



White Paper **Top 10 Myths about VoIP**

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Many people are aware of Internet telephone systems and may even use a system such as Skype™ at home. Voice Over Internet Protocol (VoIP) is the new technology that is revolutionizing the telecommunications industry. Until recently, converting from a traditional telephone system to a network-based system required a huge upfront investment to switch out all of a company's hardware, an expense that only most large corporations could afford. Now there are new technological advancements that enable small and medium sized businesses (SMBs) to implement VoIP and IP PBX systems compatible with their existing hardware. Although a growing number of SMBs are now benefiting from the cost savings provided by VoIP, there are still many misconceptions about the quality and reliability of service. This document is intended to address and dispel the main objections for implementing Internet telecommunications that are resonating within the industry. It will also provide substantial rationale for dispelling the VoIP myths that once appeared to be obstacles for businesses.

Myth #1: VoIP isn't widely used

Traditional ISDN and PSTN lines are still the norm, but not for long. It's no longer a matter of 'if' but 'when' VoIP will become the de facto standard for how phone calls are made. Info-Tech Research estimates that 50% of SMBs in the USA will be using VoIP by 2008. McKinsey Consulting is predicting a similar proportion will be reached in the UK. They estimate that over £1bn (roughly US\$1.8bn) of UK landline revenue will be VoIP within the next few years.

"It is no longer a question of whether VoIP will wipe out traditional telephony, but a question of how quickly it will do so," *The Economist* 'How The Internet Killed The Phone Business' (Sept. 2005)

According to the Gartner Group, "Voice/data convergence based on IP telephony and VoIP will be under way in more than 95 percent of major companies by 2010".

The IP telephony phenomenon is a global one. Businesses are replacing their traditional telephone switchboard and private branch exchange (PBX) systems with IP solutions at a tremendous rate. Synergy Research forecasts that the IP PBX market will exceed the legacy traditional switchboard market in 2006. Synergy also projects that the worldwide IP PBX market, worth about US\$2bn in 2003, will grow to US\$6bn in 2007 while the traditional PBX market will drop by 50% over the same period from some US\$7bn to roughly US\$3.5bn.

Myth #2: The cost benefits only apply when calling between two, similar VoIP systems

Many people believe that VoIP is not practical without still retaining many "standard" phone lines. While this may be true for a variety of VoIP systems, the Quadro® product line manufactured by Epygi Technologies, is compatible with many Internet Telephony Service Providers (ITSP) that eliminate this problem. With a Quadro in your office you can call anyone who has a phone, including overseas landlines, mobile phones, and even through the use of satellites.

Advances by ITSPs also mean that you can now make long distance calls between Quadros and traditional landline telephones at very low rates. Your calls between Quadros and to other VoIP systems, such as an IP phone, are effectively free.

Myth #3: Voice quality is bad

Some legacy and low-end VoIP systems don't deliver high quality sound, e.g. bits of words missing, noticeable gaps when people are speaking, or delays in the sound arriving. Epygi's Quadros offer superior sound quality, as their state-of-the-art software minimizes these problems. The voice quality you get through the Quadro's digital signal processor (DSP) is almost always better than that of traditional long distance calls.

Myth #4: The system is unreliable

Some VoIP systems have earned a reputation for dropping the connection. If your network was to go down or you experienced a power failure, with some VoIP systems, you would lose your ability to communicate. The Quadro has a lifeline safety feature to help you in the event of a power failure or network outage. If your power goes, one phone immediately connects to the public phone network for emergency services. If the broadband connection fails, you can use a backup PSTN line to still make and receive calls.

Myth #5: VoIP is not secure

The security challenge behind VoIP lies in the converged nature of voice and data. The potential risks of a security breach become magnified when they are tied directly to the security controls inherent in an organization. However, unlike IT-oriented resources, where users have grown accustomed to occasional service delays, similar disruptions to telephone calls are not acceptable. Therefore, security must be balanced with functionality, which can become complicated as operational considerations must be accommodated to mitigate risks. The Gartner Group recommends that "new levels of security for voice applications must be implemented," and specifically recommends developing "a security plan for IP telephony and VoIP services".

The Quadro comes with several award-winning security features already built into the system. In addition to the traditional PBX switchboard features, such as voicemail, 3-way conferencing, call waiting, call statistics, and receptionist features, the Quadro includes a firewall and a Virtual Private Network (VPN) to protect your communications. No longer does a small phone system suffer from a lack of robust features and sophisticated performance.

Myth #6: VoIP is complicated

Installing some of the current VoIP systems involves a great deal of effort and expense because they require customers to completely replace old switchboards and phones with new equipment. Compared to Epygi products in which the installation of a Quadro is very quick and you can use standard phones with it. The Quadro has simple self-installation instructions programmed into it so that you can have it up-and-running within an hour, without the help of an engineer. Although technical training and support are readily available if needed.

"Our installation [of the Quadros] went very smoothly," said Raymond Brady of Rocking T Trucking. "I had the first box up and going and made a test VoIP call in about an hour. This would have been much faster but we were replacing an existing firewall. Later we setup a VPN connection between our two offices and this was very easy to configure with the Quadro interface."

For the installation of a VoIP system, many users still want the comfort of extra standard phone lines (mostly for back-ups). With a Quadro, it's easy to increase the number of traditional phone lines to by adding a small auxiliary unit.

The Quadro is a comprehensive system sophisticated enough to manage all of your company's voice and data needs through one box. Yet the complexity and numerous features are easy to maintain and direct. You can control your own voice mail, call forwarding, call blocking, priority (least cost) routing, messages, and interactive voice prompts.

Epygi products operate as standalone equipment and are interoperable with a large number of existing analogue and IP products, providing you with a reliable service. The products are designed to serve small- and medium-sized businesses, home offices and teleworkers.

To make a call, you use your phone in the normal way. You can dial either a standard phone number or an Internet one, as you wish.

Myth #7: Switching to VoIP is a huge investment

In a McKinsey Consulting article published in Spring 2006, the company surveyed 77 CIOs about the areas of business where they plan to invest most heavily. The highest percentage of them (53%) said they plan to invest in IT infrastructure – with a large portion of that category dedicated to VoIP expenditures. “They also want to replace their circuit-based telecom infrastructure with VoIP telephony to combine their voice and data networks and so reduce costs.”

For SMBs, choosing one of the big name VoIP suppliers can be cost prohibitive, as some of them require customers have to replace all of their existing hardware. Alternatively, the Quadro is programmed to be compatible with your existing framework, utilizing many of your existing components. You just have to buy the ‘box’ and connect it to your current system.

Chuck York, President of dbSpectra, estimates the Quadros are saving the company about \$600/month. “The free long distance calls are a huge cost savings for us,” states York.

Myth #8: VoIP systems are constantly evolving and upgrades are very expensive

With many large VoIP suppliers you are locked into their costly upgrades for software and hardware. Epygi provides free software upgrades, adding new features and capabilities to your Quadro every few months if you want them. Quadro owners realize a quick payback on their initial investment, and later they enjoy recurring cost savings every time they use the Quadro. No license fees. No maintenance fees. No obsolescence.

A large Minnesota based manufacturer estimates that within six months, the company has saved \$35,000. “Based on the number of hours we spend communicating between offices, I estimate that after only six months, our seven Quadros have already paid for themselves.”

Myth #9: If you don’t choose a ‘big player’ you don’t know if the company will still be there tomorrow

As highlighted under Myth #1 above, VoIP is a rapidly expanding industry. Founded in 2000, Epygi Technologies Ltd. is an established business in the market. A privately held US company headquartered in Plano, Texas (North Dallas), Epygi has a worldwide distribution network that spans 40 countries.

Myth #10: There’s a lack of SIP and customer support, especially for small and medium sized businesses

SIP is a signaling protocol for Internet telephony for finding users and setting up and managing multimedia sessions (calls). SIP support is one of Epygi’s strengths and its products benefit from the Epygi team’s extensive knowledge in telecommunications, digital voice processing and data networking. The company’s global network of distributors and resellers, who specialize in working with entrepreneurs and business people, ensures a high standard of customer support.

The following comparisons highlight the advantages and disadvantages of traditional landlines vs. VoIP telephony

PSTN Advantages: Reliable.
Good voice quality and minimal delays.
Worldwide phone coverage.

PSTN Drawbacks: Inefficient use of the available bandwidth.
Costly long distance service.
Complex provisioning of the available services

VoIP Advantages: Use of the same network for data and voice resulting in:

- (1) Reduced cabling and infrastructure costs
- (2) Simplified network administration and control
- (3) Voice and data staff merge
- (4) Productivity and service delivery improvements
- (5) Highly cost-effective and potentially free long distance telephony compared to PSTN (depending on whether a public or a private PSTN/VoIP gateway is used)
- (6) Means to consolidate and unify phone services and features from different locations
- (7) Future feature enhancement possibilities

VoIP Drawbacks: Some loss of voice data under heavy data traffic due to traffic volume unpredictability over the Internet, resulting in packet loss, delays or jitter. These drawbacks can be managed with the proper configuration of an advanced system such as the Quadro.

About Epygi Technologies

Epygi Technologies is based in Plano, Texas (North Dallas). Founded in 2000, Epygi designs and manufactures robust IP PBXs, Voice over IP gateways, and cost-saving Conference Servers. The Epygi Quadros are positioned to serve the SMB and SOHO markets, teleworkers, and branch offices of large corporations and organizations. Using its own SIP technology and DSP software, the company combines telecommunications network knowledge with emerging computer telephony protocols. The company is a leader in SIP (session initiation protocol) Voice over IP technology.

Epygi has established a strong global presence working through distributors and resellers located in the all over the world. Quadro products are sold in over 40 countries on 6 continents.

Summary of the benefits of choosing Epygi's IP PBX Quadro:

- ∞ VoIP and IP PBX telephony offer significant cost savings, especially on long distance and international calls, or free calling to IP phones and computers anywhere in the world. The only requirement is you need to have a broadband connection.
- ∞ Easy to install, configure, and use (self-configuring for most applications).
- ∞ It is inexpensive as it uses standard off the shelf SIP and analog telephones and works with standard network hubs and switches.
- ∞ The Quadro provides several PBX functions to facilitate call handling, voice mail and conferencing.
- ∞ Versatility to use the traditional, landline phone network and an IP network, as you desire.
- ∞ Programmed with advanced software, it gives you high-quality sound phone calls over the Internet.
- ∞ Free software upgrades.
- ∞ Virtual Private Network (VPN) IP call encryption.
- ∞ Ability to bridge calls to remote Quadro units over the Internet and to the remote PSTN networks, allowing users to generate calls to any phone on the remote PSTN network as if they were originated locally within the same PSTN network.
- ∞ High-speed computer Internet access from all networked devices and simultaneous connections for several phones and faxes. The Quadro also prioritizes phone calls over computer data traffic.

- ∞ The Quadro has a powerful firewall and 128-bit data encryption to provide a high level of security.
- ∞ Compatible with standard Ethernet.
- ∞ Wireless (Wi-Fi) ready.
- ∞ In case of power failure, the lifeline port gives you access, via a dedicated phone, to the landline phone network for emergencies.
- ∞ Great customer support from the company's global network of distributors and resellers.
- ∞ The Quadro is a reliable, versatile and cost-effective solution for the communication needs of small businesses, home offices and homes.

You can learn more about Epygi Technologies and the Quadro product line by visiting www.epygi.com

The chart below demonstrates how several different users in various locations are able to connect together using the Quadro systems.

