



Nash Networks Inc
IT Consulting

Serious about technology. Serious about your business.

Is VoIP a Viable Option for Small Business?

"Making every IT dollar count!"

Part 10, October 2009

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Executive Summary

- VoIP will not replace conventional (landline) telephony, but it's part of the landscape, increasingly integrated with conventional systems and steadily growing as a proportion of total telephony
- Moving to pure VoIP is still a significant undertaking that will not be worthwhile for everyone, but brings significant benefits to some businesses

When Should Small Businesses Consider VoIP?

- If they are planning to replace an existing PBX
- If they have multiple branches or locations or want local numbers in distant locations
- If long-distance calls are a significant expense
- If the flexibility and features offered by VoIP offer a compelling business advantage

VoIP Pros

- Cost savings and business advantage - often context-dependent
- Productivity benefits - by enabling functions that were not possible before, VoIP can help organizations to be more productive and profitable

VoIP Cons

- Costs – implementation can be expensive, may not save much on running costs
Reliability - Internet infrastructure is often not as robust as telephone wires
- Call quality can be poor if the underlying infrastructure is not good enough.

Types of VoIP Services

- Managed VoIP. The entire system is provided and managed by a third party provider and the user pays a monthly fee per handset or user.
- Hosted VoIP. The user owns the phones and network (and often the PBX server). The service provider hosts and manages the PBX server.
- On-Premise VoIP. The business owns and manages the VoIP system. Generally the system of choice for large companies.

What is VoIP and Where is it Now?

VoIP, or Voice Over Internet Protocol, is a technology that allows phone calls to be made over the Internet.

In 2006 and 2007, VoIP was sensationalized as the Next Big Thing. Since then, it has received far less attention as inflated predictions failed to materialize and new technology fashions captured the media's attention.

Is VoIP dead?

No. It's quietly grown and developed, and has to a fair extent become integrated into mainstream communications technology. The early adopters have adopted, and the far slower process of selling to the mainstream is underway.

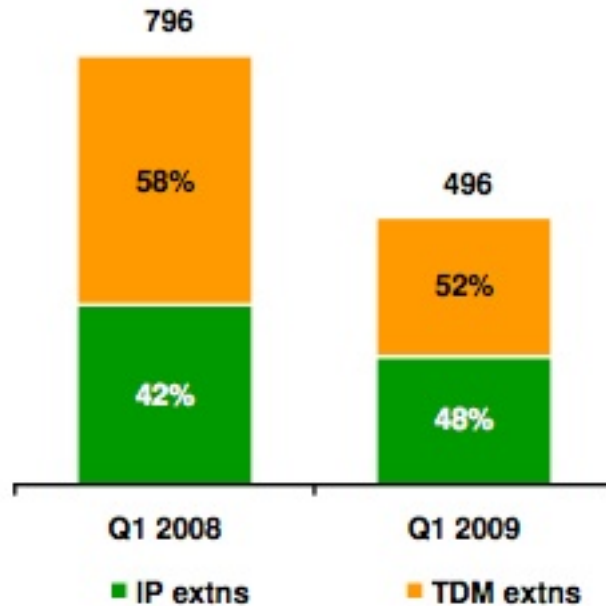
Will VoIP still deliver on the promises of 2006 and 2007?

Probably not. Inflated media and industry hype almost always ensures that the reality will fall short of the predictions.

The current state of play is something like this:

- VoIP sales dropped substantially in 2009 – along with almost everything else
- VoIP will not replace conventional (landline) telephony any time soon, but it's part of the landscape and will grow gradually over time.
- Many consumers now use VoIP without even knowing it – for example, cheap long-distance calls or home phone services usually run on VoIP
- VoIP has become integrated into many conventional PBXs, which can now use a combination of conventional and VoIP routing
- Moving to pure VoIP is still a significant undertaking that will not be worthwhile for everyone, but brings significant benefits to some businesses

This graph shows a substantial drop in overall sales of PBXs from 2008 to 2009 in the UK. Note, though, that the **percentage** of VoIP PBXs ("IP extns" in the graph) **increased** from 42% to 48%, compared with conventional PBXs ("TDM extns").



(Source: MZA Press Release: MZA releases Q1 2009 figures for UK PBX/IP PBX Market)

When Should Small Businesses Consider VoIP?

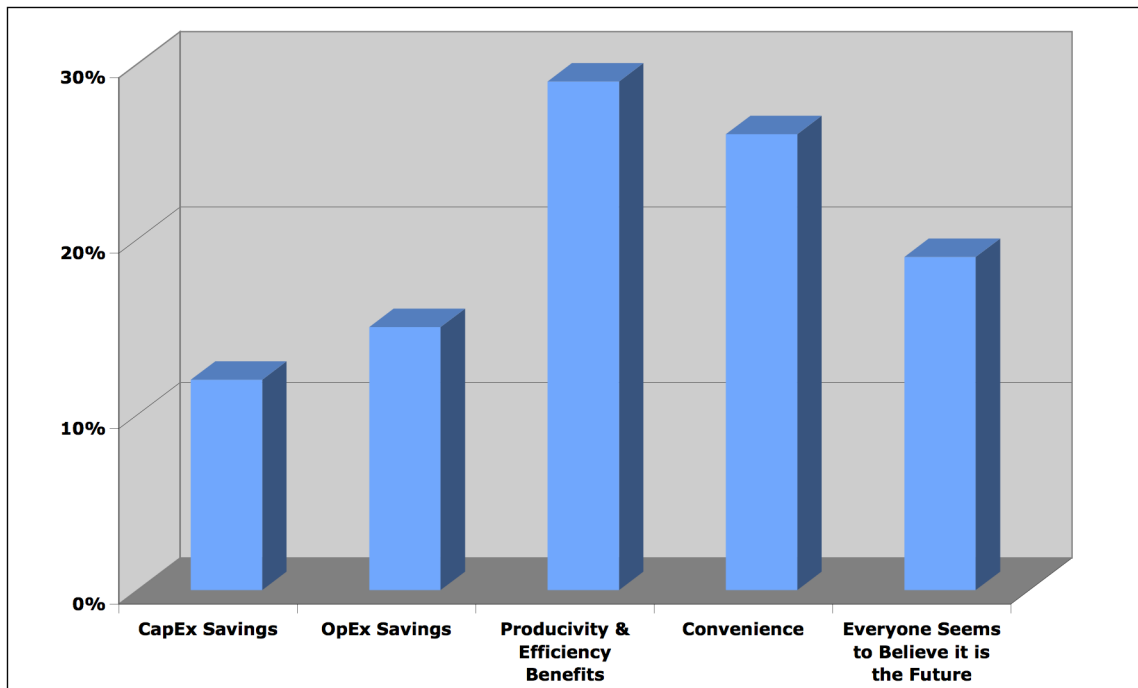
- If they are planning to replace an existing PBX
- If they have multiple branches or locations
- If they want local numbers in distant locations
- If they are opening a new office
- If long-distance calls are a significant expense
- If the flexibility and features offered by VoIP offer a compelling business advantage

Does VoIP Save Businesses Money?

VoIP certainly can result in significant savings, but this is not a given and is often not the primary motivation for the move. Businesses that move to VoIP often do so for specific benefits that will improve productivity and efficiency, rather than for immediate, direct cost savings. This was the case even in the heady days of 2006:

Factors Driving VoIP Adoption Among Mid-Size Businesses in 2006

(Source: telephonyonline.com/voip/technology/voip_adoption_smb_063006;
Adapted from Frost & Sullivan)



VoIP Pros

Financial benefits

- Costs less than traditional PBXs
- Lower long-distance charges
- Lower line rental charges
- In some circumstances, companies can use VoIP off-site instead of mobile phones, which are very expensive
- Moves, additions and upgrades cost considerably less than for a conventional system
- Support and maintenance can be done remotely, cutting down on support costs

Feature benefits

- Tremendously flexible and programmable
- Portable. Calls can be received wherever there is an Internet connection
- Call forwarding and simulring very easy to programme
- Conversations can be recorded easily
- Can receive voicemail and faxes as e-mail ("unified messaging")
- Remote or home offices can appear from the outside to be part of a central office

Productivity benefits

- By enabling functions that were not possible before, VoIP can help organizations to be more productive and profitable
- Remote support means that response times are much faster

VoIP Cons

Costs

- Implementation can be expensive
- Network infrastructure and Internet connections often need to be upgraded to accommodate the extra demands of VoIP
- Outgoing and incoming local calls are billed (though charges are low, and calculated by the second, rather than rounded to the nearest minute)
- Requires IT support, whether on-site or outsourced

Other

- Call quality can be poor if the underlying infrastructure is not good enough. This applies particularly to handset quality and the speed and reliability of the Internet connection.
- Internet infrastructure is often not as robust as telephone wires
- Implementation can be disruptive because phones are very personal
- Emergency calls don't always show address information
- Many VoIP providers only allow North American calls, so international calls might need a second provider
- Outgoing faxes to conventional fax machines still require a landline

What a Move to VoIP Requires

- The VoIP system or software. This ranges from free open-source Asterisk software to many proprietary options (*)
- A suitable Internet connection that is separate from the data connection (*?)
- A backup Internet connection to handle calls if the primary goes down
- An internal office network that is fast and reliable enough to maintain good call quality
- A VoIP PBX (a dedicated server running the software) either in the office or hosted in a data centre (*)
- Handsets (or headsets for “softphones”) (*?)
- Suitable, high-availability technical support (*)
- Number porting from the existing to new system

The requirements marked with an asterisk are, or may be, in the case of those marked with a question mark, taken care of by a managed service (described below).

Types of VoIP Services

Small and medium businesses are about evenly divided between the three main types of services: Managed VoIP, hosted VoIP and on-site VoIP.

Managed VoIP

The entire system is provided and managed by a third party provider and the user pays a monthly fee per handset or user.

Advantages:

- Low or no upfront capital expenditures
- No in-house IT staff needed to maintain the phones

- Updates are built into the plan
- Internet connection for voice may be included
- Scalable – pay for more or less users as the business changes
- Disaster recovery included
- If office network or power goes down, calls can still go to voicemail or cell phones

Disadvantages:

- Total cost of ownership is higher in the long run
- Less flexibility – unable to customize system
- Everything depends on the provider staying in business

Hosted VoIP

The user owns the phones and network (and often the PBX server). The service provider hosts the PBX server in a data centre and manages the system.

Advantages:

- The PBX has high-quality and redundant network connections, uninterruptible power and is well managed. This increases reliability of the system
- Each system is customized to the specific needs of the client
- Calls can be forwarded to conventional phones and cell phones with no impact on the office's bandwidth
- Location-independent. Moving office or workers moving to remote offices only involves moving handset
- Disaster recovery is much easier and is often part of the service
- If office network or power goes down, calls can still go to voicemail or cell phones

Disadvantages:

- Total cost of ownership can be higher in the long run

- Calls within the office travel out to the data centre and back again, consuming more bandwidth

On-Premise VoIP

The business owns the VoIP system and is responsible for maintaining it or outsourcing maintenance to an IT provider. Generally the system of choice for large companies.

Advantages:

- Complete control of the system
- Lowest total cost of ownership over the long run
- Modifications and changes very fast if on-site dedicated staff are available

Disadvantages:

- Highest up-front capital expenditures
- Ongoing maintenance and operational costs
- Very reliable and high-quality incoming bandwidth needed, also high-reliability uninterruptible power and cooling
- In-house disaster recovery needed
- If office network or power goes down, calls can not go to voicemail or cell phones

Mobile VoIP

Mobile VoIP, or mVoIP, is an interesting development that allows a laptop or mobile phone to effectively become an extension on the VoIP PBX. The voice traffic runs over a data connection like 3G or Wi-Fi.

Mobile VoIP can enable cheap (or free) long-distance calls so long as a wireless connection is available. It is very convenient for local calls but is not likely to offer a significant price advantage here.

Sources

Benefits and Challenges of Deploying VOIP in SMBs

<http://smallbiz.att.com/iwov-resources/assets/PDF/Benefits%20and%20Challenges%20of%20Deploying%20VOIP%20in%20SMBs.pdf>

Checklist: Calculating the Total Cost of an IP Phone System

<http://www.voip-news.com/feature/tco-ip-system-012009/>

IP Telephony Fails To Ignite In the Smaller Business Segment

http://www.phoneplusmag.com/articles/842/problem_with_voip.html

Managed Vs. Hosted Vs. On-Premise VoIP

<http://www.voip-news.com/feature/managed-hosted-on-premise-041408/>

Reportlinker Adds The mVoIP Market 2009-2014 - Successfully Profiting from VoIP over Mobile Report

<http://www.reuters.com/article/pressRelease/idUS117197+12-Oct-2009+BW20091012>

Small Business VoIP Requirements List

<http://blog.voipsupply.com/small-business-voip-requirements-list>

TCO involves everything from network preparation to maintenance to bandwidth costs.

<http://www.itbusinessedge.com/cm/community/features/interviews/blog/voip-ownership-can-accelerate-roi-and-decrease-tco/?cs=23180>

VoIP For Small Business

<http://www.thedigest.com/node/896>

VoIP Ownership Can Accelerate ROI and Decrease TCO

<http://www.itbusinessedge.com/cm/community/features/interviews/blog/voip-ownership-can-accelerate-roi-and-decrease-tco/?cs=23180>

About Nash Networks

What we do

Our core business is managing and maintaining IT networks for small businesses.

Philosophy

We understand that every business is unique, with unique technology needs. We provide and support the mix of technology that's right for each client.

We aren't a one-solution shop. There's no such thing as one-size-fits-all in technology (or socks).

Skills

We know a lot about a lot: Windows, Unix, Macintosh, programming, connectivity, VoIP, virtualization, security, disaster prevention ... and much more.

People

Our consultants are all university-educated, experienced, highly skilled and excellent problem-solvers.

Vendors & subcontractors

We recommend and use only quality vendors whom we know and trust.

Technology

We use state-of-the-art monitoring, remote support and backup tools.

We constantly update and upgrade our tools and capabilities - but where it makes sense, we continue to use tried and trusted, older technologies. We're not driven by fads.

Core Team

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