



# PatapSCO's LanBand

## Application Overview

### Transport and Extend ANY ISDN service across a LAN Ideal for videoconferencing, encryptors, codecs etc



#### Application Example

As mentioned above, LanBand can be used for any data/voice devices, but for illustration purposes this document will use two videoconferencing (VC) applications with BRI ISDN. [Various LanBand models are available to support both BRI and PRI in EURO ISDN and US ANSI ISDN.]

#### Example 1

A company has a VC unit which is connected to the corporate packet network but still needs ISDN access for conferences with suppliers and customers etc who are not connected to their network. The ISDN is installed into the communications room which is a short distance from the VC room. Three ISDN BRI cables (for a 384kbps conferences) are installed.

They then want to move the VC or perhaps add a second VC room and this means the rooms are now some distance from where the ISDN is. Whilst it varies from device to device, a typical maximum driving distance for ISDN BRI is 100m - so how to get the ISDN services to the VCs? Also, how can the two VC units share the same ISDN access?

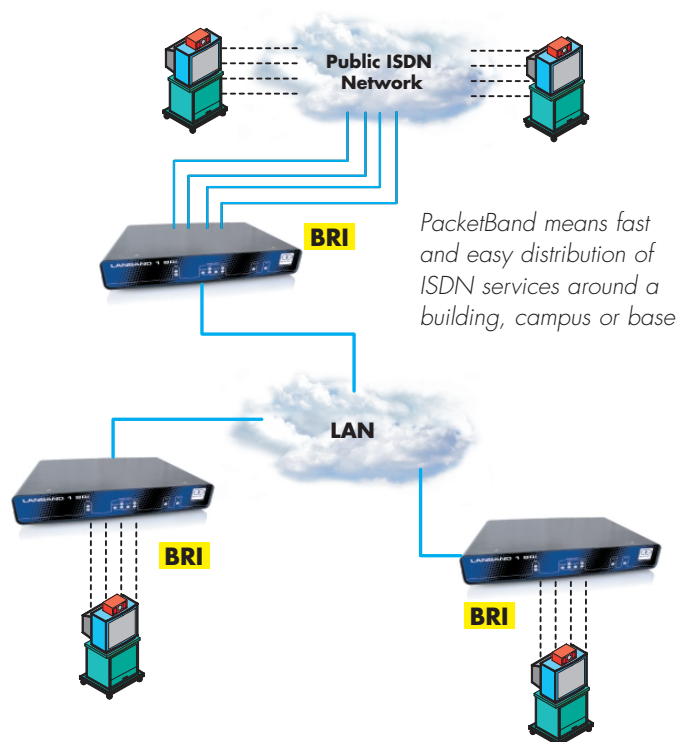
LanBand will interface to the carrier's ISDN on one side and to the customer's LAN on the other. Each VC room also has a LanBand which connects to the LAN and the VC.

#### Overview

Despite the continuing move to packet-based networks, there are still many ISDN devices which cannot easily be used in conjunction with these networks. The incompatibility between the technologies causes a number of difficulties - this is where the LanBand helps.

The basic problem is that LANs etc have no provision for clocked data or any synchronisation, yet ISDN services are clocked and must therefore be synchronised either to each other or to the network. This conflict is a particular challenge for data applications, including videoconferencing, voice codecs, encryptors or even when distributing voice services between PBXs. Without clock synchronisation data loss will occur, with the consequential impact on the video, voice or other application.

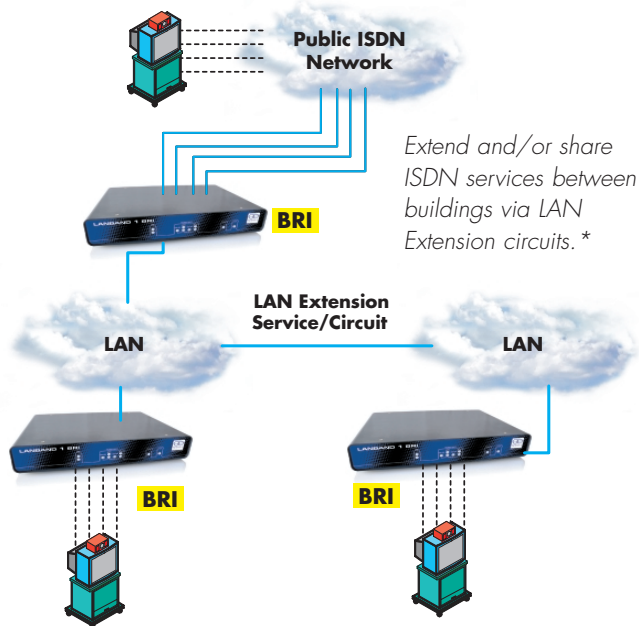
PatapSCO's LanBand transports ISDN services across LANs and packet networks\*. It not only delivers completely transparent or "clear-channel" ISDN over the LAN so any devices can take advantage of its capabilities, but critically it also has clock recovery processes so that all devices are fully synchronised. There will be no data losses from clock issues.



LanBand will connect whichever VC places an outgoing call across the LAN to the ISDN, just as if the VC unit itself was directly connected to the ISDN service. The LanBand is invisible to the device/user and requires no special or additional operations or numbers to be dialled.

The LanBand connected to the VC recovers the clock from its central partner which in turn is being clocked by the ISDN, so the VC is fully synchronised to the network and there is no data loss or pixelisation due to clock slips.

If the LanBand connected to the ISDN receives an incoming call into the building, depending upon a number of criteria, - but usually the number dialled (DDI) - it will route the calls to the correct VC unit. The two VCs can share the ISDN for both incoming and outgoing calls automatically without any patching of cables or human intervention.



The above scenario also works where a company is extending its LAN across a wide area link, so maybe they need to extend the ISDN from its position in one building to another.

There could be multiple devices at different sites which need to share and contend for the common ISDN services, reducing costs.

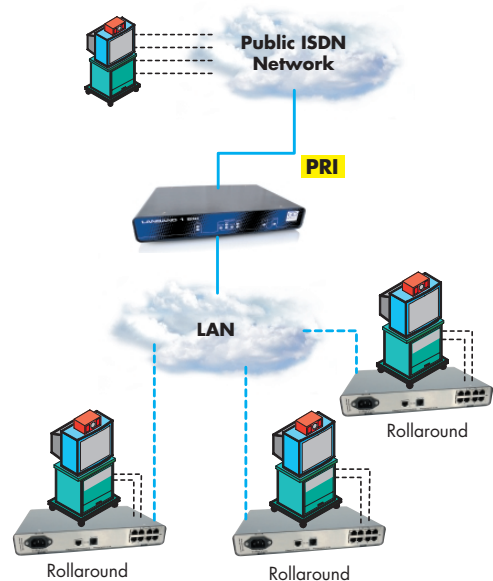
LanBand also converts between PRI and BRI ISDN so it is possible to have a situation where a PRI is installed in the communications rooms with multiple BRI and PRI devices sharing this access point.

## Example 2

Similar to the application above, but showing the portability of LanBand, many companies use "roll-around" videoconference units. These have the great advantage of maximising the use of a single VC unit and being able to hold conferences in different rooms.

However, this means each room must be pre-cabled back to the ISDN service in the comms room and the cabling distance issue mentioned above in Example 1 becomes a big factor. If there are a number of rooms where conferences might be needed, the cost of running special cables can easily run into many thousands of dollars, not to mention the disruption.

If you again locate a LanBand in the comms room and this time put a LanBand on the roll-around VC trolley itself and connect the ISDN ports wherever you want a videoconference you simply plug the LanBand into the nearest LAN Ethernet socket on the wall!



Locating PacketBand on a roll-around videoconference unit means the end to all cabling issue; just plug into the nearest LAN port. Have conferences anywhere!

This means instead of being limited to holding conferences where you would have had to install expensive cabling you can have one literally anywhere you have a LAN socket – how easy and convenient is that!

Naturally more than one roll-around can share the ISDN ports, as covered above.

## Summary

LanBand enables you to distribute, extend, share and contend for ISDN services across your LAN and existing structured cabling.

It means you:

- get a high-quality clock-locked service just as if the equipment was directly connected to the ISDN network;
- need no special cables expensively run around the building;
- no cable driving distance issues;
- can share ISDN between multiple users/devices reducing installation and rental costs;
- can deliver ISDN anywhere you have an Ethernet socket, virtually instantly;
- can contend and share the ISDN, in both directions, without having to manually patch cables;
- provide this with a professional easy-to configure device from a company with 20 years experience.

If you need to extend, share or contend for ISDN across your LAN, LanBand is a reliable low-cost and very flexible unique solution.

\*LanBand is designed for use on networks where the LanBand traffic does not need to cross firewalls or need QoS (Quality of Service) features. If you need to transport ISDN across a wide area packet network please see the LanBand's complimentary product range - the PacketBand-ISDN. The PacketBand-ISDN has similar switching/routing/transportation capabilities and also has enhanced configuration options for wide area networks.

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