

Sharing a single PRI between PRI and BRI devices

PABXs and bandwidth intensive data devices often require network access via a Primary Rate ISDN (PRI) interface. Each PRI service has a significant installation and on-going rental cost.

Liberator allows a second PRI device to share an existing line instead of paying installation for a second circuit. It also has the ability to provide local BRI ports derived from the PRI network connection

Customers may consider using the Liberator if:

- The total number of channels required by 2 PRI devices at any-one time is 30 or less.
- Existing or planned BRI devices could also share the PRI capacity.

Application descriptions

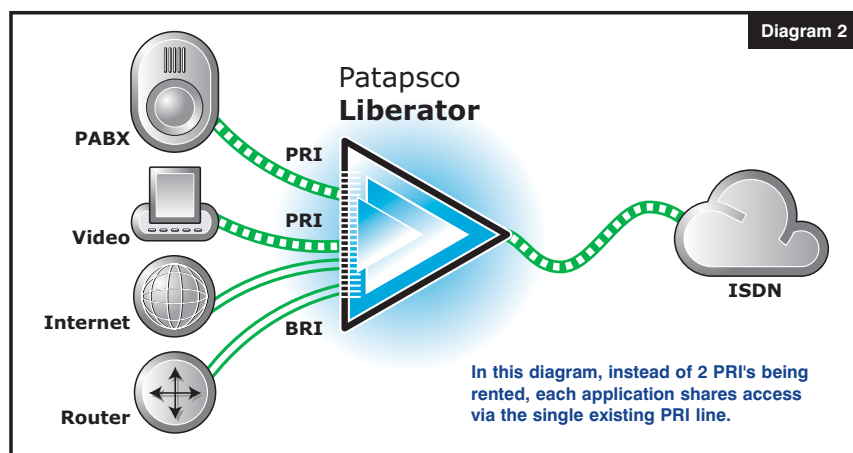
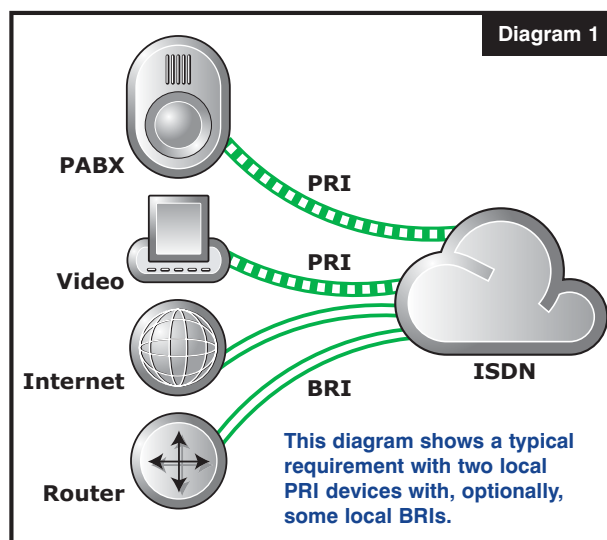
Medium-sized business locations frequently use a PRI interface for the PABX. Adding another local PRI device such as a backup unit, videoconference or router can be cost-prohibitive, as can adding multiple BRI interfaces.

The PABX in Diagram 1 may have a part-enabled PRI, say 16 channels and the other PRI device perhaps needs another 12 periodically.

How Liberator can help (1) – Reduce Network Costs.

Significant cost reductions can be achieved in 2 main areas:

- Diagram 2 shows that by splitting a PRI into two, the need for the second PRI is avoided. This saves the on-going rental costs and if the second PRI has not yet been installed it also avoids the installation charge.
- Utilising a single PRI network connection between local devices means they all have access to, and can share, a large number of ISDN network channels. PRI devices will often have different call profiles, establishing connections at different times and for different durations.



Fewer overall channels need to be rented and an efficient "pool" from which devices can draw is created.

If required, a minimum number of channels can be reserved for each application, so in the example shown in Diagram 2, the customer might keep 12 circuits reserved and available for the PABX and 8 for the second device where previously there were 16 and 12. Either PRI's and any BRI devices will then share the remaining capacity as needed.

An additional benefit of this approach is that each device can draw on the 'pool' of channels during quiet times and access **more capacity** than was previously available whilst ISDN rental costs are actually reduced.

How Liberator can help (2) – Maintain network costs but improve service levels.

When devices have different call profiles, for example the PABX needs more channels during the day but fewer at night, and the router needs more capacity in the evening (maybe for a batch file transfer or data backup), Liberator can support different "time-of-day" configurations.

It is possible to configure the PABX to have a minimum of say, 14 circuits during the day with 4 allocated to the router. The Video Conferencing System and Internet access will then share remaining capacity on an as-needed basis. In the evening a second configuration is enabled which reduces the PABX to 4 channels whilst increasing the router to 16.

In this example both devices actually gain from more network access at the times when they need it, improving response and network efficiency, yet they have done so with one less PRI and reducing network costs.

How Liberator can help (3) – 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:

AN-006(A)	PRI to BRI Conversion
AN-006(B)	Using existing PRI's to provide BRI ports
AN-006(C)	Sharing a single PRI between PRI and BRI devices
AN-006(D)	ISDN "Time-of-Day" Reconfiguration
AN-006(E)	Low-cost ISDN backup by sharing ISDN
AN-006(F)	Improve dial-in and dial-out access and user/application performance without increasing network costs
AN-006(G)	Pre-allocate network resources applications have access to
AN-006(H)	Stand-alone BRI and/or PRI "networks" for demonstration and testing or across-site communications
AN-006(I)	Low-cost Carrier provision of PRI, Fractional E1 and BRI
AN-006(J)	Least Cost routing to a second carrier