

APPLICATION NOTE

Saving money in ADSL Network Rollout - a radical approach.

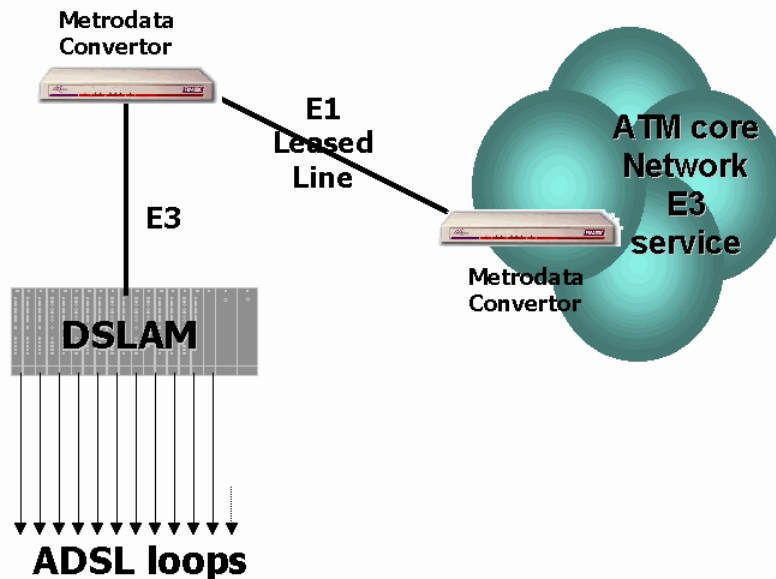
- Remove the barriers to introduction
- Reduced up-front implementation costs
- Scalable and planned network growth
- Earlier revenues
- Employ wholesale bandwidth as the network needs
- Avoid initial over-provision of expensive capacity

Carrier Division



The ADSL Rollout challenge

The cost of providing the local distribution of ADSL services will be very high initially if E3 connections are used between DSLAMs and the core ATM network. Metrodata can reduce the up-front costs by initially providing E1 connectivity instead.



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Facts

ADSL networks typically use ATM as the core.

In the UK there are some 5600 local exchanges with 43 million copper wire connections, potentially targeted in your ADSL service.

A DSLAM is necessary at all chosen exchanges to provide ADSL service.

Typically E3/DS3 is the connection speed to DSLAMs from the ATM core.

An E3 leased line is circa 10 times more expensive than E1.

A typical, say 200-line, DSLAM costs of the order of 3 or 4 times as expensive than say a 20-line unit.



Opinions

The initial rollout of ADSL services does not need to be via E3 connections – it can be via E1 lines to facilitate early penetration whilst maximising the cashflow, for later upgrade to E3/DS3.

Take up of ADSL services will not be huge initially, more likely exponential over the next 3 years until SDSL/VDSL becomes viable. So, the infrastructure and cashflow can grow in a controlled and profitable manner, as demand grows.

To match the initial demands, whilst catering for the performance improvements over modem/ISDN internet links, the service provision from the DSLAM could start at say 20 lines with E1 for local and remote Exchanges – only the larger serving exchanges need the 200 line capacity DSLAMs with E3.

An E1 ATM delivery to a fully utilised 20-line DSLAM will give average 512k performance on an 5:1 contention. A subsequent network enhancement to E3 and a 200-line DSLAM would give around 850k average performance at 5:1 contention – a chargeable upgrade perhaps (?)

[Although ADSL specs out to 8M, is this rate really part of an economic rollout?]

There is no need to seek an E1-connectable DSLAM – Metrodata have an economic answer to using the available E3/DS3 DSLAMs and adapting E3 ATM interfaces to E1.

Solution

Metrodata have a product to deliver an E1 (or even Fractional E1) ATM uplink from an ATM core network to lower-order DSLAMs, thereby saving huge amounts of line tariff, and costs on DSLAMs. This reduces the up-front implementation costs, thereby increasing the scope for faster competitive ADSL service rollout, whilst attracting revenues earlier.

Using Metrodata products to provide this E1 ATM connectivity can ease the physical space constraint in BT Exchanges through use of lesser DSLAMs, OR, by use of street cabinets to house the DSLAM, remove that obstacle completely.

A multipair connection will be needed to the BT MDF whether co-sited or street cabinet, but the ATM service delivery at E1, or Fractional E1, from wherever your ATM node exists, will be far more economical (and probably more practical) than an E3 connection, provided probably by BT.

Sounds attractive ? – now is the time to involve Metrodata in your ADSL rollout plans – even if you need a bespoke solution from Metrodata, to help you maximise the infrastructure development and minimise implementation costs.

Metrodata will provide the appropriate units to minimise your implementation costs whilst providing the designed level of service, *and* more profitable revenue.



Metrodata Overview – a technically excellent British communications company

You think you have an issue connecting communications equipment and network services together ? – not any more - Metrodata will have developed the solution to your current need, and we are already developing the solutions for your future needs!

The communications world is full of techno-terminology and mystique. Convergence, fibre, SDH, STM1, ATM, integration, copper, interface conversion, interface extension, coaxial, dsu, satellite, broadband, connectivity, access, standards and so on.

Carriers and Service Providers are coming under increasing pressure from the market to provide more than just leased lines. End to end management of their services, fast service provision, flexible bandwidth and tariffing, remote management and diagnostic tools are some examples.

Be assured, the **Metrodata Carrier Division** is working closely with users and SP's to create innovative solutions and services.

Metrodata are the experts to guide you to your network solution.

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