

# 1030 Router Series



The 1030 Router Series is the series of routers for LAN data connectivity over leased access lines. They offer high performance IP routing and bridging for less money than other professional access routers. Along with the other OneAccess Routers, they offer a complete solution for mission-critical business applications. All these devices have been specifically designed to meet the requirements of enterprise branch offices and service provider managed services.

## 1030 ROUTER SERIES

The 1030 Router Series offers a versatile solution for LAN connections over E1 or serial circuits. With its support for various WAN protocols and flexible use of G703 interfaces, it can be used for connection to PDH, SDH, Frame Relay, ATM and ISDN networks.

The 1030 Router Series is part of the family of TDRE compliant products (Total Dynamic Routing Engine). It includes all features to build VPN connections and VLAN interconnect with quality of service over leased line, Frame Relay, ATM and MPLS networks. With a routing performance of 45 Kpps, the Telindus 1030 Router Series is capable of routing at wire speed without compromise over E1 and serial circuits.

## 1031 & 1032 ROUTERS

The 1031 and 1032 Routers have one respectively two 2Mbps E1 WAN interfaces on RJ45 connector. They are extremely well suited to transport LAN traffic over a PDH or SDH infrastructure. The G703 interfaces can be used as an ISON PRI, a transparent G703, a framed E1, a fractional E1 or a channelised E1. The latter offers multiple logical interfaces on one physical port.

## 1033 & 1034 ROUTERS

The 1033 and 1034 Routers have a serial interface on a DB25 connector. The interface can be configured as a X.21, V.35, V.36 (RS-449), RS-530, RS-530A or V.24 (RS-232) interface to suit the needs for different serial interface types.

Conversion cables to the standard connector type are available. It supports serial interface speeds up to 10Mbps. In the V.24 mode both synchronous and asynchronous data transfer is possible.

## 1035 ROUTER

The 1034 Router has in addition 2 BRI (Basic Rate ISDN) ports, offering an aggregated back-up speed up to 256 kbps. The ISDN interfaces can be used in the standard dial-up mode, but also in leased-line mode.

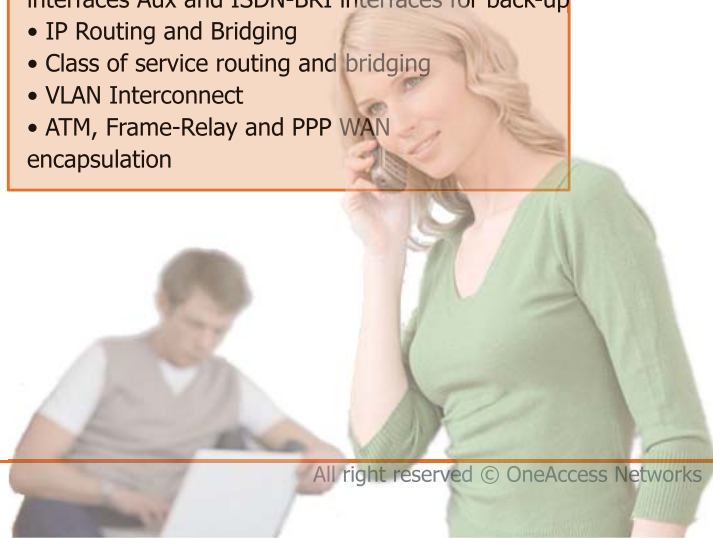
The 1035 Orchid combines 2 G703 ports with a serial port. With its additional memory, this device is also suited as a management concentrator for TDM devices. More details on this feature can be found in the separate leaflet of the 1035 Orchid.

## FEATURES AND MANAGEMENT

All units have an asynchronous port for dial back-up. As all TDRE routers, the 1030 Router Series is manageable through a variety of maintenance and management tools. These compact desktop routers can be mounted in a rack through an optional rack mount kit. The units can be delivered with a power plug for 110Vac, 230Vac, 24Vdc or -48Vdc powering. The 1035 Orchid exists also in a card version for the CN4 card nest.

## FEATURES AND BENEFITS

- High performance WAN Routers
- Available with serial or channelised E1 interfaces Aux and ISDN-BRI interfaces for back-up
- IP Routing and Bridging
- Class of service routing and bridging
- VLAN Interconnect
- ATM, Frame-Relay and PPP WAN encapsulation



### 1030 ROUTER SERIES SPECIFICATIONS

#### LAN INTERFACES

- Compliant with IEEE 802.3 10Mbps HDX/FDX Ethernet
- Compliant with IEEE 802.3u 100Mbps HDX/FDX Ethernet
- 10/100Mbps auto-sense
- Auto cross-over
- RJ45 Unshielded Twisted Pair (UTP)

#### G703 interface (1031, 1032 versions)

- Applicable standards: ITU-T G.703, G.704, G.706, G.775, G.823, G.826
- Data rate: 2.048kbit/s  $\pm$  50ppm, co-directional
- Coding: HDB3/AMI
- Impedance: 120 Ohm balanced
- Transparent 2Mbit/s, G.704 framed E1
- Channelised E1 and ISDN PRI on 1031 and 1032
- Add-and-drop (ADM) on 64kbps time-slots between the two G703 interfaces on the 1032 and 1035
- Fractional speeds (E1): N x 64 kbps (N = 1 ... 32)
- Connector: RJ45 DTE
- Clocking: slave receive, internal
- CRC4 monitoring and insertion
- Layer 2 protocols:
- PPP, Frame-Relay, HDLC
- ATM for the first E1 port on 1031 and 1032 in accordance with ITU-T G.804

#### Serial interface (1033, 1034 versions)

- Applicable electrical standards: ITU-T V.10, V.11, V.28
- Connector: female DB25 (ISO 2110), directly compliant with RS530, RS530A
- Through adapter cable: V.35, V.36 (RS449), X.21, V.24 (RS232)
- DTE signals: SGND (102), TXD (103), RXD (104), RTS (105), CTS (106), DTR (108), EXTCLK (113), TXCLK (114), RXCLK (115), RI (125), RDL (140), AL (141), TI (142)
- X.21 signals: G, T, R, C, I, S, X
- Synchronous or asynchronous operation
- Synchronous clocking: internal, internal transmit, slave receive, external
- Synchronous interface speeds slave receive and external clocking: all speeds up to 10Mbps
- Synchronous interface speeds in internal and internal transmit clocking: all 64kbps speeds up to 2Mbps; 4, 6, 8 and 10Mbps
- Asynchronous interface speeds: 9600, 19200, 38400, 57600, 115200 bps
- Layer 2 protocols: PPP, Frame-Relay, HDLC

#### PRI & BRI interfaces (1031, 1032, 1034 versions)

- PPP and MLPPP WAN encapsulation
- Applicable standards: I.420, I.412, I.430, I.440 (= Q.920), I.441 (= Q.921), I.450 (= Q.930), I.451 (= Q.931)
- BRI Connector: RJ45 S0 DTE
- ISDN Dial-up and leased line mode (BRI)

#### Sales Code

- > 177460 1031 E1 230VAC
- > 177463 1032 2E1 230VAC
- > 177627 1032 2E1 3DES 230VAC
- > 177465 1033 SERIAL 230VAC
- > 177633 1033 SERIAL 3DES 230VAC
- > 183014 1034 SERIAL ISDN-2BRI 230VAC
- > 183016 1034 SERIAL ISDN-2BRI 3DES 230VAC
- > 177468 1035 ORCHID 230VAC
- > 180330 1035 ORCHID CN4

#### Control interface

- Applicable standards: ITU-T V.24, V.28, EIA/TIA 574
- DCE signals: SGND (102), TXD (103), RXD (104)
- Connector: female DB9
- Speed: 9600 bps

#### AUX interface

- Applicable standards: ITU-T V.24, V.28, EIA/TIA 574
- DCE signals: SGND (102), TXD (103), RXD (104), RTS (105), CTS (106), DSR (107), DTR (108), DCD (109), RI (125)
- Connector: female DB9
- Speed: up to 115 kbps

#### IP routing and bridging

- Conform TDRE 12.0 (Total Dynamic Routing Engine)
- On-board encryption hardware accelerator for DES and 3DES encryption on selected models
- Full forwarding performance of 64byte packets at maximum interface speed
- Routing and Bridging performance: 45.000 pps
- Number of Frame Relay DLCIs: 200
- Number of ATM PVCs: 31
- Number of IP VPN tunnels: 25
- Number of VLANs: 200
- Number of bridge-groups: 13

#### Maintenance and Management Support

- Conform TDRE 12.0 (Total Dynamic Routing Engine)

#### Front Panel Indications

- PWR: Power
- G703 / ISDN 1 / LNK: first G.703 or BRI interface status (1031, 1032, 1034, 1035)
- G703 / ISDN 1 / ACT: first G.703 or BRI interface's WAN protocol status (1031, 1032, 1034, 1035)
- G703 / ISDN 2 / LNK: second G.703 or BRI interface status (1032, 1034, 1035)
- G703 / ISDN 2 / ACT: second G.703 or BRI interface's WAN protocol status (1032, 1034, 1035)
- RS530 / LNK: RS530 interface status (1033, 1034, 1035)
- RS530 / ACT: RS530 interface's WAN protocol status (1033, 1034, 1035)
- LAN / ACT: LAN status
- LAN / COL: LAN collision detect

#### Memory

- Flash memory: 16 Mbyte
- RAM memory (1031-1034): 16 Mbyte
- RAM memory (1035): 64 Mbyte

#### Mechanical Data

- Desktop (1 rack-unit high) or card version (1035 Orchid CV only)
- Dimensions: 45 x 220 x 235 mm
- Weight: 800 g
- Wall mountable
- Rack mountable
- Optional 19" rack-mount kit required for desktop versions
- 1035 Orchid CV fits in CN4 card nest

#### Power Requirements

- Input voltage: 12 Vdc, max 1A
- Power adapters for 115Vac, 230Vac, 24Vdc and -48Vdc
- Power consumption: max 5W

