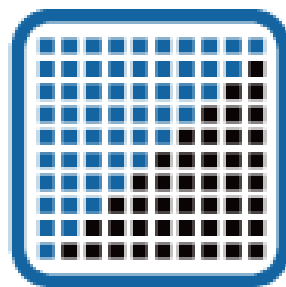
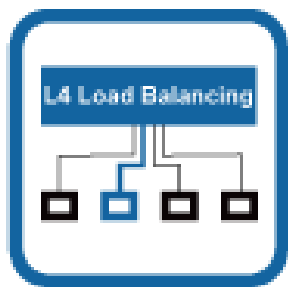
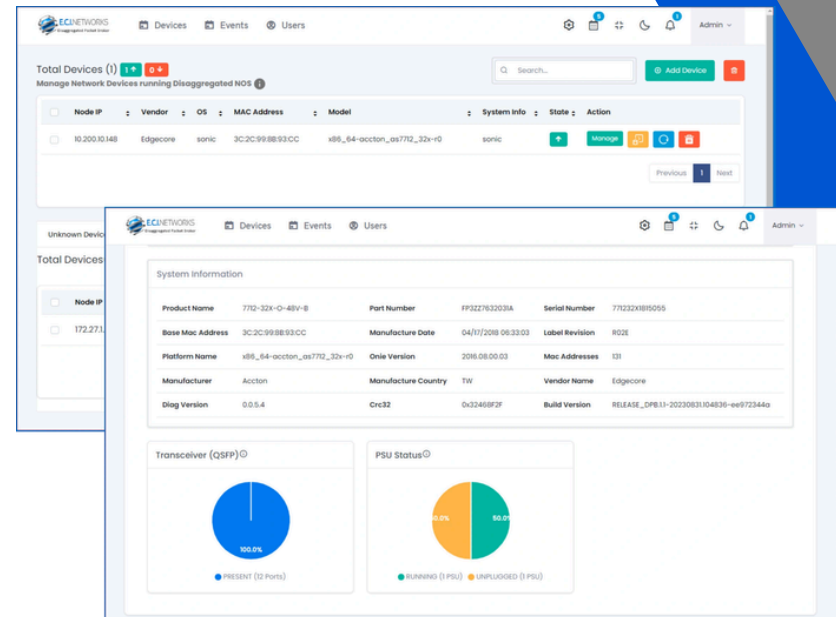


# PACKETMAESTRO PRO

## Advanced-Data Processing

Introducing PacketMaestro Pro, an Advanced-Data Processing (ADP) Solution designed for cutting-edge DPU-based network data analysis. Engineered with robust compute and memory resources, these appliances excel in DPU-intensive tasks, offering unparalleled visibility into network traffic, including 4G/5G mobile environments and beyond.



### Use Cases:

- An extensive set of intelligent features enables the customization, shaping, and efficient transportation of traffic tailored to specific tool needs.
- Includes Deduplication, Packet Trimming, Packet Slicing, and more.
- Tunnel handling capabilities encompass GTP filtering, GRE termination, VXLAN filtering, and stripping.
- Tailored visibility intelligence for the mobile carrier evolved packet core.
- LTE/5G signaling Correlation and mark signaling data for enhanced visibility and in-depth analysis.
- Employs a powerful open network platform with high-density ports.
- Supports third-party virtual applications for expanded versatility.

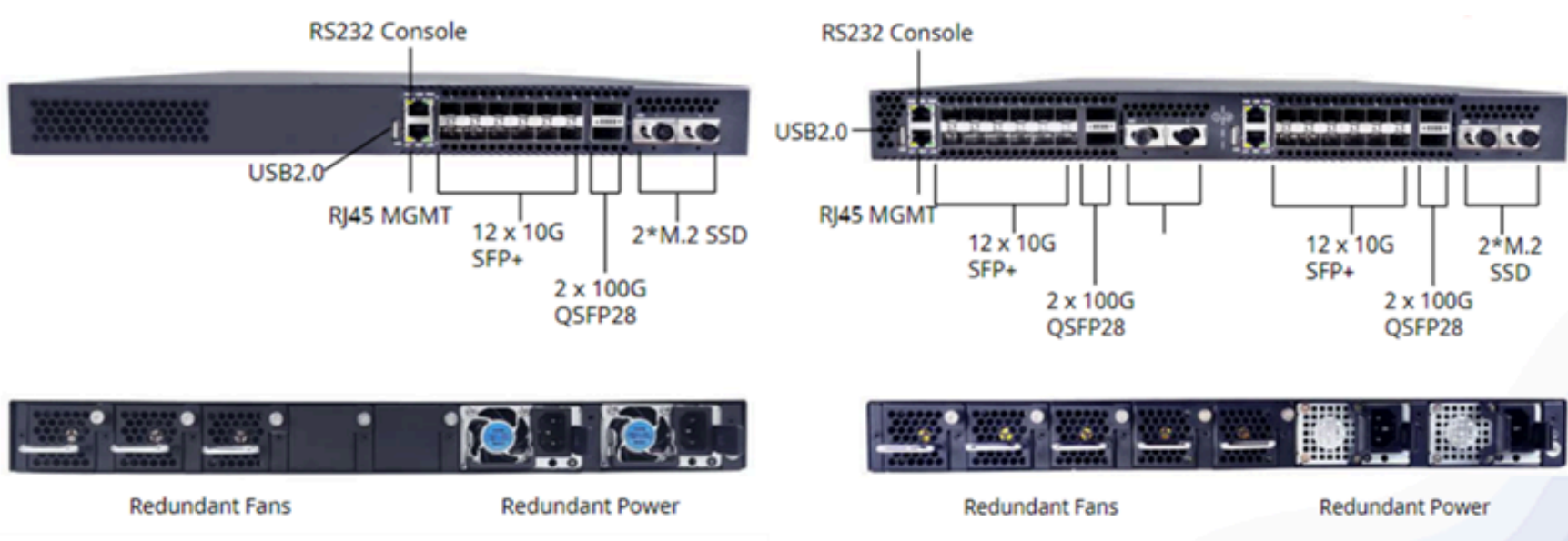
## Key Features:

- **Deduplication:** Enhance network efficiency by eliminating redundant data through powerful deduplication.
- **Data Masking:** Ensure data privacy with advanced data-masking capabilities, protecting sensitive information.
- **Advanced Filtering:** Refine and tailor data using advanced filtering techniques to meet specific analysis requirements.
- **User-Defined Filtering (UDF):** Customize data filtering with user-defined parameters for precise control over network traffic.
- **Deep Packet Inspection:** Analyze packet contents in-depth to gain detailed insights into network communication.
- **sFlow/Netflow Export:** Seamlessly export sFlow and Netflow data for comprehensive network flow analysis and monitoring.
- **Inner IP Load Balancing and Tunnel Filtering:** Optimize network performance with load balancing within inner IP layers and tunnel traffic filtering.
- **GTP Tunnel Correlation and Filtering:** Enhance GTP tunneling analysis with effective correlation and filtering techniques for precise interpretation.
- **Authentication:** Support for LDAP and TACACS authentication.

## Hardware Platforms:

### Two DPU appliance options are available:

- 1x DPU appliance
- Dual 2x DPU appliance. Each appliance comes with 12x1G/10G SFP+ + 2x 40G/100G QSFP28 per DPU
- 2x Redundant AC PSU
- 2x Redundant FANs





## Ordering Information:

Model	Type	Part Number	Name
ADP100	KIT	ADP100-1xDPU-AC	PacketMaestro Pro ADP100 Broker, Single DPU appliance, Advanced Packet Processing License included, 1Y HW/SW M&S included
ADP100	KIT	ADP120-1xDPU-AC	PacketMaestro Pro ADP120 Broker, Single DPU appliance, LTE/5G signaling License + Advanced Packet Processing, 1Y HW/SW M&S included
ADP100	SW	ADP100-5GSIG	ADP100 LTE/5G signaling add-on License
ADP200	KIT	ADP200-2xDPU-AC	PacketMaestro Pro ADP200 Broker, Dual DPU appliance, Advanced Packet Processing License included, 1Y HW/SW M&S included
ADP200	KIT	ADP220-2xDPU-AC	PacketMaestro Pro ADP220 Broker, Dual DPU appliance, LTE/5G signaling License + Advanced Packet Processing, 1Y HW/SW M&S included
ADP200	SW	ADP200-5GSIG	ADP200 LTE/5G signaling add-on License
ADP100	M&S	ADP100-SW-1Y-RWL	PacketMaestro Pro Broker ADP100 Software Support and Upgrades Service 1Yr. Renewal Only (per switch)
ADP200	M&S	ADP200-SW-1Y-RWL	PacketMaestro Pro Broker ADP200 Software Support and Upgrades Service 1Yr. Renewal Only (per switch)



## Features List - Advanced Packet Processing

Feature		Description
Business Functions	Traffic Filtering	Wildcard IPv4/IPv6 7-tuple matching rules
		L2 src/dst MAC, Ethernet protocol type rules
		Exact IPv4/IPv6 5-tuple rules
		Keyword rules based on fixed/floating offset
		Packet filtering based on packet type, including vlan, mpls, gre, vxlan, ssl_tls, ipip, ipip6, ip6ip,
		Mobile signaling filtering including gtpu, gtpv0, gtpv1, gtpv2, http, http2, sip, rtp, rtcp, diameter,
		4G LTE/5G specified signaling filtering, including IMSI/IMEI/MSISDN/CI/TAC
		URL rules
		TCP Flag rules, including "fin", "syn", "rst", "psh", "ack", "urg", "ecn", "cwr", "nonce"
		Combined rules
	VoLTE signaling plane SIP messages and VoLTE media plane RTP/RTCP data in S1-U data	
	Traffic Forwarding	Forward to specified ports or port groups
	Traffic Replication	Replicate to port or ELAG group
	Traffic Aggregation	Multi-path traffic aggregation
	Load Balancing	Logic interface (Enhanced LAG, ELAG)
		Load-balancing policy based on 5-tuple or tunnel inner 5-tuple
		Load-balancing based on IMSI weight
		Static, dynamic and weighted load-balancing mode
		Flow pair distribution to the same server
	VLAN Processing	Add/strip/modify VLAN
	Packet Processing	Packet deduplication, optional ignore TTL, MAC, L2, DSCP, interface, TCP (including seq_num,
Add timestamp		
Packet stripping with fixed offset		
Outer MAC modification		
TCP reassembling		
Packet truncation		
Packet masking (desensitization)		
IP defragment		



	Tunnel Stripping	GRE, VXLAN, ERSPAN tunnel stripping
		Stripping 1 layer or multi-layer VLAN, including across layer stripping
		GTP stripping
		Stripping 1 layer or multi-layer MPLS, including across layer stripping
	Packet Encapsulation	GRE, VXLAN, ERSPAN I, ERSPAN II, ERSPAN III, TCP encapsulation
	Tunnel Termination	GRE, VXLAN tunnel termination
	Packet Output	Packet sampling output: NetFlow, sFlow
Interface	Interface	Port multiplexing, automatic monitoring and security protection of port link status
	Port Rate	10GE (compatible with GE)
		100GE
Management	Basic Management	Serial port, SSH, REST API, CLI
		Online security upgrades
		Logfile import/export
		NTP
		SYSLOG
		SNMP
	Statistics	System status statistics, including memory, CPU usage
		Interface statistics, including interface configuration and status, packet type statistics, packet number and rate statistics.
		Rule matching statistics, reassembling function statistics, deduplication statistics, sFlow and NetFlow statistics.



# Features List - LTE/5G\*

\*Advanced Packet Processing Included

Mobile Signaling Features	Signaling Decoding and Restoration	GTPv1, GTPv2 (S11), 4G S1, 5G N2/N11/N12 signaling decoding and call sheet output
		4G S6A, 5G N4 interface information parsing
		4G S1 EPS nas signaling decrypt (EEA1, EEA2, EEA3), 5G N2 5GS signaling decrypt (NEA1,
	Traffic Correlation Parsing	3G-Gn-U, 4G-S1U, 5G-N3, 5G-N4 user plane data marking
		Signaling and user plane mac marking
	Self-learning of Network Element	4G NE IP structure learning
		4G NE signaling link diagnose
		5G NE IP structure and base station IP
		5G NE signaling link diagnose
	Traffic Filtering	imsi rules
		imsi rules to filter user plane
		imsi prefix
		msisdn, imei, ci, tac rules
		msisdn, imei, ci, tac rules to filter user plane
		User plane traffic vlan, mlps, gtp tunnel stripping
		GTP tunnel inner 5-tuple rules in unmarked data
		VoLTE filtering, output marked SIP signaling to specified port groups; output marked
		IMSI/IMEI/MSISDN sampling output, sampling based on GTPU packet number, sampling
	IPv6 Related Features	User and network element level IPv6 features
		IPv6 information marking
	Statistics	Network elements IP statistics
		Signaling processing statistics, including S11, S1, HTTP2, N11, N12, N2 (ngap), NAS, GTPU
		GTPU bearer information module statistics
		User interface backfill statistics
		Signaling link quality statistics
		N4 (PCFP) module statistics
		S6A (diameter) module statistics
		IMSI rule hit statistics

## Additional Solutions:

- **MaestroVision:** Centralized management platform offering a single pane of glass for unified network monitoring and real-time traffic visualization across PacketMaestro devices.



For a complete list of part numbers or more details, please reach out to our sales team at [sales@ecin.ca](mailto:sales@ecin.ca) or visit our website: [www.ecin.ca](http://www.ecin.ca)

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## Ready to Embrace the Open?

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