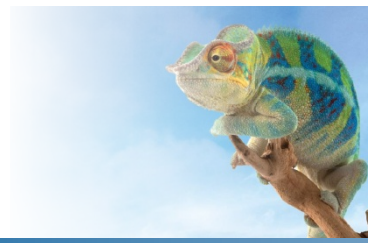


# ▶▶ Runway.X5

VoIP gateway and site survivability support for  
Telviva IP Centrex PBX



When **business continuity**  
is non-negotiable,  
**Runway.X5** is a must.

Runway.X5 delivers telephony convergence over broadband solutions in two ways:

- It can be deployed as a **VoIP gateway** for a non IP-PBX; or
- It can provide site **survivability support** for TELVIVA subscribers (Connection Telecom's hosted IP PBX service).

## What Runway.X5 offers:

- A complete IP gateway solution that connects to Telviva voice & hosted IP PBX services, converging traditional voice, VoIP and GSM networks
- Supports low cost connections to your branch offices for on-net calls
- Intelligent call routing reduces your monthly phone bill
- Capitalise on legacy CPE investment while increasing business efficiency (keep your business connected)
- On-site PBX redundancy over multiple routes
- 24 simultaneous G.729A calls on a standard 512kbit/s upstream broadband connection (Telkom's "Fastest" standard ADSL service) \* 24 calls with no transcoding – 8 with transcoding
- Improved data throughput
- Simultaneous voice and data on the same link, prioritising voice packets
- Better quality of service performance
- Rapid failover to back-up link on IP link failure or quality threshold setting falling below acceptable levels
- Reduced latency and jitter
- Live monitoring of VIBE-enabled tunnels.

Ensure all data routes are connected by connecting Runway.X5 to a routing device. This could be done via an Ethernet port bridged to an ADSL router, wireless router board or Diginet link.

## The Runway.X5 gateway includes:

- VIBE-enabled VoIP broadband enhancement
- 4 or 8 ISDN BRI ports - or a combination of 4 BRI & 4 FXO or 4 FXS
- Upgrade to support TDM FXS & FXO ports through iTA's with TDMoE
- Data: VPN, VLAN, NAT, quality of service, firewall, encryption
- CPU: Intel Atom E620, 600MHz and 1GHZ option
- Memory: 512 MHz DDR2
- Solid State hard drive
- Call Detail Records: MySQL database for CDRs

## Compact and unobtrusive,

Runway.X5 fits neatly into a 1U chassis or desk mount unit

## Pricing

For pricing information, please contact Connection Telecom on 0878 200 200 or [sales@connection-telecom.com](mailto:sales@connection-telecom.com)



Runway.X5  
has ICASA  
type approval

# ▶▶ Runway.X5

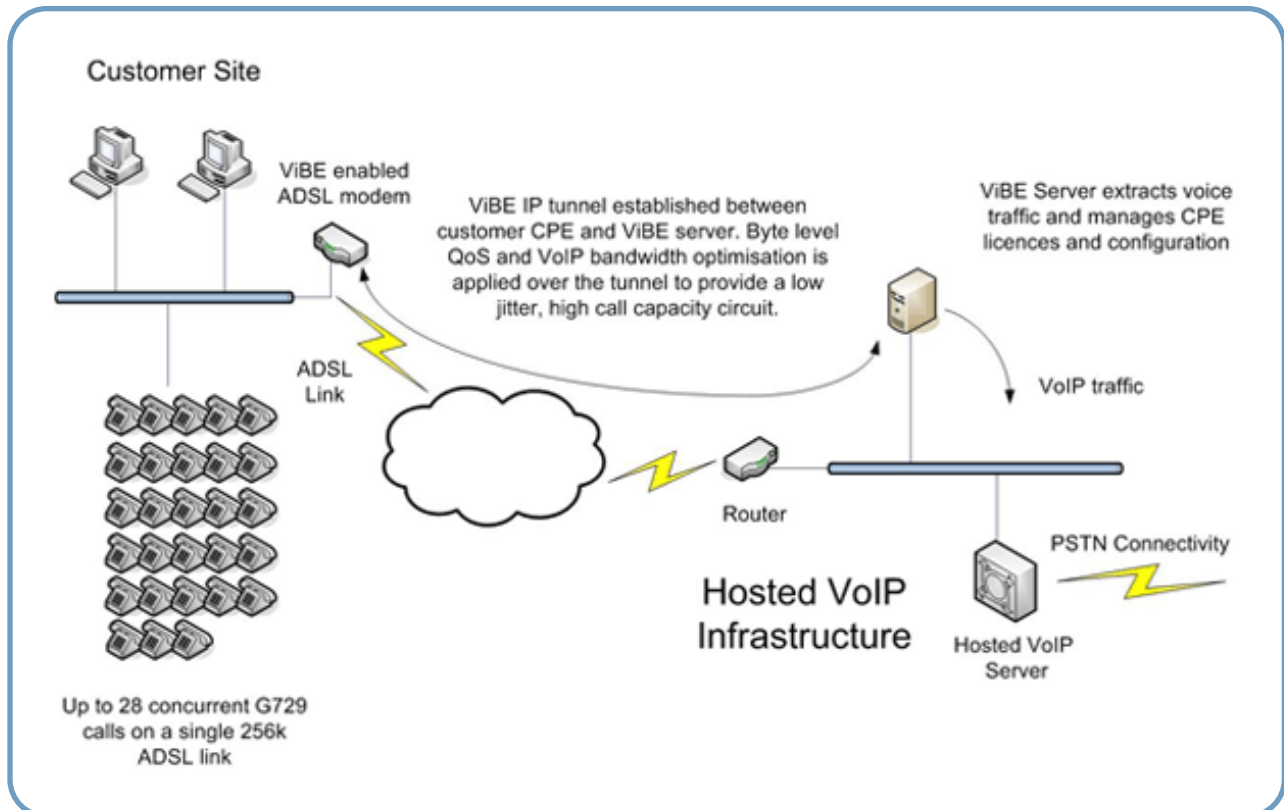
VoIP gateway and site survivability support for IP PBX



Application scenario:

Hosted VoIP service provider using ViBE to supply

**high capacity** over ADSL



## What is ViBE?



Voice over IP Broadband Enhancement (ViBE) is technology that solves problems associated with voice quality:

- Quality of service is implemented in a completely different way - traditional methods are more suited to slower links.
- Voice is no longer seen as a type of data that has high priority. Instead, it is treated as a data stream that has very specific requirements for priority **and** spacing between packets.
- The bandwidth budget needed is reduced to the compression format used. A G.729 call only uses 8.2Kbit/s over the ADSL link, rather than the traditional 28Kbps per call.
- Sites with ViBE links can be joined together to form private networks, making security controls easier.
- Activation of backup links can be done without losing in-progress calls.
- ViBE enables the use of much more of the link's capacity.

Future developments will allow multiple links to be used as a single large bandwidth connection – a viable alternative to costly private circuits

# Com.X5

## The complete telephony solution in a box

### DATA SHEET

#### Technical Specifications

Host Processing Platform				
CPU	Intel Atom E620, 600MHz			
Memory	512 MHz DDR2 standard			
Storage	16GB SD			
I/O Ports	4 x 10/100/1000 Base-T LAN, 2 x USB 2.0, 1 x RS-232, WiFi/3G (optional)			
Operating System	Ubuntu Linux 10.04 LTS			
Telephony Interfaces (per unit)				
	Primary Rate	Basic Rate	Analog (FXS)	Analog (FXO)
Voice Ports		8	4, 8, 16	4, 8, 16
	<b>Note:</b> Telephony port expansion supported via connection of Comma iTA units			
Physical		4 / 8 x RJ-45	RJ-11	RJ-11
Electrical		S/T TE or S/T NT (software selection)	Zone dependent, software programmable DC and AC characteristics. Balanced sinusoidal ringing (3 REN)	Zone dependent, software programmable impedance matching.
Protection		-	Power cross Inter-building	Power cross Inter-building
Conformance		TBR 3		Country-dependent
Voice Features				
Echo Cancellation	Hardware based G.165 type adaptive echo cancellation per channel Up to 64 channels at 16 ms or 32 ms Up to 32 channels at 64 ms			
Hardware Codecs	-	-	G.711 A-law or $\mu$ -law	G.711 A-law or $\mu$ -law
Software Codecs	G.711, G.726, G.723, iLBC, SPEEX, GSM G.729A (optional with license purchase)			
Fax and Modem	Packet-network synchronization and G.711 provide transparent fax/modem support			
Signalling				
Signaling System		ISDN BRI – ETSI ISDN BRI - NI-2	Loop-start DTMF	Loop-start DTMF
Other Features		Configurable network clock synchronization	Caller ID transmission Hook flash Distinctive ring	Caller ID reception
Packet Interfaces				
VoIP	SIP + RTP IAX2 + RTP			
Administration				
Management	Web based GUI, including platform backup and restore			
Logging	Log (with configurable levels)			
Field upgrade	Application and firmware remote update from hosted repository			
Call Detail Records	MySQL database for CDR			
Physical Characteristics				
Power	12VDC, 5A via external AC/DC adapter (supplied)			
Environmental	0°C - 40°C			
Dimensions	225mm x 220mm x 44mm			
Mounting	Desktop, half 1U rack mount (mounting kit supplied)			
Certification				
Safety	IEC 60950-1:2001 & SANS 60950-1:2003			
EMC	CISPR 22 Class B			
Other	TBR 3, ICASA TE-001 (S. Africa)			

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