TELINDUS 1030 ROUTER SERIES

> **THE TELINDUS 1030 ROUTER SERIES IS A SET OF IP ACCESS ROUTERS DESIGNED FOR HIGH–SPEED WAN ACCESS. THEY OFFER HIGH–PERFORMANCE IP ROUTING AND BRIDGING FOR LESS MONEY THAN OTHER PROFESSIONAL ACCESS ROUTERS.**

The Telindus router series is based on a high-performance routing core (45.000 pps) and is suited for delivering professional IP services over it's wide choice of WAN interface options, including serial (X.21, V.35, V.36,RS530, RS530A, RS232), Basic Rate ISDN (BRI) and E1 ports.
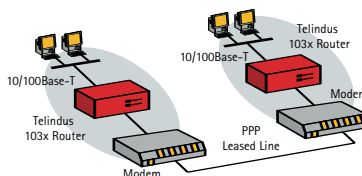
The versions with 2Mbps E1 interfaces are extremely well suited to transport LAN traffic over a PDH or SDH infrastructure. These G703 interfaces (1 or 2, depending on the model) can be used as channelised E1 interfaces, offering multiple logical interfaces on one physical port. The versions with serial interface allow speeds up to 10Mbps.

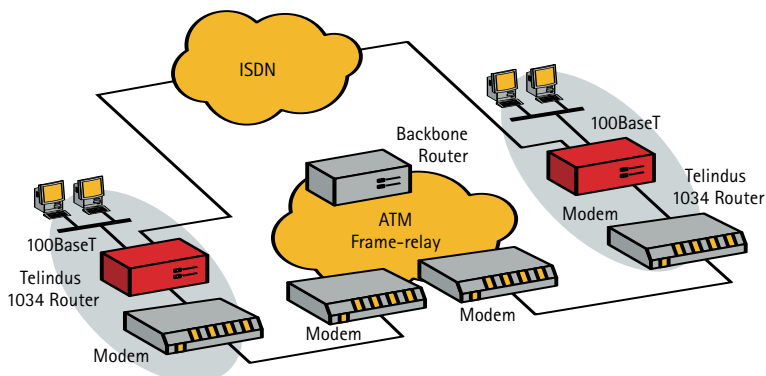The units with ISDN feature 2 ISDN BRI ports, offering a (backup) speed up to 256 kbps.

All models fully support the TDRE (Telindus Dynamic Routing Engine) and include the possibility for encapsulation into Frame-Relay, ATM or PPP.

v POINT–TO–POINT ROUTER CONNECTION

v CONNECTION THROUGH SWITCHED NETWORK WITH ISDN BACK–UP

The unit supports differentiated services based on VPNs (Virtual Private Networks). Therefore it integrates features like L2TP (Layer 2 Tunnelling Protocol), IPSEC, 802.1Q (VLAN tagging) and COS (Class Of Service) based on Diffserv priority tagging and queuing. Specific models supporting a hardware accelerator for DES and 3DES encryption are also available.
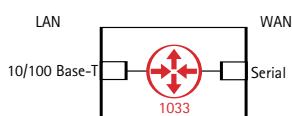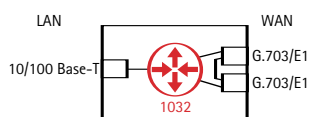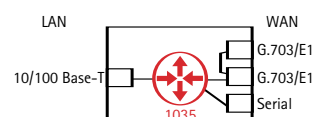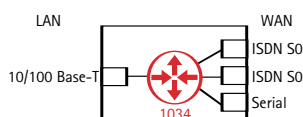
TELINDUS
ACCESS
SOLUTIONS

> TELINDUS
  DYNAMIC
  ROUTING ENGINE

> ACCESS
  ROUTERS

> BROADBAND
  CENTRAL OFFICE

> BROADBAND
  CPE

> TDM CENTRAL
  OFFICE

> VOICEBAND
  MODEMS

> TDM DSL
  MODEMS

> FIBRE OPTIC
  MODEMS

> MULTIPLEXERS
  & INTERFACE
  CONVERTERS

> ISDN
  MULTIPLEXERS

> MODULAR
  DATA
  INTERFACES

> NETWORK
  MAINTENANCE &
  MANAGEMENT

> ACCESSORIES

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SURVEILLANCE
SOLUTIONS

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V DIFFERENT 103X ROUTER MODELS
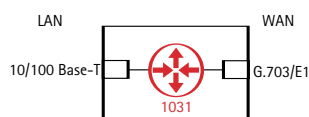
The unit is designed for integration into demanding network environments and can be controlled by the complete set of network maintenance and management tools as they are described in this catalogue.

The Telindus 1030 Router series supports auto-install features over the WAN network. This makes it ideally suited for plug-and-play installation at customer premises while the configuration is prepared at a central site.

FEATURES & BENEFITS

> PROFESSIONAL 10 MBPS WAN ROUTERS

> AVAILABLE WITH SERIAL, ISDN OR CHANNELISED E1 INTERFACES

> 10/100 AUTO SENSE ETHERNET INTERFACE

> IP ROUTING AND BRIDGING

> CLASS OF SERVICE ROUTING

> VLAN INTERCONNECT

> ATM, FRAME RELAY AND PPP WAN ENCAPSULATION

> BUILT-IN L2TP AND IPSEC SECURITY

> FULLY MANAGEABLE WITH A VARIETY OF TOOLS

LAN INTERFACE
> Compliant with IEEE 802.3 10Mbps HDX/FDX Ethernet
> Compliant with IEEE 802.3u 100Mbps HDX/FDX Ethernet
> 10/100Mbps auto-sense
> RJ45 Unshielded Twisted Pair (UTP)

WAN INTERFACES
Available WAN interfaces depend on the model
> Telindus 1031 Router: 1x 2Mbps G703 interface
> Telindus 1032 Router: 2x 2Mbps G703 interfaces
> Telindus 1033 Router: 1x serial interface
> Telindus 1034 Router: 1x serial and 2x BRI interface
> Telindus 1035 Orchid: 1x serial and 2x 2Mbps G703 interfaces

Note: The 1035 does not support multiport operation on the G.703 interfaces (only add-and-drop)

G703 INTERFACE CHARACTERISTICS
> Applicable standards: ITU-T G.703, G.704, G.823, G.826
> Line data rate (nominal): 2048 kbps
> Line code: HDB3
> Line connection: RJ45 DTE
> Line Impedance: 120 ohm balanced
> Clocking: slave receive, internal
> Unframed 2Mbps mode: support for PPP, Frame-Relay
> Channelised E1 mode: support for PPP, Frame-Relay
> Fractional E1 mode: support for PPP, Frame-Relay, ATM
> Possibility for add-and-drop on 64kbps time-slots between the two G.703 interfaces

RS530 INTERFACE CHARACTERISTICS
> Applicable standards: ITU-T V.10, V.11
> DTE signals: RXD, TXD, SGND, RTS, CTS, DTR, RXCLK, TXCLK, EXTCLK
> Connector: female DB25 (ISO 2110), directly compliant with RS530, RS530A
> Through adapter cable: V.35, V.36 (RS449), X.21, V.24 (RS232)
> Clocking: internal, internal transmit, slave receive, external
> PPP, frame relay and ATM WAN encapsulations

BRI INTERFACE CHARACTERISTICS
> Line connection: RJ45 S0 DTE
> PPP WAN encapsulation

AUX INTERFACE CHARACTERISTICS
> Applicable standards: ITU-T V.24, V.28, EIA/TIA 574
> DTE signals: RXD, TXD, SGND, RTS, CTS, DSR, DTR, DCD, RI
> Connector: female DB9
> Speed: 9600 bps
> Asynchronous PPP WAN encapsulation

CONTROL INTERFACE
> Applicable standards: ITU-T V.24, V.28, EIA/TIA 574
> DCE signals: RXD, TXD, SGND
> Connector: female DB9

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

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

ROUTING AND BRIDGING CHARACTERISTICS
> Conform TDRE (Telindus Dynamic Routing Engine)

ROUTING AND BRIDGING PERFORMANCE
> Full forwarding performance of 64byte packets at maximum interface speed
> Routing performance: 45.000 pps
> Buffering: up to 4800 packets (64 bytes/packet)
> Maximum number of Frame-Relay DLCIs: 200
> Maximum number of ATM PVCs: 31
> Maximum number of (VPN) tunnels: 10
> Maximum number of bridge-groups: 13

MAINTENANCE AND MANAGEMENT SUPPORT
> Conform TDRE (Telindus Dynamic Routing Engine)

MECHANICAL DATA (H X W X D)
> 45 x 220 x 235 mm Weight: 800 g

POWER REQUIREMENTS
> 9 Vdc, 1A with external power adapter
> External power adapters available for 24/48Vdc and 230 Vac

SALES CODES: STANDARD UNITS

> 177460 Telindus 1031 Router 230VAC (1x G.703)
> 177463 Telindus 1032 Router 230VAC (2x G.703)
> 177465 Telindus 1033 Router 230VAC (1x RS-530)
> 183014 Telindus 1034 Router 230VAC (1x RS-530, 2x BRI)
> 177468 Telindus 1035 Orchid 230VAC (1x RS-530, 2x G.703)

SALES CODES: WITH HARDWARE ENCRYPTION

> 177627 Telindus 1032 Router 3DES 230VAC (2x G.703)
> 177633 Telindus 1033 Router 3DES 230VAC (1x RS-530)
> 183016 Telindus 1034 Router 3DES 230VAC (1x RS-530, 2x BRI)

A cardversion of the 1035 is also available. See chapter Network Maintenance & Management

Units without power module and separate power adapters can be found in the sales codes quick reference section

1061 ROUTER

new

> **THE TELINDUS 1061 ROUTER IS A HIGH-SPEED ROUTER FOR ACCESS TO A WAN AT RATES UP TO 155 MBPS WITH A VERY COMPETITIVE PRICE / PERFORMANCE RATIO.**

The unit features two independent on-board 100Base-T LAN interfaces, and an interface slot accepting various TIMs (Telindus Interface Modules) with support for PPP, Frame-Relay or ATM. These interfaces include

> Multiple E1 (up to 8) with support for IMA (Inverse Multiplexing over ATM), multilink PPP or multilink Frame-Relay

> E3/T3 with support for PPP, Frame-Relay or ATM

> STM1 with support for ATM

> 10/100 Ethernet interface with built-in 4 port switch

The Telindus 1061 Router is fully supported by the TDRE (Telindus Dynamic Routing Engine) and includes the possibility for encapsulation into Frame-Relay, ATM or PPP.
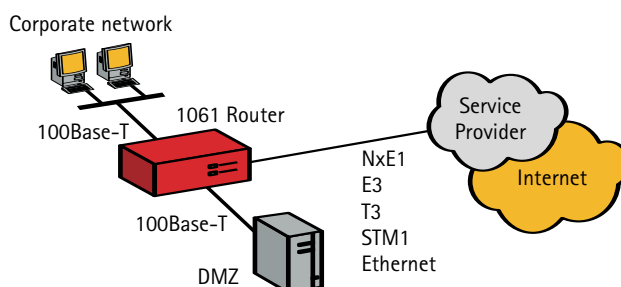
The equipment can be used in corporate environments to deliver business oriented IP services, including the termination of VPN (Virtual Private Network) connections towards remote offices, where it can be used in

combination with other Telindus or third-party router equipment. For this purpose, the Telindus 1061 Router also integrates an on-board DES/3DES accelerator. Highly quality dependent

v SCHEMATIC REPRESENTATION

Telindus Interface Module

10/100 Base-T

10/100 Base-T

1061

NxG.703/E1
E3/T3
STM1
4x 10/100Base-T
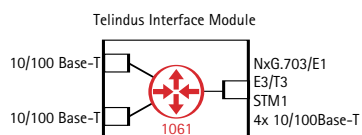
v CORPORATE NETWORK CONNECTIVITY

Corporate network

100Base-T

1061 Router

100Base-T

DMZ

NxE1
E3
T3
STM1
Ethernet

Service Provider

Internet

traffic like Voice over IP (VoIP) can be supported through the advanced built-in QoS mechanisms.

Service providers (SPs) may use the Telindus 1061 Router in their Points of Presence (POP) to concentrate a large number of customers over a high-speed WAN link. For this purpose, the device supports features like Layer 2 Tunnelling Protocol (L2TP), PPP over ATM (PPPoA) and PPP over Ethernet (PPPoE) termination, various PPP authentication protocols and Remote Access Dial-in User Service (RADIUS)

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> VOICEBAND
  MODEMS

> TDM DSL
  MODEMS

> FIBRE OPTIC
  MODEMS

> MULTIPLEXERS
  & INTERFACE
  CONVERTERS

> ISDN
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> MODULAR
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v VPN CONNECTIVITY BETWEEN OFFICES

Rural office

1030 router

Rural office

Main office

1061 Router

100Base-T

VPN1

Service
Provider

1421 SHDSL router

VPN2

Internet

100Base-T

DMZ

FEATURES & BENEFITS

> HIGH PERFORMANCE ACCESS ROUTER WITH STM1 CAPACITY

> MODULAR INTERFACE MODULES FOR MAXI-MUM FLEXIBILITY

> ON-BOARD DUAL ETHERNET CONNECTIVITY

> SUITABLE FOR ENTERPRISES AND SERVICE PROVIDERS

> 1 UNIT HIGH COMPACT HOUSING

> COMBINES IP ROUTING, BRIDGING, VLAN SWITCHING AND VPN TERMINATION IN ONE DEVICE

> FULL IP QOS SUPPORT

> COMPLETE MANAGEMENT SUITE

v INTERNET SERVICE PROVIDER ACCESS CONCENTRATION

End-user 1

End-user 2

Radius server

1061 Router

PPPoA/PPPoE

Access
Provider

Internet

PPPoA/PPPoE

LAN INTERFACE
> Number: 2
> Compliant with IEEE 802.3 10Mbps HDX/FDX Ethernet
> Compliant with IEEE 802.3u 100Mbps HDX/FDX Ethernet
> 10/100Mbps auto-sense
> RJ45 Unshielded Twisted Pair (UTP)

MODULAR INTERFACE SLOT
> Number: 1
> For use in combination with Telindus Interface Modules (TIMs)
  > Multiple E1 TIM
    - Support for Frame-Relay & Multilink Frame-Relay (up to 8 ports)
    - Support for PPP & Multilink PPP (up to 8 ports)
    - Support for ATM & ATM IMA (up to 6 ports)
  > E3/T3 TIM
    - Support for Frame-Relay, PPP & ATM
  > STM1 TIM
    - Support for ATM
  > 4 port Ethernet TIM

CONTROL INTERFACE
> Applicable standards: ITU-T V.24, V.28, EIA/TIA 574
> DCE signals: RXD, TXD, SGND
> Connector: female DB9

FRONT PANEL INDICATORS
> PWR: Power
> R: Reset condition
> LAN: LAN status

CLOCKING
> Slave on STM1, E3, T3 or E1 uplink
> Internal

ROUTING AND BRIDGING CHARACTERISTICS
> Conform TDRE (Telindus Dynamic Routing Engine)
> Standard DES/3DES on-board hardware accelerator

ROUTING AND BRIDGING PERFORMANCE
> Minimum routing performance: 150.000 pps
> Minimum bridging performance: 150.000 pps
> Minimum supported number of Frame-Relay DLCIs: 500
> Minimum supported number of ATM PVCs: 500
> Minimum supported number of (VPN) tunnels: 100
> Supported number of bridge-groups: 13

MAINTENANCE AND MANAGEMENT SUPPORT
> Conform TDRE (Telindus Dynamic Routing Engine)

MECHANICAL DATA (H X W X D)
> 44 x 440 x 240mm
> Weight: 3.5 kg

POWER REQUIREMENTS
> Dual power supply AC/DC
  DC: -36 up to -72V
  AC: 85 – 264V, 47 – 63 Hz
> Power consumption: max. 15 W

SALES CODES

> 184364 Telindus 1061 Router AC/DC
> 183021 Rack mount kit (19" or ETSI)

Sales codes and for Telindus Interface Modules (TIMs) can be found in the modular interface section and the sales code quick reference

The unit comes with an advanced built-in management agent and is supported by the complete TMA management suite for local and remote control

The Telindus 1061 Router comes in a very compact size (1 unit high) and is rack mountable. It fits in 30 cm deep ETSI racks with all connectors and indicators on the front. Combined with its low power consumption it is easily stackable.

Available from Q3 2004