



PLANTRONICS
SOUND INNOVATION™

VoIP Implementation in the Contact Center: Market Drivers and Challenges

>>> WHITEPAPER | 09.15.03



→ ● • • →

VoIP Implementation in the Contact Center: Market Drivers and Challenges

INTRODUCTION

As computers and telephony continue to converge, the next logical step is Internet telephony or Voice over Internet Protocol (VoIP). VoIP has the potential to fundamentally change the telephony industry, adding new companies, technologies and solutions. Currently, there are three kinds of applications: PC-to-PC communications, PC-to-phone communications, and phone-to-phone communications. This last category includes products such as IP Centrex and voice-enabled IP VPNs.¹

MARKET DRIVERS FOR VoIP MIGRATION

VoIP refers to transmitting voice over existing data communications lines. Voice signals are sent as digitized packets over the data network, as opposed to standard telephony in which there is a continuous stream of communication through circuit switches.

Usage of VoIP is growing dramatically each year, and its appeal continues to grow in the contact center, enterprise and residential markets. In fact, primary research among Plantronics end users indicates that 58% of all PC headset purchases are motivated primarily by the desire to have phone conversations across the Internet, which helps consumers avoid expensive long-distance tolls from carriers.

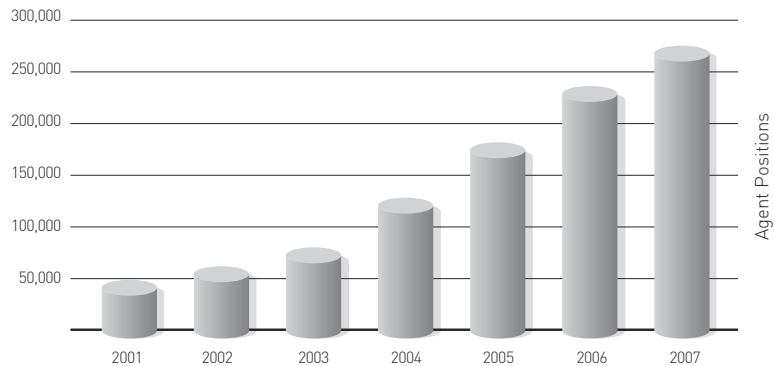
Several developments in particular have created great momentum for VoIP technology adoption. According to Vanguard Communications,² traditional telecom premises equipment vendors have migrated their development dollars away from circuit-switched architectures toward VoIP-based solutions. The industry is also rallying behind standards to support interoperability across vendors.

VoIP adoption is also aided by the growth of new bandwidth services that allow for better voice transmission (e.g. ISDN, DSL, cable modem and T1), according to Concord Communications.³ VoIP can take advantage of such growth, forecasted to exceed 300% compound annual growth rate (CAGR). Additionally, emerging technologies, such as VoIP, can soar as residential, small to medium businesses, and large enterprises gain greater access to high-speed data lines.

Table 1: IP Contact Center agent positions.
Source: *Datamonitor*
May 2003

THE GROWING CONTACT CENTER MIGRATION TO VOIP

For the contact center market specifically, the following chart shows that the growth expected in contact center agent IP positions, even while overall growth in new agent positions is modest and slowing:



REWARDS OF VOIP IMPLEMENTATION

Within the next five years, half of all contact centers will standardize on VoIP, with the majority opting for "softphones," PC-based digital telephony applications. Softphones, which require a voice I/O device through either the sound card or the USB port, are expected to be very popular. Frost & Sullivan predicted that VoIP would account for approximately 75% of world voice services by 2007.⁴

Contact centers are driven by three concerns: lowering costs, boosting agent productivity, and improving customer service. VoIP over softphones delivers on all three, enabling significant new capabilities and functionality for the contact center while reducing costs.

Why contact centers implement VoIP:

- **Cost-effectiveness:** Contact centers are extremely cost-sensitive and will be receptive to the reduced facility and overhead expenditures realized by consolidating two networks into one.
- **Increased reliability:** Concerns of reliability of the data network are diminished, as a contact center agent is often dependent upon both the computer and the telephone. Furthermore, contact center PCs are carefully monitored to assure data availability, so failures caused by the PC itself are also reduced in number.
- **Heightened productivity:** With the telephone embedded in the computer, agents need never divert their eyes away from the screen, saving precious seconds in responding to customers.
- **Added competitive advantage:** Contact centers that adopt VoIP softphones are able to provide "click-to-talk" service, with its corresponding ease and convenience, to their customers.
- **Enhanced customer service:** Again, the competitive nature of contact centers will require more comprehensive collection and storage of customer-related data, both written and verbal as integrated messaging. Once voice and data communications are on the same platform, this process becomes cheaper and easier.

PERCEIVED CHALLENGES OF VoIP ADOPTION

Fear of change—changes to organizations, roles, responsibilities and processes—will accompany VoIP, according to Lori Bocklund, Vanguard Communications. Currently, there are other tangible reasons why companies are hesitant to implement VoIP, such as concerns about scalability and quality. However, these issues are not insurmountable and are already being resolved.

There is concern about VoIP because it favors new facilities; therefore, only new build-outs recognize facilities cost efficiencies. Additionally, desktop cost efficiencies can only be recognized if an employee is equally dependent upon both voice and data communications. However, the majority of employees can work with reasonably high productivity, even if the data network is unavailable, as long as a phone is available. Lastly, few employees in few industries can recognize substantive productivity increases simply by being able to view both the telephone and the computer simultaneously.

TAPPING THE POTENTIAL OF VoIP

The contact centers that transition to VoIP recognize a number of benefits, such as:

- **Facilities cost efficiencies:** The facility only requires two (voice/data and electrical) rather than three (electrical, data, and voice) sets of wires/cables, and only one support organization (MIS) rather than two (MIS and Telecommunications). Of course, the fullest benefits of this are realized when a new facility is built.
- **Desktop cost efficiencies:** Desktop cost drops dramatically as the \$300–800 desktop phone terminal/console is replaced by a softphone with at least the same capabilities.
- **Easy and fast efficiency tool upgrades:** Once the desktop phone is completely “soft,” upgrades in terms of enhanced features or improved efficiencies are down-loadable and need not be installed, one by one, on each of several hundred (or thousand) workstations.
- **Unified messaging (integration of data and voice files):** As long as both voice and data are transmitted over the same network, and as long as voice and data have the same file characteristics, they may be stored in a similar manner and format. They are easily retrievable, which translates into better customer service.
- **Employee productivity enhancements:** If an employee is both voice and data dependent, the simple fact that both voice and data communications are displayed on the same screen, rather than on one screen for the computer and another screen or LED readout for the phone console, results in time efficiencies and consequent productivity enhancements.

PLANTRONICS OVERCOMES VOIP CHALLENGES

Plantronics has already entered the VoIP arena on several fronts; the company’s extensive partnerships with leading OEMs, long standing customer relationships, and more than 40 years in voice technology expertise have contributed to the foundation of Plantronics’ digital voice platform.

Until now Plantronics has offered products that have a passive relationship with the host. Power sources no greater than the handset port and/or two AA batteries limited the feature

sets that could be developed. Furthermore, development efforts had to be focused on compatibility due to the myriad technical platforms among PBX suppliers. Now, with access to the processing power of the PC via the USB port, Plantronics can develop new customer features, providing even more compelling benefits.

Most recently, Plantronics introduced the DA60, a powerful digital voice platform designed specifically for contact centers' VoIP softphones. The DA60 connects professional-grade headsets to a computer's USB port through a cable with a USB connector at one end and a QuickDisconnect™ at the other. PerSono Pro™ 2.0, the DA60's companion software package, leverages the power of the PC microprocessor to provide superior sound quality and control over voice and audio. The DA60 adapter uses Plantronics Call Clarity™ technology and digital signal processing (DSP) to enhance audio quality and suppress echo.

Plantronics also has various products for residential IP telephony users, as well as for the rapidly growing number of "road warriors." Such products include:

- **MX10 Mixer** Allows the user to switch between the Phone and PC with a single headset. The MX10 plugs into the phone and into the sound card on a PC.
- **.Audio™ Line of PC Headsets** Personal users can use these analog headsets for Internet telephony and chat, connecting to the PC through the sound card.
- **DSP Line of USB PC Headsets with PerSono™ software** Designed for the personal user and road warrior, these headsets connect through the USB port and use a digital signal processing chip for enhanced digital audio. These products are excellent for speech recognition and listening to music, as well as Internet telephony and chat.

THE ROAD AHEAD

As companies like Plantronics begin to remove the barriers to VoIP implementation, contact centers will recognize VoIP for the highly viable technology it is. They will continue to migrate in ever-increasing numbers and gain the benefits of increased agent productivity, improved customer service, excellent audio quality, and reduced system costs, among others. Additionally, we will begin to see the usage of VoIP grow within the enterprise and consumer markets. Empowered by Plantronics' digital voice platform, offices and end users alike can realize the cost and productivity benefits of VoIP technology, taking advantage of new applications and functionality not possible before with traditional offerings.

¹"IP Telephony: The Move into Mainstream Markets", by Thomas S. Valovic, IDC, 2002.

²"Should Contact Centers Jump on the VoIP Bandwagon?" by Maren Symonds, Vanguard Communications, October 2002.

³Concord Communications study "Managing VoIP Solutions with Health Suite", 2002

⁴Frost & Sullivan study, March 2002

Sound innovation for missions to the moon. And for everyday life on this planet, too.

In 1969, a Plantronics headset carried the historic first words from the moon: "That's one small step for man, one giant leap for mankind." Today, we're the headset of choice in mission-critical applications such as air traffic control and 911 dispatch. This history of proven sound innovation is the basis for every product we build—whether it's for work, for home or on the go.

