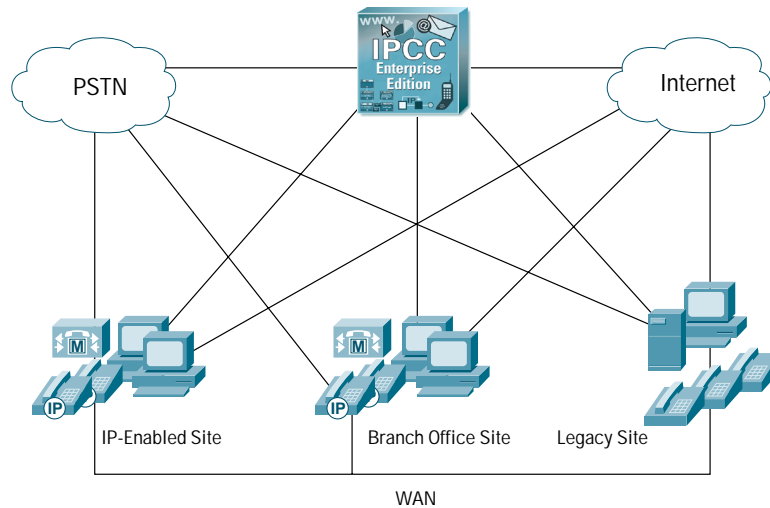
Any introduction of new technology to a mature market must be compatible with the incumbent technology. This is especially true in the call center market, where over the years companies have made tremendous investments in telephony hardware and software which cannot be simply written-off and replaced. 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 Unified Contact Center Enterprise supports a migration strategy whereby state-of-the-art IP technology can co-exist with TDM-based telephony systems. Cisco Unified Contact Center Enterprise 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, providing the Cisco Unified Contact Center Enterprise a migration strategy that is unmatched by other IP contact center products.



As either a migration and/or an implementation strategy, Cisco Unified Contact Center Enterprise 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 Unified Contact Center Enterprise was developed to meet this challenge (Figure 1).

**Figure 1**  
Multi-Site Unified Contact Center Enterprise



### **Business Benefits of Cisco Unified Contact Center Enterprise**

Cisco Unified Contact Center Enterprise 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 multiple channels into the contact center—and provides several additional benefits:

#### **Intelligent Contact Routing and Reporting**

To ensure optimum routing, Cisco Unified Contact Center Enterprise 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 Cisco Unified Contact Center Enterprise 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 Cisco Unified Contact Center Enterprise agents in enterprise resource selections improves both contact center performance and customer service.

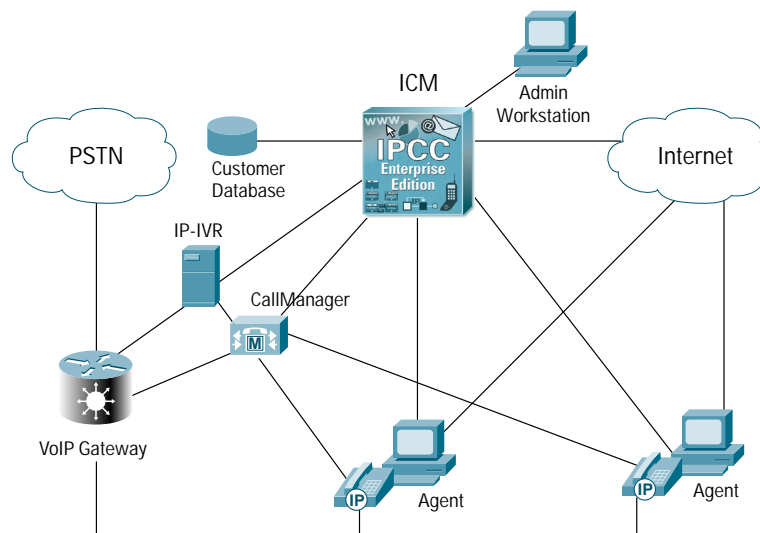
The open architecture of Cisco Unified Contact Center Enterprise allows for the consolidation of timely and accurate information from the Internet, carrier networks, Cisco Unified Communications Manager, ACDs, IVRs, agent desktops, and other resources. This information is stored in a Microsoft SQL Server (Structured Query Language) database for use in real-time and historical call-center reporting. The Cisco Unified Contact Center Enterprise 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 Unified Contact Center Enterprise, 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 Cisco Unified Contact Center Enterprise 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 Unified Contact Center Enterprise 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 Unified Contact Center Enterprise 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, Cisco Unified Contact Center Enterprise 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 Unified Contact Center Enterprise 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 skills-based pre-routing function of Cisco Unified Contact Center Enterprise 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, 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**

Cisco Unified Contact Center Enterprise 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 Cisco Unified Contact Center Enterprise deployment can be incremental, organizations can add IP telephony, new contact channels, and new IP-based services at a rate that meets business demands and budget challenges.

### **Summary**

The Cisco Unified Contact Center Enterprise Edition 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, Cisco Unified Contact Center Enterprise Edition 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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