VoIP for Small Businesses: A Primer

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April 2013

For any business, a reliable telephony system is a vital tool to communicate and promote your organisation. It is also a major investment that must deliver a return almost immediately - so any decisions made must be done with the goal of maximising the return on the investment being made.

Traditional PBX systems have for some time faced competition from Voice over IP (VoIP) technology which provide a number of benefits that can be particularly compelling for small organizations.   VoIP combines data and voice within a single network platform that, when correctly implemented, can be highly cost effective. Note that we state 'when correctly implemented', as like any other technology VoIP requires some considerations for your existing infrastructure in order to make the most of it. To help you we'll go over some basic principles in this business primer.

What is VoIP?

VoIP allows you to have your phone system running on an Internet Protocol based network. This may be sited in your office or at a remote site and uses the Internet to make and receive calls in addition to carrying your data traffic.

Why Should I be Interested in VoIP?

By moving to a VoIP based system you will discover a number of tangible benefits such as:

- Lower call charges
- Simplification of your communications tools, with the chance to integrate them to help improve productivity – for example, integrate your telephony with your CRM to log calls
- Improved security through unifying voice and data defences
- Far more flexibility than traditional PBX systems
- Increase the availability of staff by giving them remote access to their phone

Is VoIP Cost Effective?

We mentioned above that call charges can be significantly reduced when using VoIP. This is certainly the case when making long distance or overseas calls as you would only be paying local call rates. But there are other criteria just as important which would potentially save you a significant amount of money over time, including:

- No expensive engineer visits to fit additional modules that enable basic features or increase the number of users – VoIP is usually controlled through a comprehensive dashboard and features are switched on or off
- Reduced travel costs through using optional features such as web conferencing
- Add users, change user profiles or move phone extensionsquickly and simply
- Use more advanced features such as CLI, voicemail setup, menu creation etc., without paying extra

Can A Small Business VoIP Improve My Communications With Partners?

In a word – yes! A VoIP system, through the inherent cost-effective advantages it has over PBX, will provide you with a bigger toolset to help the communications between you and your customers and other business partners.

- The improved availability means your staff can divert their phone to a mobile, another number off-site or extend their number to a softphone on their computer - so they have more ways to stay connected to the office or a Your employees will have more ways to stay connected wherever they are.
- Customers and business partners can also reach your staff more effectively through custom menus or easily enabled call diverts
- Users can see who is available simply by viewing their phone dashboard on-screen - and the best way to contact them.
- VoIP integrates with CRM systems – so your staff won't have to struggle to find another number for customers, prospects or business partners again

Does VoIP Allow Faxes?

Does anyone use faxes anymore?   That may sound flippant but surprisingly, in the face of the onslaught of email, they remain quite popular. An early glitch with VoIP was an issue over sending and receiving faxes - they used to take a long time and the quality wasn't always acceptable. This is no longer the case where the VoIP solution support T.38 compression/decompression and, where you have a line connected to a physical fax machine, make sure the error correction mode is switched off – that's for PSTN lines.

How Secure Is VoIP?

Security is a relevant concern with VoIP. Traditional telephony systems were relatively secure as a hacker had to be in physical reach of an access point to break in; VoIP is in effect a form of data travelling over an IP network and the inherent security weaknesses from the technology, plus some new ones, will apply.

This does not mean however that VoIP is suddenly a bad idea for your organization – merely that you need to understand that you will have to undertake some revision to your current defences. This could range from a minor update to a more involved overhaul of your present security solutions in place depending on what you have deployed, and that there is a possibility of some changes being required due to VoIP impacting on security systems in place to protect your data network. But it should also be borne in mind that VoIP is a good opportunity for your business to revisit your security arrangements and that large scale changes are a clear sign of existing issues that would remain irrespective of your interest in VoIP.

The answer therefore is to make sure that security is a key question when you look at any VoIP provider – which is the same mindset you should be applying when looking at any other area of your technology infrastructure. Overall, security is an acid test that you can apply to any potential services provider; if they are unable to provide a comprehensive service that looks at your current infrastructure then be aware that you may be allowing vulnerabilities to creep into your network.

Will It Still Work If The Lights Go Out?

If your power supply suffers an outage then your computer systems will of course shut down – and the same will be true of a VoIP telephone system as power is required to operate the network, telephony application and the handsets.

Tackling the issue of power outages therefore is done using the same approach that you would take for your data network; ensure you have UPS capability connected to the server on which your VoIP application is installed to ensure you guard against intermittent power supply, with the option of an orderly shutdown process that takes place automatically should a power cut be ongoing. You can of course opt for installing a backup generator that would kick in and continue to power your entire business network, but this is a potentially costly solution that will be of interest only to organizations where any form of power outage, no matter how short, is not acceptable.

An alternative idea is to use VoIP as a hosted solution, and have your telephone system effectively based off-site. This would mean that although a power outage would take your local office offline, your telephone system would remain operational – and you can therefore access it remotely to implement short term changes to route calls to mobile handsets, thus keeping you able to receive calls from customers and business partners. This is a great example of how VoIP can actually be more available than even traditional PSTN systems – where, in the event of a power outage with the service provider you would be without any phone systems until the fault is repaired, which could be a number of hours.

What About VoIP Line Quality?

The Achilles heel of VoIP was traditionally the quality of a voice call. Sharing the connectivity with data made VoIP susceptible to breaks and other interference, making some calls at times a haphazard affair.

It is however a little unfair to blame VoIP for an issue that in the main was due to insufficient bandwidth – a problem much less likely these days – and a lack of bandwidth management in many networks. The inevitable pace of technology means that VoIP is far more reliable and, while not yet quite on a par with traditional PSTN lines in terms of consistent clear call quality, it is very close and certainly acceptable for any business that has invested in good connectivity for their data requirements. Your VoIP provider should be given the time to look at your infrastructure and spot any potential issues which you can then discuss to see the best way to minimize them.

Is My Network Good Enough?

A good VoIP deployment depends on having sufficient bandwidth to handle both voice and data traffic; an implementation using a basic connection will have a very slim chance of being usable as it fights for bandwidth with data traffic.

A simple way to get good idea whether your network will be capable of handling VoIP is to count the number of users and multiply them by 100k each way up and down the line, and then look at how many calls might be taking place concurrently. From here you will need to look at your Internet connectivity and ascertain the actual bandwidth you are receiving – for this you can use a web based speed test app.

VoIP network requirements have to consider the amount of data as well as voice that is being routed; if your organization uploads and downloads large files then you should consider expanding your Internet connection and introduce bandwidth management to help provide a minimum set amount of space for your voice calls.

Will a VoIP System Cope With An Expanding Business?

This is an important question to ask of any VoIP solution – will it scale upwards and how far? Will additional hardware be required? If application upgrades are needed, what are they and how much do they cost? If your company relocates or wants to shift from on-premise to hosted, is this easy or complex to undertake? And of course, what is the product roadmap and approach to legacy support – the last thing you want to do is purchase a VoIP system that is discontinued months later.

In practice VoIP is far more flexible than traditional PBX systems. Additional users can be created via a dashboard and will not require engineer visits to install extra cards, while options such as introducing call centre features for sales teams etc. are also a point and click exercise.

The questions above are by no means exhaustive but will help you ask pertinent questions to any VoIP provider and be more prepared when looking at making the switch from an existing PBX installation. Your telephone system is critical to your business; it is vital you work with a VoIP provider which looks, from the outset, at your entire network and gives a clear and thorough procedure for implementation and support – anything less is putting your ability to work and your business reputation at risk.

We also suggest you try out VoIP for yourself to gain some real-world experience of how easy it can be to manage calls and users; there really is nothing like having an application on your screen to give you the insight into how powerful and flexible VoIP can be for your business. We recommend you download the 3CX Phone System FREE Edition, which you can get at this link here – or call us if you would prefer to see our own VoIP system in action.

About We Solve IT

Every day, organisations large and small rely on the expert advice and support from We Solve IT. We cover every aspect of your infrastructure, including security, storage, virtualisation, networking, telephony, business continuity and cloud computing, providing solutions from world-class technology vendors to keep your staff productive and your customers delighted. It's an approach that inspired our name; when it comes to understanding the maze of technology and how to maximise its potential, We Solve IT.

About 3CX

Break free from expensive proprietary phone systems and move up to an open standard IP PBX that increases productivity of employees and IT staff while reducing costs.

3CX Phone System for Windows is an award-winning IP PBX that completely replaces your proprietary PBX, supports standard SIP soft and hard phones from any vendor, VoIP service providers and VoIP gateways to connect traditional PSTN lines.

With 3CX and We Solve IT you can overcome the limitations of outdated hardware based PBX systems, reduce costs significantly and add advanced communications features that will make your company more efficient and competitive.

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