

## Pure IP Versus Hybrid Solutions

Blue Ocean Technologies recommends a pure IP system to our clients for the following reasons:

- Pure IP is a better economic value, easier to deploy and manage, and can be integrated into IT applications and processes
- Proprietary phone systems will not have the capabilities to integrate with IT-based voice applications and will not support future telephony architecture
- Pure IP systems can directly integrate with necessary back-office business applications and databases
- Proprietary phones typically do not support security policies, especially in regard to mobile and remote users
- Pure IP systems provide standards-based architectural design which leads to longer field life and symmetry with market direction

Attached is an article that explores the benefits of a pure IP system in greater detail. We believe that after careful examination of the greater flexibility, additional opportunities for system upgrades, and comprehensive security policies, you will agree that a pure IP system is the direction of future telecommunications.

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# The Next VoIP System: Pure IP or Hybrid?

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Enterprise voice over Internet protocol (VoIP) solutions come in two distinct flavors: the hybrid or converged IP-PBX products — capable of supporting both TDM and IP communications — and the next generation of pure IP solutions, often referred to as softswitches.

Pure IP solutions have all the advantages in a "greenfield" (i.e., starting from scratch) environment, including better economic value, ease of deployment, greater manageability and standards-based architectural designs that enable integration into IT applications and processes. However, in the real world, each organization must weigh more than mere technological advantages in making a "pure IP" versus "hybrid" buying decision.

Ultimately, the hybrid IP-PBX approach will be as passé as the plain old telephone systems (POTS) that have largely been relegated to the scrap heap. Likewise, IP-PBXs will eventually be no match for the new generation of highly integrated, IT-based voice applications.

Pure IP solutions, as they mature, will overtake legacy solutions for their abilities to directly integrate with essential business process applications such as corporate directories, CRM, ERP, and other critical back-office applications.

“By 2009, enterprise telephony planners will have shifted away from the IP-PBX to a distributed open-voice application model,” according to Gartner Inc. in an April 2005 publication, *The IP-PBX is a Potential Architectural ‘Dead End.’*

Many IP-PBX products use a centralized and proprietary IP architecture to directly replicate the digital PBX model prevalent in the 1990s,” Gartner's report observes. “This approach fails to leverage emerging Internet telephony standards and will not support a distributed and open telephony architecture.”

But for now, IP-PBXs continue to live on and, in fact, to thrive. This is due in large part to basic business economics. Most enterprises find that it makes financial sense to preserve investments in existing TDM equipment. The hybrid approach lets them do just that.

For each business, the decision to go hybrid versus pure IP depends on several factors, including the architecture of the existing voice infrastructure, the readiness of the IP network to support VoIP traffic, the IT department's ability to take on such a large project and, finally, how voice communications relates to overall strategic business goals.

Whatever the deployment choice — pure or hybrid — all enterprise communications decision-makers should understand the overall advantages and disadvantages of the two main types of platforms.

Here are seven tips that provide some basic guidance for the enterprise decision-maker:

**Tip 1: Know the Limitations of the Current Network Assets**

Anyone who has run a small VoIP pilot knows that it is essential to understand the network's readiness, including the switching and routing infrastructure, to support VoIP traffic. Decision-makers should also carefully review:

- Security policies and procedures, especially if mobile and remote users must be supported by the new system.
- Upcoming IT projects that may add traffic or otherwise impact network performance.
- VPN services and service level agreements (SLAs).
- Wireless Ethernet infrastructures if plans are to use WiFi phones or voice-enabled PDAs.

There are many industry tools available, as well as a myriad of professional service offerings, that are designed to help decision-makers assess network readiness.

**Tip 2: Hybrid Solutions are Essential for Some Businesses**

Businesses that plan to retain a significant percentage of analog or digital phones may have no other choice but to deploy a hybrid solution. Such companies may find it is simply not feasible, in the short term, to make the move to IP endpoints. For such companies, the best solution is to move to a hybrid approach. This will allow the organization to reap some of the benefits of VoIP while continuing to depreciate the value of current telephony assets.

**Tip 3: Branch Offices are Important Pure IP Test Labs**

VoIP deployments don't have to begin at corporate headquarters, even when the ultimate goal is to move the entire enterprise to a pure IP system. Unlike large IT projects such as ERP systems, CRM applications, and corporate databases, VoIP can start small. VoIP can be easily deployed at the edges of the enterprise and gradually expanded to replace legacy network environments.

However, decision-makers need to make sure that, in deploying VoIP at branch locations, long-term goals are clearly understood. If the eventual long-term goal is a single, enterprise-wide VoIP system, architectures must be selected that can scale to cover the entire organization.

**Tip 4: When Starting from Scratch, Choose All IP**

Organizations that are starting with a greenfield environment have no reason to invest in a hybrid architecture. The pure IP solutions available in the marketplace today are mature enough to provide reliable, feature-rich voice services. In addition, pure IP solutions have the added benefits of standards support, relative ease of deployment and administration and these solutions can be tightly integrated with IT applications and processes.

**Tip 5: IT Must be Ready and Willing**

Before tackling any VoIP project, decision-makers must ensure that the organization's IT staff is

ready to plan, deploy, and manage the system—whether it's a hybrid or a pure IP solution. Telecom and IT staffs should be merged into a single department before any VoIP migration plans are drawn.

While much emphasis is placed on bringing a telecom staff up to speed on IP switching and routing, it is equally important for the IT staff to understand telecom technologies. For example, troubleshooting a trunking problem still requires familiarity with old-fashioned circuit-based telephony technologies. Also, providing end-user support means speaking in familiar telephony terms. This is especially significant if the project includes migration to a new voice messaging or unified messaging platform.

Also, decision-makers should ensure the organization is making adjustments to its internal support processes and help desk functions. Two hours of e-mail down time may seem reasonable to most end users, but they will probably demand much faster response times for a telephone outage.

#### **Tip 6: Enterprises Can Get Help**

Critical IT projects are never-ending, causing many businesses to put VoIP projects on the back burner even when such solutions could mean strategic advantages. IT bandwidth, it seems, is always stretched thin. Decision-makers should investigate VoIP deployments via a managed service or, at least, consider outsourcing some or all voice services and applications.

Past choices for voice services were limited to purchasing or leasing a PBX or buying a Centrex solution from a telephone company. With IP-based systems, there are multiple options available that can help an enterprise limit capital expenses. All major carriers are offering some form of IP Centrex. In addition, cable operators, ASPs, systems integrators, and others are offering VoIP as managed services.

#### **Tip 7: Create a Map to a Long-Term Strategy** IP-PBX architectural limitations will increasingly put organizations at a competitive disadvantage during the next decade.

Disadvantages will become increasingly clearer as unified communications applications and standards, such as Session Initiation Protocol (SIP), grow more robust and provide tighter integration between business processes, desktop applications, and collaboration tools such as conferencing and presence.

The economic benefits of centralized voice services and the strategic benefits of managing voice as an IT application will ultimately put the enterprise with IP-PBXs or hybrid systems at a distinct cost and competitive disadvantage. This does not mean that enterprises must move to a pure IP solution immediately. However, it does mean that any new technology investment must ultimately move the organization a step closer to the ultimate goal: an enterprise thriving on the next generation of pure VoIP systems.