PACKET-ENABLED ENTERPRISE WIDE AREA NETWORKING

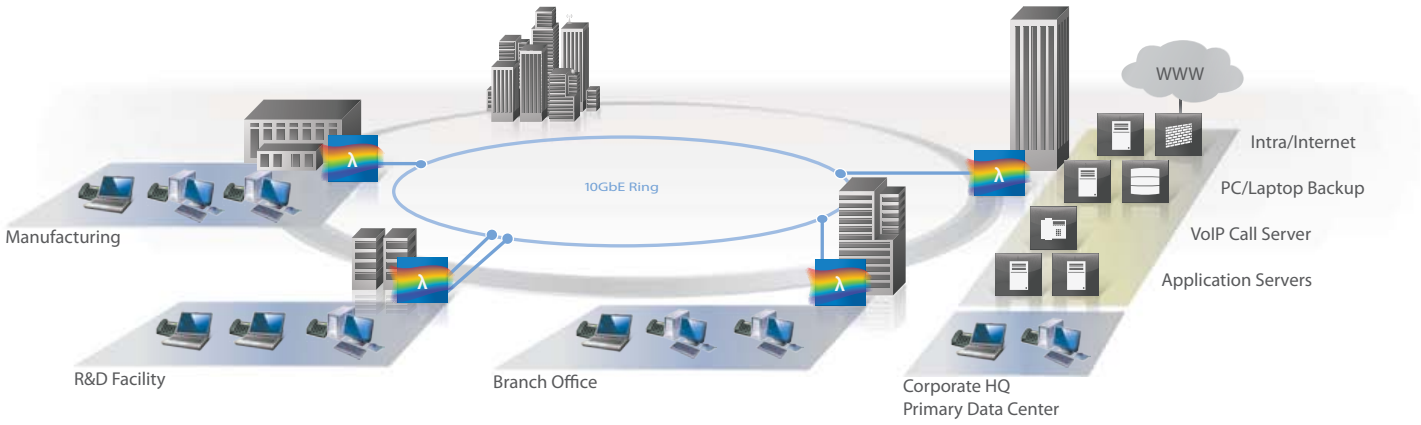
Integrated Ethernet LAN Extension Solutions

Enterprise wide area networking is focused on connecting data centers to a distributed workforce for delivery of reliable, high performance access to centralized databases, application servers, on-demand cloud computing resources, and multimedia collaboration solutions.

Legacy network technologies including TDM private lines, Frame Relay, and ATM don't cost effectively provide the bandwidth, low latency, and protocol support to deliver next generation connectivity for new mission-critical enterprise applications. Ethernet, having evolved from a Local Area Network (LAN) solution to a high capacity Wide Area Network (WAN) solution is now the communications protocol of choice for its capacity, simplicity, familiarity, and flexibility for today's IP-based applications.

Packet-enabled enterprise WANs provide:

- Flexible network topology options
- The ability to prioritize applications and business unit communications with Class of Service (COS) capabilities
- Customizable bandwidth granularity to make efficient use of capacity and simplify scaling
- Performance Monitoring for simplified management and monitoring
- MEF-compliant service delivery equipment and architectures for peace of mind.



Carrier Ethernet Value for Enterprises

Carrier Ethernet innovation has been driven by the need and demand for simple, ubiquitous services and the requirement to rapidly scale them to enable deployment of applications critical to enterprises and service providers alike.

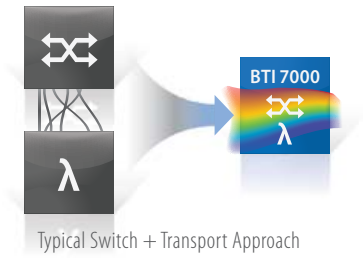
Carrier Ethernet provides the availability of low cost, high bandwidth Ethernet for connectivity beyond the enterprise LAN. Enterprises realize significant value leveraging Carrier Ethernet-class networking gear especially where there is the requirement for security and prioritization between different applications and departments:

- **Network Scalability** with addressing schemes for connectivity scalability and security between departments and applications
- **Application Priority** functions enable application traffic classification and efficient bandwidth management throughout the network

- **Network Monitoring** for end-to-end visibility and troubleshooting with Ethernet Connectivity Fault Management
- **Carrier Class** solutions that leverage developed strategies that make Ethernet "carrier grade" and deliver high availability networks.

Packet Optical Networking: WDM + Carrier Ethernet

A simplified networking environment is key to consolidating disparate voice, video, and data networks onto the common technology of Ethernet; reducing the physical number of elements to manage—and spare—reduces footprint, saves power, and simplifies IT operations.



Typical Switch + Transport Approach vs. Integrated BTI 7000 Approach

An integrated approach combining Carrier Ethernet switching and aggregation functionality with WDM transport provides rapid provisioning and delivery of Ethernet connectivity without the need of adding separate equipment. Extensive Ethernet traffic management capabilities including per flow packet classification, policing, marking, and mapping of service classes plus extensive Ethernet Performance Monitoring functionality are on par to solutions leveraging an outbound switch. Tiered service level offerings on a per customer and/or per service basis to provide enterprise lines of business, departments, and applications prioritization capabilities. Service Level Agreements (SLAs) can be provided per service flow with statistics on packet delivery rate, loss, delay and jitter.

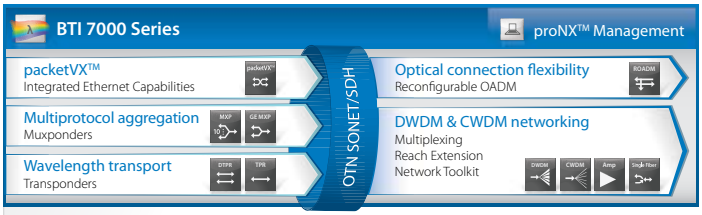
Wavelength Division Multiplexing functionality complements the Layer 2 capabilities on packet optical networking with high capacity Layer 1 connectivity to provide high throughput and no bandwidth contention; application performance is guaranteed. Mission-critical connectivity can be delivered with full- and sub-rate Gigabit Ethernet (GbE) and 10 Gigabit Ethernet (10 GbE) private line optical connectivity.

The network you need

BTI Systems is focused on multi-service platforms that address a diverse set of requirements with Layer 0/1/2 integration for efficient packet optical networking. Service-oriented network management with extensive performance visibility simplifies application and information delivery.

BTI network solutions combine a full suite of network building blocks to support multiprotocol optical and packet connectivity, integration of legacy network solutions, and extended reach requirements making it a comprehensive solution for enterprise networks. The BTI portfolio delivers significant operational value with a small platform footprint, high density, low power, and outside plant capable deployment capabilities.

The BTI 7000 Series addresses the increasing demand for packet-based services, greater optical capacity, dynamic networking, and management simplicity in enterprise networks.



BTI 7060

BTI 7030

BTI 7020

SWITCH packetVX™ integrated Ethernet service modules provide rapid provisioning, and delivery of Ethernet connectivity without the need of adding separate equipment. BTI's packetVX™ gives WAN administrators the capacity and connectivity to address the diverse topologies and requirements needed for LAN extension.

AGGREGATE Muxponder client service modules make efficient use of WDM capacity with multiplexing of a wide range of protocols onto the same 10Gbps or 2.5Gbps wavelengths using S/XFP-based software programmable ports. Innovative Add-Drop Multiplexing (ADM) functionality enables the sharing of muxponder-affiliated wavelengths between more than two sites and provides integrated, rapid ring protection.

CONNECT Dual transponder client service modules offer high density, two-transponders-in-one architectures with S/XFP-based software programmable ports. Deliver dedicated, private line connectivity at 1Gbps, 2.5Gbps, and 10Gbps wavelength capacities or a single wavelength with resilient WAN connectivity.

EXTEND The BTI 7000 Series' complete optical toolkit enables enterprise connectivity to be delivered over the WAN. Addressing a diverse range of physical network and signal reach requirements with S/XFP versatility, amplification, dispersion compensation, and specialized network multiplexing modules.

CONVERGE Leverage WDM virtual fiber capacity with 16λ CWDM, 32λ DWDM, or hybrid infrastructures that address site wavelength add/drop, network capacity, reach requirements, and budgetary requirements.

MANAGE The proNX Management Suite delivers seamless end-to-end monitoring, control, provisioning, and planning of infrastructure and services across the BTI portfolio. Service-oriented performance monitoring provides extensive visibility to the network and the services delivered over it.

The BTI 700 Ethernet Access Series provides intelligent demarcation, extension, and aggregation functionality for simplified distribution of Ethernet and IP services. Tightly integrated with the BTI 7000 Series, the BTI 700 Series interworks with BTI's transponders, muxponders, and the packetVX™ Integrated Ethernet Service modules to deliver end-to-end Carrier Ethernet networking solutions.

The BTI 700 Series provides high performance Carrier Ethernet in ultra compact, fully managed access devices with exceptional flexibility for enterprise site. BTI 700 platforms offers interface flexibility with 10/100/1000 combo ports and fiber-based, pluggable uplink ports for up to 10G link speeds.

BTI 712

BTI 702

The simplicity you want

A focus on fundamental principles is key to addressing the IT WAN Manager's operational challenges. "Big iron" metro networking solutions are costly to acquire and operate, are complex, and don't fit effectively within the enterprise IT model. BTI's design approach delivers a new class of small form-factor, low power systems that deliver equivalent network capabilities but do so with a focus on operational requirements:

COST-EFFECTIVE SCALABILITY A modular approach that permits networks to be deployed with minimal CAPEX and increment capacity at the lowest cost per transported bit possible as capacity requirements grow

SIMPLIFIED DEPLOYMENT Ultra compact platforms that make efficient use of precious rack units (RUs) and extended temperature capabilities allow deployment in a variety of locations

LOW POWER DESIGN Power requirements in the range of 150W; much less than today's servers, reducing data center cooling and power requirements

OPERATIONALLY SIMPLE Reduce the time and cost associated with training, installation, provisioning and maintenance with intuitive network management and strategic planning tools. Expedite OAM&P with direct control of the network compared to leveraging service provider infrastructure

Connect a Distributed Workforce

A Packet-Enabled Wide Area Network provides the infrastructure to connect the workforce to critical applications and information, exchange ideas, and that makes them effective.

File Transfers and Information Access – facilitate any-to-any information exchange and allow for fast access to centralized servers and stored data over the WAN with equivalent response times to previously locally hosted applications or data.

Voice over IP (VoIP) & Multimedia Collaboration – provide a distributed team with the tools to connect and enhance interaction on projects with instant messaging, video conferencing, and remote desktop viewing hosted from the consolidated data center.

SOA and Web Services Connectivity – enable organizations to easily access and share information from heterogeneous systems and improve corporate integration with Service-Oriented Architecture (SOA) and web services deployments.

Intranet & Internet Access – simplify employee access with corporate network connectivity used to provide and share corporate information, and administrative details (benefit plans) and provide employee Internet access.

Laptop & PC Backup – ensure regulatory compliance with web-based services to provide fast, secure information backup and retention of critical information from where it resides.

BTI Systems: Enabling the Packet Wide Area Network

BTI solutions provide optical and Layer 2 Ethernet connectivity capabilities to address the technical requirements associated with information distribution to branch offices and remote facilities from centralized data centers. In addition to delivering comprehensive technical capabilities, BTI's ultra compact, high density, low power, and feature rich solutions deliver operational value to improve IT efficiency and the enterprise bottom line.

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