Terrabit Networks

TERRABIT NEXT-GENERATION MULTISERVICE ROUTERS

TR21-800

MAIN CHARACTERISTICS

Powerful Performances

◎ TR21-800 are driven by the 64-bit dual-core processor, the private gigabit ASIC switching chip and FPGA components, enabling the whole hardware platform of the whole router to run on the hi-speed Ethernet frame. This innovative design attributes BSR with an innate extra powerful processing ability, provides a guarantee to the upper-layer software functions.

Strong expansibility

◎ Because built on the basis of switching core, B TR21-800 can expand their external interfaces, slots and modules without any limitation from the total CPU resources. The switching chip guarantees that the whole BSR router is provided with sufficient and broadband internal channels, making the expansibility of BSR routers exceed that of traditional modularized routers.

Excellent power-saving ability

◎ TR21-800 adopt the new-generation hardware chip which can guarantee the powerful processing ability and meanwhile save power. The power consumption of a whole BSR router is reduced by 15% to 20% compared with the mainstream devices in this industry. The long-term users can save the maintenance cost, which carries out the nationally advocated low-carbon idea. TR21-800 are also equipped with the magnetic-suspension mute fan, which makes them more environmentally friendly.

Varied protocols

◎ They support dynamic routes (RIP, OSPF and BGP), static route and policy route, so they can interconnect the equipment of the main manufacturers in this industry. Further more, this series supports the integration of multiple services like routing, switching, voice, safety and wireless, so they can meet the requirements of complicated network establishment.

New services

◎ The MPLS characteristics, and the MPLS-based layer-2/ layer-3 VPN technology are supported so that the transparent Ethernet transmission service and the flexible enterprise interconnection are realized. IPv6 data forwarding, routing protocols and multicast routing protocols are all supported; also the IPv4/IPv6 protocol stack and the interconnection technology are supported, so the existing networks can be smoothly upgraded to the IPv6 networks.

High security

◎ They support flexible ACL firewall filtration technology, the NAT technology, multiple VPN technologies such as IPSec/L2TP/PPTP/GRE, and multiple security technologies such as AAA, Radius, TACACS+, PAP and CHAP.

Flow management policy

◎ Varied queues are supported such as FIFO, PQ, CQ, CBWFQ, LLQ, WFQ, DSCP, IP Precedence, RTS, RSVP and CAR, so key services can be guaranteed with a reliable bandwidth and users' bandwidth will be utilized more efficiently.

◎ TR21-800 support self-innovated GBSC so that they provide a better way to plan and supervise data flux.

Flexible management and maintenance

◎ They provide a lot of in-band or out-band management tools such as Console, Telnet, SSH and SNMP, so the management and monitoring of network can be facilitated; they also support Chinese- and English-version website pages, so home or oversea users can easily handle website pages.

Model		TR21-800
Integrated ports	Console	1
	AUX	1
	USB2.0	1
	GE	2
	FE	/
Expansibility	HIC	4
	HIM	/
	Encryption	Built-in
Performance and Capacity	PPS	2M
	BootROM	512K
	Flash	32MB
	SDRAM	512MB to 1GB
	CF slot	1
Peripherals	Fan	Magnetic Bearing
	Power	AC/DC＋RPS
	Voltage	100~240V AC or -36~-72V DC
	Consumption	≤80W
	Size	19-inch, 1U
Environmentt	Working	0˚- 40˚; 10%-85% no condensation
	Storage	-20˚- 65˚; 5%-95% no condensation
Protocols and Functions	LAN	ARP, ARP proxy, Gratuitous ARP
	WAN	PPP, Multilink-PPP, PPPoE (Client/Serv)
		ISDN
		X.25
		HDLC
	IP routing	Static route
		RIPv1/v2, OSPFv2, BGPv4
		PBR
		FastSwitch, Load-Balance
	Multicast	IGMP
		PIM-DM, PIM-SM, PIM-SSM
	IP function	IGMP
		ICMP, TCP, UDP, IP Option
		NAT, PAT, Private-Service, ALG
		Ping, TraceRoute, DNSlookup
		IP ACL, MAC ACL, Fast-Access
		DHCP Client/Serv/Relay
		DNS, DNS host, DNS Proxy, DDNS
		Helper-Address, UDP Helper
		IP unnumbered, DDR
		Keepalive, PDP (compatible with CISCO), BFD
		NetFlow, IP Accounting
		TFTP Client/Serv, FTP Client
		SNTP, job/schedule
		ALIAS
	MPLS	MP-BGP, VRF
		L2VPN, L3VPN
		MPLS TE*
	IPv6	IPv6 ND, IPv6 PMTU, IPv6 FIB, IPv6 ACL, IPv6
		IPv6 QoS

		IPv6 transition: NAT-PT, IPv6 tunnel, 4over6
		IPv6 tunnel: IPSec v6, GRE, 6to4, ISATAP
		IPv6 route: IPv6 static route, RIPng, OSPFv3, BGP4+
Reliability	Balance and Backup	Interface backup
		Routing backup
		Flow based load balance
		Weight based load balance
		VRRP
	BFD	BDF for Static route, RIP, OSPF, BGP, MPLS and VRRP
QoS	Flow classification	ACL, IP Precedence, DSCP, 802.1P
	Queue policy	FIFO, PQ, CQ, WFQ, CBWFQ, LLQ
	Advanced	GBSC, Layer7filter
Switching	L2 switching	802.1Q VLAN, 802.1x
		Keepalive, port mirror, broadcast/multicast storm control
Network security	AAA	Authentication, Authorization, Accounting
		enable, local, Radius
		PAP, CHAP, MS-CHAP
	Firewall	ACL, NAT
		SYN flood, UDP flood or ICMP flood
		Gratuitous ARP, ARP-Scan and DHCP snooping
		Prevention of Ping of Death, Tear-drop, Land-Based, WinNuke, PingSweep, ARP attack and IP-Spoofing
	VPN	IKE, IPSec
		L2TP, PPTP, GRE
		VPN nesting
VoIP	Interface	FXS
	Protocol stack	SIP
	Codec	G.711A law, G.711U law, G.723R53, G.723R63, G.729a, G.729R8
3G	Mode	WCDMA, CDMA2000, TD-SCDMA
Management and Maintenance	Logon	Console/Telnet/VTY/SSH logon mode
	Local	CLI management and file system management
	Remote	SNMP/MIB/SYSLOG/RMON/HTTP management