



# Hosted and managed VoIP fundamentals

Adoption rates of hosted VoIP and managed VoIP are increasing as more companies look to reduce the costs and complexities of deploying VoIP in house. Small businesses to large enterprises are factoring revenue growth, enhanced productivity and communication services into ROI and TCO calculations to make a business case for hosted or managed VoIP. This guide explains the differences between hosted and managed VoIP solutions and will help you decide if outsourcing VoIP is right for your organization.

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## Hosted VoIP eliminates cost, complexity

An increasing number of businesses are adopting hosted voice services in an effort to avoid the cost and complexity of premise-based solutions, according to a recent study by Frost & Sullivan.

Businesses are also reaping the benefits of supplemental capabilities -- including unified communications, simple-to-use conferencing, and find me/follow me. The study estimates these hosted services reaching \$14.6 Billion in 2012.

"Small businesses that account for the majority of the end users are likely to continue driving hosted IP telephony deployments," Frost & Sullivan senior analyst Lynda Starr said. "Medium and large businesses' interests in hosted IP telephony and VoIP access service are also likely to increase.

Decreasing hardware prices, improved voice quality resulting from advances in codecs, and tight service level agreements (SLAs) have fueled the drive toward hosted services. Hosted services allow businesses with limited budgets and staff to balance the cost of a more efficient communication system with a level of available productivity. They also offer customers the immediate benefit of upgrades that otherwise would not be considered a practical expense for another 10 years.

The Frost & Sullivan study also found that most companies with a premise-based system already in place are seriously considering a hybrid solution as they migrate to hosted IP telephony, allowing them to continue using existing systems for a number of years.

"As these two systems can coexist," Starr said, "service providers are likely to offer end-user enterprises a hybrid solution of both premise-based and hosted solutions, enabling customers to phase in a hosted solution with a trunking service and existing legacy equipment."

Enticing businesses to switch to partial or complete hosted service will be VoIP service providers' biggest challenge. Hurdles include offering customers a unique set of features that are not available over circuit-switched offerings and a pricing model that offers adequate return on investment to the customer.

Starr concluded that end users of VoIP found the rapid growth potential for the hosted services reassuring when beginning a migration from outdated Y2K-era systems. She added that small and midsized businesses in particular stood to gain a more professional phone appearance.



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## Managed and hosted VoIP: muddling through

Managed and Centrex and hosted, oh my! For companies looking for an alternative to a premise-based phone system, there are plenty available, and they come in all shapes and sizes. Hosted voice, IP Centrex, managed IP PBXs and network-based voice service are all viable alternatives to the do-it-yourself model. But these terms are often used interchangeably -- incorrectly in most cases -- causing confusion among the buying community as to which product to use in what situation. A clearer understanding of exactly what's available will help you at least ask the proper questions to distinguish between the services.

### The products

When considering an outsourced service, there are four basic product categories. Hosted IP PBX, managed IP PBXs, network-based services and IP Centrex. The basic premise of all of these services is that a third party manages everything and provides a "service" to the organization -- but they do differ. The main benefit of an outsourced service is that much of the risk is transferred to the service provider, but the customer does lose absolute control of the solution.

### Managed IP PBX

This is where the traditional IP PBX is on premise. The business could choose to manage the products itself but chooses to outsource the management to a third party. It's important to note that not all managed services are created equal. They range from simple moves, adds and changes up to fully outsourced management of the entire lifecycle of VoIP.

### Hosted IP PBX

A hosted IP PBX is no different from any other hosted application, such as email. Instead of the IP PBX being located on the customer premise, it is located in the vendor's hosting center. The IP PBX is exactly the same one that would be purchased and placed on premise so it interoperates with the premise-based equipment. Some companies "host" the IP PBX themselves by placing the IP PBX in their own data center, and then every branch office picks up the call control from there. A few companies I've talked to have put the primary IP PBX in their own data center and the backup in a third-party hosting center. The systems integrators and VARs are the primary deliverers of hosted IP PBXs.

### IP Centrex

The term "IP Centrex" is an overused tag used to describe anything where the call control is located in the network instead of the branch. There are many carrier services that carry the Centrex name, but most of them are actually much more than an IP version of a traditional Centrex service. A true IP Centrex service has an IP gateway placed in front of a traditional Class 5 switch, with the service delivered over IP, but the basic service is still a traditional Centrex service. The growth potential of this type of service is limited because many of the advanced unified communications features cannot be delivered this way. Also, in the U.S., Centrex services haven't been overly popular; IP enabling it makes it a little easier to deliver, but the stigma of Centrex still applies to it. As far as I know, there are no major carriers that offer an IP-enabled Centrex service. A few rural ILECs do, but the growth in cloud-based voice services is in a true network-based service, highlighted below.

### Network-based voice

A network-based service is similar to a hosted IP PBX but with a couple of differences. First, the infrastructure -- known as a softswitch -- which provides the call control, is located in the telco network, not a hosting center. The softswitch is designed to be a multi-tenant product, meaning that it can house the calling capabilities of multiple customers, whereas a hosted IP PBX is deployed on a per-customer basis. The softswitch has been positioned as the IP equivalent of an old Class 5 switch, but a softswitch is more of an application server that's capable of serving up applications other than just voice. Any service built from a softswitch is capable of delivering many of the unified communications applications as well. One mistake many carriers have made is branding their softswitch-based services as "IP Centrex" services. Organizations considering a cloud-based service should do the due diligence to understand exactly how the service is delivered and the long-term roadmap of the service.

Most premise-based IP PBXs also adhere to standards, but they add on extra features through proprietary extensions to the standard. In many cases, the standards-based features available should be sufficient for many organizations, but companies considering this type of service should keep this in mind. As time marches on and the standards mature, the gap between proprietary features and standards-based features will close.

The main theme behind a hosted, IP Centrex, and network-based voice service is that the call control is somewhere "in the cloud," and all that's needed on the customer premise are IP phones and a router for the data services. Telecommuter phones and PC-based softphones can also interoperate with these services.

Even though the industry has done a great job creating confusion among all the available VoIP services, I do think they're a good alternative to organizations that want to offload much of the up-front expense of buying the equipment and the ongoing operational costs associated with managing the equipment. If you're considering a service, though, keep a few things in mind.

### Understand the architecture behind the service

Many of the services have been branded with names that don't accurately describe them. For example, a name like "Hosted IP Centrex" service doesn't really describe whether it's a true hosted service, Centrex service or network-based service.

Even if you're a predominantly do-it-yourself IT organization, **consider a hybrid environment** where the hosted services are used for some of the smaller branches and telecommuters. This will probably scale much more easily for you as you move more locations over to VoIP.

## Resources from 8x8, Inc.



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