technicolor

TG650s
SHDSL.bis Business Gateway

TELECOM

DATA

VIDEO

Flexible Solution

The Technicolor TG650s is an SHDSL business gateway, designed for Corporate/SMEs and SOHOs and offers plenty of possibilities through a complete set of business features.

The Technicolor TG650s is a one-box office solution for communicating to the outside world, offering security to the office, and allowing to share resources (like printer, hard disk) while being able to be managed by the operator.

The platform also has broad management capabilities allowing both legacy and next generation management tools to offer firm SLAs to highly demanding customers.

Versatile Access Platform

The Technicolor TG650s is a versatile access platform that makes optimal use of multiple copper lines and can provide both advanced layer 2 and layer 3 services. It utilizes the SHDSL IEEE 991.2 and IEEE 992.2.bis standards allowing coverage of loop distances up to 10 km and speeds ranging from 192 Kbps to 11 Mbps.

The single-pair (two-pair optional) SHDSL interface can be configured either in CPE mode (connecting to a DSLAM) or in CO mode (two gateways can be put back-to-back on blank copper), speeds ranging from 192 Kbps (32 Kbps on ATM) up to 5.7 Mbps per pair.

Features at a Glance

- Integrated single-pair (two-pair optional) SHDSL modem
- 1 Gigabit Ethernet LAN port
- 3 Fast Ethernet LAN ports
- 1 Serial console port
- 3G back-up WAN connection via USB adapter
- Media and content sharing
- UPnP A/V and DLNA
- 2 USB masters 2.0 for hard disk, printer...
- Remotely Manageable: TR-069, TR-098, TR-111
- Integrated IPSec/VPN client and server, corporate firewall and content filtering
- Extensive operator management capabilities (SNMPv3, TACACS+, Syslog)
- Non-Service-Affecting Platform Software upgrades (dual bank memory)
- OSGi technology

UPnP AV **dlna**

TG650s
SHDSL.bis Business Gateway

Business Internet Access

Our Technicolor TG650s Business gateway is the only physical equipment your customer needs in his office.

The embedded Stateful Packet Inspection Firewall (SPIF) and intrusion detection system stop attacks in the router and keep the customer safe from any security violations. Site filtering and content filtering based on a large online database prevent employees from accessing unproductive types of websites. With the 3G back-up solution of the Technicolor TG650s, your customers will always be online: whenever the DSL line is down, the router automatically redirects all traffic over the 3G connection. Finally, advanced routing protocols like Border Gateway Protocol (BGP) support customers with multiple links to the Internet.

Sales people or other employees might have a Home Office or are regularly on the road, visiting customers and partners. Since the Technicolor TG650s integrates both an IPSec/VPN client and server, you can guarantee access to all services and applications for your customer's mobile workforce.

Managed Office Networking

Featuring four Ethernet LAN ports of which one Gigabit, the Technicolor TG650s offers seamless connection of wired devices from anywhere in the home at stunning speeds.

Any port on the managed switch can be configured as DeMilitarized Zone (DMZ). This will allow your customer to share central services with its sales people or other employees at a minimum cost. Ports can also be configured as Guest access, allowing visitors in a meeting room to share the Internet access without compromising data confidentiality of the enterprise network.

The dual memory bank allows completely fail-save remote upgrades to keep the router always up-to-date.
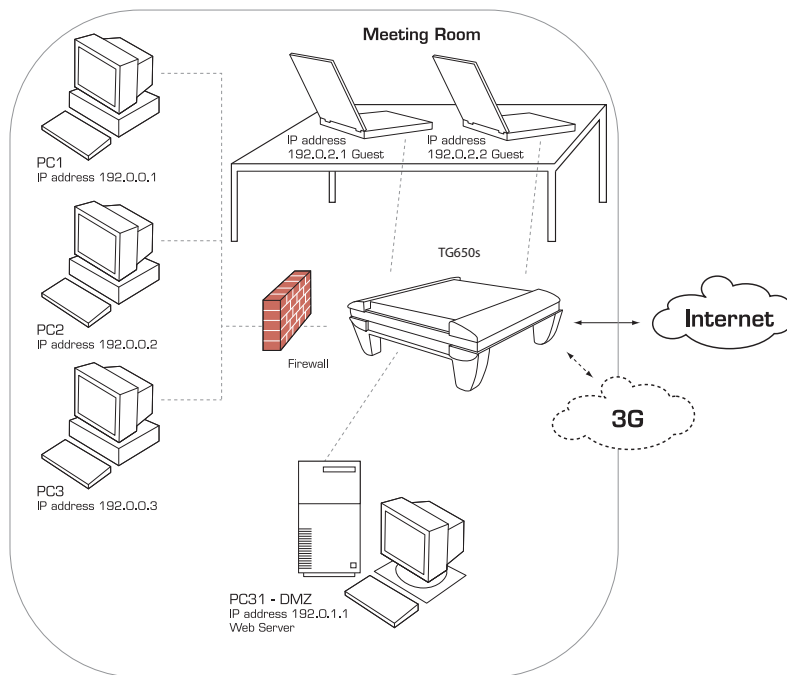
TG650s
SHDSL.bis Business Gateway

Network VPN

The Technicolor TG650s optimally supports network-based VPNs based on MPLS / IP and on VPLS / VLAN technology. In an MPLS based VPN, the BGP and RIP routing protocol allow to automatically distribute routes from the customer to the network. Existing LAN applications can continue to run over the MPLS VPN thanks to the built-in DHCP relay and IGMP proxy.

Whatever VPN type you roll out, the advanced forwarding engine can provide simultaneous access to multiple network based VPNs and Internet access on the same DSL line while keeping the traffic strictly separate between the different VPNs. The traffic over the VPN can be encrypted to provide the customer provable privacy and security. The embedded SLA monitoring tool continuously tracks key parameters like availability, delay, jitter, and packet loss and generates summary reports on a daily and monthly basis.

Customer Equipment VPN

Your customer is a growing Small or Medium Enterprise, having increasing needs of sharing information or applications among different operational sites. With the IPSec LAN-to-LAN interconnect features, there is no need anymore for expensive leased lines: a standard DSL connection and a Technicolor TG650s provide you a secure connection over the Internet between the different sites.

Metro-Ethernet Support

Excellent connectivity to next generation Ethernet in the First Mile (EFM) networks. The EFM standard allows the gateway to make very efficient use of the available SHDSL bandwidth and dynamically toggle between availability of one or two pairs of SHDSL(.bis) copper wires.

While the older IMA standard has showed to be having a number of deficiencies like same synchronisation rate of the lines and bad redundancy capabilities, the EFM bonding (PAF) overcomes all these problems and will keep the overhead limited and stable which is especially feasible for transporting VoIP applications. Applications like campus access, leased line replacement or DSLAM backhauling can be perfectly served by the Technicolor TG650s.
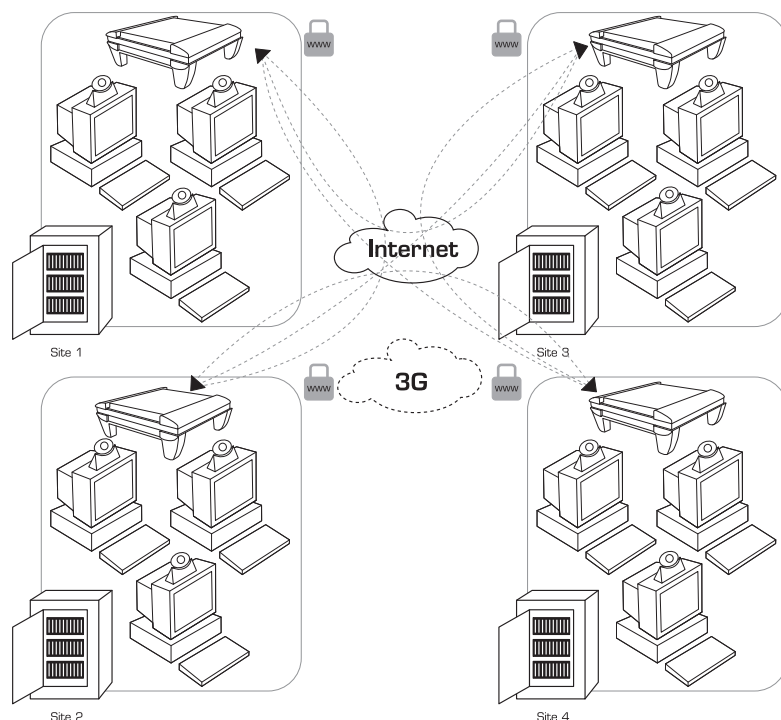
TG650s
SHDSL.bis Business Gateway

Technical Specifications

Hardware Specifications

■ Interfaces WAN	1 RJ-11 DSL port (pin 3&4 for first pair, pin 2&5 for second pair) for SHDSL and SHDSL.bis single-pair (and two-pair)
■ Interfaces LAN	3-port autosensing 10/100Base-T auto-MDI/MDI-X Ethernet LAN switch 1 Ethernet LAN 10/100/1000 Base-T port 2 USB 2.0 hosts/masters
■ Extras	Reset button Serial RJ-45 console port Dual memory bank for TR-069 remote upgrade
■ Dimensions	209 x 82 x 232 mm (8.2 x 3.2 x 9.1 in.)
■ AC Voltage	100-240 VAC (switched mode power supply)
■ Temperature	0˚ - 40˚ C (32˚ - 104˚ F)
■ Humidity	20% to 80%

SHDSL Modem Specifications

■ EFM mode	Compliant to IEEE 802.3, G.998.2
■ ATM mode	Compliant to G.991.2

■ Configurations	one single (/two)-pair interface:
	  ■ in CPE mode (connecting to a DSLAM with auto-detect of single-pair/two-pair mode or fixed configuration)
	  ■ in CO mode (two gateways can be put back-to-back on blank copper, up to 11.4 Mbps)
	two separate single-pair interfaces:
	  ■ both in CPE mode (can even connect to two different DSLAMs, for back-up purposes and load balancing)
	  ■ both in CO mode (to connect to two remote CPEs)
	  ■ one in CO and one in CPE mode (for add/drop purposes in linear network and as repeater with traffic insertion functionality).

Firewall Security

■ Stateful Packet Inspection Firewall (SPIF)

■ Intrusion detection and prevention (against DoS, SYN Flood, Ping of Death, Fraggle, LAND, Teardrop, ...)

■ DMZ

■ IP and generic packet filtering, based on IP address/port number/protocol type

■ Real-time attack alert and logging

Management

■ User-friendly GUI via HTTP and HTTPS

■ GUI-embedded Easy Setup wizard

■ On demand Remote GUI assistence (helpdesk)

■ Web-browsing Intercept (install / diagnostics)

■ PC (wireless) Technicolor Gateway Setup Wizard

■ TR-069 Remote Manageable

■ TR-098 Queue Management

■ TR-111 Home Network Device Management

■ TR-064 LAN Side Configuration

■ Zero-Touch Auto-Provisioning

■ SSL/SSH

■ SNMPv1, SNMPv2, SNMPv3

■ TFTP

■ TACACS+

■ Syslog (local, remote)

Services

■ Printer sharing	
■ Content sharing	Samba + NTFS (optional) File Server UPnP™ Media Server DLNA® DMS Metadata support

■ Remote HDD file access

■ USB 3G adapter support

■ Website URL and Content-based filtering

■ Open architecture for 3rd party application and UI development

■ ICSA grade security service

■ Micro-modularity with FLEXIBundLE

TG650s
SHDSL.bis Business Gateway

92443 Issy-les-Moulineaux France
Tél. : 33(0)1 41 86 50 00 - Fax : 33 (0) 1 41 86 58 59

Technical Specifications

Enabling Technologies

- Quality of Service: ATM, Ethernet, Wi-Fi, IP
- FLEXIBundLE: Multi Role User Authorization
- Hyper-Nat: Symmetrical NAT with Application Helpers
- Application Sharing NAT PortMaps
- «SIM-lock» Provider Locking
- DHCP conditional serving & relay, DNS server & relay
- IGMPv3 proxy (FastLeave)
- IGMP snooping (Full routed)
- Flexiport (any Ethernet port bridged IPTV)
- IEEE 802.1q VLAN bridging, Multiple bridge instances

IP Routing

- BGP
- OSPF
- RIP (RIPv1, RIPv2)

Content of the Box

- SHDSL.bis Business Gateway
- DSL cable (RJ-11)
- Ethernet cable (RJ-45)
- Power supply unit
- Setup CD (optional) and Leaflet(s)
- Serial RJ-45 to DB9 adapter (optional)

Technicolor Professional Services are available to address your demands for qualified technical support & warranty, product maintenance, access to training courses and tailor-made solutions to specific product evolution. For more information, please ask your usual contact person.

technicolor