



Far South Networks

Product comparison:

Com.X vs. 3rd party, Open-source based IP-PBX products

White Paper

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1 Introduction

1.1 Overview

Far South Networks is a telecommunications product OEM / Vendor whose business is focused on the design and manufacture of quality IP-PBX products.

Far South Networks' Com.X IP-PBX platforms are built on custom designed hardware, and highly optimised open-source software and custom designed software components.

Com.X products compete directly with IP-PBX products in the following sectors:

- Open-source integrators: IP-PBX solutions built from 3rd party (imported) hardware and open-source software components. Products are available from local and international integrators
- Traditional vendors / OEM's: Typically these are imported products based on proprietary hardware and software ("closed", non-open sourced based platforms).

This paper provides a comparison between the Com.X product range and other IP-PBX products from open-source product integrators.



2 Open-source IP-PBX product comparison

The table below presents a comparison between Far South Networks and 3rd party "open-source" based product integrators solutions.

Quality	Far South Networks Com.X products	3 rd part Open-source based integrators
Local manufacture and sourcing	Locally sourced stock, reduces lead time to source and lower stock holding at the distributor / dealer	Always vulnerable to local distributor stock holding of 3rd party components
	Market as a "Made in South Africa" product	Not applicable
Robust and stable	Hardware developed in-house to meet challenging African environments. Hardware directly addresses surge and lightning issues associated with African conditions.	Insufficient with PC based platforms with PCI cards
	"S/W & Hardware" integration results in highly stable platforms	Server blade and PCI card variations lead to platform variability & instability
Custom design	International certification: <ul style="list-style-type: none"> • Basic Rate ISDN (TBR3), • Primary Rate ISDN (TBR4), • Analogue (TE-001) 	No other 3rd party Asterisk based telephony solution contains this level of integrated certification (i.e. both hardware and software)
	Local certification: <ul style="list-style-type: none"> • Neotel SIP certification • ICASA type approval 	Dependent on vendor / importer
Technology	Cutting edge open-source design: <ul style="list-style-type: none"> • Com.X is partially funded by the IDC (SPII PPD) 	Dependent on vendor / importer
	Superior product architecture: <ul style="list-style-type: none"> • Scalable: expansion without downtime, plug and play hardware upgrades • Distributed: Seamless expansion via LAN modules • Comprehensive configuration backup and restore for simplified swapouts 	<ul style="list-style-type: none"> • PCI card additions or swap outs, leads to downtime • Limited to available PCI card slots
	Far South Networks staff have over 50 years experience in telephony (designing for Mitel, Avaya, Alcatel, Flextronics)	Dependent on vendor / importer
Ease of Use	Graphical User Interface (GUI) supports "quick and easy" installation via "wizard"-style configuration.	Generic Open Source GUI's (FreePBX, Elastix and other) are not user friendly, can be unstable and are not easy to use
	Low risk, rapid system deployment	Risky: Stability of the complete solution feature set is dependent on version control and in-house system Acceptance Test Procedures.
Low maintenance costs	Low cost maintenance: Highly integrated GUI directly supports telephony hardware	High cost maintenance: Require "high-cost" Asterisk / Linux engineers



	and platform features, results in "low-tech" support staff needed.	to support 3rd party hardware and software, and 3rd party GUI
	Remote management: <ul style="list-style-type: none"> • GUI supports remote diagnostics at all technology levels • Simple and seamless remote software updates from Far South repository (zero platform obsolescence) 	<ul style="list-style-type: none"> • Diagnostics are limited to that supported within the generic h/w and s/w tool kit used by the system integrator. Limited support without custom software development. • Software update mechanism dependent on system integrator / importer
Technical Support	High calibre and quality support by the team that developed both hardware AND software	Ultimately limited to support by international hardware vendor and capabilities of the product integrators software staff
	Technical support program to distribution partners and dealer channels	Limited, due to IP-PBX integrators typically supporting only direct market channels
	CRM-based trouble ticketing CRM-based registration of certified dealers	Dependent on vendor / importer
Cost	Stability: Pricing less dependent on exchange rate due to high level of locally manufactured components	All 3rd party imported components are exposed to high levels of exchange rate fluctuation
	Pricing on a par with telephony solutions from other vendors (PCI cards, server blades etc)	
	Lower Total Cost of Ownership (TCO): no need to pay for expensive add-ons and features.	Higher TCO
Sales & Technical Training	Mature (practical & hands-on) technical training programs: <ul style="list-style-type: none"> • Basic Training • Advanced Training • Trainer certification 	Dependent on vendor / importer and their own knowledge level of 3 rd party components used
	Training may be customised to client market requirements	Dependent on vendor / importer



3 Com.X Technology Highlights

3.1 ADSL plus ViBE

ADSL interface with optional ViBE integration: the Com.X1 can be configured with 8Mbps ADSL2+ interface (RJ11). In addition, the unit supports ViBE technology (refer to <http://www.voip-x.co.uk/>).

In this way the Com.X1 will support up to 28 G.729 SIP trunks over a standard 256kbps ADSL link, including strong QoS for simultaneous voice and data support. This scales linearly with 512kbps and 1Mbps ADSL links.

3.2 Microsoft OCS support

The Com.X platform provides a seamless telephony gateway to Microsoft OCS clients in the SMME space.

3.3 WiFi interface

Com.X models may be configured to support an internal WiFi module (802.11ab&g) with an SMA connector to an external antenna.

3.4 Fax termination

Support for termination incoming fax.

Received faxes can be emailed as TIFF to recipients.

3.5 Recording

Recording of all internal and external calls, by default or via pin code activation.

Storage options: internal 250GB HD, any external device (USB HD, Flash disk) or networked device.

3.6 Neotel SIP type approval

Neotel test certification covers SIP interoperability between a multi-line PBX to the Neotel NGN network.

3.7 T.38 fax

T.38 within Com.X products allows the transfer of facsimile documents in real-time between two standard Group 3 facsimile terminals over IP-based networks.

The Com.X roadmap features T.38 fax origination, termination, pass through (IP to IP) as well as much anticipated gateway (IP to PSTN and vice versa) services in the near future.

3.8 Smart phone with SIP client support

Users can register Smart phone SIP clients as IP extensions to the Com.X IP-PBX.

Known working devices include: Android (HTC and Motorola), Apple I-Phone, Nokia

3.9 Soft-phone support

A variety of SIP-based soft-phones are supported by the Com.X product range, including X-lite.



3.10 Remote extension (twin set support)

Users may enable simultaneous ring to remote extensions (soft-phones or smart-phones) registered remotely to the central office IP-PBX.

3.11 Repair Centre

The Com.X integration and licensing platform enables the distributor or supplier to provide repair centre services to their dealers or channels.



4 Com.X Technology Roadmap

4.1 Com.X10 Appliance

- Com.X1 with Atom or dual-Atom CPU server
- Edge Router / Firewall / QoS

4.2 Operations, Administration and Maintenance (OA&M)

- CommaNET: optional automatic VPN registration of deployed devices for centralized monitoring, update and control services

4.3 Configuration "Wizard"

- Platform configuration auto-generation from spreadsheet input