



**PLANTRONICS**  
SOUND INNOVATION™

# Voice over Internet Protocol (VoIP) for the Enterprise

---

>>> WHITEPAPER | 04.15.04



→ ● ● ● → **Utilizing Internet Telephony to Increase Savings**

### CHALLENGE

A significant portion of the annual operating expenses for mid to large-size businesses is dedicated to long distance telephone calls. According to Aberdeen Group research, the average Fortune 500 company spends \$116 million a year on telecom services. Most of these same businesses rely heavily on the Internet to transmit data and to deliver inter and intra company communications, such as email. How can the enterprise leverage widely available voice and data applications to reduce costs and maximize IT infrastructure investments?

### SOLUTION

Voice over Internet Protocol (VoIP)—the process of converting voice into digital data packets and transmitting it over the Internet—is a readily available technology that businesses can employ to save millions of dollars. Applying this technology to make phone calls, known as Internet telephony, is simple, cost-effective and requires only a PC, telephony software and a communications device, such as an IP phone, microphone or headset. IP hard phones that resemble traditional desktop phones are available, and they can be used with standard telephone headsets. A softphone, on the other hand, has the features of a traditional desktop phone but is PC-based digital telephony software, allowing users to make calls directly through their computers using the softphone and a headset. Softphones typically cost about 50 percent less than comparable-function IP telephones.

### BENEFITS

The benefits of Internet telephony are many, with cost savings at the top of the list. Internet telephony enables companies to send and receive calls over existing data, or digital, lines rather than conventional telephone lines. In doing so, companies take advantage of current infrastructure and incur costs only for a local ISP connection, reducing or altogether eliminating long distance telephony charges and realizing significant savings as a result. Businesses can also save money by simply employing softphone software in conjunction with a communications headset, saving on the expense of desktop telephone units. If a company is laying wires for a new facility, an Internet telephony set-up provides even greater cost savings because it requires just two (voice/data and electrical) rather than three (voice, data and electrical) sets of cables. VoIP also delivers impressive sound quality. In fact, technological advances have improved audio quality so much that Internet telephony can rival that of a landline, and it frequently provides a better connection than one available with a mobile phone.

## MARKET OPPORTUNITY

Voice quality, processing speed, memory capacity and other factors that enhance Internet telephony have dramatically improved in the past few years, positioning it for widespread, rapid adoption in a number of markets. In fact, Avaya, a manufacturer of softphones, estimates that worldwide, LAN-based Internet telephony will grow at a compound annual growth rate of 70% through 2005.

## PLANTRONICS COMMITMENT TO INTERNET TELEPHONY

Committed to developing products that enhance emerging technology applications, Plantronics has created a comprehensive VoIP initiative to satisfy the needs of a wide range of users. Plantronics headset solutions blend the benefits of various voice technologies to digitally enhance VoIP audio performance, enabling businesses to achieve unmatched audio quality for their VoIP applications. The company's powerful platform employs technologies such as digital signal processing (DSP) to analyze and enhance digital signals, active noise-canceling algorithms to reduce ambient noise and acoustic echo cancellation to eliminate echoes, even at raised transmission levels.

Plantronics DSP Series headsets utilize the digital/USB interface in a PC to modify and enhance the digital audio stream, "polishing" the sound using DSP; and its .Audio Series of analog headsets connect to the PC through the sound card for easy, convenient Internet telephony use. Both the DSP and .Audio series are ideal for use with softphones, and Plantronics' professional telephony headsets and amplifiers are compatible with desktop hardphones that connect to an IP network.

Plantronics has a full range of headset solutions to meet any user's needs, whether for Internet telephony or another VoIP application. Visit [www.plantronics.com](http://www.plantronics.com) to find the solution for you.

### 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.

