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## **2902 MainStreet** Multiservice Network Termination Unit

**The 2902 MainStreet®  
Multiservice Network  
Termination Unit (NTU) allows  
service providers to deliver data  
and digital voice access with a  
high degree of flexibility and  
reliability while making use of  
existing network infrastructure.**

The 2902 MainStreet Multiservice Network Termination Unit (NTU) delivers managed bandwidth access of up to 2 Mbit/s over existing copper pairs (HDSL) or E1 facilities. Within a single unit, service providers can deliver integrated data and digital voice access with a high degree of flexibility and reliability while making use of existing network infrastructure.

# 2902 MainStreet

## MULTISERVICE NETWORK TERMINATION UNIT

The 2902 MainStreet Multiservice Network Termination Unit (NTU) allows service providers to deliver data and digital voice access with a high degree of flexibility and reliability while making use of existing network infrastructure. Network operators can deploy the same platform throughout the entire network and use customized interfaces to deliver data and voice services as required by their customers.

By integrating E1 and HDSL technology, the 2902 MainStreet NTU offers greater equipment flexibility for service providers and private network operators alike, and the potential for substantial savings without the associated costs of replacing existing copper facilities.

The 2902 MainStreet NTU can be configured to deliver n\*64 to 2 Mbit/s voice and data services over two regular twisted copper pairs up to 5 km, without requiring repeaters.

The 2902 MainStreet NTU enables efficient remote management of access circuits that have traditionally been costly for public network operators. Once installed, the 2902 MainStreet can be monitored and reconfigured from a centralized location.

### Integrated Solution

The 2902 MainStreet NTU allows service providers to multiplex data, router and LAN hub traffic into a single, versatile gateway. It provides a flexible, cost-effective way to integrate digital voice and data traffic from a business site onto a high speed E1 digital link for customer access to public or private networks, or for point-to-point operation.

The 2902 MainStreet integrates HDSL without the use of any stand-alone equipment. The entire network, including the HDSL/E1 transmission facility, is managed by a common network management system. No additional rack space or management terminals are required for the 2902 or the 3600/3645 MainStreet family of products.

### HDSL Technology

HDSL is becoming an increasingly popular component of access networks today. It has become the method of choice for delivering E1 data rates over unconditioned copper wires.

HDSL eliminates the need for mid-span repeaters and cable pair separation for E1 transmission and access lines. It will also compensate for individual non-ideal characteristics of the copper loop.

### Flexible Interfaces

The 2902 MainStreet NTU supports HDSL, fibre optic and G703 E1 WAN connections. The 2902 MainStreet NTU provides two E1 interfaces that can be configured for either E1 HDB3 or E1 HDSL through the use of plug-in Line Interface Modules (LIM). For example, a 2902 MainStreet NTU can be connected to a PBX with the 2902 MainStreet acting as a drop-and-insert multiplexer merging the PBX and data traffic onto a single E1 stream.

Two plug-in X.21 or V.35 data interfaces are accommodated. The 2902 MainStreet NTU can be connected to 2600 and 2700 MainStreet remote data termination units. The DTU family of products allows remote connection of up to 5.5 km over unconditioned copper for RS232, X.21 and V.35 devices.

### Node and Network Management

In common with other Newbridge products, the 2902 MainStreet NTU can be configured using network management executive applications to provide time of day scheduling for typical services, such as video conference booking.

All operating parameters of the 2902 MainStreet NTU are software configurable. A direct connection to the 2902 MainStreet NTU can be made via either of two maintenance ports. The Newbridge MainStreet network manager provides full controlled network management of the 2902 MainStreet NTU over the Newbridge packet-based Control Packet Switching System (CPSS). Performance statistics are collected to allow for a detailed evaluation of system status at any time.

### E1 Interfaces

- Compatible with applicable sections of CCITT G.703, G.704
- HDSL 2B1Q
- HDB3
- 75/120 line impedance
- BNC/RJ45 connectors
- Single mode Optical Fibre via FC-PC connector
- Typical range up to 18 km

### Termination Interfaces

Any two DCMs:

- X.21 (up to 1.92 Mbit/s)
- V.35 (up to 1.92 Mbit/s)
- Dual port V.24/RS232 (up to 64 kbit/s)
- DNIC (up to 128 kbit/s)
- 2B1Q Basic Rate (up to 128 kbit/s)
- Co-directional (fixed at 64 kbit/s)

### Data Termination Units

With DNIC or 2B1Q DCM installed:

- 2600/2700 MainStreet series
- Synchronous data rates up to 128 kbit/s
- Asynchronous data rates up to 38.4 kbit/s (including 14.4 kbit/s)

### Data Connectors/Interface Adapters

- X.21: single 15 pin D type female
- V.35: single 25 pin D-type female
- RS232: dual RJ45 socket
- Co-directional: dual RJ45 socket
- DNIC: RJ11 socket
- 2B1Q: RJ45 socket

### Maintenance

- All parameters are software configurable
- DTE and DCE maintenance ports
- Multilevel password protection
- Automatic self-diagnostics and directed diagnostics with statistics
- alarm storage buffer
- Remote alarm signaling
- Local and remote loop backs
- Alarm contacts and sensors
- Compatible with G.821 CRC4 statistics over E1

### Power

- Universal AC power supply 90-240 V AC

### Operating Environment

- Temperature: up to 50<sup>o</sup> C without forced air cooling

### Physical Description

- The standard case is a desktop design with brackets available for rackmount installation

### Dimensions

- Height: 9.3 cm (3.66 in.), 2VU
- Width: 43.2 cm (17.00 in.) without rack mounting ears; 48.2 cm (19.00 in.) with rack mounting ears
- Depth: 28.14 cm (11.08 in.)
- 19 in. and 23 in. sliding drawer mountings are available as options

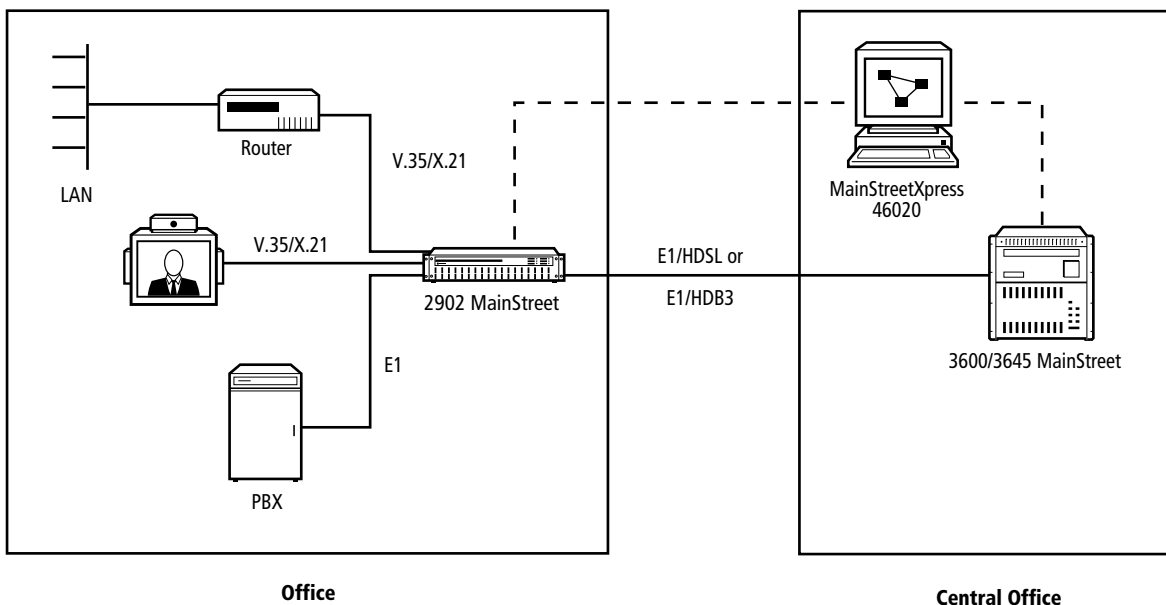


Figure 1: The 2902 MainStreet NTU can aggregate PBX and data traffic over two copper pairs.

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