TB-Multi-Blade™

High-Density Switch



TB-Multi-Blade

With up to 1024 trunks in a single system, the non-blocking architecture of our $Multi-Blade^{TM}$ solution provides you with a superior level of density and redundancy.

Our unique technology enables you to bridge multiple TB640 *System-Blades™* together to a level never before seen in the market. It is the most flexible and powerful solution to increasing your overall system capacity.

Features:

- Provides efficient transfer of voice between multiple blades
- Less than 1ms delay when connecting through TB-Multi-Blade™
- Non-Blocking architecture for up to 32,768 DS0
- Supports redundancy

Density

Most systems on the market today only support a small number of trunks per blade or per chassis. Scaling up with low-density cards means that more rack space is needed for cards and additional cooling modules and maintenance access.

Flexibility

All newly-deployed services require adjustment and fine-tuning to match subscriber requirements and preferences.

Unfortunately, most systems have fixed specifications that do not adjust easily to the variable requirements of the service provider. They also perform in a less-than-optimum fashion when trying to accommodate multiple-applications simultaneously.

Ease of Integration

Most providers have huge investments in already-installed equipment.

But new applications that run on dedicated CompactPCI chassis can be difficult to integrate with the existing equipment.

Equipment that cannot be easily integrated "in the field" generates extra costs that are not easy to recoup.

So, to maintain their competitive advantage, service providers need to be able to rapidly integrate new services, and capitalize on the additional investment.

Availability

As density increases, the risk of system failure increases. Most systems have a single point of failure, such as the PCI bus on a CompactPCI chassis, which is shared across all the boards in that chassis: if one board or the CPU card fails, the entire chassis can fail.

Performance

High density, scalability and flexibility all call for high-performance. A system that performs marginally before scaling up, is unlikely to perform better after scaling up. Performance therefore sets a limit to the maximum size a system will gracefully scale up. .

Physical Interfaces

Link Interface

- Up to 16 links to the TB640 System-Blade™
- Supports 2048 channels per link
- LVDS electrical interface

BITS Interface

• ITU G.703, G.775 Telecom formats

Scalability

Multi-Blade Interconnectivity

- Up to sixteen TB640 System-Blades[™] can be interconnected enabling up to 1024 trunks or 32.768 channels
- Non-blocking switching between all channels

Clock Synchronization

 Can synchronize from any input links, bits interface or local clock source with automatic fallback

Control and Management

Control

- Dual redundant rear panel Ethernet (100/1000 Mbps) or PICMG 2.16 in a dual fabric packet switched backplane (100/1000 Mbps)
- Does not require cPCI CPU server blades

Management

- Ethernet ports or RS-232C Serial port
- Field upgradeable software and firmware
- Front panel push buttons for field information on 8 character display
- Full set of APIs for management

High Availability and Redundancy

- Hot swap (PICMG 2.1 R2.0 Hot Swap Specifications)
- Hot Insertion
- 1+1 redundancy per link when two TB-Multi-Blades™ are used

Diagnostics

- POST: Power On Self-Test
- Log and status available for all modules including full performance monitoring

Host Operating System

• Host APIs under Solaris, Linux and Windows

Backplane Interfaces

- Compact PCI (PICMG 2.0, Rev 3.0)
- PICMG 2.16 R1.0 Packet Switching Backplane Specifications (PSB)

Mechanical

- Compact PCI
 - 6U double slot
 - Front panel (233 x 160mm)
 - Rear panel (233 x 80mm)
 - Keying (PICMG 2.10 Rev 1.0)
- Connectors
 - Each link is two HSSDC2 for a total of up to 32 HSSDC2 connectors
 - Two RJ-45 for BITS interface
 - Dual RJ-45 Ethernet
 - RS232C Serial port (with external cable)

Power Requirements

- 0.82A @ 5v
- 7.4A @ 3.3v
- Total board power consumption less than 35w

Environmental

- Operating: 0 to +50C, 0 to 95% non-condensing, relative humidly
- Storage temperature: -40 to +70C, , 0 to 95% noncondensing, relative humidly

Certifications

- US: UL60950 (2000)
- Europe: EN 60950 (2000)
- International: IEC60950 (1999)

Compliance

Designed to meet NEBS-3 compliance

- GR-63 Environmental specifications
- GR-1089 EMI/EMC specifications

EMC

- FCC 47 CFR Part 15, Subpart B:1999 (class A)
- EN55022:1998 for Class A
- EN50024:1998

HEAD OFFICE

115-A1 De Vaudreuil, Boucherville, Quebec, Canada, J4B 1K7 T +1 450 655 8993 F +1 450 655 9511 info@telcobridges.com www.telcobridges.com ASIA

T +852 9033 0036 (HK) T +86 139 2525 1005 (China) F +852 3012 2782 (HK)

KOREA T +82 2 564 07

T +82 2 564 0775 M +82 11 9741 5882 F + 82 2 3288 1302 ABOUT US

TelcoBridges is clearly defining the future of enabling communications technologies. By supplying the industry's best telecom platform, **TelcoB**ridges is helping system integrators worldwide realize their bright ideas. Since 2002, **TelcoB**ridges' customers create carrier-grade telecom solutions used by the world's largest operators in more than 30 countries.

Finalist "2006 Canada Innovation Award": Development of Export Sales



THE AMERICAS

M +1 408-529 0451 (USA)

T+1 408 374 1004 (USA)

F +1 408 374 1591 (USA)