Don’t Buy a VoIP Phone System Before You Read This Report

VoIP means Voice over Internet Protocol

Not

Voice over the Internet

By Greg Eicke

Introducing Greg Eicke

My name is Greg Eicke and I've been working at the leading edge of voice communications for the past 27 years. During that time I've found the sheer complexity of many phone and data solutions to be a major frustration. The good news is that the complexity and all of its painful implications end with Greg Eicke!

Almost three decades in this industry has enabled me to develop what I call 'brilliantly simple' phone solutions. These solutions will make communications and collaboration second nature for your workforce. And of course they save you big dollars in ongoing phone costs… another reason why they are brilliant!

When it comes to VoIP, I've found that most VoIP Technology vendors stretch the truth when it comes to what their VoIP systems can do.

I put this document together to help people become aware of the potential options (and pitfalls) when purchasing new VoIP phone solutions for your business.

I've been able to piece all of this together because for the better part of my career I've installed, maintained and sold Telephone Systems. This has also allowed me to provide sound advice from 'Feet on the street practical experience. The aim has always been to achieve the best solution and value for money for my clients.

Introduction

This report is structured in a way that answers some of the more commonly asked questions. If some of the concepts are new to you, don't worry. The language used in this report is deliberately 'plain English' and should help dispel some of the common myths and misconceptions around VoIP.

If on the other hand you are an IT professional, it may be advantageous to chat further over a coffee. After 27 years in the industry we have a keen understanding of the intricacies of telephones and computers sharing a common platform. From our considerable experience the best results come from collaboration between telephone vendor and IT team. The overriding goal is to **complete** the project, not to **compete**.

VoIP 101

What is it VoIP?

VoIP means Voice over Internet Protocol, **not** Voice over ***the*** Internet. The key words here are "*Internet Protocol*" which in lay man's terms mean a converts voice calls to 'packets' of data that travel over data networks. The most common preconception is that all VoIP calls travel via the Internet. This is not the case and in fact those that do are often of the poorest quality. The best quality VoIP calls come via private IP data connections that don't touch the public Internet at all.

Why are some VoIP calls poor in quality?

VoIP calls that traverse the public Internet can be of very poor quality. This is simply because there is no Quality of Service (QoS) Guarantee with the internet. This is because the public Internet is not a quality controlled service.

So how do you make VoIP calls without using the internet?

Easy! With a business grade data connection that has guaranteed QoS.

What's the difference between VoIP, IP Telephony & Unified Communications?

These things can all be part of the same telephone solution. Look at it this way…

VoIP best describes *"voice over a data network"* whereas IP Telephony is the hardware (handsets, servers, switching equipment). Unified Communications refers to a set of features available with IP Telephony solutions.

Unified communications bridges the gap between IP Telephony and other computer related communication technologies.

IP (Internet protocol) telephony is a Telephone System that supports telephone calls on your computer network. In the office you will see that your telephone can now plug into the same cable as your computer bringing both devices and their full potential closer together.

UC is not a single product, but a set of products that provides a consistent unified user interface and user experience across multiple devices and media types.

Some of the features include…

- Instant Messaging
- Real time presence information
- Video Conferencing
- Complex Call control
- Web Conferencing
- Speech recognition
- Unified messaging
- Voice mail
- Email Integration
- SMS
- Desktop Fax Integration
- Mobility.
- Remote Workers
- Multi-Site organisations
- Software Integration
- Web Collaboration

How does VoIP work?

VoIP converts voice calls to data packets that travel over networks using the same Internet Protocol that facilitates the exchange of data. Most VoIP calls are made using IP phones.

Calls from site A to site B within the same data network

Some VoIP calls can be made entirely over IP computer networks. This is where the 'cheap calls' come in. This solution is best suited to multisite enterprises that have a robust business grade data network provider (like Telstra, Optus, iSeek, etc.) in place for their business.

Calls from company A to company B not on the same data network

One way to do this is to route VoIP calls via the public Internet, however the call quality is very poor.

To ensure high quality VoIP calls must be routed via traditional phone networks. VoIP calls that circumvent phone networks incur no long distance charges. VoIP systems frequently include conference call support at no additional cost.

Since VoIP uses the same network and protocol as other Internet services, integrating telephones with, for example, e-mail becomes far simpler. A message might automatically play over an IP phone's speaker, and the text of the message might then show on the phone's screen. These systems can be integrated with text messaging and other notification avenues to provide reliable, effective communication.

Where is it all going?

As data networks become increasingly more reliable and high speed networks approach ubiquity, the move toward VoIP will continue. More and more institutions are finding that the switch makes sense, economically and technologically. VoIP will likely see greater integration with online services. VoIP is part of a larger trend toward converged communications, which promises expanded feature sets and increased reliability and effectiveness of enterprise communications. Phones will incorporate presence data (where are you now), allowing for highly relevant and targeted communications.

What are the implications for business?

VoIP technology is a game changer! Unfortunately many businesses have been burnt by it. This is not because the technology is bad but because it has been purchased for the wrong reasons and or badly implemented.

Many companies have implemented robust computer networks that host a growing number of enterprise platforms. They understand the need to continually maintain and upgrade this infrastructure. At the same time, many enterprise phone systems are old and costly to maintain. IP Telephony or Unified Communications provides an opportunity to operate fully

featured phone service on the existing network infrastructure. Along with efficiency and productivity savings, companies can benefit from additional features and integrated systems.

Who's using VoIP now?

The PBX (Private Branch Exchange) technology that underlies traditional phone systems has reached its end-of-life stage. VoIP is a way to leverage IP technology for lower infrastructure costs, improved network efficiency, converged communications, productivity improvements and improved end-user features.

Unified communications is certainly moving to the front burner at most companies. According to the 2010 Nemertes benchmark, *"Building the Virtual Workplace," 79 of 100 enterprises interviewed were planning to deploy unified communications over the next two years.*

Most of the building blocks of a unified - communications architecture are already in use at most companies. Ninety-six percent of benchmark participants report the use of at least one tool, such as audio, video, web conferencing, instant messaging or a presence application.

The challenge for many IT executives is to make the business case for unified communications. This can be tricky, because purported productivity benefits can be hard to quantify. However, business cases do exist. Companies see unified communications as a way to improve internal communications and increase productivity. There also is the potential for cost savings.

"Even the bottom line is feeling a positive impact: one business reported a 15 per cent increase in revenues as a result of unifying their communications. It's no wonder that the majority of IT managers we talked to see it as crucial to growth."
Mike Robinson, converged communications director at Dimension Data

What are the downsides?

Perhaps the biggest drawback of VoIP is that it is subject to the same limitations as other data network activity—the data network can be slow or overloaded, and this can degrade the quality of VoIP calls. When the quality and reliability of phone call are vital, the network infrastructure must be first rate.

In addition, regular upgrades and network maintenance will likely result in some amount of downtime for VoIP solutions. This can be a sticking point for businesses accustomed to virtually uninterrupted phone service.

Setting and managing expectations is an important part of a successful VoIP deployment. Any institution considering migrating to VoIP must carefully evaluate the many options to determine

the point at which the benefits of VoIP outweigh the limitations. However, a highly decentralised IT environment would pose another layer of complexity for a VoIP line implementation.

Imagine you've just bought a brand new 50" Flat screen TV, digital, high definition - it's the latest technology. In the shop the picture looked crystal clear. You get it home, take it out of that huge cardboard box and then connect it up. You start to get frustrated because the picture is fuzzy and breaking up – nothing like it was at the shop. After carefully reading the instruction manual you realise the problem is that 25-year-old rusty antenna on your roof. It's good enough for the old TV but it just doesn't cut it for digital.

What's this got to do with VoIP? Glad you asked! Just like using a rusty old antenna with a brand new digital TV, many companies have tried to use the Internet for their VoIP. And just like that rusty old antenna, the Internet simply doesn't cut it when it comes to VoIP for business use.

That's where I come in. VoIP needs to be delivered properly. It's like hooking up cable TV directly into your brand new 50" flat screen TV. You get perfect quality and a heap more features!

