Patapsco Communications

**LIBERATOR
Application Note 6G**

Pre-allocate the network resources that applications can access

Some applications may need substantial network ISDN access, but only periodically on different days and at different times.

Allocating capacity on a "Time-of-Day" basis as described in Liberator Application Note 6D may not be appropriate as the capacity may not always be required during the same period on more than one occasion.

Applications, such as videoconferencing, can either be allocated their own ISDN services so they are always available when needed, or they can share ISDN with other applications.

Both have disadvantages. Dedicated ISDN is expensive and inefficient and sharing means capacity may not be available when required.

Customers can use Liberator to:

- **Provide applications with occasional network access of significant speed**
- **Give network access at irregular times which may be known only shortly before it is required**

Application descriptions

Companies often have applications which require significant amounts of network capacity but where dates, times or capacity requirements cannot be predicted far in advance. When access is required however, it is vital that it is ready and available.

The most common example of this is videoconferencing but it could also be for occasional access for large data transfers.

Diagram 1

Companies will often install ISDN specifically for these important applications, as shown in Diagram 1 where the PABX has 10 "B" channels and the Videoconference unit 6. But this is expensive and inefficient because the Videoconference's channels cannot be used by others. This can be important as the application may be used only rarely while other users need more capacity and are running slowly and with a poor service.
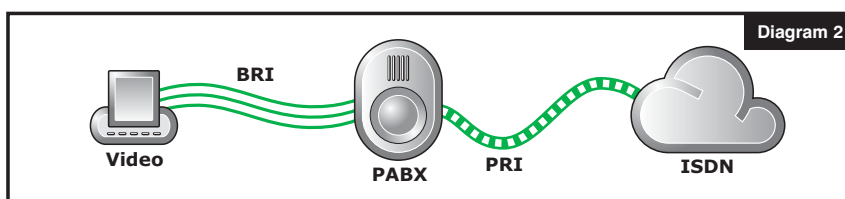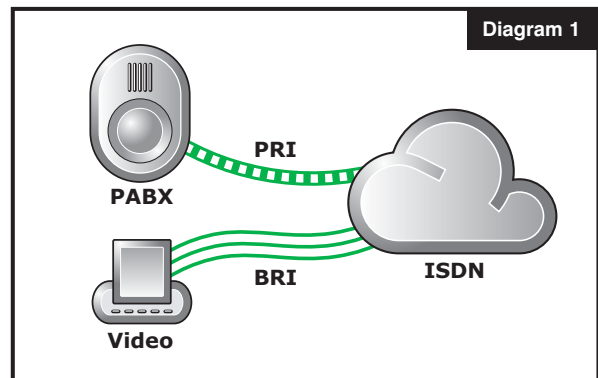

Diagram 2

If capacity is shared with other users, as in Diagram 2, when the capacity is required it may not be available so the conference cannot be held or it must be at a reduced rate with degraded performance..

How Liberator can help (1) – Bandwidth Pre Allocation

Patapsco's Liberator can help in several ways.

The key feature for this application is Liberator's ability to have capacity pre-booked and "held" ready for the application's use. This means, for example, a 384kbps videoconference scheduled for 15:00 on Friday can be pre-booked.

Diagram 3

e: info@patapsco.co.uk   t: +44(0) 1428 752 900   f: +44(0) 1428 752 901   Version No. 01   1
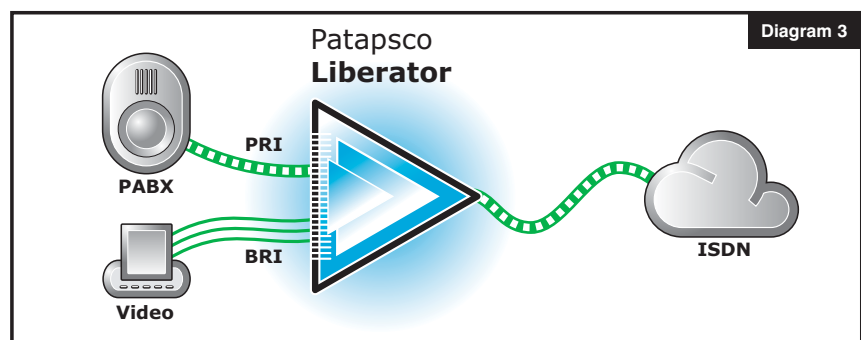
At the time of booking the operator can configure how far in advance the capacity will start to be acquired for the application and for how long it is to be held without being used. In the example given above, the operator may require Liberator to start holding capacity from 14:45. At 14:45 Liberator will begin to acquire and reserve ISDN channels as they become available and deny access by other devices or in-coming calls. This continues until all six circuits are held ready for the application at 15:00.

When booking the capacity a time that the unused capacity is to be held until can also be entered, perhaps 15:20. If the conference has not started by 15:20 the reserved channels are freed and returned to the common pool. If the conference is running and the channels have been called upon, they will remain in place, beyond 15:20 until the conference is finished.

A variation is where, for example, a remote caller is known to want access between certain times to a specific device, maybe needing to download a very large print file or backup file. Again, capacity can be pre-booked. The Liberator will hold a number of channels reserved. Once non-reserved channels are all used the Liberator will reject in-coming calls to other destinations or from other calling parties (identified by Calling Line Identifier or "CLI") other than the specified ports which reserved the capacity and from the correct caller. Other variations are possible.

The Liberator's booking facility adds a new dimension to services, improving access yet using resources as effectively as possible.

How Liberator can help (2) – Mixed Applications

Whilst this note is one of a series that considers different applications separately, Liberator places no restriction on the number of applications that can be supported simultaneously.

Overall, the benefits of Liberator for multiple ISDN installations are:

- Improved ISDN usage by giving all devices access to a single "pool" of circuits, allowing the overall number of circuits to be reduced.
- Increase in service levels to/from devices by maintaining the number of network ports yet increasing the number of connections from the devices to the Liberator.
- Reduced installation costs
- Reduced rental costs by using capacity more efficiently
- Simplify billing and circuit tracking.
- Fast availability of extra BRIs for expansion at virtually no cost
- Less space, fewer "boxes" and simplified cabling.
- Fast, simple installation with minimal user-impact.
- Simple to configure and re-configure (unlike most PABXs!)

Summary

The Liberator is a range of professional products for carriers and corporates. Priced to help reduce ISDN installation costs, reduce rental costs and improve flexibility and expansion, it requires no system changes or user disruption, keeps data applications separate from voice and is easy to install and configure.

Other application notes in this series cover: