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IP Telephony Solutions White Paper

Choosing the right type of service for your business!

This document has been written to highlight some of the cost differences when deploying IP Telephony for businesses. In particular the differences between **Virtual IP PABX** and **Premises Located IP PABX** telephone service migrations.

This also compares the typical monthly services costs of PSTN and IP Telephony services.

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When comparing the full cost savings of IP Telephony, it is difficult to put a value on the real dollar savings.

A carrier grade Virtual IP PBX service versus premises located IP PABX service contains value added variables which are not always measurable.

When migrating to VoIP, businesses can choose to deploy a solution provided by a IP Telephony Service Provider where the capital costs will vary considerably. When choosing a Service Provider however, it is important to be aware that there can be many different configured options to choose from. Business Grade Providers will fall into one of the following two categories:

1. **Premises Located IP PABX**
2. **Virtual IP PABX (IP Centrex)**

Even though both options offer the benefits of lower call rates, the true ongoing savings of a Virtual IP PABX are more fully revealed when viewing all the following factors .

Hardware Costs

Premises Located VoIP equipment will require up front investment in hardware and onsite configuration and management of specialised IT support to ensure stable operations.

Factor in the costs associated with providing hardware and system redundancy, future hardware and system upgrades and the real costs associated with managing full Business Grade VoIP, start to become clear.

Choosing a Virtual service means that the Service Provider is responsible for the complex system, softswitch management and new generation features required to offer a Business Grade service. Virtual Office Service Providers carry the responsibility and costs of maintaining and future proofing the service, including system redundancy necessary for stable operations.

Implementation Costs

When you compare the implementation costs of premises located IP PABX systems and a Virtual IP PABX service, the gap really starts to widen.

Premises based hardware requires more costs in real terms where specialised skills are required onsite. When subscribing to a Virtual IP PABX service, the service provider performs the complex system management required to manage their service level agreements.

In choosing a quality service provider, subscribers can rest assured that their service includes full system redundancy, thus eliminating the need for specialised and costly on site support or ongoing hardware maintenance agreements.

Virtual IP PABX features enable businesses to enjoy much higher productivity as employees can receive business calls whether they are working in the office, at home or on the road.

Business is evolving rapidly. Businesses choosing Virtual IP PABX services can relinquish the expense and commuting associated with running a central office by managing a more geographically flexible workforce.

Implementation Time Frames

With voice now running over the IP network, there is minimal capital expense for rolling out a Virtual IP PABX service. Apart from some extra cabling and new IP handsets, nearly all cases simply require a quality of service (QoS) enabled Router which can prioritise voice packets on the local area network (LAN).

Management of Virtual IP PABX is easily done online, via a web portal, offering customer selfcare features. This equates to huge cost savings with minimal capital outlay and faster installation times for new companies governed by tight budgets, and equally so for established businesses wishing to relocate or who have simply outgrown their current PABX equipment.

Generally implementation for premises located IP PABX is more specialised and such systems can take weeks rather than days and includes specialised hardware requiring complex configurations tailored for each business.

Scalability, Adds and Moves

IP Telephony are generally designed to scale with your company as it grows. As your needs change, your business can adapt easily to your changing telecommunications requirements.

Savings based on service scalability come into their own where Virtual IP PABX services are offered on the basis of the number of concurrent users, and not the size of the system. This means you can scale your service up or down at any time without the need for key staff having to program the system.

Subscribers pay only for what they need. Adding new extensions is often as easy as just contacting your service provider. The a new extension can be added in minutes - not days. Everything is controlled and administered centrally which can be accessed online, from virtually anywhere and at anytime.

Moving business locations can now be much easier, as all you require is to have a business grade DSL connection and enabled router installed to the new premises.

Greater Call Capacity

Virtual IP PABX service providers use carrier grade hardware with far more lines than premise based systems, ensuring that callers to your business should never confront busy lines. Measuring the cost saving of this advantage is another example of the difficulty in appraising the choice of premises located versus Virtual IP PABX services.

Disaster Management

The risks to business communications posed by fire or other aspects of Force Majeure are lessoned by securely hosting your IP PABX within a fully secure and redundant data centre. In the event of a disaster, departments and staff can have their voice service redirected to alternative DSL enabled premises, home offices or even mobile phones.

Prodial Virtual Office (Hosted IP PABX) versus Premise Based IP PABX VoIP Services

Attribute	Prodial Virtual Office	Premises Located IP PABX
• Total Cost of Ownership	• Lower cost startup • Integrated Customer Self Care	• Higher costs to startup • Requires IT staff to maintain
• Time to Implement	• Rollouts in days	• Complex configurations may take weeks
• Scalability	• Essentially unlimited from 1 to 10,000 users	• Limited to hardware configuration • Limited numbers of IP phones
• Technology Risk	• Borne by service provider	• Borne by user
• Multisite Networking	• Simple dialing plans • Centralised management	• More complex to manage dial plans • Less flexible management
• Customisation	• Easily configureable online	• High level of user specific configuration
• QoS, Reliability and Survival	• Cost borne by service provider • Carrier-grade platform • Robust IP networking, including geographic redundancy	• Cost borne by enterprise • Typically, more complex, expensive methods • Use of Windows and other less-hardened open source programs.
• Operations and Management	• Centralised system management • Located in a secure data center • Supports multi location usage	• Separate management systems • Located at customer site • Typically supports single sites
• IP PABX Features	• Full feature set	• Limited features

Figure 1 - Weighting chart comparing the associated attributes of Virtual IP PABX and Premises based IP PABX services

These advantages of implementing a Virtual IP PABX service will ensure that the number of potential failure points is minimal as most Virtual IP PABX service providers operate with full system redundancy.

In summary, the carrier grade Virtual IP PABX service offers more comprehensive failover features which are generally beyond the reach of standard premises Located IP-PABX systems.

Implementation Costs

When comparing SME's with a need for 10 extensions, the table in ***Figure 2*** below can help illustrate the set-up cost comparisons between a standard PSTN system, a premises located and a Virtual IP PABX service.

Building and configuring a premises located IP PABX including redundancy will typically be around $5500 whilst the standard PSTN may cost twice as much. This figure excludes the time lags associated with configuration and customising the service to the business requirements.

VirtuaL IP PABX, however, will have minimal set-up costs, and has greater value-added benefits because of its simplicity and its self-management via the customer web-portal.

So the full cost savings of a hosted service can be difficult to quantify. How, for example, can one accurately value the savings in time and ease of self-management a Virtual service provides? The result will depend on the individual needs and efficiencies of each business.

Companies using IP systems at remote locations, for example, can save from 2-4 weeks in the time it takes to set up new offices. There will be other savings in wiring and hardware when compared with costs associated with a traditional PSTN system.

Standard PSTN System		Premises Located IP PABX		Virtual IP PABX (Virtual Office)	
PABX Control Unit (20 extensions)	$7,700	IP PABX Hardware (system build and configured to site)	$5,500	Control Unit (Virtual IP PABX)	$0
20 Business Grade Phones ($250 each)	$5000	20 Business Grade IP Phones ($250 each)	$5000	20 Business Grade IP Phones ($250 each)	$5000
Installation of Lines x 10	$1,100	POE Switch / Router	$2400	POE Switch / Router	$2400
Install and Training	$2000	Install and Training	$2600	Connection and Training	$2600
Total Investment	**$15,800**	**Total Investment**	**$15,500**	**Total Investment**	**$10,000**

Figure 2 - Sample cost comparison of installing traditional PABX and IP PABX options managing 20 handsets

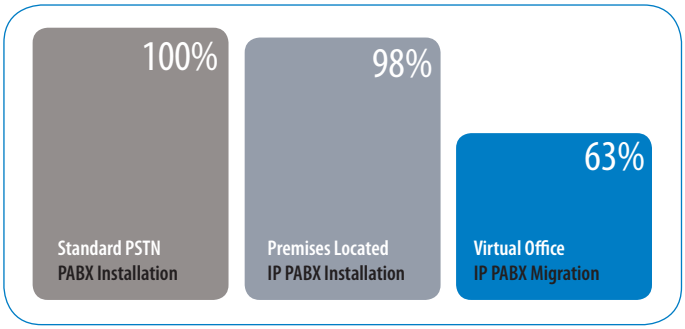

Figure 3 - Cost comparison as a percentage

The total set up costs for implementation of IP Telephony system will vary from 63% (Virtual IP PABX) to 98% (Premises Located IP PABX) of the total cost of a standard PSTN system as seen in ***Figure 3***.

Other variables such as business grade IP Handsets, Routers and Switches are comparable in cost, though there will be differences in the installation and training costs dependent on the type of hardware required for connecting services.

Monthly Operating Costs

Differences in the monthly operating costs of the Virtual IP PABX versus premises located IP PABX and a PSTN service are shown below in *Figure 4*.

The cost of service contracts is diminished in a Virtual Office IP PABX due to back-end administration being monitored 24/7. Virtual services allow the client to manage telephone services via their web portal, and thus far more user-friendly for businesses requiring frequent modifications to their communication systems.

In Summary

So when comparing the full cost savings of a Virtual service with premises located solutions, it is important to consider the true cost from installation, implementation time frames, redundancy and the monthly operating costs required to operate a business grade service.

Although figures will vary according to the terms offered by market competitors, it is clear that Virtual IP PABX will be substantially cheaper to operate than standard PSTN telephone services.

Standard PSTN System	
Call Charges (20 extensions)	$500
10 PSTN Lines ($45 each)	$450
PABX Service Contract	$65
Monthly Operating Cost	**$1015**

Premises Located IP PABX	
Call Charges	$200
10 Line Connection to Service Provider ($25 ea)	$250
SHDSL	$199
Maintenance Contract	$65
Monthly Operating Cost	**$714**

Virtual IP PABX (Virtual Office)	
Call Charges	$200
10 Virtual lines ($19.50 ea)	$195
SHDSL	$199
Service Contract	$0*
Monthly Operating Cost	**$594**

Figure 4 - Sample cost comparison of monthly operating costs of traditional PSTN and both Hosted and Premises Located IP Telephony options managing 10 lines - Call usage charges will vary from providers.

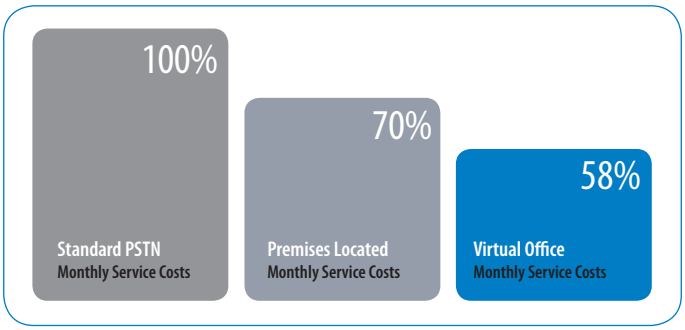

Figure 5 - Cost comparison as a percentage.

For further information regarding Prodial's Virtual Office solutions, please contact a Prodial sales representative on 08 62 600 900.

Or use the enquiry form on the Prodial website - www.prodial.com.au

*Note on Figure 4. Prodial Virtual Office requires no service contract. This should not to be confused with a service contract which may or maynot be negotiated with your supplier of IP Telephone handsets which must be viewed independently of Prodials service.

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