

# PacketBand®-ISDN: Add ISDN and TDM Pseudo-Wire to your capabilities

**New opportunities to migrate additional services to IP**

**For existing and new customers**

**Gain significant competitive advantages**

**Enables call switching via IP, providing the ability to create a virtual switched ISDN cloud on an IP network**

Patapsco's PacketBand-ISDN is the first ISDN Pseudo-Wire 'system in a box' designed to smooth Users' migration to next generation networking (NGN). Using PacketBand, ISDN clients can retain the synchronous dialled on-demand ISDN services and the point-to-point leased lines need whilst adopting IP/MPLS. It's simply the best of both worlds.

- Patapsco's PacketBand-ISDN is the **ONLY** ISDN tunnelling solution for IP Networks
- A Pseudo-Wire 'in-a-box' system which sits between ISDN terminal equipment and MPLS/IP networks
- Offers a way for System Integrators and Resellers to add non-compressible data services to run along-side VoIP solutions being installed today
- Provides an upgrade path for customers from circuit switched to the packet world
- Protects User investments in ISDN equipment, terminals and applications
- Enables SI's to serve all of a customer's communications needs
- Offers high quality non-compressed voice for critical applications
- Sited on customer premises
- Easy and fast to install and manage



## OVERVIEW

One of the biggest advantages for network users moving to an IP/MPLS solution is their ability to gain huge cost and manageability advantages by converging all their services on to IP.

But for many users, taking a single step 'big bang' approach from tried and trusted synchronous equipment and applications to converged services on a packet-based network is just too much.

### Too much risk

Although there is a drive towards VoIP, users can't, or don't want to exchange reliable equipment using services such as dial-up ISDN for faxes, batch transfer, backup or encryptors. Nor do they want, or need to migrate proven synchronous legacy applications working on leased lines.

### Too much cost

Users don't want to bear the huge cost of upgrading all their customer premises communications equipment and applications at the same time, especially if the existing investment has not been written off. They particularly don't want to do this for long-established, proven and reliable non-router services.

### Too much disruption

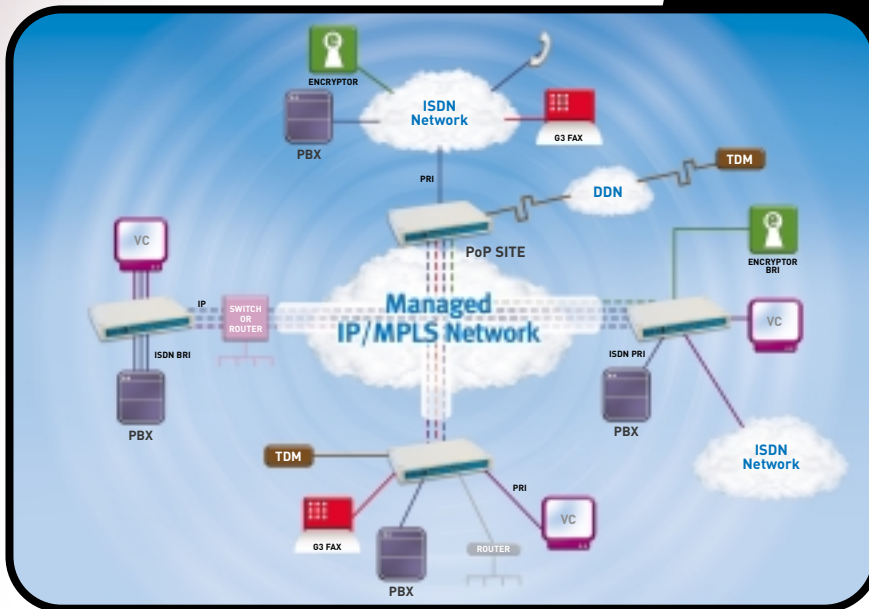
Users don't want to re-train staff on multiple upgrades when migrating from existing synchronous applications.

### Too easy to prove

How many of your VoIP customers *still* have ISDN services for non-voice applications and leased lines delivered to their buildings? Certainly a large majority. There will be over 15 million Basic Rate ISDN circuits, 2 million Primary Rate circuits and 56 million narrowband leased line services in use by 2008!

Patapsco's PacketBand-ISDN provides a way to retain these services but utilising a low-cost IP network, giving a smooth migration and upgrade path.

PacketBand is a Pseudo-Wire-in-a-box system which sits between ISDN terminal equipment and the IP/MPLS network, creating transparent "B" channel tunnels across which ISDN applications can be switched dynamically and unchanged.



The diagram illustrates examples of different types of services which can be connected via PacketBand, both locally and by breaking-out into ISDN or leased line networks.

Using PacketBand-ISDN means your clients can enjoy the benefits of their broadband IP networks without having to cease or change legacy services. Instead, reliable and critical legacy services can be supported by using PacketBand-ISDN to create ISDN tunnels and synchronous leased lines across the corporate IP network. Existing equipment and services (and end-user satisfaction) can be preserved without the cost and management effort of retaining a parallel network.

## What applications and services can be supported with Pseudo-wire?

### Any ISDN device which needs clear-channel access

For example G3 fax, encryptors, backup, batch/file transfer applications, video conferencing, data management calls etc.

### Legacy PABXs where the application needs high-quality voice

Compressed VoIP does have some delay and quality issues; these are sometimes not acceptable for certain applications. PacketBand can dynamically switch ISDN calls across and through an IP network and maintain voice quality.

### Synchronous Terminal and TDM applications

Users can retain their tried and trusted protocols and terminal set-ups that currently use leased lines or ISDN but gain the cost and management advantages of IP.

So if you don't have a clever, elegant, manageable and low cost way to bring ISDN applications and synchronous leased lines into the IP domain, you've found one now!

With Patapsco's PacketBand-ISDN you can offer your clients new services and a smoother upgrade path to converged packet-based services.

## PacketBand-ISDN

- Enables System Integrators and Resellers to win new business through being able to offer cost-effective, dynamically switched ISDN services solutions for an IP network environment.
- Using PacketBand-ISDN, Integrators can now offer a complete IP solution for voice, video and data services.
- Enables call switching via IP, providing the ability to create a virtual switched ISDN cloud on an IP network.
- Preserves all the signalling and performance characteristics required by an ISDN call.
- Point-to-point and "groomed" E1/T1 and fractional leased lines.
- Will support all current and planned relevant TDM standards, including Y.1413, an ITU standard specifying how TDM traffic should be handled by MPLS.
- Support for 1Gbit/s and 10/100Gbit/s Ethernet.