

# Cloud-delivered PBX functionality offers improved communication

When reviewing the voice-over-Internet Protocol (VoIP) landscape in South Africa, the legislative passed in February 2004 enabled network providers to offer voice 'over any protocol, which allowed voice communication over IP networks, which until then had only been used for computer data transmissions, such as email.

By [George Golding](#) 25 Jul 2011



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In the ensuing years, VoIP providers overcame a number of difficulties, allowing them to carve out a space in the market. Most importantly, quality issues were addressed with a variety of techniques. Virtual private network (VPN) connections, backup lines, compression were used to ensure quality, reliability and enabling enough concurrent call connections to make VoIP a viable proposition.

Further problems included establishing dedicated national VoIP networks, allocating VoIP-specific 087 numbers and inking 'interconnect agreements' that allow VoIP providers to pass traffic between them without expensive detours. Many VoIP providers use a PBX (call processing engine) called Asterisk and add functional components like telephone management, contact centres or collaboration to it.

## Providing cloud services

Providers differ considerably in the way they deliver telephony to clients.

- On-site PBXs - most installations are in the form of server boxes on-site with enterprise customers
- Skype offers PC telephony in the form of a computer application. Consumers call one another from their PCs over the Internet. This service does not offer business PBX functionality and quality is uncertain, and therefore not suitable for businesses.

Lately, an improvement in South Africa's bandwidth situation has allowed providers to offer hosted ('cloud-delivered') PBX functionality to enterprise customers. Cloud PBX providers have a number of advantages over other telephony providers that set them apart from the competition.

- A cloud PBX is much more cost-effective than an on-site PBX - these are acquired, installed and supported at high cost. Cloud PBXs are a low-cost hosted telco service that does not require upfront capital and training/installation cost and it offers upgrade assurance. Think about it - one PBX can serve a retailer with a 100 branches, compared to on-site installation of 100 PBXs!
- A cloud PBX offers a business solution. Skype is a consumer application that establishes ad-hoc peer-to-peer connections over the Internet, thus sacrificing call quality for low cost. Cloud telephony offers the quality of a dedicated link and an enterprise-grade, managed and supported service.

## Selecting providers

When selecting a VoIP provider that advertises a managed, supported service, ensure it combines cost-effectiveness with quality. The choice of VoIP provider comes down to a good balance between features, quality, reliability and cost-effectiveness.

- Ask if its network is dedicated to VoIP traffic
- Compare prices - specifically international calls. The best VoIP providers offer exceptional quality at very low cost (cheaper than a local landline call), which may suit a business that deals with offshore companies
- Inspect its service-level terms.
- Inspect its measures to guarantee quality and reliability (dedicated network, compression, technology backup and redundancy)
- Does it have a telephone management system, offering instant real-time call reporting? This offers amazing control over expenses compared to having multiple Telkom bills in hard copy for every branch
- Does the provider offer custom caller IDs for mobile sip clients? This allows the workforce to maintain their caller ID, as their mobile number for inbound calls while making calls over Wi-Fi and 3G through the cloud PBX
- Does it offer pure per-second billing? It is essential for substantial quick-win cost savings
- The provider must also offer tight security in the form of 256-bit encryption, closed networks, credit limits and strong password management, to protect against intrusions and account abuse. If an account is breached, it could cost tens of thousands in call costs by unauthorized users.

## ABOUT THE AUTHOR

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