



Managed ICT Services & Solutions

## Hosted PBX Solutions

A product description by Adept

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## Product Overview

Organisations are typically faced with the challenge of identifying new technologies to give them a strategic advantage in the market, while at the same time striving to reduce costs. Increasingly this is being achieved by transitioning from on-premise solutions to cloud-based alternatives. Modern businesses have a requirement for a Hosted PBX Solution for inbound and outbound voice calls via Voice over IP (VoIP), optimising costing for routing inbound and outbound calls.

Adept Internet therefore proposes a managed Hosted VoIP PBX solution that will alleviate the burden of implementing and maintaining VoIP PBX systems and networking. The solution is flexible and robust enough to be used as a multi-branch service.

## Features

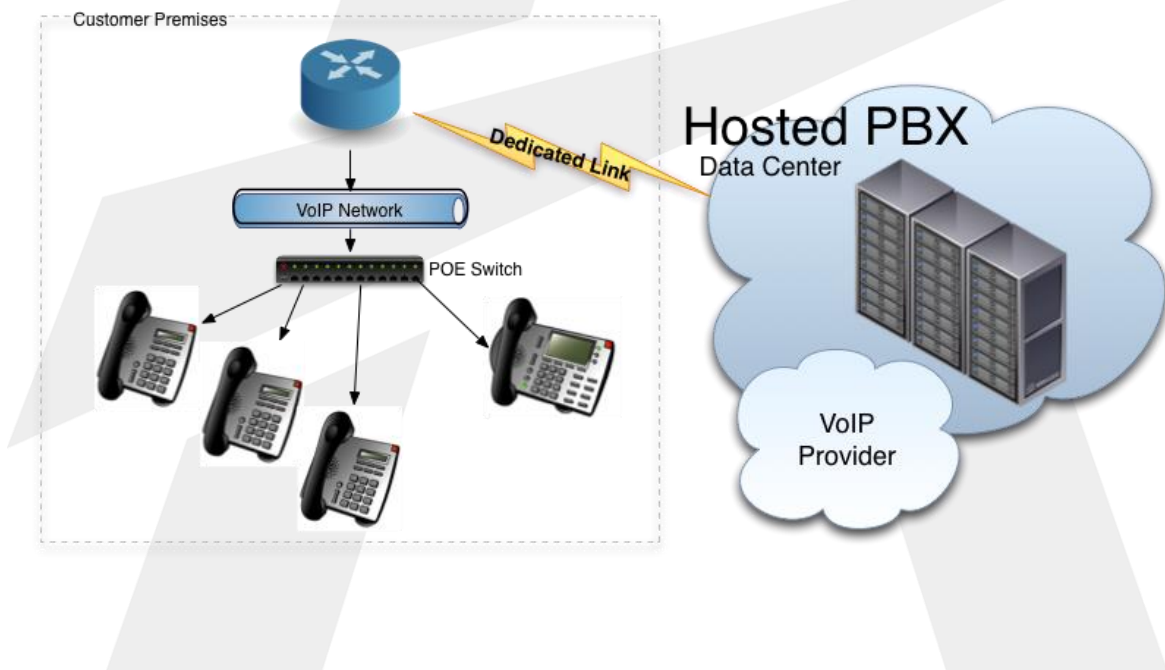
There are several key features to take into account when deciding on a VoIP-capable PBX solution. Important factors include redundancy, performance, scalability, reliability, ease of deployment and technical support. Redundancy is one of the most critical parts of a VoIP network, as communication is a key aspect of the day-to-day activities. Adept's managed Hosted PBX Solution provides customers with the best balance between these sometimes-conflicting parameters. We propose to provide a Hosted PBX system that allows the business to perform at its best.

Key Features of the VoIP PBX:

- Web-based control panel
- Handset auto-provision (Depending on handset used)
- Voicemail to Email functionality
- Voice recording for quality control

A voice network is built over multiple components, which are detailed in the sections below.

The diagram is an overview of how the voice network is implemented:



## Voice Providers

Deciding on voice providers is a key aspect in any business. The key factors include cost, reliability, quality and support. We recommend that a dedicated Leased line to the Hosted PBX is installed. We are also able to provide multiple VoIP numbers that can be routed to a specific person or group as needed.

## Voice Network Hardware

VoIP is dependent on a fast, low latency and stable network. Due to these reasons we suggest that the voice network be separated from the data network, and preferably be over Fibre-based Internet breakout. The core voice network consists of a dedicated Leased line (e.g. an uncontended unshaped Fibre link) with VoIP accounts, a Hosted PBX and Power over Ethernet (PoE) switches. When using SIP with codec G729, a maximum of 14 concurrent calls can be handled on one single 512kbit/s Leased line.

Our Hosted PBX is able to handle all the voice routing for inbound and outbound calls. All internal and external calls are thus routed via the Hosted PBX. The Hosted PBX is a software-based solution which runs on our Hosted Virtual Environment. A list of the main features of the PBX software is given below:

- Blacklisting
- Call Parking, Recording, Transfer and Routing
- Define office time
- IVR
- Queues
- Voicemail to Email
- Ring Group
- PIN for dialling out
- Phone Provisioning (Handset Dependent)

## Phones

There is a wide variety of VoIP-capable hardware phones that can be used. We recommend that the SNOM handsets be used, as they are the best value for money, when comparing call quality, durability and ease of implementation and use. When moving to portable cordless VoIP phones we suggest that the Siemens Gigaset Dect phone be used. The SNOM handsets have different models to choose from. The basic Model SNOM 710 is suitable for most users; an extension panel for this model can be implemented for a receptionist.

Although some phones are provided with a power supply, there is no need for this when using a PoE switch. This makes the work environment safer, more reliable and tidier with no extra two-prong plugs connected around or under your desk.

## VoIP Network Risks

In VoIP implementations and network the following risks may apply:

- When using the same network for voice and data you can experience jitter and disruptions in calls
- Quality of calls is dependent on the handset used and how the operator uses the handset
- Low-cost POE switches can cause complications if they cannot supply the routing and power that is needed at peak times
- When not using POE switches, phones can have power limitations as most of them use a 2-prong plug. Most offices do not have hardwired 2-prong connectors and converters need to be used
- Softphones are not supported, as these are dependent on a 100% functional PC with no errors, and the softphone driver can cause complications when updating the operating system.
- When not using a dedicated link for VoIP you may also experience jitter and disruptions in calls

## Implementation Plan

Upon acceptance of the Hosted PBX service agreement, we will begin executing an implementation plan to install all the services, lines and hardware. This implementation plan consists of several phases, which are driven by our core project management staff and monitored at management level. The phases are:

- Network analysis and project scoping: A Solutions Architect analyses the network information acquired from the client, requests further information (where applicable), and draws up a network and dialling plan for the existing network. Potential problem areas are identified and addressed.
- Network (re)design: We advise on the network changes and deployments that need to be made, and starts procuring the required equipment and services. This includes the following:
  - A network plan and layout is created, and a configuration list with all network changes is created.
  - The routers, phones, switches and any other required customer premises equipment is ordered.
- Configuration and testing: We configure the new equipment based on a pre-defined configuration list, and test the configurations in a laboratory environment prior to implementation at the client's premises.
- Installation: When all the required equipment is installed the solution will be fully implemented into the network and tested with the client on a specific mutually agreed upon date and time by the client and Adept.

## Pricing

Package	Voice Recording Space	Once-off Setup	Monthly Recurring Cost
Hosted PBX for up to 10 Users	25GB	R 1,350.00	R 400.00
Hosted PBX for up to 25 Users	75GB	R 1,800.00	R 875.00
Phones	Extension Panel	Headset	Price
Snom 710 (no PSU)	Optional	Optional	POA
Snom 715 (no PSU) Gigabit Ethernet	Optional	Optional	POA
Snom Extension Panel	N/A	N/A	POA
Wireless Siemens Gigaset (Includes base station and one handset).	No	No	POA
Polycom SoundStation 5000 HD Voice Conference Phone with PoE (No PSU, 48V PoE only)	No	No	POA
POE Switch		Max. Phones	Price
Managed Switches PoE 24-port		23	POA
Service Description	Monthly Recurring Cost		
Trunk with 1 In- or Outbound Concurrent Call	R 50.72		
Additional In- or Outbound concurrent call on existing trunk	R 12.28		
1 DDI - Telephone Number	R 20.00		
Service Description	Once-off Cost		
Number porting (per number)	R 300.00		
Call Rates	Peak	Off-Peak	
SA Mobile – Vodacom	R0.78	R0.78	
SA Mobile – MTN	R0.78	R0.78	
SA Mobile – Cell C	R0.78	R0.78	
SA Mobile – 8.ta	R0.78	R0.78	
Telkom Landlines	R0.31	R0.31	
International (destination-dependant)	From R0.20	From R0.20	

\*All prices exclude VAT, and subject to change based on the current US\$/R exchange rate

## Company Profile

Adept was launched in January 1996 in Stellenbosch, and is today one of the oldest independent Service Providers in South Africa. To be Adept is to be proficient and expertly accomplished. This is what we strive for and have achieved in all our services.

We cater for a vast variety of service needs. Our client base is broad and diverse, with customers based across the country. To them, we offer superlative services and products that we ourselves have complete confidence in, at all levels of information technology.

Many of our solutions are tailor-made, in order to perfectly suit each client's individual requirements. We thus ensure that our approach is personal and conforms to exactly what is needed in order to be successful.

