cpacket NETWORKS
VISIBILITY YOU CAN TRUST

Data Sheet

cCloud™ Visibility Suite – Agentless Virtualized Appliances

Network Visibility and Observability for Public Cloud and Hybrid-Cloud IT Environments

The cCloud Visibility Suite enables you to:

- Gain high-fidelity network visibility and observability within your single-cloud, multi-cloud, or hybrid cloud network, including those that do not natively provide mirroring, without the burden of deploying and managing agents
- Leverage observability and actionable intelligence from streamed and stored network packets from all vantage points in any network to efficiently:
  - Maximize your cloud security posture by delivering network packets required for detection and response and for use by other security solutions and analysts
  - Assure exceptional experiences with applications, operational technology, and other IT services
  - Troubleshoot problems within your IT infrastructure during and after migrations and changes
- Have a source of truth for forensic analysis and regulatory compliance
- Manage, analyze, and orchestrate availability of streamed and stored packet data throughout the IT team
- Extend and simplify native mirroring, routing, and load balancing services by cost-effectively replicating and delivering packets to multiple targets
- Scalability that readily supports growth in elastic virtual environments
- Readily deploy in public cloud Infrastructure-as-a-Service such as Amazon Web Services (AWS), Google Cloud, and Microsoft Azure[1]

Overview

The cCloud Visibility Suite gives you essential network-centric visibility and observability for public cloud environments without using agents. Validated images are available for Amazon Web Services (AWS), Google Cloud, and Microsoft Azure[1]. The Visibility Suite includes several self-hosted virtual appliances that provide the benefits listed in the table below. Altogether, they provide streamed and stored network packets that give you high-fidelity visibility and observability into your network's traffic, behaviors, and performance and, more broadly, into your IT infrastructure, apps, and other IT workloads and services. The virtual appliances interoperate with cPacket Networks' appliances for physical networks. It also enables observability into your IT infrastructure, applications, and other IT workloads and services.

The entire physical, virtual, or hybrid monitoring fabric from cPacket is elastic, unified, and managed using the same user interface and workflows using a physical or virtual instance of the cClear® Analytics Engine and Administration Console.

components and key features		
cVu®-V Virtualized Network Packet Brokering	cStor®-V Virtualized Packet Capture and Storage	cClear®-V Data Visualizations, Dashboards, Fabric Management
Acquires, filters, processes, replicates, and delivers packets to your choice of targets that include security solutions, tools for performance management, storage, analytics, and visualization solutions with (i.e., the cClear® Analytics Engine). Also compatible with ingress routing and load balancing.	Enriches packet data with event tags and timestamps to index and organize the high volume of packets for fast query results, retrieval, and reporting. Forensic analysis of threats and sessions includes viewing actual traffic before, during, and after events of interest by playing specific sequences of stored packets.	Packets, traffic, KPI metrics, and analytics results are visualized in predefined and customizable interactive dashboards. The user interface includes the administration console for configuring and managing the entire cPacket physical and virtual monitoring fabric. All within a single-pane-of-glass.

Use Cases

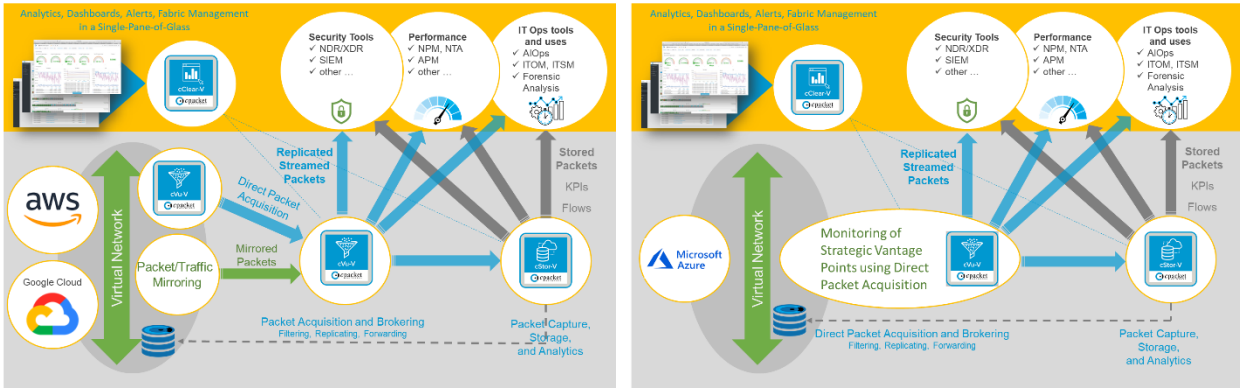
Whether developing or migrating apps and workloads, visibility and observability provide the following essential to the IT team:

- Performance baselines so you can measure and assure performance before, during, and after development cycles and workload migrations
- Security delivery to provide necessary data to your security solutions
- Performance management using KPIs and delivering data to tools
- Rapid root-cause analysis assures business continuity and low MTTR
- Traffic analysis to effectively manage capacity and your cloud costs
- Retaining packet data for forensic analysis, incident response, and meeting regulatory compliance requirements

[1] go to www.cpacket.com for the current list of validated public clouds

The Solution

The cCloud Visibility Suite provides cloud visibility augmented by actionable intelligence from packet data that empowers the entire IT team - AppOps, SecOps, NetOps, CloudOps, and SRE to reduce security and operational risks and gain efficiency to meet service level agreements and have more time to work on interesting and value-creating projects.



Cloud Visibility and Observability for Public Cloud Infrastructure
using native mirroring services and Direct Packet Acquisition (necessary for Azure)

The tightly integrated virtual appliances that comprise the cCloud Suite are cost-effective solutions that acquire, capture, store, analyze, replicate, and forward network packets to dashboards, network analytics, security (detection and response) solutions, and performance monitoring tools. Integrated analytics generate KPIs and profile microbursts (the latter if applicable to the type of network). The benefits apply to any organization and industry, including financial services, healthcare, technology, retail, manufacturing, education, utilities, transportation, government, and DoD.

- The cVu-V virtual appliance acquires, replicates, and delivers the right packet data to the right tools. Its flexible operating modes support all Virtual Private Cloud (VPC) environments, specifically, those that do and do not provide native mirroring services. Its standard (endpoint) mode receives packets from a native VPC traffic/packet mirroring service, replicates the packets, and forwards them to specific destinations, extending the native mirroring service. Its unique inline mode obviates the need for agents by simulating a mirroring function for use in environments where native mirroring is unavailable[2]. Also, even if a native mirroring service is available, you can use this mode to augment native mirroring to expand your visibility and observability by monitoring traffic and performance at specific vantage points not provided by native mirroring. You can eliminate points of failure using inline brokering behind a gateway load balancer. You can launch instances for insertion and removal to use this option for temporary and permanent granular monitoring.
- The cStor-V virtual appliance captures network packets and delivers them to your chosen storage target. The data is enriched with timestamps and metadata. Stored packet data is indexed to facilitate fast querying and recall directly and via an API by time and/or tag for use by security solutions, performance management tools, and security/forensic analysts. This virtual appliance also performs analytics on the data to generate cloud network traffic KPIs and flow data compatible with NetFlow version-5, version-9, and IPFIX for consumption by flow collectors and tools that consume and use flow data.
- The cClear-V virtual appliance provides analytics and customizable dashboards with rich visualizations plus unified fabric management. The dashboards augmented with configurable alerts provide awareness and detailed insights for every monitored link with interactive progressive drill-down to individual packets. Rich visualizations help you troubleshoot and give you an understanding of performance, threats, and attacks at a glance. Fast searches on live data help to quickly identify problems and their root causes. The powerful yet easy-to-use features, dashboards, and user interface let IT work smartly and efficiently.

[2] Refer to the cPacket cVu-V Virtualized Network Packet Broker data sheet for additional details

Key Benefits

Holistic Visibility into Hybrid, Single-Cloud, Multi-Cloud, and Physical Networks and IT Infrastructure

The cCloud Visibility Suite can be used for all environments to seamlessly gain visibility and insights that leverage elastic visibility from every packet from every monitored vantage point. You can use analytics within the cClear Analytics Engine to view and drill into the network packet data to search for specific ports, hosts, etc., to investigate threats and problems.

Comprehensive Visibility from Network Packet and Flow Data

Packets, flows, NetFlow data, KPIs, TCP analytics, and other analytics results provide actionable network intelligence.

Open Architecture Integration

The architecture includes an open API for easy interfacing and interoperability with third-party analytics, tools, and security and performance management solutions.

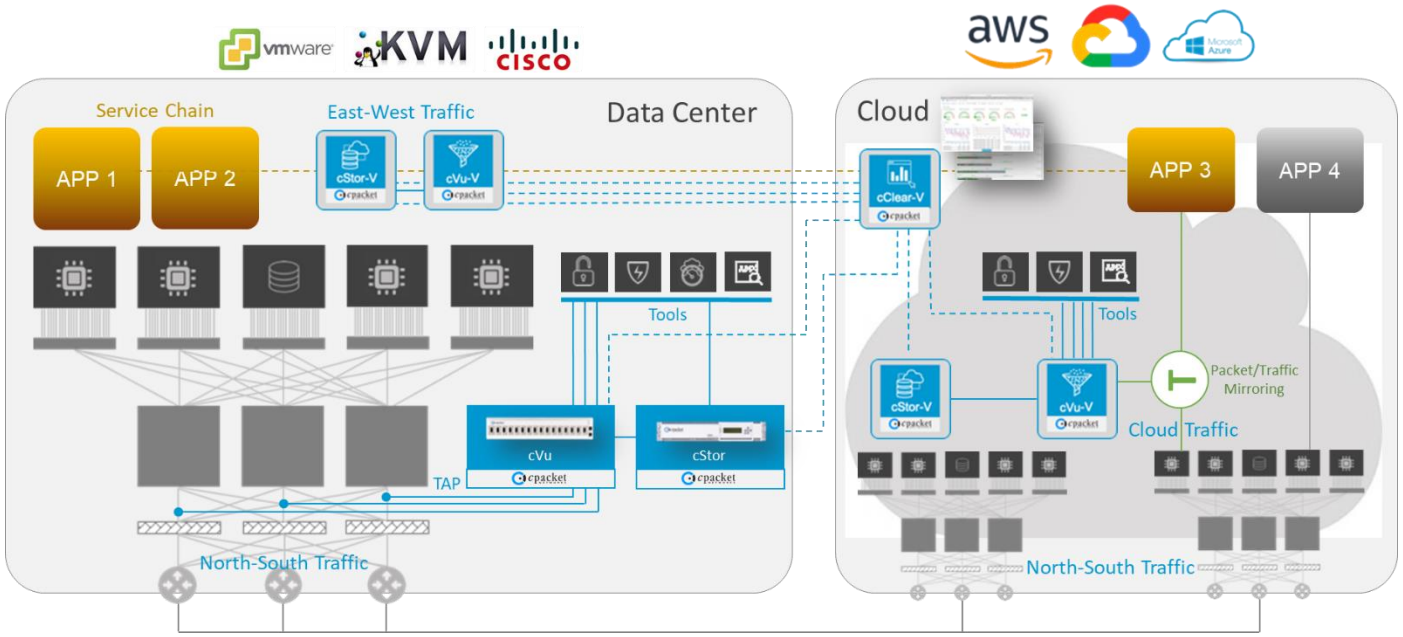
Unified Fabric Management and Workflow Simplicity

IT teams only need to learn and use one user interface and type of workflow. Consistent single-click access to network analytics and data facilitates analyzing, reviewing, and generating reports from the data regardless of the number of workloads and where they are running. Installing and configuring the virtual appliances is straightforward and consistent irrespective of where they are deployed (which is less burdensome and problematic than using agents).

Deployment Flexibility

The virtual appliances are for deployment in a public cloud, private cloud, and other virtualized IT environments, including on-premises data centers, branch offices, etc. They are validated to work with the hypervisors and cloud platforms listed in the specifications below. Fault tolerance and scalability can be achieved using redundancy with load balancing (load balancers may be implemented independently or may be available as a native service in the public cloud platform).

Visibility based on streamed and stored network packets in public cloud infrastructure seamlessly scales across multiple Virtual Private Clouds, Availability Zones, and the entire infrastructure (i.e., a multi-cloud environment). The same applies to hybrid environments that include physical infrastructure.



Reference design for full visibility and observability across hybrid data center and multi-cloud environments

Cost-Effective and Flexible Licensing

The cCloud Visibility Suite has flexible licensing that gives you control to contain and right-size cost. Licensing options include bringing your own usage license (BYOL). The cCloud virtual appliances can be instantiated on-demand for timed use (e.g., hourly, weekly, monthly, etc.). The licensing options give you elastic flexibility to deploy software images in your target environments at the scale needed. Refer to the ordering information section for additional details.

Technical Specifications

Key Features:

	cCloud® Visibility Suite		
	cClear-V	**cVu-V**	**cStor-V**
Dashboards with Analytics and Fabric Management	Yes		
Fully Integrated Workflows	Yes		
Millisecond Resolution Analytics	Yes		
Global Search	Yes		
Data Correlation with Baselining	Yes		
Open API	Yes		Yes
Packet Replication		Yes	
Flow-based Load Balancing		Yes	
Packet Filtering		Yes	
Packet Deduplication		Yes*	
Packet Slicing		Yes*	
Packet Header Truncation		Yes*	
VXLAN Encapsulation		Yes	Yes
Packet Indexing			Yes
Fast Querying			Yes
Flow Information			Yes
TCP Analytics			Yes
Latency and Jitter Analysis			Yes
Real-Time Protocol Analytics			Yes*
Multicast / Video Analysis			Yes*
Financial (HFT) Protocol Analysis			Yes*
Market Data Feed Analytics (cMDF)			Yes*
Multiple Capture Merge			Yes
cClear/cClear-V Analytics Engine Integration		Yes	Yes
Role-Based Administration	Yes	Yes	Yes
Software Upgrade/Restore	Yes	Yes	Yes
Web-based GUI / CLI for System Management	Yes	Yes	Yes
TACACS+/RADIUS Authentication	Yes	Yes	Yes

* Feature or function is planned. Check with cPacket Networks, the cPacket website, or your authorized sales representative for the most current product release and related information.

Performance and Specifications:

	cCloud® Visibility Suite		
	cClear-V	**cVu-V**	**cStor-V**
Targets / Instance	N/A	Up to 10	N/A
Capture Ports / Instance	N/A	N/A	1
Monitoring Rate / Instance	N/A	Up to 10Gbps	N/A
Capture Rate per instance	N/A	N/A	Up to 10Gbps
vCPU	8	4	4
Memory	32GB	16GB	16GB
System Disk	50GB	40GB	40GB
Maximum Monitoring/ Capture Throughput	N/A	Scalable (refer to the Ordering Information section)	
Minimum Storage	500MB	N/A	1TB
Maximum Storage	Scalable*		
Public Cloud	AWS, MS Azure, GCP		
Supported Hypervisors	VMware ESXi, MS Hyper-V, KVM, Cisco NFVIS		
Cloud Data Mirroring	AWS VPC Traffic Mirroring Google Cloud Packet Mirroring		

* Storage scales with machine type selected

Ordering Information

CP_CCLOUD_CCLEAR_V_SUB-xG (Where X is the capacity. Options 1G, 5G, 10G, 15G, 25G, 50G, 100G, 250G, 500G, 1TB)	cPacket cClear-V central management and analytics virtual appliance up to xGbps capacity, 1 year subscription. Deployable on top of VMware ESXi, Microsoft Hyper-V, KVM, Cisco NFVIS, and as part of cCloud BYOL solution in AWS, Google Cloud, and Microsoft Azure. Gold level maintenance included.
CP_CCLEAR_CON	Annual license to connect with cClear appliance or cClear-V software instance at 3% of the list price of the connected device.
CP_CCLOUD_CVU_V_SUB-xG (Where X is the capacity. Options 1G, 5G, 10G, 15G, 25G, 50G, 100G, 250G, 500G, 1TB)	'cPacket cVu-V virtual appliance up to xGbps aggregate monitoring capacity, 1 year subscription. Deployable on top of VMware ESXi, Microsoft Hyper-V, KVM, Cisco NFVIS, and as part of cCloud BYOL solution in AWS, Google Cloud, and Microsoft Azure. Requires cClear-V subscription. Gold level maintenance included.
CP_CCLOUD_CSTOR_V_SUB-xG (Where X is the capacity. Options 1G, 5G, 10G, 15G, 25G, 50G, 100G, 250G, 500G, 1TB)	'cPacket cStor-V packet capture virtual appliance up to 5Gbps aggregate capture capacity, 1 year subscription. Deployable on top of VMware ESXi, Microsoft Hyper-V, KVM, Cisco NFVIS, and as part of cCloud BYOL solution in AWS, Google Cloud, and Microsoft Azure. Requires cClear-V subscription. Gold level maintenance included.

About cPacket Networks

cPacket Networks de-risks IT I&O through network-aware service and security assurance across hybrid and multi-cloud environments. Our AIOps-ready Intelligent Observability Platform provides single-pane-of-glass analytics and deep network visibility and observability required for complex IT environments enabling Fortune 500 organizations worldwide to keep their business running. cPacket solutions are fully reliable, tightly integrated, and consistently simple. Our cutting-edge technology enables network, application, and security teams to proactively identify issues before negatively impacting the business. The result: increased service agility, enhanced experience assurance, and faster transactional velocity. Learn more at www.cpacket.com.