

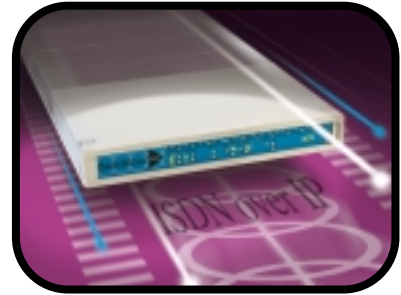
# PacketBand®-ISDN: Move to IP but keep your secure, encrypted, synchronous applications running just as before

Is your organisation in the process of migrating its network infrastructure to IP? But this raises ISDN connectivity issues for your encryptors for voice/data and fax?

At the same time do you want to reduce your legacy non-IP leased line costs and support infrastructure?

**PacketBand can help you!**

PacketBand-ISDN allows secure ISDN systems to use IP and to maintain the critical 'legacy' applications and terminals you're not ready to replace. You can gain all the connectivity, cost and manageability advantages of moving to an IP network but retain your existing platforms and applications.



PacketBand offers the best of both worlds:

- The ONLY complete ISDN tunnelling solution for IP Networks
- Enables call switching via IP, providing the ability to create a virtual switched ISDN cloud on an IP network
- Dynamically switched non-compressed clear-channel calls for data
- On-network or with national/international breakout into "real" ISDN networks
- Protect your investments in secure and trusted ISDN equipment, terminals and applications
- Sited within your network, under your control and management
- Non-compressed ISDN calls also maintain the quality of voice
- Non-switched TDM or leased line circuits over IP for non-router traffic
- Easy and fast to install and manage
- Can be used to ease migration from legacy communication systems to IP

## OVERVIEW

Tried and trusted secure applications and terminals which encrypt services such as voice, fax and video nearly always expect to be presented with synchronous, switched connection-oriented communications services. But in the government and military sectors, as everywhere else, there is an ever increasing push to migrate towards a single, packet-based communications infrastructure.

This so-called Next Generation Network (NGN) is based on Ethernet, IP and Multi-Protocol Label Switching (MPLS) infrastructures. One of its biggest benefits is to bring together or converge equipment and applications - email, voice, data, video - on to a single network for the first time, thus greatly reducing costs and increasing manageability. But, it is not an ideal solution for all applications and traffic types.

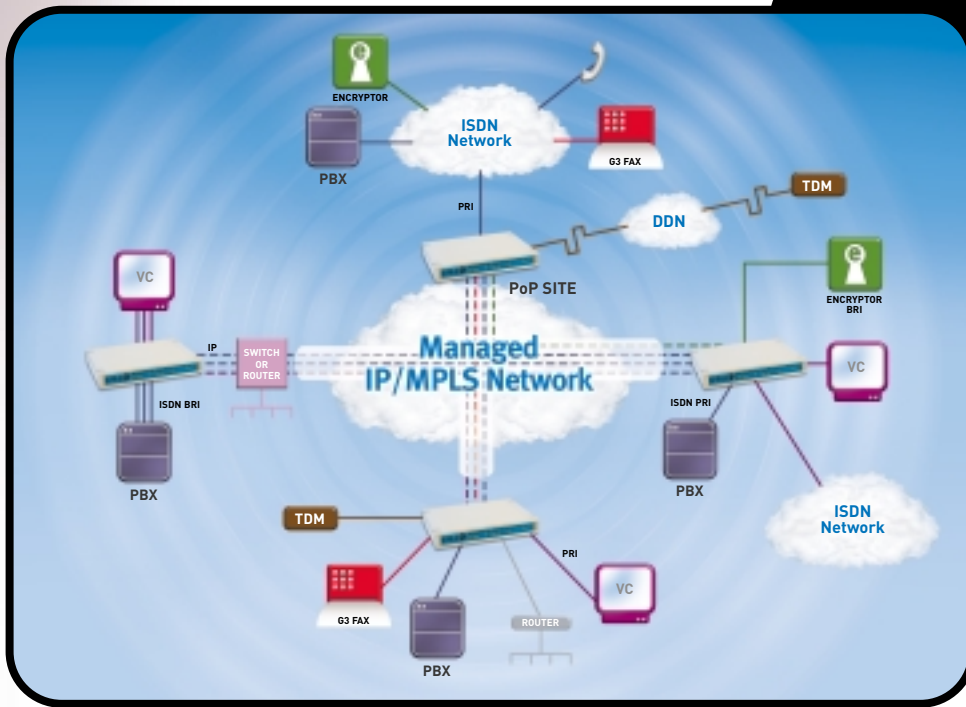
Organisations which must place security high on their list of priorities are therefore presented with a dilemma. While wanting to stay at the forefront of network technology and maintaining or improving connectivity options, security experts are nervous that a move to IP-based secure systems will expose new constraints for some critical or legacy services.

Ideally, they would like to take advantage of the reach, cost-reductions and manageability of NGN, but migrate secure applications at a slower pace, when the right equipment becomes available and the current secure equipment has reached the end of its life.

### Now they can

The solution to all these worries is Patapsco's PacketBand-ISDN, the world's first Pseudo-Wire ISDN 'system in a box'. PacketBand-ISDN allows you to set up virtual ISDN switched circuits, or tunnels, across your IP network as well as establish point-to-point synchronised TDM leased lines for circuits such as T1/E1 G.703/4.

ISDN devices, such as encryptors, see a "standard" ISDN interface with the necessary clock quality and synchronisation. Devices attached to point-to-point leased lines delivered from PacketBand, such as TDMs, PBXs etc. can also function in a clock-locked or synchronised mode. PacketBand can be installed to provide ISDN access to locations where ISDN services are not available, for example via satellite delivered IP services.



With PacketBand-ISDN you can keep those critical 'legacy' and secure applications you're not ready to migrate to 'native IP' but still get rid of the expensive, dedicated and switched circuits on which they currently run.

Patapsco's PacketBand-ISDN provides a smooth upgrade path enabling you to enjoy the benefits of broadband IP networking, both nationally and internationally. All this without having to migrate and converge your applications on 'day one' in a single step approach. Instead, reliable and critical existing services, especially secure applications, but also high-quality voice PBX networks, router backup, unencrypted G3 fax machines and other terminal types can be supported by using PacketBand-ISDN.

Create ISDN and leased line tunnels, or Pseudo-Wires, across your IP network, with or without break-out capabilities. Existing equipment and services can be preserved without the cost, time and management effort of retaining a parallel network of synchronous leased lines or switched services.

## PacketBand-ISDN

- Provides cost-effective, dynamically switched ISDN services across your IP network.
- Preserves all the signalling and performance characteristics required by ISDN calls and services.
- Very high quality clock recovery systems and jitter handling.
- Also delivers synchronous clocked TDM circuits over IP.
- 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.

## PacketBand-ISDN: Two versions

- PacketBand-ISDN PRI (Primary Rate Interface) supports 1 to 4 PRI interfaces, E1 and T1 and non-switched T1/E1 full or fractional "leased lines". The system can be configured with both NT (network side) and TE (terminal side) presentations, which means it can operate at either end of the IP network, connecting to either local equipment or to an ISDN carrier network.
- PacketBand-ISDN BRI (Basic Rate Interface): supports either 4 or 8 interfaces. Each can present as NT or TE.

Both products have a high-speed IP/MPLS network connection and a local Ethernet port for router/VoIP traffic etc.

For more details, please see the Technical Datasheets and Application Notes.