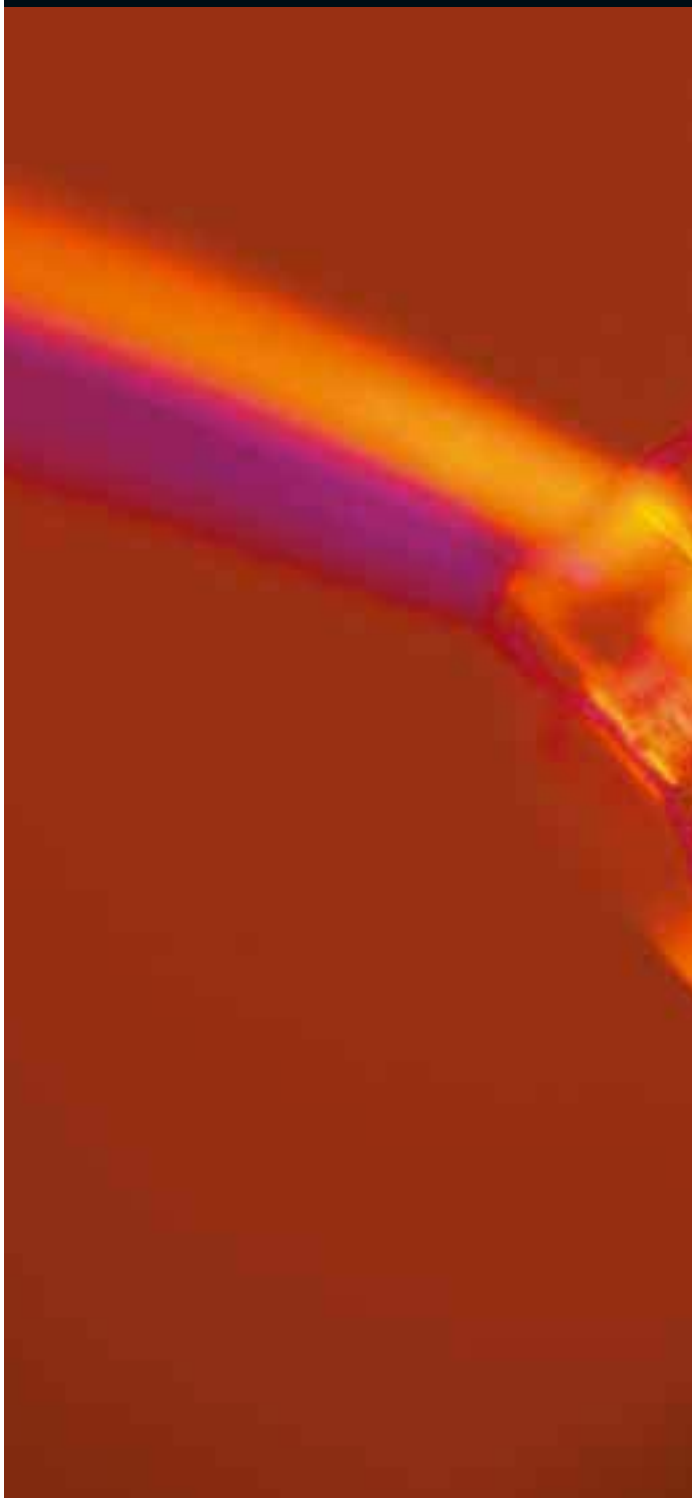
GETTING INTO VoIP: Build, Buy—or Rent?

By Rob Falkner, Lucent Technologies



Over the last five years, the value of Voice over Internet Protocol (VoIP) to the enterprise has dramatically changed. Initially, corporate interest in the technology was driven by VoIP's potential for reducing toll charges. Today, VoIP's value proposition is based on the use of IP PBXs to reduce overall operating expenses and provide new services. This shift to a much broader perspective has opened up opportunities for service providers to help their enterprise customers reduce costs and expand services. Now those providers must decide among several options they can use to offer VoIP services to their business customers.

A few years back, the value of VoIP to enterprises was in reducing toll charges for on-net calls, or as a toll bypass tool with local gateways for terminating off-net calls. When calls were 10 cents per minute, an alternative that could reduce this to almost nothing spurred early adopters to deploy IP trunks, or even IP PBXs, in their corporate networks. But in today's competitive operating environment of two to three cents (or less) per minute for toll calls over circuit-switched facilities, this value proposition no longer applies.

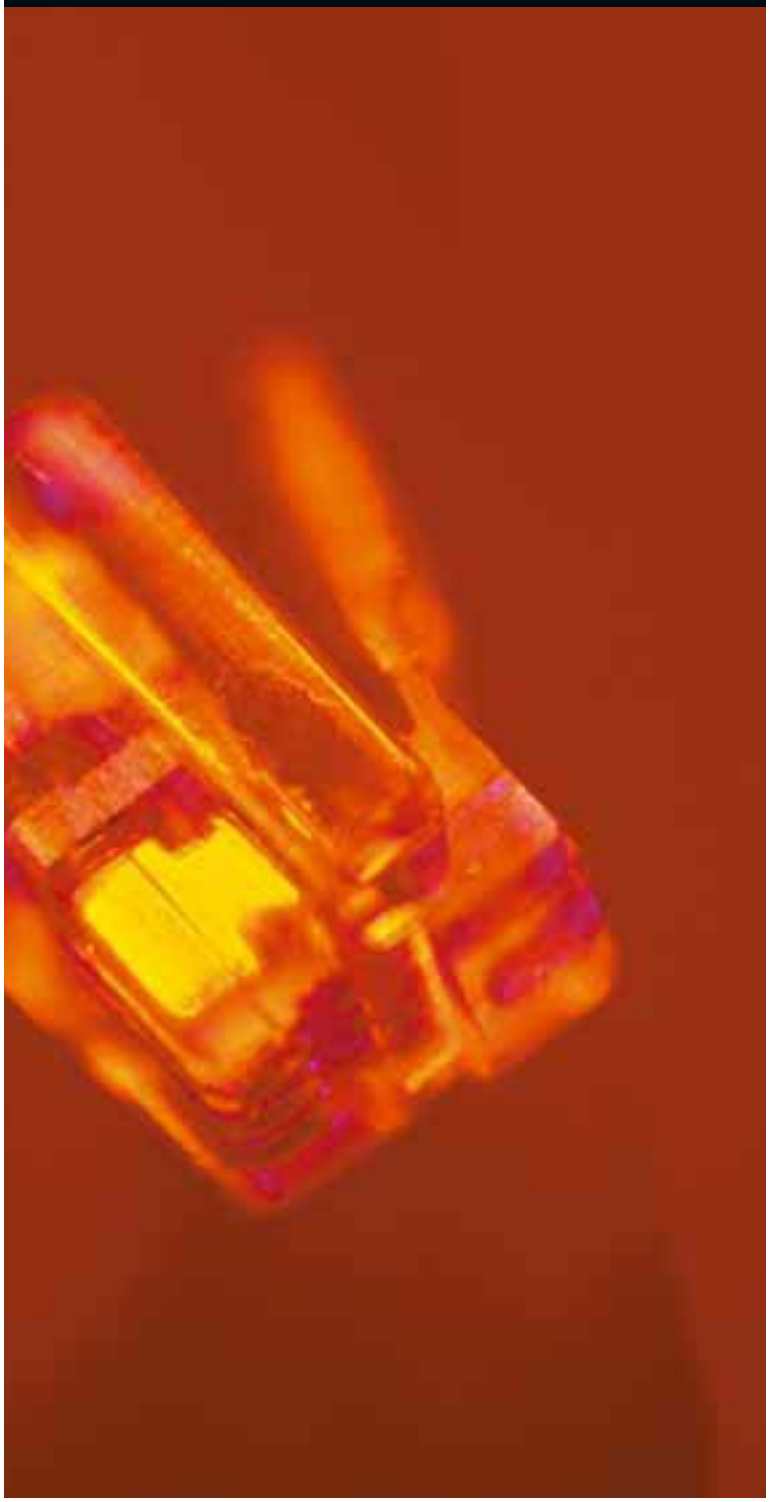
Today, corporate IT departments are attracted to VoIP for more than just the opportunity to make cheap calls. The newest generation of IP PBXs is software-based and run on a number of computing platforms and open architectures that can be operated and managed within existing data center processes. By shifting to IP PBX platforms from circuit-switched PBXs, a company can cut its operating costs by about 30%.

With savings like those available to their enterprise customers, it's no wonder that the number of VoIP access lines is forecast to rise sharply. (See chart.) At the same time, service providers realize they must support enterprise VoIP adoption or risk losing that business. Yet service providers also are expected to continue to offer traditional service bureau functions, such as local number portability, site provisioning, and 911/E911 services. And they have to be far faster to market with these new offerings.

Competition is coming, not just from traditional telephony service providers but from numerous new entrants from the traditional IP data center market. Cable companies are also expanding their VoIP offerings into the business segment. And the same companies that are providing consumers with VoIP services independent of the carriers are branching into business-class VoIP services with feature-rich PBX capabilities, siphoning PBX/IP PBX service revenues from the underlying carriers.

To meet this increased competition, service providers have several options, each of which has its merits and drawbacks. Here are several for you to consider:

A vendor makes the argument for telcos to consider hosted enterprise VoIP services



The Dumb Pipe

Under this scenario, the service provider delivers IP transport and circuit-switched access and termination services to enterprises that purchase, deploy and manage their own IP PBXs. The service provider is being used only for transport—the traditional "dumb pipe" model. It's simple to implement, but customer retention is risky and there is scant capability to add value.

Managed IP PBX Services

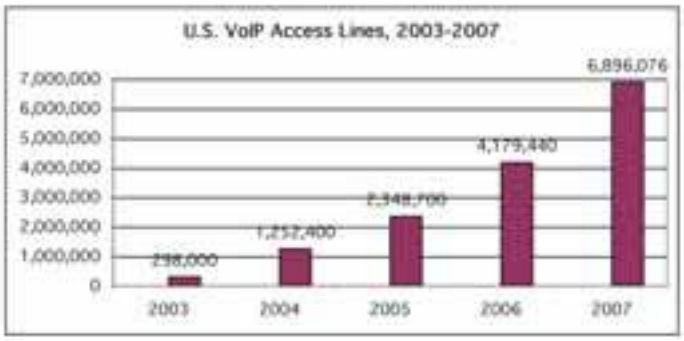
This model provides the enterprise with a managed IP PBX service in which the IP PBX is owned, operated and maintained by the service provider on the customer premises.

This approach results in lower capital expenditures and staff operating expenses by the enterprise customer, and increased value-added service revenue for the carrier. However, the managed service model also means the service provider has to carry the customer's capital equipment and operating expense. Also, this model may not scale across multiple customers, or even a single customer's multiple locations, due to the dedicated IP PBX equipment needed for each set of locations. That can put a drain on the carrier's margins.

IP Centrex

The use of IP Centrex or IP-enabled Centrex, another VoIP option, provides a type of hosted VoIP capabilities through local exchange carrier Class 5 switches.

IP Centrex addresses some of the enterprise customer's telephony management operating costs, such as self-management of moves, adds and changes. But IP Centrex installations don't match the features and operations of a pure-play IP PBX. When a carrier adds IP Centrex capabilities to its Class 5 switches, the carrier assumes the associated capital and operational expense, and must also integrate the platform into its existing infrastructure.



Source: New Paradigm Resources Group, Inc.as published in USTA's Phone Facts 2005

Hosted IP PBX

Here the service provider turns to a hosted IP PBX partner to provide VoIP features and services to the service provider's enterprise customers. The hosting partner owns, manages and hosts the IP PBX platform in its facility and connects with the service provider network. This approach allows the service provider to focus on its core competency of network connectivity and service bureau capabilities, while also retaining control of the enterprise customer relationship.

Hosted IP PBX services that are external to the carrier network significantly reduce the service provider's financial, technical and operational risks. They also improve the service provider's time-to-market and ability to rapidly generate revenues.

Here are some advantages to the hosted approach to consider as you make your decision:

Financial and technical risk mitigation. Because the hosting partner owns the IP PBX and carries most of the capital, the service provider mitigates the financial exposure of adding a new service and platform to its product portfolio. Technical risks are reduced because the hosting partner assumes the deployment, management, and maintenance of the platform, lessening the service provider's exposure to platform service level agreements. This approach also frees up capital that the service provider can use for other long-term capital deployment initiatives such as MPLS implementations.

Time-to-market. Some integration testing is required between business partners, but reductions in time-to-market can be as much as 12 months, depending on when the service provider engages its hosting partner.

Capital expense. Estimates for some hosted IP PBX configurations that support 100,000 subscribers run as high as $8 million to $12 million. Under a hosted arrangement, the expense of IP PBX platform hardware, software licenses and network elements is reduced because most of the equipment is owned and held by the outsourcing partner. Some capital costs, such as networking elements needed to interconnect with the hosting partner, still must be incurred by the service provider, however.

Operating expenses. There are staffing, platform management and maintenance, and facilities costs all associated with running an IP PBX. A hosted operation carries its own costs but doesn't tie up personnel who might be better put to work on other critical areas of the business. Going the hosted route also can help reduce uncertainties in forecasting expenses.

Integration costs. Depending on what the hosting partner provides as part of their service offering, integration costs can be substantially reduced. For example, if the hosting partner offers a billing capability that covers rating, mediation and presentment, this can reduce a major gating process for service activation; the service provider does not have to integrate the hosted IP PBX platform directly into its billing infrastructure. Integration costs for similar functions, such as service provisioning, customer care and reporting, can also be reduced by deploying hosting partner services.

Scalability. The hosting partner is responsible for providing the capacity to manage the contracted number of subscribers, including assuming all risks and providing the necessary processes. If you want to quickly add customers to the platform, this could help. In addition, the hosting partner provides a centralized or regional platform that allows the carrier to use the same IP PBX infrastructure to serve customers with multiple locations.

There are various models for hosting costs, but traditionally they are based on a monthly per-subscriber flat charge. These monthly subscriber charges usually are tiered on subscriber volume and term length of contracts. This provides a predictable set of operating costs that the service provider can build into its business models.

Given today's competitive and operating environments, we believe the benefits of the hosted model provide compelling reasons for service providers to work with a hosting partner to deploy enterprise IP PBX services. Lower operating expenses, shorter time-to-market and enhanced customer retention are just a few of the compelling reasons why service providers should explore this new operational model when offering VoIP services to their business customers.

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