

BROADBAND ACCESS

VIPER – Voice Over IP Router



The Case Communications Viper uniquely integrates voice, data and fax, with phone to PABX and PABX to PABX connectivity over ISDN, leased lines and frame relay. This voice integrated

router allows multi-channel voice and LAN connectivity over a single leased circuit or ISDN B channel for office-to-office and teleworker/call centre environments.

Applications

Office to office – Many Pri circuits today are used for PBX networking using a mux to allow data from a router to share some of the bandwidth. This is an inflexible solution requiring multiple units with expensive and inefficient permanently allocated bandwidth. A solution with ten voice channels plus 128Kbps for data would require 768k fractional Pri Link.

An equivalent Viper solution would require only a 256Kbps link resulting in a significant saving in recurring line rental costs. It would also allow 150k-256Kbps for data depending on the number of active voice channels.

Mixed networks – Viper units networked together act as a distributed exchange allowing multi-channel Pri connections at the central site with a mix of Bri, DC5 / AC15 or even standard POTs phones at remote sites. Viper networking converts the different interfaces and protocols.

Viper technology – Viper incorporates ITU-G.729A voice compression at 8Kbps, which with silence compression and comfort noise generation allows a reduction to less than 1Kbps during pauses in the speech.

The Vipers efficient operation ensures that the voice packets occupy only 9600bps of the WAN bandwidth. Automatic fragmentation of data packets where necessary and prioritisation of the voice ensures the quality of service (QOS) aspects needed for voice. Viper incorporates an IP/IPX router with multiple interfaces including a 10BaseT port for a LAN connection, ISDN, Bri and serial synchronous WAN connections for frame relay and leased access, plus a serial port for HDLC pass-through. The ISDN Bri can be used for 128Kbps dialup connectivity or for top-up/backup on a leased circuit. The PABX connection is via a multi-channel Bri/Pri interface.

Benefits

Quality of service (QOS) – The Viper ensures voice QOS by fragmenting IP packets and prioritising the voice. This is difficult to guarantee in other voice over IP products which do not have an integrated router.

Cost effective – Viper single-box integration reduces capital costs by removing the need for separate router and voice units, and provides ongoing savings in line rentals through converged networking as well as reduced installation, maintenance, support and administration.

Improved quality – The digital voice connections on the Viper eliminate the losses and interference possible with analogue voice connections. Standardised digital Bri and Pri interfaces and their associated protocols ensure maximum compatibility and reliability. A single multi-channel Pri connection eliminates the multiple interfaces and cables required with analogue interfaces all contributing to the quality of the Viper solution.

Features

Quality Of Service (QOS)

- Voice packet prioritisation

Cost Effective

- Router and voice unit

Integration

- Up to 4 voice ports

LAN Connectivity

- Fully featured LAN router platform

WAN Connectivity

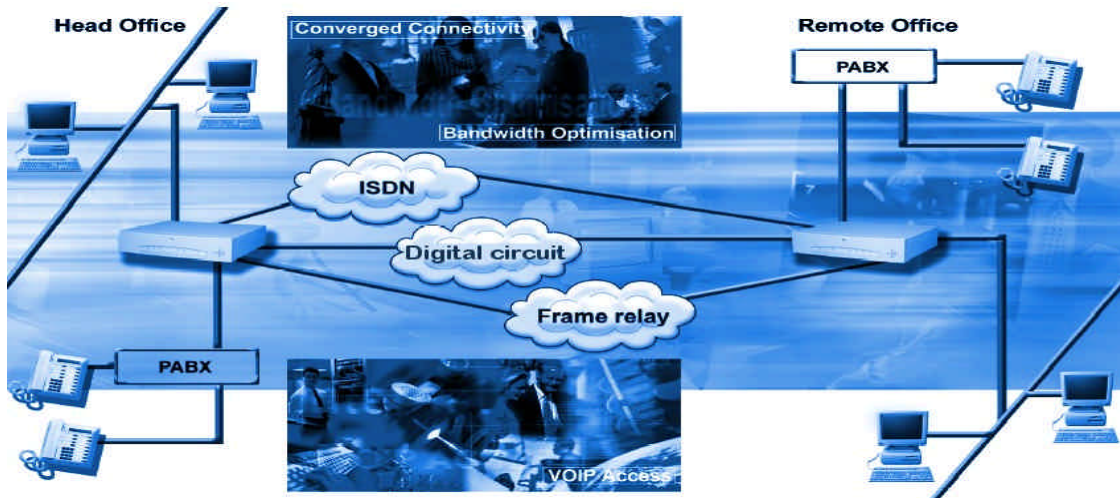
- ISDN, frame relay, leased line interfaces

Fax Support

- Fax capability to 14.4kpbs

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INPUTS

Ethernet interface:

- 10baseT

Protocols and services:

- IP Routing, IPX routing

PABX interface:

- 4 Port – Dual BRI4
- 8-10 Port – PRI
- Q931\QSIG\DPNSS

Voice CODECS:

- ITU-T G.711, ITU-T G.726, ITU-T G.729A
- VBR with silence suppression
- 'Always on' option for Radio Over IP

Fax Support:

- Group 3
- 2400-14400 bps

OUTPUTS

WAN interface:

- 2 channel X21/V35
- 2 channel RS232/V24
- 2 Channel E1
- Single channel structured E1

ISDN WAN interface:

- Single BRI
- 2 x 64K B channels

WAN Services:

- PPP & ML-PPP
- Frame relay
- HDLC pass-through
- WAN optimisation
- ISDN backup and bandwidth on demand
- Prioritisation plus fragmentation of data packets

Management:

- SNMP
- Telnet
- Local control port

Frame Relay:

- FRF 1.1, FRF 3.1, ITU-T Q.922

Physical details:

- 225mm width x 60mm height x 195mm depth
- Weight 1.8Kg

Voltage Range:

- 210-240V AC 50/60Hz @ 15VA
- 24 Volts DC
- 48 Volts DC

Safety:

- TUV EN60950, CSA 950, NTRL/UL 1950 EMI/RFI
- EN5022, FCC Part 68, FCC Part 15

Approvals:

- Net 1.2.3.
- CE mark