

# packetVX™

BTI 7000 Series



BTI 7000 Series packetVX (PVX) client service modules provide an innovative approach for rapid delivery of Carrier Ethernet-based services. Integrated into a BTI 7000 Series platform, packetVX provides Ethernet service aggregation and switching onto 10 Gbps Ethernet rings, coupling packet switching functionality with Wavelength Division Multiplexing (WDM) for a simplified approach to service delivery. Managed as a module within the BTI 7000 Series platform, the packet service delivery capabilities dramatically simplify operations, management, and provisioning of residential, video, and Ethernet business services using a converged network approach.

## packetVX™ Functionality

packetVX provides integration of a fully-featured Ethernet switch into the BTI 7000 Series platform for complete Layer 0/1/2 capabilities from one platform and one network management system. The integrated approach provides convergence of the service layer with the optical and transport layer, simplifying the network and expediting service delivery.

Leveraging Carrier Ethernet technology, the packetVX provides increased network scalability, Service Level Agreement (SLA) enforcement, and comprehensive Operations, Administration and Maintenance (OAM) functionality relative to enterprise-class Ethernet switching and aggregation solutions. packetVX modules provide both high density Gigabit Ethernet (GbE) aggregation and high capacity 10GbE pluggable optics-based capabilities for simplified service interface commissioning and Wide Area Network (WAN) interconnections.

The packetVX module family has been certified by the Metro Ethernet Forum (MEF) which verifies compliance to MEF 9 and 14 technical specifications and provides independent validation of service functionality capabilities.



## Features

### Convergence Enabler

The integrated module, with high density, high fan-in Ethernet switching and aggregation, and optical networking simplifies service architectures and provides significant network savings.

### Carrier Ethernet

Delivers increased service scalability, clear demarcation between client and service provider, SLA enforcement and monitoring, and extensive OAM functionality. Standardized approaches for fault detection, verification, isolation, and notification identify network issues for quick remediation. Ethernet Ring Protection Switching functionality provides 50ms protection switching for high availability service delivery.

### Ethernet Business Services Functionality

packetVX includes per-flow packet classification, policing, marking, and mapping to enables various classes of service and convergence of different applications on the same packet infrastructure; an extensive suite of optical and Ethernet performance statistics simplifies SLA monitoring and provides end-to-end service visibility.




### IPTV and HD Video Delivery

Embedded hardware-based video transport technologies delivers affordable, scalable, high performance video delivery. Purpose built hardware processing of channel change and VOD transactions ensures responsive and consistent delivery of service requests.

### Simplified Provisioning and Sparring

All modules support Small Form-Factor pluggable (SFP), 10G SFP (XFP), and 10G tunable XFP optics. Configured through software, packetVX modules can address 100FX and GbE services and transport aggregated services over 10GbE via any supported ITU-T WDM wavelength within the BTI 7000 Series' Coarse WDM (CWDM) and Dense WDM (DWDM) wavelength plans.

## packetVX™ Portfolio Summary

		PVX 24/4	PVX 24/2	PVX 12/2
				
Aggregation Ports				
SFP	100FX, 1000-SX/LX/ZX	20	20	10
RJ-45	10/100/1000bT	4	4	2
Network Ports				
XFP	10GbE LAN PHY/OTU2	4	2	2
Wavelengths Supported	850nm/1310nm/1550nm	■	■	■
	CWDM	8 λ	8 λ	8 λ
	DWDM	40 λ	40 λ	40 λ
Module Dimensions		Quad (2W x 2H)	Quad (2W x 2H)	Double (2W x 1H)
Module Variants		BT7A81CA	BT7A81BA	BT7A81AA
Supported Platforms		BTI 7060	BTI 7060	BTI 7060 BTI 7030

## Feature Summary

### Ethernet Aggregation & Switching

VLAN Tagging	IEEE 802.1Q
Provider Bridging	IEEE 802.1ad
Link Aggregation	IEEE 802.3ad
Multiple Spanning Tree	IEEE 802.1s
Bandwidth Management	Rate limiting per port
Traffic Classifications	8 service classes
Traffic Prioritization	IEEE802.1p, DSCP, TOS
G.709 OTN	OTU2
Forward Error Correction	G.975 FEC, enhanced FEC
Ethernet PMs	RMON 2819
Ethernet Service PMs	UNI, C-VLAN, CoS
Management VLAN	■
Physical Layer and Optical PMs	■
Access Control Lists	■
CLI/SSH, SNMP, TL1 cut-thru and GCC	■
Tunable XFP for 10G DWDM	■

### Ethernet Business Services

Bandwidth Management	CIR/EIR/CBS/EBS
Connectivity Fault Management	IEEE 802.1ag (CCMs)
Performance Management	ITU-T.Y.1731 (CCMs, Link Trace, Loopback)
Ethernet Ring Protection	G.8032