SANDVINE

PacketLogic™ 15000 Platform

High performance network intelligence and policy enforcement platform

Designed for the most demanding network deployments.

KEY SYSTEM BENEFITS

- 600 Gbps of throughput for high-value DPI use cases in a compact 4RU platform
- Granular awareness for applications with superior accuracy using DRDL™
- Unsurpassed real-time visibility with LiveView™
- Flexible deployment options, including support for asymmetric traffic through FlowSync™ and QueueSync™
- Carrier-class availability
- Chassis offers ability to add capacity with additional flow processing modules

The PacketLogic 15000 (PL15000) is a 100GE-based system that enables network operators to gain insight into how their networks are performing and take action to improve the subscriber experience, with support for up 600 Gbps of throughput in a single system, and multi-system performance scaling up to 10 Tbps.

Designed for the most demanding network deployments, the PL15000 platform offers the performance and capacity to handle up to 10 million subscribers delivering subscriber experience intelligence and many different personalized services in a policy enforcement configuration. This enables massive network growth without sacrificing service creation flexibility—removing limitations for subscriber provisioning, policy interactions, policy enforcement, charging, application identification, analytics, and congestion management that have constrained network services and profitability.

The PL15000 platform can be configured to support various analytics and policy enforcement capabilities. It is ideally suited for fixed, cable MSO, and mobile network operator deployments that support very large subscriber bases. The system supports multiple high availability options, including internal N+1 redundancy, configuration synchronization, and clustering, for carrier-class availability.

KEY CAPABILITIES

Sandvine's PacketLogic software enables support for a full suite of network intelligence and policy enforcement capabilities, including:

- Content-aware services
- Congestion management
- Traffic prioritization
- Application-layer shaping
- Statistics collection
- Volume-based shaping
- Application delivery networking via advanced traffic steering
- HTTP header enrichment

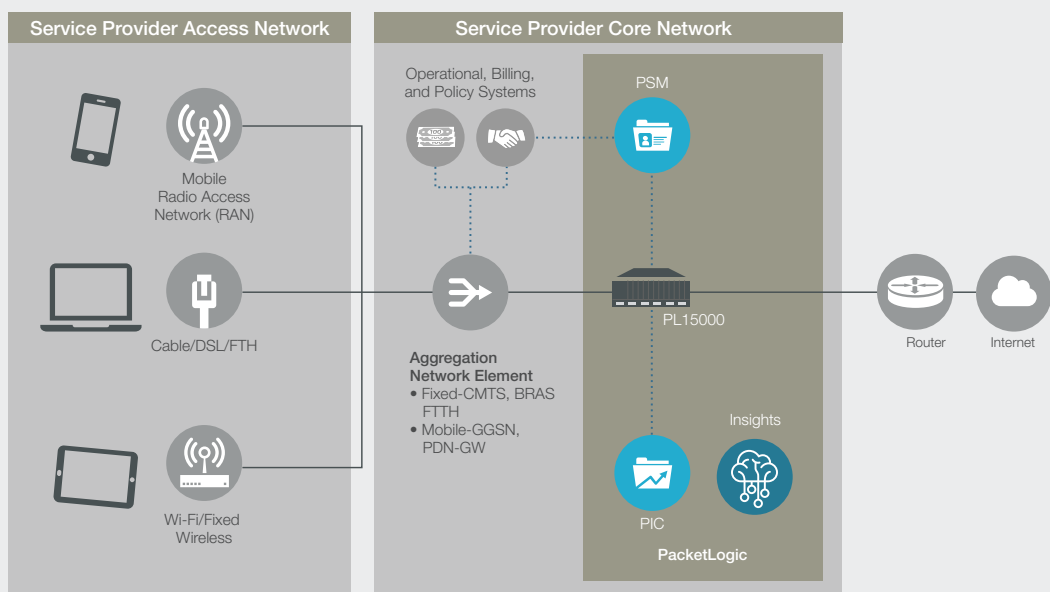# PACKETLOGIC™ 15000 PLATFORM

POWERFUL ENFORCEMENT CAPABILITIES

The PL15000 platform is a turnkey hardware solution optimized to support Sandvine's PacketLogic Real-Time Enforcement software, delivering unparalleled subscriber experience intelligence with policy enforcement capabilities to enhance the subscriber experience.

- **REAL-TIME DYNAMIC LIVEVIEW QUERY ENGINE AND PACKETLOGIC CLIENT** enables sophisticated real-time forensics to manage quality of experience (QoE), network congestion, and network security issues.

- **DRDL™ (DATASTREAM RECOGNITION DEFINITION LANGUAGE)** processing identifes properties of individual session flows in real-time, enabling operators to create and define services on-the-fly.

- **FULL SUITE OF POLICY ENFORCEMENT CAPABILITIES** including content-aware services, congestion management, application layer and volume-based shaping, mirroring, and captive portals.

- **POLICY-BASED TRAFFIC MANAGEMENT CAPABILITIES** that include asymmetric traffic control, traffic shaping and filtering, traffic flow classification and prioritization, traffic monitoring, and packet re-write.

- **ADVANCED PACKET QUEUING,** including parallel queuing to enable more flexible traffic management policies which ensure predictable delay and jitter, enabling operators to meet their customers' QoE expectations.

- **STATISTICS GATHERING** for individual flows to enable real-time and historical reporting, including real-time QoE updates.

- **CONTENT INTELLIGENCE** enables network operators, cloud providers, and high-speed enterprises to combine the policy management capabilities of PacketLogic with industry-leading URL content categorization functionality.

- **HTTP HEADER ENRICHMENT** leveraging PacketLogic's stateful awareness and subscriber awareness.

- **ADVANCED TRAFFIC STEERING** that combines PacketLogic Real-Time Enforcer capabilities with Application Delivery Networking functionality to provide a single application delivery controller solution with unmatched performance and scalability, enabling service chaining with subscriber, service plan, charging, and Layer 7 awareness.

- **EVENT-BASED TRIGGERS** that automatically change policy in response to specified real-time network traffic conditions by dynamically enabling DoS/DDoS connection limits, traffic shaping, or filtering.

- **BGP INTEGRATION** enables peering and CDN visibility, including QoE metrics support for Origin-AS and Transit analysis.

Figure 1

TYPICAL PACKETLOGIC DEPLOYMENT

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PL15000
SPECIFICATIONS

Connections	240,000,000[1]
Connections/sec	4,800,000[1]
Throughput	Up to 600 Gbps[1], Modular in steps of 50G from 50 to 600 (12 modules)[1]
Subscribers	10,000,000[1]
Management Interfaces	2 x 1GE RJ45 (Admin1/Admin 2) 4x10GE SFP+ (Aux1-4) 4x10GE SFP+ (ELVA1a,1b,2a,2b) 1x40GE QSFP (ELVA3)
Max # of Channels	24 x 10GE SFP+ SR/LR/ER (48-Ports) or 3 x 100GE LR4/SR10 CFP2 (6-Ports)
Physical Interfaces	10 Gbase-SR, 10 Gbase-LR, 10 Gbase-ER, 100GE CFP2 LR4/SR10
Console Port	RJ-45 Console
Redundancy	Bypass, Internal Modules, FlowSync
Bandwidth Licensing	1Gbps, 10Gbps and 100Gbps increments
Network Intelligence	PacketLogic Intelligence Center
Subscriber Management	PacketLogic Subscriber Manager
Hardware	4RU chassis; 19" rack mounted
Components	Systems Management Module (SM); Flow Processing Module (FP)
Size	Width: 448mm/17.64" (bottom), 429mm/16.89" (top) Height: 178mm/7.01" Depth: 700mm/27.56"
Weight	183 lbs / 83 kg

Power	Max Power Consumption: 3200 W
	 DC Power specification
	 Input Voltage: 48V: -40 VDC to -60 VDC nominal
	 Input Current (Max): 66 Amps @ -48 VDC (each feed 16.5A)
	 Redundancy: 2+2 @ -48V DC
	 AC Power specification
	 Input Voltage: 100 VAC to 240 VAC nominal
	 Input Current (Max): 29 Amps @ 110VAC (each feed 15A)
	                    13 Amps @ 240VAC (each feed 6.5A)
	 Redundancy: (2+2) @ 200 VAC
	                  (3+1) @ 100 VAC

Environmentals	Operating temperature: 0ºC to 35ºC; Storage temperature: -20ºC to 80ºC; Operating humidity: 5% to 95% (non-condensing)
Parts	PL-15011 - Flow Processing card (FP) PL-15023 - 100GE CFP2 IO Interface Module

[1] Depending on configuration/features used

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