Patapsco Communications

**LIBERATOR
Application Note 6D**

ISDN "Time-of-Day" Reconfiguration

Different types of voice and data equipment frequently have different call profiles and overall data requirements. These requirements also vary at different times of the day.

For example, a PABX needs more circuits during the working day, but a data device may need fast network resources after the working day to perform a large file transfer, for printing or for backup of data files.

Customers can use Liberator to:

- **Provide applications with access to differing networks resources at different times.**
- **Deliver and share multiple ISDN services to different local devices.**
- **Increase access without an increase in costs.**

Application descriptions

A PABX will typically need access to a large number of channels during the day. A router with Internet access may need higher capacity during the day but only enough capacity to check for new emails at night. A videoconference unit will need capacity some days but none at all on others, whilst the main corporate router may require limited capacity during the day but as much as possible for data backup over night. Other BRI devices may also just require periodic access.

It possible to configure the *minimum* and *maximum* amount of network access allocated to a Device, so it can be assured of connectivity when needed but limited so it cannot impact on other Devices and applications. This powerful tool means you can balance your requirements giving guaranteed access and share of a dynamic "pool", but without allowing any Device to take more than programmed.

Carriers can also use the Liberator to delivery varying services to customers at different times of the day/week.

How Liberator can help (1) – "Time-of-Day" profiles.

The Liberator's ability to share network resources and support different "profiles" at different times of the day means that these different demands can easily be accommodated.

During the day, most of the capacity can be reserved for the PABX, with the remainder being shared between the demands of the router and Internet requirements as needed.

Diagram 1
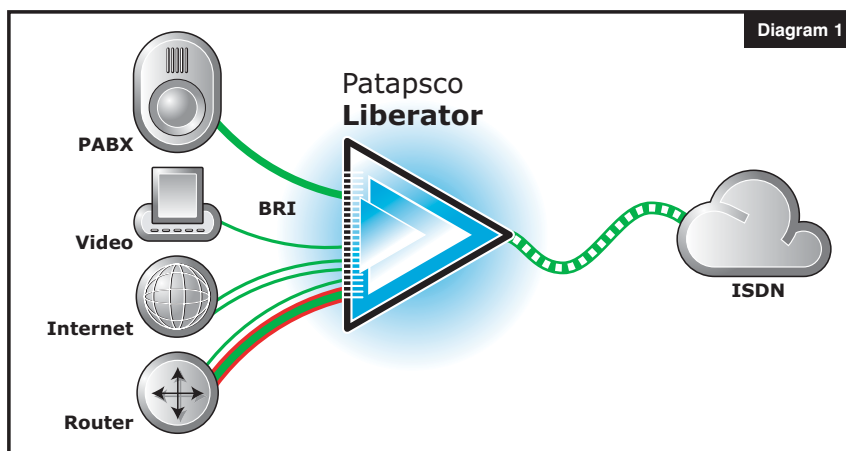
In this example, during the daytime between 07:30 and 19:00 perhaps the PABX has a minimum of 16 "B" channels and a maximum of 24, the Router a minimum of 4 and a maximum of 8 with the other Devices sharing remaining network access.

After 19:00, as shown in Diagram 1, priority is given to the Router which is required to send a large file transfer to backup the server data.

At this time a new configuration is enabled which allocates a minimum of 6 channels to the PABX and a maximum of 10, and the router is given a minimum of 16 and a maximum of 20 with other applications utilising what remains.
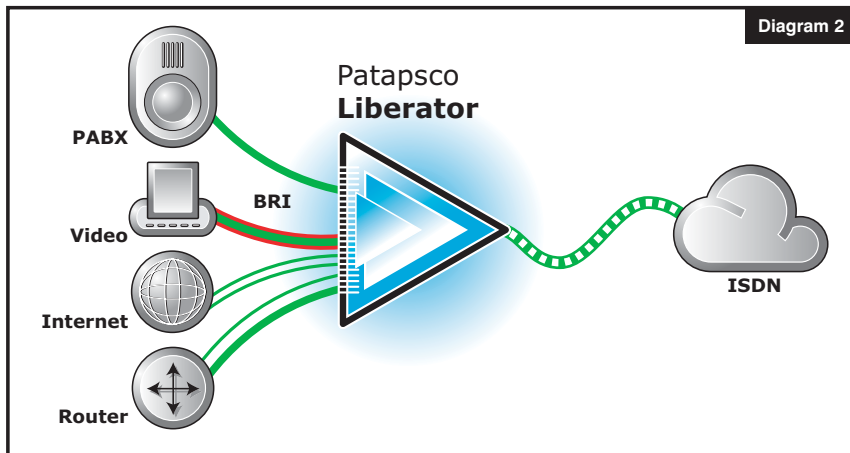
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Diagram 2

Diagram 2 illustrates a planned high profile Conference where a third profile is manually invoked to ensure that bandwidth is available for a 768kbps high quality Video Conference.. Application Note 6G shows in more detail how this can be achieved.

The flexibility Liberator provides means ISDN circuits can be used more efficiently and effectively, improving service levels and network availability when required. The number of ISDN circuits and channels can be contained whilst providing high service levels, thereby controlling or reducing costs.

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:

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**