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# Buyers guide to hosted PBX and on-premise IP-PBX

## **Pros & Cons of a Hosted PBX Phone System**

Despite all the advances in telecommunications technology, the telephone still remains the backbone of all business communications. It is quick, easy to use and, as far as the user is concerned, requires no complicated equipment. However, while the function of the phone remains unchanged, the equipment that provides the service and the technologies available have combined to offer a business user services, facilities and cost options that were not available earlier. The phone is still used to carry voice, but what else it can do, the way it is carried and how calls are distributed has changed greatly. Most notably, value added features that companies enjoyed by bringing a PBX on site are now available to companies on a hosted model that does not require on premise hardware. The result has been a big win for smaller companies that would not normally be able to afford an on premise PBX, or may have opted for a minimally configured PBX with few features. The hosted model gives smaller companies access to the full range of PBX features and functions, without the capital expense and administrative overhead.

### **VoIP**

Voice over Internet Protocol (VoIP) replaces the traditional phone lines and services of a telephone company (PSTN or Public Switched Telephone Network) with phone calls carried over the internet. With VoIP, sounds are digitized and sent over the internet and, at the receiving end, converted back into normal voice. Today, phone companies use VoIP to carry some part of their traffic, but a business that switches over to a totally VoIP based system can use their data connectivity for making phone calls and no longer be dependent on phone companies and can achieve significant savings because of the range of service plans that VoIP service providers offer. The widespread adoption of VoIP is meaningful to the PBX discussion, since a VoIP PBX system (either hosted or on premise) offers value added features that are not available with traditional phone services.

### **Using phones in businesses**

A small home office with one or two people working in a room can manage with a single phone line and instrument. Anything larger than this and more phones are needed, without which some incoming calls may be lost due to lines being busy and outgoing ones delayed or neglected because others are using the phone. Ideally, everyone in an office should have their own phone with both intercom and out dialing facilities and on which incoming calls are routed directly to the person being called. The function of the PBX in business is to maximize the available lines, so that everyone has

access, but the company can save money by provisioning the least number of lines possible. In an ordinary company with for example, 25 employees with 25 telephone extensions, there are probably not 25 separate phone lines. Rather, the PBX accommodates a fixed number of lines based on an anticipated maximum volume and then routes them to each extension. Because of the routing function, the PBX is often a much less costly option. Here's an easy example: Suppose each of those 25 employees has a phone extension. But the maximum number of simultaneous calls being made at any given time is only ten. Through its basic routing function, a PBX would then be able to route calls to all 25 people as needed, using only ten lines.

The PBX can be a piece of on premise equipment, or it can operate from a hosted and managed service. The hosted model, often built on IP-based technology, eliminates the need for hands-on management, capital expenditure, training and other costs normally associated with on premise equipment. At the same time, it allows smaller companies the ability to enjoy higher-end services that they wouldn't be able to afford with an on premise model.

### **What A PBX Can Offer**

A Private Branch eXchange (PBX) phone system opens the doors to a new level of communications. A PBX offers a host of valuable features that can enhance the communications efficiency of any business, large or small. Among the most common are:

- There is no problem for users to adapt to the new system – initiating and receiving calls is done in the same manner as with legacy phone services.
- The VoIP PBX is fully integrated with the PSTN through a Session Initiated Protocol (SIP) Trunking so universal connectivity is assured.
- Teleconferencing is one of the most used of the features a PBX offers. When people can discuss issues in real time without having to waste time travelling to a common location, the speed at which problems are resolved and actions initiated is greatly increased. The reduction in travel costs is a major benefit. Teleconferencing is especially valuable for companies with a widely scattered workforce and those with a large amount of interaction with external stakeholders.
- Another major advantage is that the cost of VoIP calls from the PBX are not affected by distance. The location of the called party does not affect call charges.
- Video calling enables people to see whom they are talking to and this provides for a more personal communications experience and more effective interaction.

- Text messages, videos and screenshots can be transmitted while a call is in progress. Being able to use one channel for all communications ensures that information is received without delay, decisions taken on the spot and required action can be initiated quickly.
- Often a person is not available to receive an important call. With a PBX a sequential ringing application may be used so that if a phone is not answered within a specific number of rings, the call goes to the designated next in line, where the same process can be repeated. This ensures that no calls are missed or neglected. The sequential ringing can be set to call home and cell phones, if needed.
- Alternatively, an incoming call can be set to ring at every workstation of a workgroup so that anyone can answer.
- A business may operate from one location but have operations country wide. With a VoIP PBX different lines can be given different area codes so that callers from those areas do not have to pay for long distance calls. This also creates an impression of the company being easily available to customers at multiple locations.
- Those who are on the road a great deal have the option of installing Softphone software on their laptops. With the almost universal availability of wireless broadband, real time connectivity at low costs is possible from almost anywhere.
- The PBX also facilitates telecommuting as those working from home may be in constant communication with a central office without incurring large telephone bills.
- The PBX may be configured to send calls transfer outside office hours to voice mail or designated home or cell phones. This ensures that no calls are missed.
- Fax messages may be sent without a fax machine.
- There are many other features available and if a specialized application is required, it is often possible to program this into the PBX.

In summary, with a PBX a user can expect:

- Optimized use of communications resources
- Business friendly features and facilities
- Personalized phone access to all those who need it
- Reduced communications costs

When making a decision to go with a PBX system, a user should do a detailed study of its telephony and data transmission needs and examine the costs and benefits of integrating them into a single communications channel. The long term advantages in terms of simplicity, ease of use, reliability and cost savings are significant. While adding

data communications to PBX based telephony can be done after the system has been set up, implementing an integrated voice and data communications system in the beginning is simpler and often more cost effective. There are no hard and fast rules on this and the decision will depend on user needs, budget and business imperatives.

Depending on its requirements, a company can choose between two PBX options – using a hosted PBX or an onsite PBX.

### **The Hosted PBX**

The hosted PBX option removes all the hardware – cables, routers, servers etc. – from the user's premises. Everything is located at the service provider's (host's) premises and all traffic is transmitted over the internet. All services are provided by the host and the user is relieved of all responsibilities in this regard. Among the many advantages of a hosted PBX are:

- There is no need to invest in the purchase of equipment and no need to allocate costly office space to house it. For a small business with limited resources and no surplus office area, this is a huge advantage. Additionally, there is no costly equipment to insure and no high premiums to be paid.
- Since a hosted VoIP PBX is easily integrated with traditional telephone instruments and cabling, little investment is required for carrying out modifications at the customer's premises.
- All maintenance and repairs are done by the host so the user does not need to train and pay for people to look after the system. The training and salaries can be directed to more profitable avenues.
- As system maintenance and repairs are covered by the service agreement with the host, the user does not need to stock spares or budget for repair costs. The monthly or annual fee paid to the host covers everything and the user has nothing more to pay.
- For the host, providing high standards of service is crucial to business growth and expert technical support will be available 24x7 to correct any problems that may arise so that continuous connectivity is assured. A business that works round the clock or one that is working overtime to meet urgent commercial demands will find this invaluable. Additionally, it is in the host's interest to continually monitor system performance to ensure maximum operational efficiency and be able to preempt any problems that may be seen to be likely to occur.
- A good host and PBX will be able to offer customers 99.999% uptime and system reliability.

- Various service plans are available so that a user can select the one that best suits business requirements.
- Having a fixed monthly telephony expense allows for efficient budgeting.
- Upgrades to the system will be done by the host and since quality of service is the prime differentiator in this highly competitive business, no host can afford to allow either hardware or software to become out of date. With its expertise in system operation, the host will be able to ensure that installing upgrades and patches is done smoothly with no disruption to the customer communications. And if some system downtime is required to install upgrades, the host, with a 24x7 operation can do it during the lowest traffic period to minimize any connectivity problems.
- Power outages due to either breakdowns or maintenance will not affect the functioning of the hosted PBX as the host will have power backup arrangements in place to ensure continuity of service.
- VoIP PBX offers a wide range of value added features not available with traditional telephone. But some businesses may not need all these facilities. A customer need only pay for the features they use. Other features and services can be added at any time as and when required.
- If a business is in need of a customized service or feature, the host is equipped to find a solution, if one is possible.
- A customer need only pay for the capacity they use and this can be increased or decreased at very short notice. This is a major benefit for businesses which experience seasonal changes in volumes and can further reduce the already low cost of using a hosted PBX.

There are however, some inherent disadvantages of a hosted PBX. Firstly, all communication is done over the internet and any disruption in service by the Internet Service Provider (ISP) will result in telephone communications being lost. Secondly, a hosted PBX will use up a part of the bandwidth available which may affect other data transmission and communications. And thirdly, the quality of service available is dependent on the PBX host and a host that provides substandard service will affect the quality of phone communications. While these are issues that must be taken into account when deciding to opt for a hosted PBX solution, the advantages it offers outweigh the potential disadvantages.

While a hosted PBX offers users convenience, reliability, efficiency and economies, there are many situations where an onsite VoIP PBX may still be a better option.

## **The Onsite PBX**

An onsite PBX requires more involvement from the user in terms of both cost as well as manpower. In return for this, there are benefits to be had which will not be available with the hosted PBX solution.

- An onsite PBX can be interfaced with the PSTN. Internal and local calls may be routed away from the broadband connection to reduce the amount of bandwidth required for telephony. This can be a significant advantage in situations when bandwidth is limited, unreliable or when there are sudden large demands for it which VoIP may not make possible.
- At the time of equipment purchase the user can define the features that are required and have these configured into the system.
- Since an onsite PBX requires qualified support staff to be available, there will be no delays when there is a sudden and urgent need for new connections to be installed.
- If the internet connection is disrupted, phone calls may be diverted through the PSTN to ensure that connectivity is not affected.
- After the initial investment is made, there are no recurring costs in terms of fees to be paid to the PBX hosting company.
- User specific applications can be added to the system when required. Also, when new applications enter the market, a PBX hosting company may be reluctant to make the investment required to install it if there are not enough customers interested in it to justify the cost. With an onsite PBX, the user is free to do what business imperative demand.
- The investment in an onsite PBX can provide a way to write off taxable profits and add an asset to a company's balance sheet.
- System usage can be easily monitored and reports configured to suit specific requirements.
- Since the user has bought, installed and configured the equipment, the capabilities and limitations are well understood and usage can be optimized easily.

Onsite PBXs have been around for a long time, while hosted PBXs are a more recent development. While the hosted PBX option is rapidly becoming the more popular one, companies for whom the above criteria are important will probably find an onsite PBX the better choice.

## Which Is The Best Option?

Both hosted and on premise models have advantages. With the on premise model, the customer is left to provide maintenance and administration, updates, and configuration changes, or alternately, bear the expense of a management contract. A hosted option on the other hand, takes the switching system out of the customer's office, instead giving the customer a web-based interface. Through that interface, the customer can still maintain administrative control and do moves/adds/changes (MAC), but hardware administration is outsourced to the hosting company. As a result, the convenience factor weighs heavily towards the hosted option.

On the other hand, the on premise option does have the added value of extra reliability. When using a hosted option, your broadband connection is your only link to your hosting provider, and if your broadband goes down, your phone goes down as well. The on premise option will often provide you with a connection through a combination of circuits, so the likelihood of your phone service going down is diminished.

Whether to opt for a hosted or onsite PBX depends both on the size of the user and the type of business it does. Both options offer similar advantages in terms of features and value added services available. Both are valuable business tools which will facilitate growth. But choosing the wrong option can result in losing out on the benefits that the right one offers. The differences in architecture revolve mainly around a few key issues, including:

- Capital expenditure. The on premise option requires either an outright purchase or a lease of equipment, while the hosted option is available on a subscription, per-seat basis, making the hosted option less costly at the beginning—a big advantage for smaller companies with limited resources.
- Ability to grow. Having a physical PBX does limit your options, especially if you're starting with a smaller system, and adding capacity may mean purchasing additional equipment or a whole new system before the old one has fully depreciated. The hosted model allows for more scalability.
- Multiple locations. If you have multiple locations, the on premise option becomes even more costly and complicated, as each location needs a PBX and circuits need to be provisioned to connect them. In a hosted environment, the interconnection between branch offices is easily handled by the service provider.

A small business will, generally speaking, be better served with a hosted PBX solution. The savings by not having to invest in equipment, floor area, maintenance, repair and upgrades allows for these resources, financial and manpower, to be used in core business areas. This will be achieved without any reduction of the features, services

and facilities that a VoIP PBX offers. Additionally there is no need to devote management time and manpower for system maintenance.

Larger companies or those with staff capable of installing and maintaining an onsite PBX may find that having complete control over the system offers them significant advantages in terms of configuring it to meet specific user needs, being able scale usage without need for external support, the comfort of knowing that everything is in house and secure and modifying software and hardware to meet changing needs. In addition, in many cases the investment in an onsite PBX can offer tax benefits. And, of course, there is no need to pay any monthly or annual service charge to a PBX hosting company.

Whichever option is chosen, the user can be sure of enjoying levels of communication that will increase business efficiency and present people using the system, especially external callers, with the image of a progressive company that invests in state of the art communications. The guru of modern communications theory, Marshal McLuhan said that "The medium is the message"; meaning that how information is transmitted is as important as the message itself. With a PBX, either onsite or hosted, a business has an empowered communications tool at its disposal.