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# VOIP 2007 OUTLOOK

## THE YEAR AHEAD FOR BUSINESS ADOPTION

BY JON ARNOLD



Over the past two years, VoIP has steadily evolved to the point where it has valid applications for all sizes of business, and is no longer a fringe technology. It has moved beyond the early adopter stage, and growth is now being driven by real demand from end-users instead of from the supply side where vendors had previously been pushing its adoption into the market.

Entering 2007, VoIP is less of a mystery for businesses, and decision makers are beginning to recognize that cost savings are really just the beginning of the story. VoIP is now more than a voice application and has real strategic value, especially for businesses that want to leverage their technology investments into competitive advantage. To achieve this, businesses must understand the broader context around VoIP and the key trends that will shape this market in 2007.

This article focuses on five trends and themes that we believe will be most important for businesses in considering not just how to adopt VoIP, but where, when, and why. These trends and themes are as follows:

- VoIP will continue to lower the cost of communications for businesses
- There are more VoIP options and solutions for businesses now than ever before
- VoIP is now ready to support larger scale deployments
- Service and support channels are making VoIP easier to deploy
- VoIP is a stepping stone for doing new things and improved productivity

#### **TREND #1 – LOWERING THE COST OF COMMUNICATIONS**

Cost reduction has always been a key driver for businesses to adopt VoIP. Most businesses use a switched telephone system, usually a PBX or Key System, both of which are expensive and last a long time. As such, there is a lot of built-in inertia to make a change, and reducing costs is usually the best reason to think twice. The good news is that VoIP can deliver meaningful cost savings in a number of ways, some of which are obvious and some of which are not. Depending on the size of the business and scope of VoIP deployment, there are several tangible savings to be realized:

- Elimination of long distance charges for calls made within the LAN
- Reduction of long distance charges for calls made outside the LAN
- Reduced trunking costs for larger scale deployments
- Lower opex (operational expenditure) for operating and maintaining the network
- Elimination of MACs – moves, adds, and changes
- Lower capex (capital expenditure) for replacing legacy systems with IP-based systems

In addition, there are numerous soft cost savings that come on top of this, especially where businesses adopt a converged solution, in which case voice traffic is moved off the dedicated telephone network and added onto the data network. For this article, however, we will only focus on the hard costs, which are real and typically deliver savings in the area of 20 to 30 percent.

As VoIP is adopted by more businesses, as well as more extensively within businesses already using it, economies of scale will help lower costs even further. For example, as VoIP operators grow in size, they will be able to negotiate more favorable rates for transporting traffic. One way this will lower telephony costs is by passing on savings and further reducing long-distance rates for calls made outside the LAN. Another way is by adding new markets that fall under the free long-distance calling zone. Most U.S.-based VoIP operators typically offer free long-distance calling across the U.S. and Canada. As they grow, some are adding other markets such as Western Europe or selected overseas countries. Aside from the basic fact that growing competition will lead to lower prices among VoIP operators for your business in 2007, we also expect to see these incremental benefits provide further cost savings.

## TREND #2 – MORE OPTIONS AND SOLUTIONS THAN EVER BEFORE

A key story in 2006 was the emergence of VoIP offerings for all sizes of business. Large enterprises have been the leading adopters of VoIP, mainly because they could justify the benefits. Over the course of 2006, many providers began focusing on the small and medium business market – SMBs – for a variety of reasons. First off is the sheer size, with some 5.5 million U.S. businesses having 100 employees or less. Second, this is an underserved market, as the incumbent service providers have catered to their more lucrative enterprise customer base.

With VoIP technology maturing, not only have viable solutions been developed for every segment of the business market, but there is now also a range of solutions to address almost any situation. Fundamentally, there are two types of telephony solutions for businesses – premises-based and network-based. A premises-based solution is typically a PBX or Key System, where the telephony system is owned and operated by the business. This is especially common in large businesses that prefer to own their equipment and have the necessary IT resources to support it. Network-based solutions are more common in smaller businesses that cannot afford the capital cost of acquiring a PBX, and lack the infrastructure to manage their network. Centrex is the traditional offering in this group.

Today, businesses can choose IP-based versions of both solutions, with the most common scenarios being as follows:

- Complete premises-based VoIP – for businesses replacing all their legacy systems, or greenfield deployments, where there are no existing systems in place
- Hybrid premises-based VoIP – for businesses that want to adopt basic VoIP features but still keep using their legacy systems
- Hosted network-based VoIP – for businesses that do not want a costly PBX, but do want VoIP features, and are able to manage their network operations
- Managed network-based VoIP – as above, but lack the ability to manage their network, so all facets of the telephony solution are outsourced

In addition, there are several competing technologies that can now deliver VoIP to businesses:

- Managed VoIP – this is the service businesses would get from their incumbent carrier or any other service provider who operates their own network. The benefit is that these operators can ensure quality of service and can seamlessly provide broadband connectivity for both voice and data.
- Broadband VoIP – these operators do not have networks of their own, so quality of service cannot be controlled and they typically only offer voice service. These offerings are best suited for SOHO or smaller, and for those who are highly cost conscious.
- Peer-to-Peer – this technology has become very popular, mainly from the success of Skype among consumers. Business solutions based on P2P are coming to market now, and for some this will be very attractive, but more as a complement to other solutions rather than a direct replacement.
- Open Source – this was another important trend from 2006, and is finding a large following now for business VoIP. Adoption has been confined mainly to tech-savvy users, but the cost advantages are very attractive. Open Source will continue to build momentum for business VoIP in 2007.

## TREND #3 – READY TO SUPPORT LARGER SCALE DEPLOYMENTS

The premise is straightforward, but there are several developments behind this that make it a reality. As mentioned earlier, initial VoIP adoption was led by large businesses, but most deployments were on a small scale. These would typically be just a few hundred lines, perhaps in a branch office or a new office site. As these deployments prove themselves, businesses feel more confident to expand to other locations, or in some cases commit to a wholesale changeover. This will have a ripple effect in that as more businesses deploy on a larger scale, VoIP gains validation among large businesses that have been evaluating it, but not yet adopted.

Quality and reliability have been the main holdbacks for VoIP, as the stigma around this from early days remains. VoIP has come a long way since 1995, and there is little doubt that in 2007, it is business-grade. It is not well understood that when properly optimized, VoIP voice quality is actually better than conventional TDM. Most deployments cannot achieve this yet, but when networks become IP end-to-end, that will be the case. Concerns about reliability are rooted in the early days of VoIP where most

calls were routed over the public internet and completed on a “best efforts” basis. This is still true today, but most business-grade VoIP offerings run over managed networks where the quality and reliability can be controlled. Furthermore, while VoIP service will cut out in the event of a network outage, many solutions today provide PSTN failover capabilities to offset this. Hosted services are especially beneficial this way, as the network is managed from a data center, which is designed for 100 percent uptime, and has fully redundant operating systems.

Two other concerns need to be briefly addressed, both of which will also lead businesses to deploy VoIP more extensively in 2007. First is scalability, as businesses have not been confident that VoIP will perform as well as TDM across their entire network. The standards and protocols have taken time to evolve, but VoIP is now at a point where it has proven its scalability. A number of large-scale enterprise rollouts have been deployed and serve as proof points that VoIP is a worthy successor to TDM.

Security is the second concern to raise – and this is a more recent development. Voice behaves differently from data in IP networks, and existing security solutions – usually router-based – are inadequate for VoIP. The real-time nature of voice presents a different set of challenges, but several solutions have come to the market now. Security must not be a holdback for scaling up VoIP deployments.

#### **TREND #4 – SERVICE AND SUPPORT CHANNELS MAKING VOIP EASIER**

A critical but often overlooked component in the VoIP ecosystem is the channel. VoIP solutions for business are rarely deployed without the involvement of a VAR – Value Added Reseller – or an SI – Systems Integrator. They play a key role in assessing the readiness of the enterprise network, evaluating and recommending the various solutions, implementation, training, maintenance, and providing technical support. Until recently, this expertise was in short supply, as most channel partners were steeped in TDM voice systems and had built successful businesses around this.

As the industry migrates from TDM to IP, channel partners can ill afford to hold onto the status quo. Many vendors have recently invested significantly in their channels and developed training and certification programs so VARs and SIs can effectively sell, implement, and support their IP solutions. As such, it is much easier today for businesses of all sizes to find the right channel partners for deploying VoIP.

#### **TREND #5 – VOIP IS A STEPPING STONE FOR DOING NEW THINGS & IMPROVED PRODUCTIVITY**

Finally, and perhaps the best of all, VoIP is not an end unto itself for lowering telecom costs. In 2007, VoIP is really an enabler and a first step towards bringing the full promise of multimedia IP communications to businesses. When voice becomes another application in a data network, the benefits of SIP – Session Initiation Protocol - become apparent. This protocol is in many ways the secret sauce of IP, and is now the de facto standard for all new IP-based applications. As such, we are now seeing exciting innovations, many of which integrate voice into a multimedia communications environment. Examples include presence-based applications, reservationless audio or web conferencing, and online real-time collaboration.

In short, these applications allow employees to do new things, be more productive, and feel more empowered by new technology. The New Year will also see the advent of FMC – Fixed Mobile Convergence – applications for businesses. With mobility being so important today, FMC will deliver new value – especially in the area of extending the PBX experience beyond the desktop – and out to mobile devices. Taken together, these capabilities will make businesses more competitive, and we are only at the beginning of what is possible.

Each of these trends warrants further discussion, and there are certainly others that will also contribute to VoIP's growth this year. Collectively, they convey the message that VoIP has matured considerably, and businesses need to evaluate its merits based on current realities and how it addresses today's challenges.



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