

Patapsco Communications

Patapsco Feeds the BTS Micro-cell

Easier deployment of GSM Micro-cells

Micro-cells are a popular technology in the deployment of GSM networks. Using Patapsco Databand technology, a number of GSM operators are now deploying Micro-cells more quickly and cost effectively than before.

Operators use Micro-cells to fill gaps in network coverage, to provide temporary network coverage, to overcome network congestion, and to provide service inside large buildings.

In an increasingly competitive market, these Patapsco customers are increasing their revenues, improving customer loyalty, maintaining competitive positions and increasing profitability.

How do Patapsco make this happen?

- **Leased circuits are often difficult and expensive to obtain, whereas ISDN is readily available and cost effective – here the Patapsco solution comes into its own, bringing subscriber revenues earlier than before.**
- **The Patapsco solution provides that capacity only when needed, enabling the network operator to maximise connectivity and service revenues.**
- **Because it is so fast to deploy, temporary micro-cells can be deployed prior to the installation of larger cells.**
- **The Patapsco solution is totally transparent, and plugs into existing network designs and is very flexible, and helps network operators maximise their return on investment.**
- **Leased lines are "always on" but the Patapsco BTS Feeder can be used to provide additional capacity on a "time of day" basis to cover the busy hour – whenever it occurs.**
- **Patapsco products can also be used to cover for leased line failures – thus maintaining revenue streams for operators.**

GSM Network Director -

"The Patapsco BTS Feeder enabled me to meet my target for micro-cell roll out"

"It is simple & fast to install into an existing network and works very well."

"It is a solution that could be used by many GSM network operators."

"Using the Patapsco BTS Feeder, we filled gaps in our network coverage ahead of target, bringing in call revenues earlier than planned."

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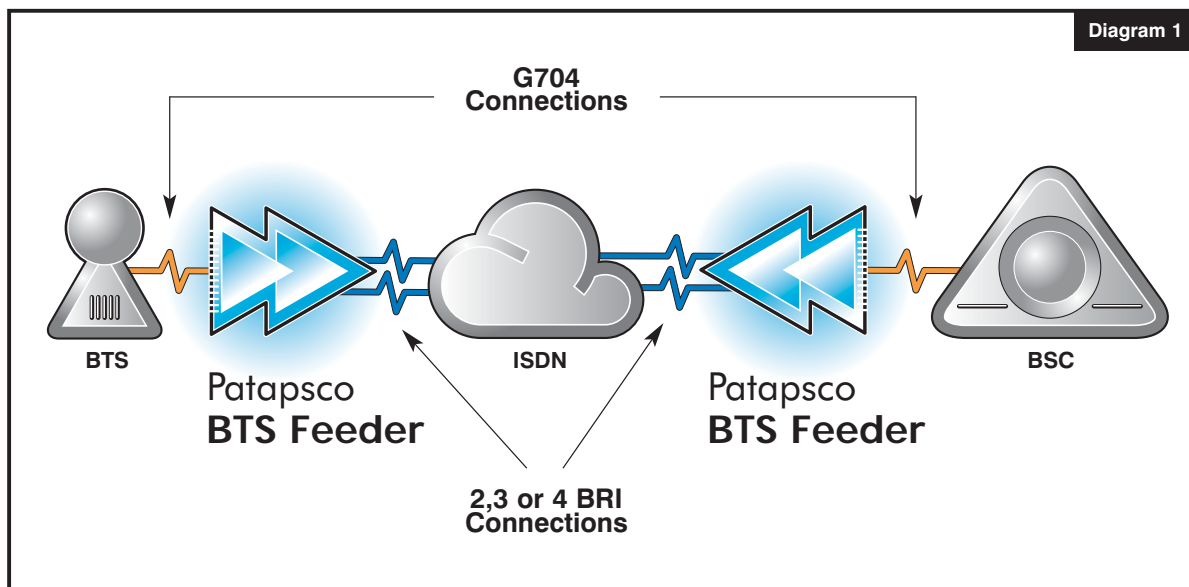
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- The compact design of the Patapsco units easily fits within existing installations.
- Based on the world-leading Databand range of products, with thousands of units operating in critical networks around the world, the BTS Feeder has rightly earned a reputation for reliability and resilience.
- The Patapsco solution fits into existing GSM networks without any change of technology, management procedures or systems.

In summary, it is fast, easy to install and increases profitability.

How does it work?

The BTS Feeder connects a GSM Base Transceiver Station (BTS) to the Base Station Controller (BSC) using Basic Rate ISDN (BRI) calls to replicate a G704 leased line. The BTS & BSC units pass the GSM signals by multiplexing four into each separate 64 kbit/s channel. Additionally, one channel is used to pass signalling information.

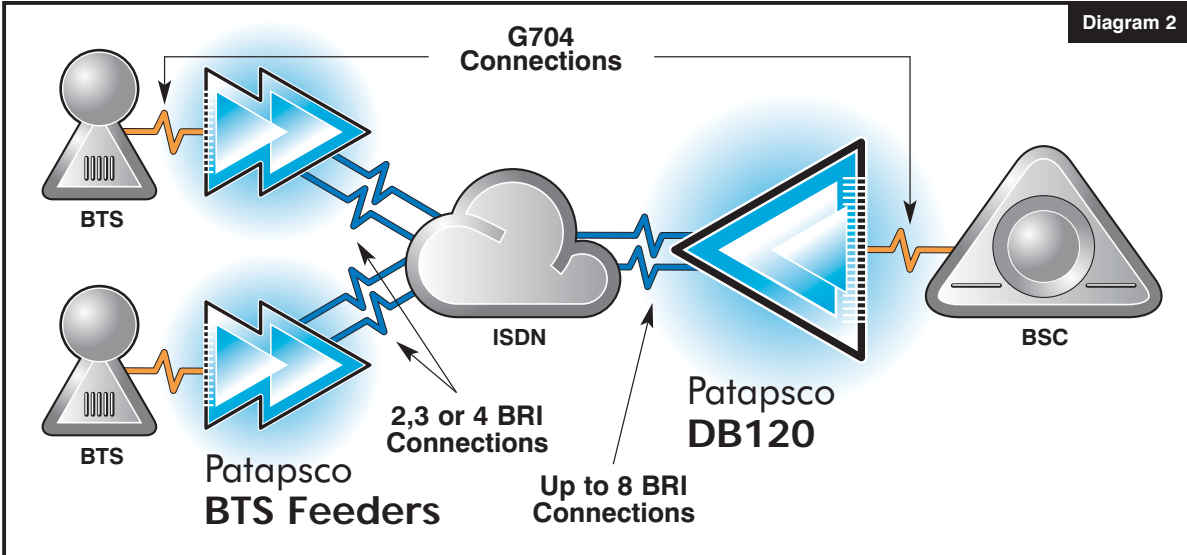


In this basic configuration, a maximum of 8 B Channels (4 BRI) are used. The BRI connections are usually "nailed up" permanent connections. However, it is also possible to programme "time of day" connections, providing different capacities to match varying demand during the day.

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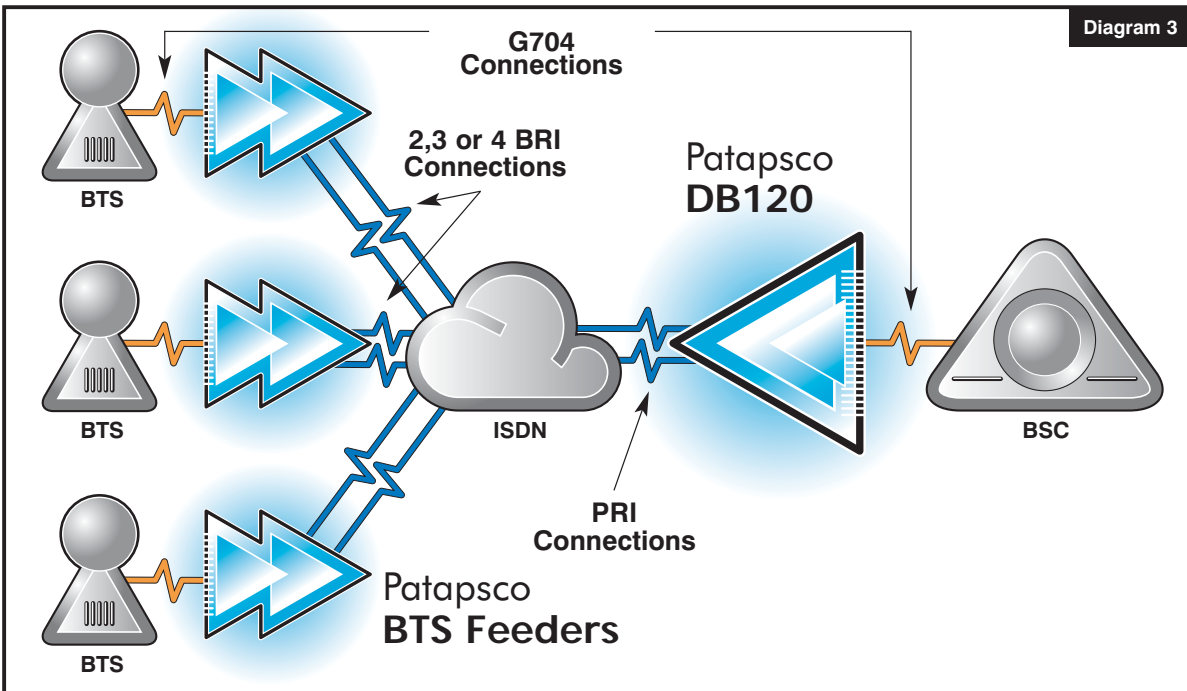
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As demands grow, the high capacity of the Databand DB120 chassis can be used at the BSC site.



This allows a number of BTS sites to be connected to the BSC over the same G704 connection.

Further capacity can easily be provided, with many BTS Feeder units connected to the Databand DB120 chassis. Below, the DB120 chassis is fitted with Primary Rate ISDN (PRI) and additional G704 connections. The use of PRI is often more cost effective when more than 12 B channels are required.



The DB120 allows complete flexibility in the allocation of 64kbit/s B channels from the same BTS to different G704 connections, potentially increasing resilience.

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How do I find out more?

For more details and references, contact:

Ted Richardson

Patapsco Communications

Passfield Oak

Passfield Common

Near Liphook

Hampshire GU30 7RL

United Kingdom

Telephone: +44 1 428 752900

Email: ted@patapsco.co.uk