



G.SHDSL.bis EFM VPN Router VPN10/20/40

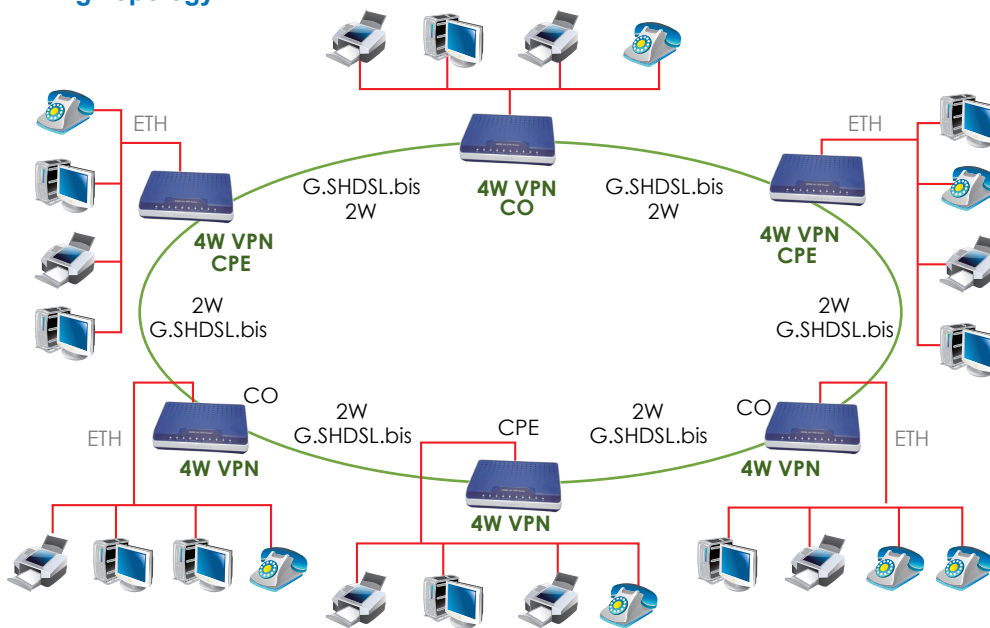
2 VPN Router

CTC Union VPN10/20/40 G.SHDSL.bis EFM/ATM VPN Router provides secure and symmetrical high-speed connectivity over existing copper-line infrastructure that is ideal for SOHO and SME users. It features the latest G.Shdsl.bis technology supporting symmetrical upstream and downstream data rates up to 15.3Mbps/Pair (TC-PAM 128). Four pairs can be bonded together for aggregated bandwidth over 61Mbps. CTC Union VPN10/20/40 Series VPN Router operates the SHDSL link in either EFM mode or ATM mode. It is designed to deliver business class Ethernet Service under EFM mode while providing the flexibility to be compatible with the existing DSLAM infrastructure under ATM mode. CTC Union VPN10/20/40 series supports flexible VPN applications including VPN pass-through, client-to-VPN gateway and VPN LAN-to-LAN connection. It features IPSec VPN up to 12 encrypted tunnels for secure data communications between remote sites, home offices, and mobile users across public IP networks like the Internet. It also supports up-to-date 3DES and AES for data encryptions as well as MD5/SHA-1 and manual/IKE key for authentication. The Quality of Service (QoS) features allow users to allocate network resources effectively. By classifying the priority of services, the powerful bandwidth management functions increase efficiency on latency-sensitive applications such as VoIP, video streaming, video conferencing and interactive game. CTC Union VPN10/20/40 series enables service providers to offer symmetrical high-speed Ethernet service or point-to-point connectivity to their enterprise customers. It is the ideal copper-based Ethernet solution for quick deployment of standardized, reliable and secure services with carrier-class OAM and comprehensive management options.

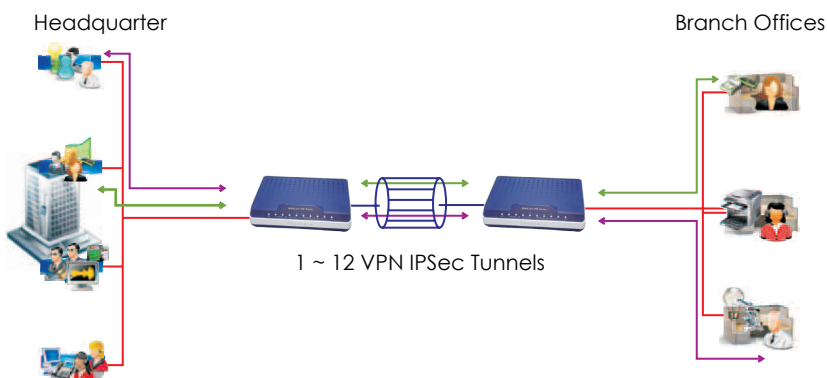
Features

- Extend Ethernet Services to sites with existing copper infrastructure
- Business-class Ethernet services with flexibility of mapping user traffic into Ethernet flows
- EFM Bonding up to 61 Mbps (4 pairs, TC-PAM 128)
- Supports both EFM mode and ATM mode
- In ATM mode, supports up to 12 PVC
- IPSec VPN for safeguarded connections
- Flexible and Rapid Service Deployment
- Support EFM OAM complying with IEEE 802.3ah
- Low Delay, Jitter and Packet Loss for delay sensitive applications

Ring Topology



VPN IPsec Tunnels



Hardware Interfaces

WAN Interface :

- SHDSL.bis: (ITU-T G.991.2 (2004) Annex A/ B /F / G supported
- Support EFM Bonding and SHDSL M-Pair mode
- Line Code: TC-PAM 16/32/64/128
- Data Rate:
 - N x 64 Kbps (N=3~89) using TC-PAM 16 / 32
 - Max. 5.696Mbps (1-Pair)
 - Max. 11.392Mbps (2-Pair)
 - Max. 22.784Mbps (4-Pair)
 - N x 64 Kbps (N=3~239) using TC-PAM 64 / 128
 - Max. 15.296 Mbps (1-Pair)
 - Max. 30.592 Mbps (2-Pair)
 - Max. 61.184 Mbps (4-Pair)

- Impedance: 135 ohms.

LAN Interface :

- 4-Ports 10/100M Switch, Auto-negotiation for 10/100Base-TX and Half/ Full Duplex, Auto-MDIX

USB (Optional) :

- Supports USB 2.0.
- Supports 3.5G

Serial Console :

- RJ-45 Connector

Factory Default Reset :

- Push Button

LED :

- Power (Green)
- WAN: LINK/ ACT (Green), one LED per pair
- LAN (Port 1 ~ Port 4): LINK/ ACT (Green: 100M, Orange: 10M)
- ALARM (Red)

Bridging and VLAN

- IEEE 802.1D Transparent Learning Bridge
- IEEE 802.1Q and Port Based VLAN
- Spanning Tree Protocol (STP)
- Up to 2K Mac Address

VPN

- IPSec (RFC2411) up to 12 Tunnels
- DES/ 3DES/ AES
- MD5/ SHA-1 and IKE/ Manual Key
- ISAKMP (RFC 2407/ 2408/ 4306) and IKE v1 (RFC 2409/ 4109)
- PSK
- L2TP/PPTP

Management

- Management via Web, Telnet and CLI
- Support SSH (RFC4250/ 4251/ 4252/ 4253/ 4254/ 4255/ 4256)
- SNMP v1/ v2c/ v3 (RFC 1157/ 1901/ 1905) and MIB II (RFC1213/ 1493)
- Syslog with Remote Logging support
- Firmware Upgrade via TFTP
- EFM (IEEE 802.3ah) OAM (Optional)

Routing

- Static routing and RIP v1/v2(RFC1058/ 2453)
- NAT/ PAT (RFC1631)
- NAT Application Level Gateways
- Skype/ MSN/ Yahoo Messenger (RFC2933)
- VoIP(SIP) pass through and VPN PPTP/L2TP pass through
- Virtual Server

Network Protocol

- IPv4 (ARP/ RARP, TCP/ UDP,ICMP)
- DHCP Client/ Server, Relay
- DNS Relay/ Proxy, Dynamic DNS(DDNS)
- IGMP v1/ v2/ v3, IGMP Proxy, IGMP Snooping
- SNTP and UPnP

ATM

- 12 PVC
- OAM F4/ F5 Loopback
- AAL5
- VC Multiplexing and SNAP/ LLC
- EoA (RFC 2684/RFC1483), PPPoA (RFC 2364) and IPoA(RFC1577)
- Multiple protocol over ATM AAL5(MPOA, REF1483/ 2684)
- QoS(UBR/ CBR/ VBR/ VBR-RT)

PPP

- PPPoE
- PAP/ CHAP/ MS-CHAP/ MS-CHAPv2
- Configurable timer to auto-reconnect and idle times for timeout.

QoS

- 802.1P Tag
- IPv4 TOS/ DiffServ
- Class-based Prioritization and Class-based Traffic Shaping
- Class-based DSCP Mark
- Up to 8 priority queues

Firewall

- SPI (Stateful Packet Inspection) and DoS (Denial of Service)
- DMZ
- Access Control List (ACL)

Operating Environment

- Operating Temperature: 0 ~ 45°C
- Storage Temperature: -20°C ~ 70°C
- Operating Humidity: 20% ~ 95% (non-condensing)

Regulatory

- ISO 9001 Quality Management
- CE Approval & EN60950 Certificate

Physical / Electrical

- Dimensions: 18.7 x 3.3 x 14.5cm (W x H x D)
- Power: 100~240VAC (via power adapter)
- Power Consumption: 9 watts Max



Ordering Information

Model Name	Description
VPN10	2W G.SHDSL.bis.VPN Router with 4x10/100TX
VPN20	4W G.SHDSL.bis.VPN Router with 4x10/100TX
VPN40	8W G.SHDSL.bis.VPN Router with 4x10/100TX
VPN10/U	2W G.SHDSL.bis.VPN Router with 4x10/100TX and USB Port
VPN20/U	4W G.SHDSL.bis.VPN Router with 4x10/100TX and USB Port
VPN40/U	8W G.SHDSL.bis.VPN Router with 4x10/100TX and USB Port

VPN /

Example: VPN10/U