

Is Your Telephone Working For You or Against You?



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Your business has been growing these past few years and you have added extra telephone lines and extensions to your telephone system, but is that enough? Is your existing telephone system providing you with the information and business solutions that will help you grow business and maximize your profitability? Are there better telecommunications options available that will help your business become more successful? If you are asking yourself these kinds of questions, it is time to review your current communications system in terms of its capabilities, limitations and actual costs.

The world of telecommunications has changed dramatically in the past five years with the advent of Voice over Internet Protocol, or VoIP. The development of VoIP has also brought about new services such as Computer Integrated Telephony, Unified Messaging, Automatic Call Distribution, Customer Resource Management integration, Web-based personal and system administration, virtual remote offices and Video IP Conferencing and collaboration. These new features sound great but will they help you grow your business and become more profitable?

VoIP has been labeled the biggest advancement in telephone technology since dial tone. VoIP utilizes the infrastructure of your data network and the Internet to transmit voice information from one "telephone" to another "telephone". This is significantly different from the standard voice transmission network, the Public

Switched Telephone Network (PSTN) and utilizes different technologies.

A "telephone call" over the Internet consists of digitizing your speech, changing the digitized speech into "data packets" that are transmitted across the Internet as any other data packet, and then switching it back to analog sound at the receiving end. The technology works in both directions and is almost completely transparent to the people at both ends of the conversation as long as Quality of Service (QoS) is good.

To place an internet telephone call to a standard voice telephone that is not directly connected to the Internet, a network switch is required to receive the digitized voice packets and retransmit them as a normal telephone call to the receiving party's telephone line. While transmitting digitized voice packets anywhere in the world over the Internet is essentially free, switching over to a normal telephone call requires an Internet phone company who normally charges for this service.

Advantages of VoIP

For the past few years, the most obvious reason to switch to VoIP was the cost savings on both local and long distance calls. Recently, the cost of placing local and long distance calls has dropped so much that savings is no longer a major reason to switch. The primary reasons most businesses are considering an IP based telephony system are:

- to "future proof" their network,

- to improve employee productivity,
- to enhance employee mobility,
- to optimize the savings associated with moves, adds, and changes within an office, and
- to take advantage of new applications like Computer Integrated Telephony, Unified Messaging, Automatic Call Distribution, Customer Resource Management integration, Web based personal and system administration, virtual remote offices and Video IP Conferencing.

Disadvantages of VoIP

The local telephone company typically provides a "free" listing in the business white/yellow pages for a business account but telephone numbers that are connected to the Internet will not be offered this free listing. If you use a VoIP service and wish for your business to appear in the traditional directory, you would be charged a fee and will be restricted to Yellow Pages advertising.

A second disadvantage is that the Internet phone only works as long as the broadband Internet connection and router remain functional. A router and broadband connection require electricity at the terminal location. A power outage will disrupt any broadband connection that is not separately maintained via an uninterruptible power supply, also known as a "stand alone battery".

A third disadvantage is the network "crash". Companies that use a local area network (LAN) for both their data and voice need to be aware that if one is down, so is the other. There are alternatives that will switch callers from VoIP to the Public Switched Telephone Network should the system crash but this usually incurs additional costs. These issues are not a problem for telephones attached to the Public Switched Telephone Network because the telephone company supplies it own voltage to operate the phones.

A fourth disadvantage is voice quality. For years, we have taken for granted the clear voice communications provided by land lines over the PSTN but with the advance of cell phones, many of us have grown accustomed to

voice calls of lower quality. If your business relies on 99.99% crisp clear telephone calls or requires a fail-safe communications system, then VoIP may not be for you. A VoIP call requires a consistent broadband connection with at least 80 kbps, both up and down, per call. For multiple simultaneous calls, this would quickly exceed the capabilities of a standard DSL connection with an upload speed of 128-256 kbps. Most managed VoIP providers now require a minimum of a T1 connection with a guaranteed upload and download speed of 1.54 mbps for businesses to ensure "good" call quality.

A fifth disadvantage is IT support. Most businesses with an IP PBX should have a qualified IT/Telephony person on staff to maintain the network and monitor the quality of service for voice calls. The network - including cables, routers and servers - must be provisioned for QoS and if necessary, switch voice calls to the PSTN if the bandwidth is insufficient to provide good voice quality. An alternative would be to contract for a managed VoIP service. This alternative eliminates the capital expense of purchasing a new telephone PBX and the need to employ an IT professional.

If like most business owners, you do not have the staff or the expertise to perform an in-depth audit of your data and voice communications systems, you ought to consider outsourcing with an independent telecom consultant. Even if you have a trained IT/Telephony professional on staff, it is usually a good idea to get a fresh unbiased perspective of your current system before transitioning or even considering a move to VoIP. The technological advances currently available to improve your business communications are definitely worth your consideration. In a service-driven economy, every effort to improve your client communications should have a positive impact on your business's bottom line.

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