

Business VoIP Buyers Guide

Business Drivers, Definitions, Considerations and Options

EVOLVE **IP**™

995 Old Eagle School Road

Suite 315

Wayne, PA 19087

USA

610.964.8000

www.evolveip.net

Table of Contents

- Market Trends 3
 - Hype Cycle 3
- Business Drivers 4
 - Productivity 4
 - Mobility 5
 - Disaster Recovery / Business Continuity 6
 - Lower TCO 7
- VoIP Technology Overview 9
 - Definitions 9
 - CODECs – what do they mean? 9
 - TDM / Data differences (Convergence) 10
- Considerations 11
 - Network Preparedness (LAN Issues) 11
 - Security 11
 - Power 12
 - Failover Options 12
 - E911 12
 - Mobility 13
 - Quality 13
- Implementation Options 14
 - Premise-based IP PBX 14
 - Managed IP PBX 14
 - Hosted PBX 15
- Conclusion 17
- References 18

Acknowledgements

Scott Kinka
Senior Vice President, Network Services

Market Trends

The Hype Cycle

So you've heard the hype. Perhaps you've decided that it makes sense to consider a move to VoIP (of some kind). ...you're not alone:

More than 150,000 U.S. small and mid-sized businesses (SMBs) had adopted some level of VoIP through the end of 2005. The trend continues today:

Based on quality and quantity of the business benefits, VoIP is inevitable by 2008 in 70 percent of businesses. The shift is also visible in the increased volume of IP system and line shipments compared with the declining volume of time division multiplexing systems and lines.

- *Gartner*¹

Why are businesses flocking to adopt this new technology? And how do you determine if the time is right for your business?

The purpose of this white paper is to provide a roadmap for businesses to understand and assess their VoIP options. The roadmap lays out the primary drivers behind a business' decision to move to VoIP, the basics of the technology, the considerations you should be aware of before embarking on a VoIP project, and the types of implementations that your business might undertake.

Armed with this information, the reader will gain the ability to decide if and when the time is right to start a VoIP evaluation and how to go about it in an educated matter. With the plethora of options and entry points available today, that time is most likely now.

This paper follows some basic steps in the evaluation process:

- Understanding why business VoIP has become so popular - Business Drivers
- Cost analysis
- Basic and brief VoIP technology overview
- Planning considerations - common areas of challenge
- Available deployment options and a comparison of strengths and weaknesses

There are inserts and callouts along the way as well as simple illustrative diagrams to help explain things and keep them simple yet informative.

VoIP Business Drivers

Whereas the residential VoIP market has clearly been driven by price, features and benefits are clearly driving the business market.

Three major categories of VoIP Features and Benefits will be explored in the following section:

- Productivity
- Mobility
- Disaster Recovery / Business Continuity

We wouldn't be realistic if we didn't take cost into consideration as a business driver (or least a "decision justifier"). The above sections are followed up by a discussion on VoIP cost reduction and analysis on Total Cost of Ownership.

Productivity

Frost & Sullivan claims that productivity and efficiency benefits are viewed as key drivers for VoIP adoption by nearly 30% of respondents in mid-sized businesses in North America. But what are these benefits and why are they driving this quick adoption?

Some of the most commonly reported productivity enhancing VoIP features are as follows:

- **Find me / Follow me**
Generally controlled by individual end-users, Find me / Follow me allows for call routing based on the user's desire or availability. As an example, a user can set their extension to ring their desk phone 2 times before attempting to reach the user on their cell phone or at their home number or both. This is commonly called "sequential ring". "Simultaneous ring" is also available where all designated numbers are dialed at the same time. The actual ring to number remains hidden to the calling party at all times for either application. This and similar features are typically controlled via a web browser application.
- **Device / Phone Number Mobility**
Similar to Find me / Follow me, this functionality incorporates the ability to take your office telephone number anywhere with you with via the above process or with another VoIP handset or softphone. Outbound calls on the softphone or VoIP phone will show the appearance of coming from the office regardless of where the user is located. With this option, organizations can actually have a distributed workforce working at home or on the road and still appear to be in one office with all of the same functionality.
- **Application Control and Integration**
Application control and integration enables users to control their individual settings, voicemail and handset options from a typical web browser. Application integration allows users to initiate and accept calls from inside of applications that are already familiar to them such as Internet Explorer and Outlook. Users "click" to dial these telephone numbers for seamless integration and maximum ease of use.

- **Softphone Application**
Softphones, sometimes called soft clients, allow users to treat their PC as a phone handset, using it to dial and control calls. The user interface is generally through a headset or other device plugged into a mobile laptop or PC. The softphone then acts as a duplicate extension of the user's regular office phone regardless of where they are, providing all of the functionality of their office system while on the road.
- **Unified Messaging (UM)**
UM is generally considered as the merger of voicemail, email and fax. Voicemails are delivered into the user's email Inbox, along with emails and electronic faxes. Users "click" to hear voicemails through the audio on their PCs as well as to call back selected parties in any particular order.
- **Conferencing and Collaboration**
Browser based "click through" user set up and control for audio, web and/or video conferencing including document sharing and on-screen collaboration. No need for additional hardware, software and conference scheduling. While many users do immediately find this compelling, this will be one of the major drivers in future applications.

The above features and benefits result in productivity and performance gains. While these potential gains are difficult to deny, they are somewhat difficult to specifically quantify in a financial business case for making a move to VoIP. Many business owners and financial decision makers cling to the belief that if users do not have features, or are not asking for them, that there is no financial benefit in investing in them. Along with many other technology decisions, that thought process is clearly changing. Decision makers are now asking "how can I enable my employees and partners to do more and be more productive with new technologies?" Productivity and convenience features are evaluated first and then rationalized with cost analysis.

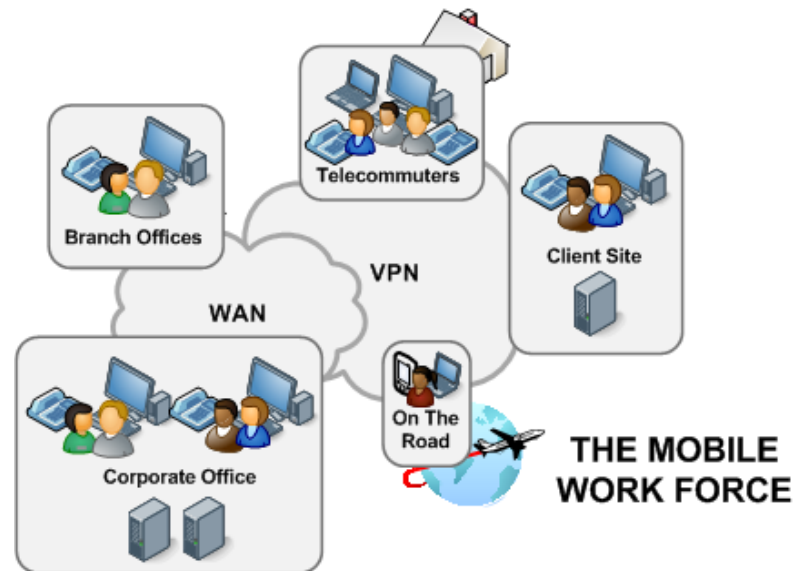
Mobility

In 2006 the number of mobile workers in the U.S. reached 105 million—66 percent of all workers (*Larstan*²). Further illustrating the pervasive growth of the mobile workforce, Gartner³ estimates that by 2010, 80 percent of key business processes will involve exchange of real-time information with Mobile Workers.

Migration to the mobile office is an inevitable event in the future of every business. Businesses can choose to fight the trend or embrace its hold on the American worker. Employees look forward to a future of flexible work hours, flexible locations and the convenience of ubiquitous access to business applications. Businesses who embrace this trend can look forward to a distributed but very engaged work force with more productive time throughout the day. This trend will certainly continue with the anticipated workforce proliferation of "echo boomers" – a younger workforce who will become major drivers of new applications and work styles.

Because VoIP is delivered over IP (Internet Protocol), phone system features can be extended to any location with an Internet connection or WAN connection back to the host. As a result, small offices and home users can have the same features as users at the headquarters (or large corporations!) without the expense of local PBX equipment.

Call center operations can utilize remote workers or contractors in a single unified call center operation. In essence, the business can operate virtually and more productively. How far the business takes the “virtual” office is limited only by their imagination and commitment. The productivity enhancing features discussed above are what enable easy mobility of the workforce.

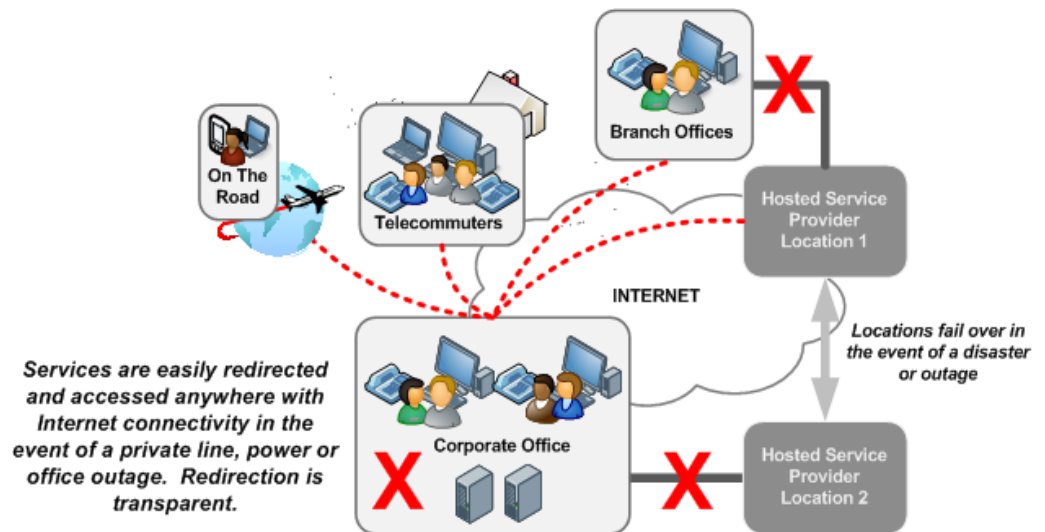


Disaster Recovery and Business Continuity

It's safe to say that over the last decade, increased geo-political and geo-physical events are disrupting the workforce more frequently while pressure from corporate compliance regulations have increased. This has resulted in increased business interest in disaster recovery and business continuity plans. While many businesses have some form of DR plan for their data operations, they may not have fully vetted plans for the continued operation of their voice services in the event of a disaster. This is the fundamental difference between Disaster Recovery and Business Continuity. Since most PBXs reside at the customer premise, an on-site disaster or simple carrier outage effecting either the PBX equipment itself or voice connectivity into the premise, effectively disconnects that location from the rest of the world. Customers and vendors calling that location are met, unceremoniously, with a “fast busy”. While it is true that many voice carriers provide line forwarding options, a manual operation must be requested by the business and executed by the carrier for this to take place. In addition, while this plan may temporarily relieve the “fast busy” issue, it does not provide for continued operation and availability of voice services to employees should the disaster last for any period of time. A single day without the use of their extension can effectively render information workers and salespeople completely useless. Depending on the size of your operation, that cost can range from several thousand dollars to several million.

The “virtual” nature of some VoIP systems provides options to address this problem. While different types of VoIP implementations can address this issue with different levels of effectiveness (see VoIP Implementation Options), nearly all VoIP implementations offer some form of disaster recovery - from shared configuration between IP PBXs at multiple locations to Network-based options that do not reside at any of the businesses' sites. In addition, the mobility features discussed above can also

be considered a Business Continuity benefit. Quite simply, if a location is unavailable for a period of time, employees can simply go home, taking their phone or using a soft client to remain productive and available at their extension without the rest of the world even knowing there was an issue.



Lower Total Cost of Ownership - TCO

TCO is an often overused and misunderstood concept. Many financial decision makers consider TCO as a soft or sunk cost argument towards making an expensive technology decision. And while a poorly formed argument can surely seem that way, VoIP can offer a truly quantifiable TCO that is generally equal to or lower than the traditional TDM alternative.

TCO calculations can vary greatly based on the type of implementation (Traditional vs IP PBX, on site vs Hosted PBX). These variations will be explained later in this paper. So let's start with the general TCO of a PBX (VoIP vs Legacy PBX technologies).

The general TCO of a PBX includes the following components:

- Purchase price of the system (lease or buy)
- Installation cost of the system
- Maintenance Costs (generally an annual contract of approximately 15-20% of the purchase price)
- MACs (Moves, Adds and Changes) – the process of adding or deleting a line, setting up a new user or feature, moving someone, etc. (roughly \$125 one-time per MAC)
- Monthly telecommunications costs – Local, Long distance, etc.
- Internal costs – staff time managing the solution, waiting for MACs, training, etc.
- Soft / Productivity Increases (not included)

While system and installation costs are similar, there are several key areas where VoIP will provide a better TCO than Legacy PBXs:

The first area of dramatic cost savings is in the cost of MACs (Moves, Adds and Changes). Depending on the size of an operation, MACs can be a large and inconsistently occurring expense. However, an IP telephone's network address is tied to

the device itself, not the port it plugs into (like a traditional handset). As a result, VoIP handsets can be moved from location to location, and the user’s extension and features will follow them—whether the user has moved to a different office location or taken their phone home. Users can move themselves or use a designated non-technical contact instead of calling their PBX vendor, waiting and then paying for them to “hardwire” the new changes. At an average cost of \$125 per MAC, this can add up very quickly in most businesses.

The second area of cost savings is in monthly telecommunications services cost. There are two primary reasons. First, the delivery of voice over IP allows for a converged delivery of voice (local and long distance services), Internet access and possibly WAN services. Since all services are IP based, carriers offer consolidated services over fewer physical connections to service VoIP endpoints. Depending on your local configuration and your carrier’s capabilities, this alone can have a dramatic effect on monthly costs. Second, businesses with multiple locations can experience reductions in usage between locations by moving those packets over the company’s Wide Area Network (WAN) effectively eliminating carrier per minute charges for communicating from site to site.

Enterprises have reported saving more than 40 percent on their long distance costs by packetizing their wide area voice traffic.
- Gartner⁴

Some providers may also “bundle” telecommunications, Internet and VoIP PBX services and fees into one package. This enables the business to consolidate many variable expenses into one. While we won’t automatically say this enables lower TCO as there are many variables, we will say that this current trend and commonly available products do indicate so.

Ranging over into the “soft” cost side of TCO, businesses need to consider the internal costs related to managing the PBX solution. While many firms simply outsource all work related to their PBX, there is always some degree of on-site management. In mid-sized businesses, there may be an individual or team of individuals managing the Legacy PBX solution. This knowledge is generally not required in other areas of the business. VoIP systems are obviously IP-based, and as such easily fold in the domain of the IT department. A converged architecture allows for maximum utilization of available resources, and limits the businesses’ dependence on specialized, and not always necessary, PBX skill sets.

Lastly, certain types of VoIP implementations can offer TCO advantages in the areas of purchase, installation costs and ongoing maintenance. This will be explored further in the VoIP implementation options section.

25 User TCO Model			50 User TCO Model		
	Purchased	Hosted		Purchased	Hosted
Purchase Price of System	\$10,959.00	\$0.00	Purchase Price of System	\$17,258.00	\$0.00
Installation Price of System	\$1,734.00	\$1,000.00	Installation Price of System	\$2,726.76	\$1,000.00
Maintenance Costs (18% Annual)	\$1,972.62	\$0.00	Maintenance Costs (18% Annual)	\$3,106.44	\$0.00
MAC Fees (6 Annual)	\$750.00	\$0.00	MAC Fees (12 Annual)	\$1,500.00	\$0.00
Handset (Phone) Purchase	\$5,000.00	\$0.00	Handset (Phone) Purchase	\$9,000.00	\$0.00
Annual Telecommunications Costs	\$17,949.00	\$21,375.00	Annual Telecommunications Costs	\$35,898.00	\$39,900.00
Internal Costs	\$12,000.00	\$6,000.00	Internal Costs	\$12,000.00	\$6,000.00
5 Year TCO	\$181,051.10	\$141,875.00	5 Year TCO	\$291,506.96	\$234,500.00

TCO assumptions based on average IP PBX purchase cost and related monthly telephony expenditures.

VoIP Technology Overview

Definition

VoIP is the transport of packetized voice traffic on an IP (public or private) transport facility with or without other types of data. The voice signal is sampled, compressed and encapsulated into IP data packets to allow it to be switched or routed along with other data packets across the LAN or WAN.

CODECS

CODECs (Compressor/De-compressor) convert audio signals into a digital format and compress for transmission. The most commonly used CODEC standards for VoIP transmission are G.711 and G.729

- **G.711**
 - *64K (standard) compression algorithm for encoded speech*
 - *Total bandwidth required with overhead = 93 Kbps*

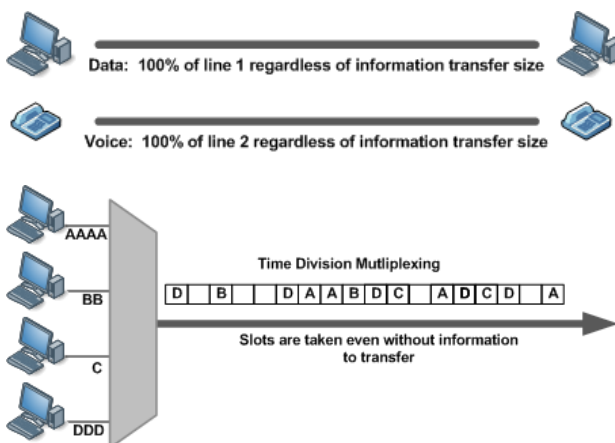
- **G.729a**
 - *Compresses 8kHz audio signals and encodes them for transmission at 8 Kbps*
 - *Total bandwidth required with overhead = 28.8 Kbps*
 - *This level of voice compression allows for over subscription and greater service efficiencies*

Either CODEC provides for a significantly more efficient network infrastructure than traditional TDM networks. By “packetizing” voice into streams of 28.8kbps to 93kbps, voice conversations can travel the same network utilized for Internet and WAN traffic, eliminating traditional POTS lines, PRI or voice tie lines and allowing for more efficient use of available bandwidth.

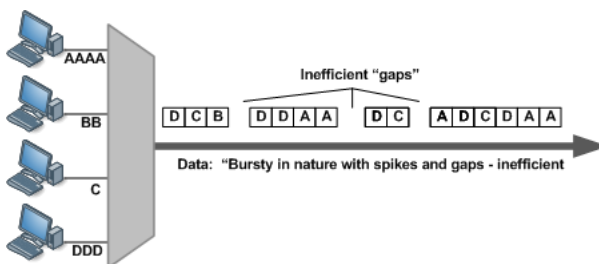
TDM / Data differences (Convergence)

Consider this:

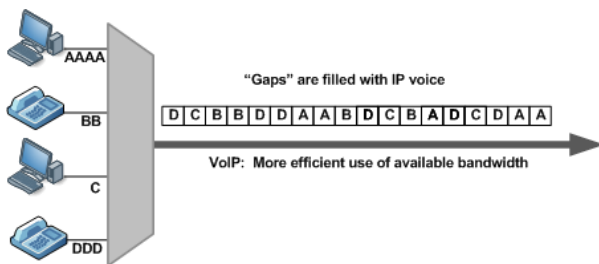
- Time Division Multiplexing (traditional voice) does not make effective use of bandwidth because lines are physically segmented and allocated for voice whether or not the phone is being used.



- Data is “packet switched” meaning that it is utilized only when requests are being made and data is being transmitted to the end user. As a result, bandwidth utilization moves up and down wildly, creating gaps and peaks, which result in unused and over-used bandwidth.



- IP voice conversations also create gaps (pauses, silences, calls on hold, etc) that can fill the data gaps
- VoIP on a converged network infrastructure can provide greater bandwidth efficiency for all applications



Quite simply VoIP delivers on the age-old business goal of “more for less”.

Key Planning and Deployment Considerations

So you're ready to run out and buy a brand-new IP PBX?

If so, as with any new technology, there are various items to recognize, plan for and address. Below is a list of the items that any business considering a move to VoIP should consider in advance of making a decision. While they may seem intimidating to non-technical readers, they are actually very simple in concept and can be easily addressed – if they are recognized and planned for early in the process.

Network Preparedness

- Simply put, convergence means your existing network will now take on an entirely new responsibility, that of adding and moving voice through the network. Unfortunately, voice streams are more sensitive to network congestion than data. If your access to a web page is a millisecond slower today than yesterday, you will not even notice, but a millisecond delay in delivering a voice packet manifests itself as a moment of silence or a stutter.
- The three most common factors affecting the quality of your deployment are:
 - **Latency** – The time it takes the voice stream to travel from end-point to end-point (commonly referred to as “delay”)
 - **Packet Loss** – High amounts of data congestion can cause routers and switches to overflow - *To keep traffic moving along routers will sometimes discard packets*
 - **Jitter** – The difference in time between the expected transmission rate of data and the time it actually arrives - *Generally traced to dramatic changes in network traffic or load*
- To avoid the problems of jitter, packet loss and delay – a thorough network assessment should be performed to ensure there is sufficient bandwidth (LAN and WAN) and control for the introduction of IP voice.
- Pay particular attention to links where traffic transitions from LAN to WAN
- Conduct a complete network inventory and understand the current bandwidth consumption of existing applications and services as well as future calling traffic patterns
- Always give precedence to voice packets on the network for timely delivery (for more information on packet prioritization, known as QoS (Quality of Service), please refer to the EvolveIP Whitepaper: End to End Service Level Management in the Wide Area Network

Security

- With legacy TDM, voice systems weren't affected by IP related threats. Because VoIP is implemented on the IP network, using IP standards, it is subject to the same security vulnerabilities as the rest of your businesses' IP-based systems such as servers, routers, switches, firewalls and databases. In addition to the normal security threats, here are some typical VoIP affected threats:
 - Invasion of privacy through eavesdropping on conversations
 - High-jacking of VoIP service for unauthorized use

- Malicious attacks – Denial of Service (this can now disrupt voice services)
- The good news is that there are no significant VoIP specific protections that need to be put in place other than an effective organizational security policy that includes VoIP centric systems and services along with legacy IP based systems. There are no substitutes for a fully encompassing approach to security policy implementation and enforcement.
- A solid, defense-in-depth security policy will cover the security needs of VoIP (for more information on Defense in Depth, see the EvolveIP whitepaper: Defense in Depth through Managed Security Services). This paper also covers SIP – the primary standard for VoIP enablement and implementation and how the collective standards and development communities are further mitigating VoIP security concerns.

Power

- Traditional POTS (Plain Old Telephone Service) lines in small office and home offices provide inline power to telephone handsets. Larger offices with actual telephone systems and handsets also get inline power. Since VoIP handsets are connected to Ethernet instead of POTS, power must be provided via alternate means. One option is to add an adapter to plug the phones into a standard power outlet, which is susceptible to power outages like legacy PBXs. The second and more desirable option is to replace the Ethernet switching to the end points with POE (Power over Ethernet) switches which provide inline power over standard Ethernet lines similar to traditional POTS. These switches can then be backed up with an on-site UPS (Uninterruptable Power Supply) to ensure continued use of phones in the event of a power outage.

Failover Options

- In the event of a primary local access line outage (T1, Fiber), failover options are often limited to IP-based services. Since the intelligence of the PBX is located at the business location, a loss of connectivity to the site can render IP-handsets useless. Careful consideration must be given to a POTS line or Internet Access redundancy policy. This consideration is also important in a legacy PBX environment. There is no failover disadvantage with using VoIP, if it is effectively planned for.

E911

- When a 911 call is made via the PSTN (Public Switched Telephone Network), there is address information that is transmitted to a local PSAP (Public Safety Answering Point) so that emergency services can locate the caller.
- Due to the “virtual and possibly mobile” nature of a VoIP end-point (handset or soft client), calls are technically not originated from a “physical” location, complicating the transmission of address information to the PSAP in the event of a 911 call.

- Due to regulations surrounding this, VoIP PBXs and Service provider stations, must be “registered” to a location so that they can be “logically” mapped to a “physical” address which can be transmitted to the PSAP.
- Companies evaluating any VoIP implementation should understand this consideration and discuss options with their service provider or integrator.

Mobility

- Mobility has already been demonstrated as one of the primary drivers for businesses considering VoIP, however, the mobility capabilities of the end-points differ based on the various options of VoIP implementation. Businesses should discuss both long and short term mobility objectives before planning their implementation and plan for effective policy and administration.

Quality

- SOHO (Small Office / Home Office) and Consumer-oriented VoIP offerings (Skype, Vonage) generally use the Public Internet for transport of voice packets back to the service provider. In any situation where voice packets traverse the Internet, Quality cannot be assured. Businesses should understand the implications of Internet-based transport and discuss it with their service provider or integrator (for more information on packet prioritization, known as QOS (Quality of Service) in the WAN, please refer to the EvolveIP Whitepaper: End to End Service Level Management.

While these considerations should be taken seriously, they should not be looked at as reasons to shy away from a VoIP implementation. A well planned and executed VoIP strategy can deliver call quality ratings similar to or better than traditional TDM implementations.

Implementation Options

Now that we have discussed overall VoIP benefits and considerations, it is helpful to understand the types of procurement and deployment options and their relative strengths and weaknesses. Listed below are three types of potential implementations as well as their advantages and disadvantages.

Purchased IP PBX

In this legacy scenario, the customer purchases or leases the IP phone system and handsets from a PBX Vendor. Voice and/or Internet services are contracted separately.

Advantages:

- Benefits of implementing an IP PBX system
- Allows for separate negotiation of voice and/or Internet services per location (although some may consider this a negative)
- It's tried, tested and "safe"

Disadvantages:

- Customer may still have to incur PBX maintenance fees, software patches, MACs, etc.
- Services may not be bundled in and the customer may still have to deal with multiple vendors.
- Mobility options may be limited based on system and provider offering and rely on users connecting to the host site to access service.
- Implementation of PBX is dedicated to the customer and depending on configuration, may be a single point of failure.
- A full data network (not tied to voice infrastructure) is generally required between sites for multi-location deployments.
- Capital expenditure on a swiftly depreciating asset increases the TCO.
- Limited Disaster Recovery and Business Continuity options

Managed IP PBX

This is simply a different pricing option on above the typical IP PBX deployment. In this scenario, the customer pays a monthly fee for an on-site PBX and handsets from a service provider rather than the standard lease/buy/maintenance option. Voice and/or Internet services may or may not be bundled in.

Advantages:

- Benefits of implementing an IP PBX system
- Customer controls the timing and roll-out of new PBX features
- Possibly lower operating costs and lower TCO over legacy options

- While not actually an advantage, many “perceive” the on-site nature of the hardware to be one but this is not actually the case.

Disadvantages:

- Implementation of PBX is dedicated to the customer and depending on configuration, may be a single point of failure.
- Services may not be bundled in and the customer may still have to deal with multiple vendors.
- Mobility options may be limited based on system and provider offering and rely on users connecting to the host site to access service.
- A full data network (not tied to voice infrastructure) is generally required between sites for multi-location deployments.
- Limited Disaster Recovery and Business Continuity options
- Limited interoperability and availability to third party “open” applications due to the closed nature of the manufacturer’s specific type of VoIP.

Hosted IP Telephony / Hosted PBX

In a fully centralized and managed option, a service provider will sell or supply handsets directly to the customer without the need for a local PBX. IP Handsets will get their features from the service provider’s network and IP feature servers. All administration, management, network, Local and Long Distance and typically Internet services will be supplied by the service provider. Costs are bundled to provide a per user price or may be broken out by phone, features, network and usage. IP Feature services located in the service provider’s network allow for continuity of services regardless of the availability of services and connectivity at the customer’s location(s).

Advantages:

- Full VoIP functionality
- Predictable monthly hardware and service fees with limited or no up-front costs
- Carrier Class operating environment with larger service providers – in a traditional environment, there is only one PBX. With Carrier Class providers, there are several or many PBXs for redundancy.
- Limited local hardware and points of failure
- Scalability – users simply have to add handsets with no need to be concerned with system expansion, port availability, voicemail capability, etc.
- Disaster Recovery ready – calling functions (voicemail, mobility, etc.) continue in the event of a local outage
- Elimination of site-to site and remote employee calling charges for multi-location businesses
- Big company feature, functionality at a low cost of entry to appeal to smaller offices
- Reduced operating costs and typically a lower TCO than legacy options

Disadvantages:

- Quality of service – some providers provide dedicated access and some do not. If they rely on third party Internet access to get to the service provider, service quality may be affected. Those offices with sufficient size can utilize dedicated leased lines (T-1) to provide voice, data and PBX services, ensuring end-to-end Quality of Service. SOHO (Small Office, Home Office) users must utilize existing Broadband Internet connections, over which quality of service can be managed, but not assured.
- Typically limited to installations of less than 1,000 users per location
- Not all service providers are the same and provide the same level of network diversity/redundancy and quality of service – careful consideration must be given to this evaluation.
- Unless properly addressed in applicable implementations, failover to secondary access in the event of primary access failure is more challenging than on premise based PBXs.

Ultimately, the option that works best for your business will depend on many of the features, benefits and considerations detailed in this paper and on specific niche/vertical market applications that were not detailed. While each option has its distinct advantages and disadvantages, research shows that Hosted PBX services are increasing at a dramatic rate.

Some examples:

- Frost & Sullivan⁵ expects the North American market for hosted IP telephony to grow at about 50 percent both in terms of lines and over 60 percent in terms of revenues over the next five years.
- In North America, small-to-medium businesses (SMBs) — barely aware of VoIP technology a year ago — are expected to increase spending on hosted VoIP services from \$164.9 million in 2005 to \$1.56 billion in 2010, at a CAGR of 56.8%. (*AMI Partners, Inc.*⁶)

Conclusion

Why Choose VoIP for Your Business?

With clear cut advantages, compelling features and indisputable market trends and statistics, it is difficult to draw any other conclusion. Hosted IP PBX is more than likely the best option for many organizations looking to deploy VoIP or that need to replace or augment their current telephone system. It is not surprising that other types of centralized, hosted services have also gained widespread acceptance and deployment as they share many of the same advantages over legacy services. These services include: Hosted Microsoft Exchange for email, Managed Security Services, Audio/Web/Video conferencing and Software as a Service applications from Oracle, Salesforce.com, and Microsoft. Assuming the easy decision has already been made to deploy VoIP, there are additional compelling advantages to move forward with a hosted solution including:

- Productivity through mobility features
- Convenience and simplicity of use
- Reliability, disaster and disruption readiness
- Integration with new applications
- Future proofing from obsolescence
- Reduced operating expenses

Of course, like any other critical decision, there are various conditions that may affect the above. We can most likely help you evaluate your VoIP opportunities, challenges and threats. If the discussion points in this paper make sense or are intriguing to you, contact us to find out if we can assist.

Evolve IP

995 Old Eagle School Road
Suite 315
Wayne, PA 19087
USA
610.964.8000
www.evolveip.net

Who is Evolve IP

Evolve IP is a team of Internet, Security, Data Communications, and Telephony veterans who believe that purchasing these essential services is more complicated than it needs to be. We believe there is an easier way.

Evolve IP's Managed Technology Solutions deliver a new way for businesses to buy communications services faster, better and more cost effectively than any solution available in the marketplace today.

References

- 1) **Gartner Research**
Publication Date: June 10th, 2004
ID Number: G0-01-21241
- 2) **Larstan Business Reports**
Publication Date: August 2nd, 2004
Title: “Managing the Mobility Imperative: Enterprises Embrace Mobility Strategies to Achieve Competitive Advantage”
- 3) **Gartner Research**
Publication Date: December 22nd, 2003
Title: “Enterprises Must Assess Impact of Mobile Applications”,
ID Number: DF-21-4374
- 4) **Business Communications Review**
Publication Date: October 2004
Title: “Making The Business Case for IP-Telephony”
Author: Eric Krapf
- 5) **Frost & Sullivan**
Publication Date: February 2007
Title: “Hosted IP Communications: Evaluating BroadSoft’s Market Position”
- 6) **Access Markets International (AMI) Partners, Inc.**
Publication Date: April 25th, 2007
Title: “AMI-Partners: Hosted VoIP Biz to Reach US\$416M in N. America This Year.”