

BroadGate®



BG-30B/E

Scaleable Optical Service Access Platform

- **Springboard solution** – suitable for all metro and cellular network hubs
- **Revenue generating** – tiered configurable service offering, from POTS to new data services, over existing infrastructure
- **Cost conscious** – reduced footprint, minimal power consumption, redundancy, and full remote management for lowest OAM&P expenses
- **Scaleable awareness** – adding new services by coupling BG-30E to BG-30B or scaling bandwidth seamlessly from STM-1 to STM-16





Smart and sturdy – the **BG-30!**

In today's access networks, whether Radio Access Networks (RANs) or enterprises, add-on service capability for traffic arriving from premise sites is a must. Such networks may comprise SDH optical rings, chains, point-to-point SDH connections, and radio links. Whatever the case may be, operators are expected to provide advanced data and broadband services over the same infrastructure. The BG-30 delivers on all these demands and much more, for a lot less than you imagine. Designed to provide a swift response to evolving networking requirements, it brings greater levels of flexibility to metropolitan and cellular networks.

As new technologies and equipment evolve and abound, service providers must respond to growing traffic and service needs by reducing power consumption, size, and overall cost, while increasing resiliency and the quality of service at both customer premises and access hubs. Multiservice Provisioning Platforms (MSPPs) are thus emerging as the most feasible and cost-effective solution for metro-access networks.

ECI Telecom's BG-30 carries voice and data services over SDH and PDH. It is the dependable solution for the focused, yet highly cost sensitive metro-access and cellular markets.

Because MSPPs play a critical role in the journey from legacy to next-generation networks, the BG-30 allows carriers to leverage their SDH installed base while offering a mix of PCM and carrier-class data services to their customers.

Fully compatible with all XDM® product-family counterparts, the BG-30 MSPP delivers an affordable mix of Ethernet, SDH, PDH, and PCM services, resulting in new revenue-generating opportunities. The system offers tangible benefits, including:

- Carrier-class data services as well as traditional SDH voice-centric services.
- Full set of PCM services and DS-0 cross connect.
- Non-traffic-affecting gradual capacity expansion based on service-provisioning needs. □ An element can be upgraded from ADM-1 to ADM-16, supporting multi-ADM □ functionality as well.
- Multi-ADM and cross-connect functionality, ideal for deployment in flexible network □ topologies, including ring, mesh, or star.
- Redundancy for common functions, such as power supplies, matrixes, and aggregates, □ increasing resiliency and quality of service.
- Suitable for CLE and CO environments, supporting AC and DC power supplies.
- Suitable for indoor and outdoor enclosures and for harsh environments with extended □ operating temperature range.

PROMOTING POTENTIAL...

Ethernet has become the clearly identifiable standard for data communication in the corporate LAN. Consequently, service providers as well as enterprises need enhanced Ethernet connectivity, both for reaching end-users and for connecting their Points of Presence (POPs).

The BG-30 fulfills the imminent need for reliable LAN connectivity by providing carrier-class Ethernet services over SDH, delivering an array of profitable services, including:

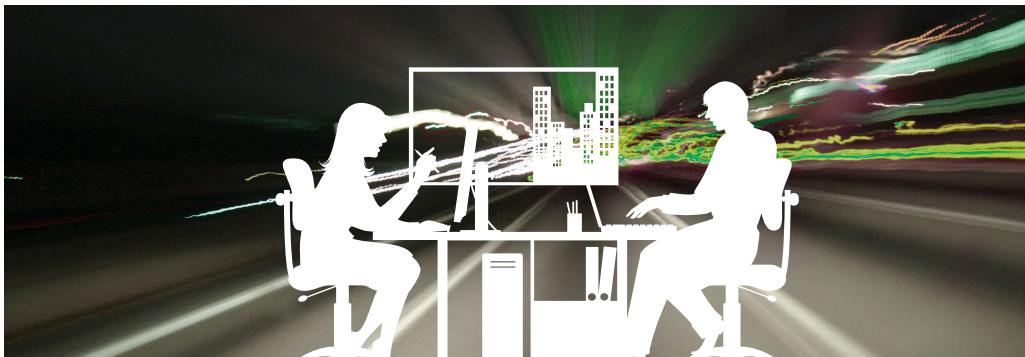
- Dedicated Ethernet services - EPL
- Shared Ethernet services - EPLAN and EVPLAN
- Point-to-multipoint (ISP connectivity)
- Flexible bandwidth connectivity based on GFP mapping and LCAS dynamic bandwidth allocation
- QoS and SLA assurances
- Statistical multiplexing for handling bursty traffic and supporting dynamic bandwidth utilization

These services benefit from ultra-reliable telecom manageability, security, and reliability, while ensuring voice and data connectivity between geographically distributed locations.

...WHILE PRESERVING PROFITS

Although carriers are moving towards NGN IP-based networks and a higher percentage of Ethernet transport, TDM services remain the chief revenue source. BG-30's unique, fully integrated SDH multiplexer is designed for access networks and enterprise CPEs, integrating SDH, PDH, and PCM capabilities, while reducing the need for multiple units, such as SDH ADMs connected to PCM and PDH multiplexers. The BG-30 provides a full set of PDH services, including E1s, E3s, and DS-3s, as well as STM-1, STM-4, and STM-16 SDH services. It also supports a suite of PCM capabilities, including 2- and 4-wire POTS lines, low and medium bitrate V24 and V35 type services, as well as several unique services aimed at utility networks. The PCM services are backed by a DS-0 (64 Kbps) cross connect allowing the BG-30 to act as integrated SDH/PCM multiplexer or as a 0/1/3/4 cross connect.

When deployed in XDM networks, the BG-30 offers a truly scalable build-as-you-grow™ solution, complete with SDH, WDM, and data (Ethernet, IP, ATM, SAN) services from metro-access and customer premises to the metro-core. When operated under the LightSoft® multidimensional network management system, full end-to-end control of all physical and technology layers is achieved.

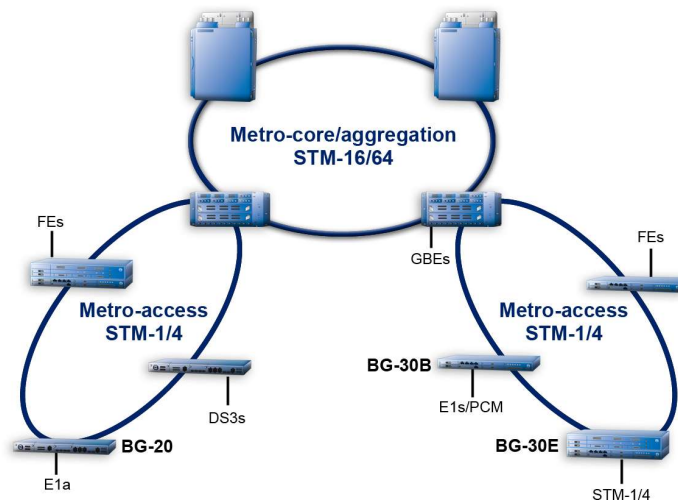




YOU MUST TAKE THE METRO

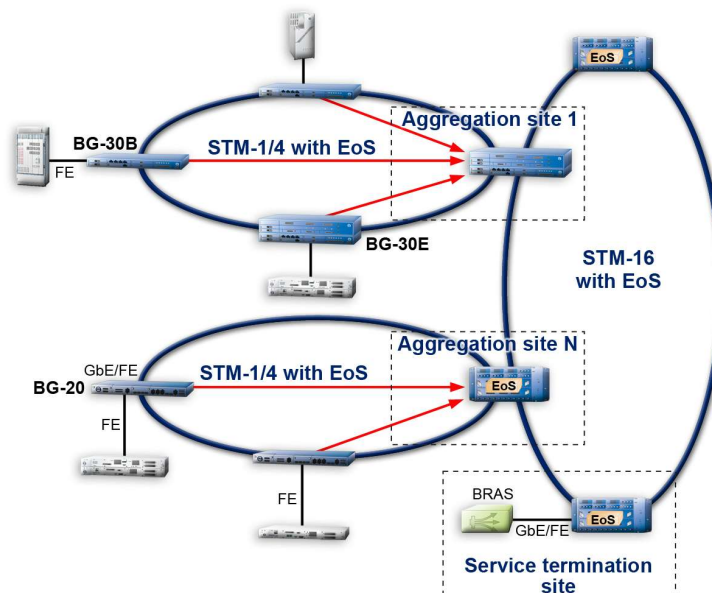
Up-and-coming metro-access operators report increasing demand by residential and business customers for higher bandwidth to support voice, data, and video services.

The BG-30 offers scalable STM-1/4/16 aggregation of access traffic in multi-rings and point-to-point topologies, adding/dropping PCM, PDH, SDH, Gigabit Ethernet (GbE), and Fast Ethernet (FE) services at local PoPs. Together with other XDM family products such as the XDM-100, it also provides a service layer that terminates WAN links and consolidates Ethernet traffic arriving from the local access. Traffic can then be transported to local GbE interfaces or routed to the metro-core network.



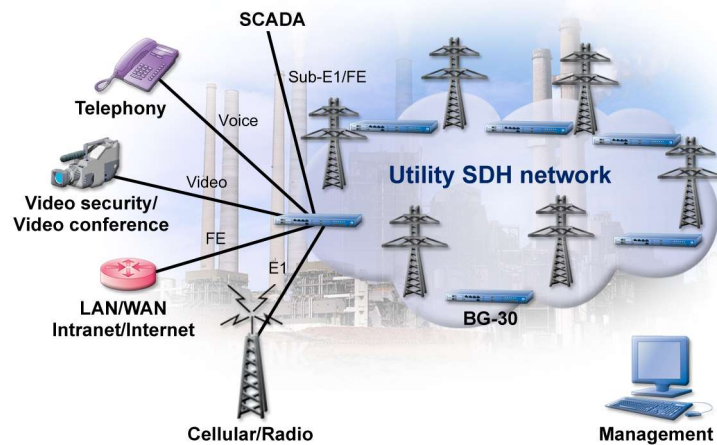
ARE YOU BEING SERVED?

One of the prominent features of the BG-30 is its Layer 1 and Layer 2 capabilities that offer carriers a clear migration path from pure TDM-based legacy services to new value-added data services. These capabilities support Ethernet private lines, Ethernet virtual private lines using shared bandwidth, and Ethernet private LAN/Ethernet virtual private LAN services extending corporate LANs over the WAN. All services are offered with Quality of Service (QoS) and Service Level Agreement (SLA) assurances.



MAKING CONNECTIONS

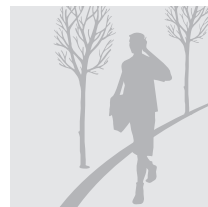
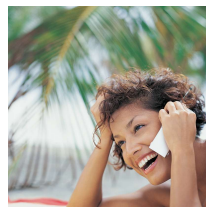
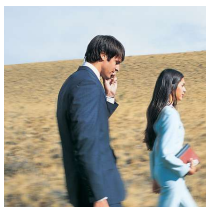
Utility companies, like railway, electricity, and gas operators, require ultra-reliable Ethernet and data connectivity for various mission critical applications and functions. These companies can further exploit their infrastructure for voice and data services within their VPN while offering profitable connectivity services to the public. The BG-30's embedded DXC 1/0 cross connect with its PCM interfaces for low bitrate data, PABX extensions, and hotline phone, makes all of this possible.



LIGHT YOUR FIBER!

Enterprises are currently looking to optical connectivity services as a solution for their mission critical applications and for connecting to remote sites and to the Internet. They are deploying fiber on their campuses and leasing fiber connections or high bandwidth from several metro operators. To increase QoS and improve resiliency, the connectivity equipment must include redundancies that allow normal operation even during main component failures.

To fulfill these application, connectivity, and resiliency service requirements, a high-grade, robust, and scalable optical CPE is required. BG-30, with its redundant critical components, TDM and Ethernet interfaces, and highly versatile management provides the ideal solution for all enterprise needs. With the BG-30B installed at remote branches and the BG-30E at central or larger sites, enterprises and integrators can now achieve full connectivity and security in their networks.



TECHNICAL SPECIFICATIONS

Interfaces, Bitrates, and Topologies	
SDH tributary interfaces□	STM-1, STM-4□
PDH tributary interfaces□	E1, E3, DS-3
PDM interfaces□	FXO, FXS, 2/4W E&W, V24, V35, G.703 64K
Ethernet interfaces□	10BaseT/100BaseT/100BaseFX/1000BaseSX/□ 1000BaseLX
Topologies□	Ring, chain, mesh
System Capacities	
SDH□	20 x STM-1□ 9 x STM-4□ 2 x STM-16
PDH/PCM□	252 x E1, 18 x E3/DS-3, 72 x PDM I/F
Ethernet□	36 x 10/100BaseT□ 6 x GbE
Other Specifications	
Max. power dissipation□ BG-30B□ BG-30B+E□	90 W 210 W□
Operating temperature range□	-5°C to +55°C
Operating RH range□	5% to 95%
Environmental standards□	ETS 300 019-1-1 Class 1.2□ ETS 300 019-1-2 Class 2.3□ ETS 300 019-1-3 Class 3.2
Safety□	EN 60950, EN 300386, □ LVD Directive 73/23/EEC, □ EN60825-1&2
Management□	End-to-end management of all layers and services
Physical dimensions □ BG-30B□ BG-30E□	44 mm (H) x 465 mm (W) x 263 mm (D)□ 88 mm (H) x 465 mm (W) x 263 mm (D)



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