# • cPacket Packet Broker Solution

cPacket serves global, zero-downtime enterprises with a modular portfolio of solutions for industry leading packet delivery, capture and analytics that accounts for every packet at line-rate across all environments offering a lower total cost of ownership. The world's most-demanding networks – financial services, technology, healthcare, and government – rely on cPacket's line-rate network monitoring across hybrid environments ensuring maximum uptime and thwarting cyberthreats. Whether on-premises or in the cloud, cPacket provides best-in-class observability and security features, delivering unified command and control across the entire network.

#### cPacket's 3 P's for Optimal Network Observability and Security solutions

- Packets: While metrics, events, logs, and traces (MELT) offer insights, packets are the foundation of Network Observability. Every packet must be inspected and accounted for because, every packet counts.
- **Precision**: Nanosecond time-stamping, millisecond resolution microburst monitoring, and second resolution TCP analysis enables deeper observability and insights into Network and Security operations.
- **Performance**: Leading the transition to 400Gbps in the Enterprise, cPacket packet brokers offer fully-featured, smart processing at line-rate (up to 100Gbps sustained) on every port (not oversubscribed).

### **Best Total Cost of Ownership**

- All advanced features are enabled at line rate across all ports without performance degradation. To achieve
  the same level of "smart" performance, multiple competitive oversubscribed brokers would be needed, adding
  cost and requiring more power and rack space.
- 30% fewer security and performance tools required when utilizing cPacket's sophisticated filters, substantially
  reducing irrelevant traffic to tools.
- All features enabled out of the box with no need for additional licenses or hardware modules, ensuring transparent pricing and straightforward licensing.

### Comprehensive Suite of Advanced, TAP Agg and Agentless Cloud Packet Brokers

- Advanced Packet Brokers (cVu NG), from 10 to 100 Gbps, featuring ASIC/FPGA-based processing behind every port, enabling line-rate performance including packet filtering, tunnel origination / termination, header stripping, packet slicing / truncation, timestamping, load balancing, packet/flow analysis and microburst analysis.
- TAP Agg Packet Brokers (cVu AG), from 10 to 400 Gbps with high port density, designed for aggregating traffic and optimizing tool utilization, often used in conjunction with cVu NG in a two-tiered architecture. It also includes nanosecond timestamping and microburst analytics capabilities.
- Agentless Cloud Packet Broker (cVu-V) the industry's only cloud packet broker available across all major service providers for hybrid-cloud deployments.



# The cVu NG is the industry's only distributed architecture platform, including an ASIC/FPGA behind every port, creating unmatchable advantages:

Smart Processing at line-rate on every port: All advanced features are fully enabled, allowing every packet to be processed at line rate (up to 100G), ensuring a comprehensive and accurate view of network activity for effective analysis and troubleshooting.

**100% accountability:** Conventional, centralized-architecture platforms are oversubscribed and therefore drop packets with smart processing loads as little as 20% of line-rate. cPacket packet brokers account for every packet, at line rate, with all features enabled, across all ports.

**Ultra-high resolution:** Millisecond reporting detects events like microbursts (buffer overruns in fractions of a second) that might otherwise be missed. Nanosecond timestamping provides ultra-granular analytics, while real-time network monitoring enables line-rate diagnostics and swift intervention as issues occur.

**Ultimate Scalability:** cPacket solutions provide dedicated processing power for each port, meeting a network's growing traffic demands and ensuring a long-lasting return on investment.



# Gigamon®

# Key differences between cPacket and Gigamon Advanced Packet Broker Offerings

PERFORMANCE	cPacket	Gigamon
Full Portfolio	Full solutions provider. In addition to both advanced and TAP-agg packet brokers, offer packet capture, analytics, AI/ML-driven insights, and centralized management	A "legacy" observability solutions provider, only has packet brokers. For packet capture and analytics, you need to go elsewhere.
Line-Rate Processing	The only packet brokers that process network traffic at line rate across all ports with advanced features enabled, without packet drops.	Heavily oversubscribed leading to packet drops, which get worse as more features are enabled, creating blind spots in network observability.
FEATURES	cPacket	Gigamon
Microburst Analysis	1ms granularity enables full understanding of how microbursts are affecting your network, especially as speeds increase to 100G and 400G	Does not support microburst analysis, leaving customers with significant blind spots.
Timestamping	Nanoseconds resolution timestamping for the most precise packet data to analyze network performance.	Partially supports timestamping on Advanced (HC) line but only on certain cards and not on all ports which adds management complexity
Packet Header Stripping	Supported for a full suite of protocols and is continually adding new protocols such as Geneve and TrustSec.	Hasn't added packet stripping for any new protocols since at least 2020
Packet Slicing/ Truncation	Multiple options in deleting unnecessary and irrelevant packet traffic ensures that network performance and security tools are optimized while ensuring they receive necessary packet data.	Supports packet slicing, but not dynamic packet truncation can be limiting, resulting in too much or too little data delivered to tools.
Packet Analytics	Delivers high resolution packet analytics that provide Tx and Rx byte and packet statistics for configurable filters at 1ms resolution, enabling real-time detailed drilldown for deep observability as needed during investigation.	Supports aggregated port-level analytics only, which loses flow / session granularity.
Deep Packet Inspection (grep)	Supports real-time filtering and configurable actions for any packets that match any L2-L7 criteria. Customers can use this feature in a security event to identify all areas in infrastructure that include offending packets, in real time, and then after remediation to verify issue resolution	Does not support.
Decryption (MACsec and SSL/TLS)	Supports MACsec decryption at line rate, enabling full packet visibility. Does not support SSL/TLS decryption, but ensures full line rate processing with advanced packet brokering and packet and flow analytics enabled for encrypted packets, except for L7 DPI	Does not support MACsec, eliminating any observability whatsoever. Supports SSL/TLS decryption but diminishes processing packet brokering capacity in an already oversubscribed system design.

# **Additional Considerations**

**Innovation Focus** – cPacket is a growth stage engineering-driven company investing in expanding its observability product portfolio.

**Simple, flat licensing model** – cPacket's pricing is transparent and simple. Features are always enabled on every port, making it simpler to manage. Gigamon's pricing is complex with multiple layers of licensing that hides a higher total cost, making it more difficult to manage, and ascertain which features are enabled.

	FEATURES	cPacket cVu16100NG	Gigamon GigaVue HC1 Plus	Gigamon GigaVue HC3
System Specs	RU	2	1	3
	100G ports	16	12	64*
	Unlocked transceivers	Y	N	N
Performance	System throughput	1.6 Tbps	1.8 Tbps	6.4 Tbps
	Smart processing	1.6 Tbps	260 Gbps	1.6 Tbps
	Oversubscription	1:1	7:1	4:1
Value	Relative Cost	\$	\$	\$\$\$
NPB App Brokering	Session/Flow aware load balancing	Y	Y	Y
	N:1 and 1:N port aggregation	Y	Y	Y
	Accurate time-stamping	Y	Ν	Ν
	Source port labeling	Y	Y	Y
	Packet slicing, trimming	Y	Y*	Y*
Advanced	ERSPAN termination	Y	Y*	<b>Y</b> *
Brokering	De-duplication	Y	Y*	Y*
	Header Stripping	Y	Y*	Y*
	MACsec decryption	Y	N	Ν
	SSL/TLS decryption	N	Y*	Y*
Integration Monitoring	TCP flags breakdown	Y	N	Ν
	High resolution timestamping	Y	N	Ν
	Microburst (cBurst)	Y	Ν	Ν
	Market data feed (cMDF)	Y	Ν	Ν
			* Available with addition	nal licenses and cost

### The Bottom Line

💽 cPacket

Focuses on high-performance, cost effective, feature-rich, reliable observability with

Gigamon®

A legacy player in packet brokering, with an outdated architecture that limits performance, has complex licensing and higher TCO, driving their customers to switch to superior solutions and vendors, like cPacket.

a full range of packet brokers and packet capture, for on-prem and hybrid-cloud.

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# Key differences between cPacket and Gigamon TAP Agg Packet Broker Offerings

PERFORMANCE	cPacket	Gigamon
Full Portfolio	Full solutions provider. In addition to both advanced and TAP-agg packet brokers, offer packet capture, analytics, AI/ML-driven insights, and centralized management	A "legacy" observability solutions provider, only has packet brokers. For packet capture and analytics, you need to go elsewhere.
FEATURES	cPacket	Gigamon
Microburst Analysis	10 ms granularity to fully understand how microbursts are affecting your network, especially as speeds increase to 100G and 400G	Does not support microburst analysis, leaving customers with significant blind spots,
Timestamping	Time stamping at nanoseconds resolution for precise packet data to analyze network performance.	Limited support, hampering ability to effectively analyze network performance and troubleshoot issues.
Packet Header Parsing	Supported for a full suite of protocols and is continually adding new protocols such as TrustSec.	Limited new protocols.
Packet Slicing	Supported across the entire portfolio allowing expensive bandwidth limited tools to be optimized by deleting unnecessary and irrelevant packet traffic.	Does not support packet slicing in their TAP-Agg products.

# **The Bottom Line**



Focuses on high-performance, cost-effective, feature-rich, reliable observability with a full range of packet brokers and packet capture, for on-prem and hybrid-cloud.

Gigamon

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FEATURES	cPacket cVu 32400AG	Gigamon GigaVUE TA-400
RU	1	1
400G Ports	32	32*
100G Ports	128	128*
10G Ports	128	128*
Aggregation	Y	Y
Replication	Y	Υ
Load Balancing	Y	Y
Source-port labelling	Y	Υ
Filtering L2/L3/L4	Y	Y
Time Sync	Y	Υ
Packet Slicing/Trimming	Y	Ν
Header Stripping	Y	<b>Y</b> *
Tunnel Termination	Y	<b>Y</b> *
High accuracy time stamping	Y	N
Microburst monitoring	Y	Ν
Unlocked Optics	Y	Ν

\* Available with additional licenses and cost

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