

cPacket cClear® and cClear®-V Analytics Engine and Administration Console

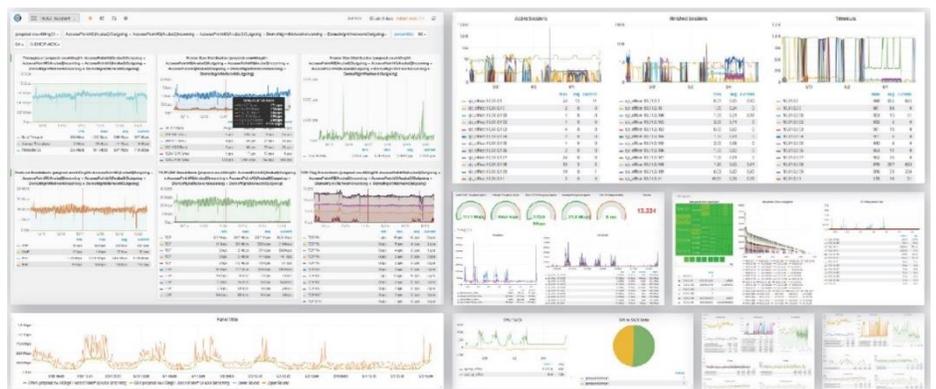
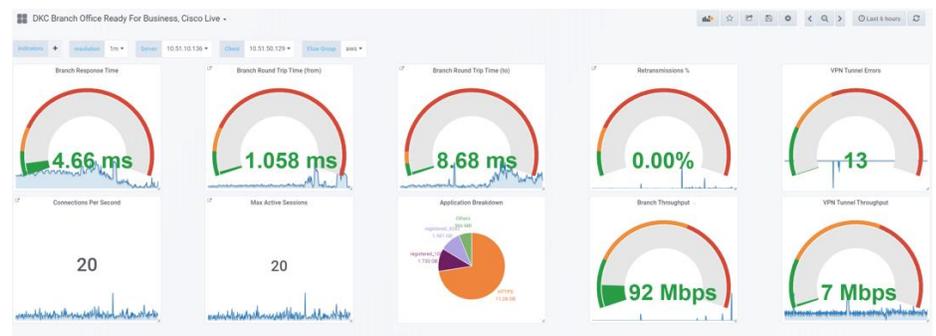
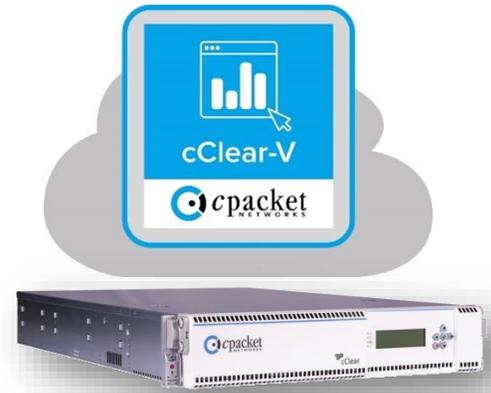
Physical and Virtualized Appliances Provide Analytics, Dashboards, and Monitoring Fabric Management

cClear enables you to:

- Have seamless end-to-end visibility of your entire IT environment, whether physical, virtualized, or hybrid
- Receive network-wide real-time status and alerts
- Perform correlation, baselining, detection, and prediction of anomalous events based on the most accurate data collected from wire-speed KPIs
- Interactively view network packets and traffic KPIs in customizable dashboards to see and drilldown into threat IOCs, network behavior, port groups, and end points
- Customize and export specific packet data in PCAP format to other tools from captured packets
- View and export data for capacity planning, performance management, threat detection, and regulatory reporting
- Troubleshoot physical and virtual resources utilizing user-defined quick filters, global search, and predictive analytics
- Perform wire-speed DPI on every port and packet analyze specific traffic, conversations, hosts, threats, and compliance deviations
- Automate workflows and integrate with AIOps and other systems using an open API
- Quickly get started with executable images and installation scripts for Amazon Web Services (AWS), Google Cloud, and Microsoft Azure

Solution Overview

The cClear Analytics Engine and Administration Console is the User Interface (UI) for the cPacket Intelligent Observability Platform giving you unified visibility and management in a single-pane-of-glass. It is available as a physical appliance (cClear) and virtualized appliance (cClear-V); both offer the same functionality and interoperability with all platform components. It interactively presents data, key performance indicators (KPIs), and analytics results in customizable dashboards so you can drill into the data to gain deep understandings of threats, attacks-in-progress, and the performance of your network. You also gain insights into the performance of workloads in your environment, helping you maximize end-user experiences and your operational technology benefits. The UI includes a holistic administration console with fabric management for all cPacket physical and virtualized appliances deployed. The dashboards and fabric management seamlessly scale across your entire cloud, multi-cloud, or hybrid environment.



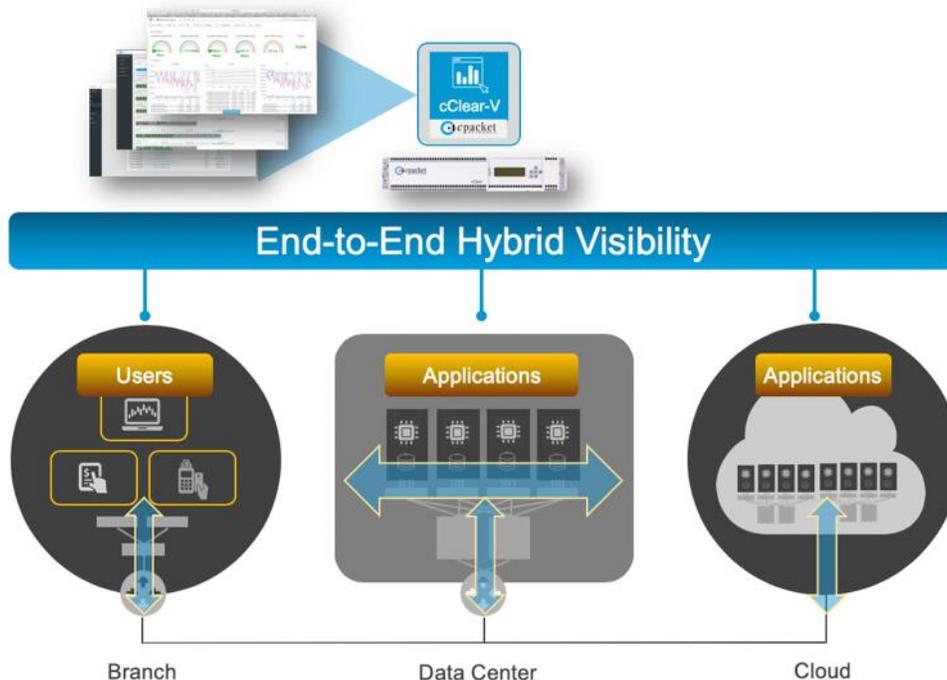
Key Benefits

The cPacket cClear/cClear-V Appliances are scalable and functionally equivalent physical and virtualized appliances that manage and analyze data from the cPacket visibility fabric you deploy. As with all components within the cPacket cCloud® Suite, the major public cloud environments are readily supported with executable images and installation scripts for Amazon Web Services (AWS), Google Cloud, and Microsoft Azure. Check with cPacket Networks or your authorized cPacket Network sales representative for a current list of supported public cloud environments.

The cClear/cClear-V Appliances combine technical features to deliver a wide range of network performance, security, application, and user visibility functions. Deep packet inspection is performed on every packet and every port at wire-speed for physical networks that give you the ability to search for specific hosts, threats, and network compliance deviations. Customizable dashboards enable the IT team to understand and troubleshoot network behavior for particular environments and use cases to help maximize your security posture and assure exceptional end-user experiences. Visibility and access to data also support reporting needs, such as for regulatory compliance.

Analytics, Visualizations, and Administration across Hybrid IT Environments in a Single-Pane-of-Glass

cPacket cClear/cClear-V Appliances is an interoperable solution for all combinations of physical, single-cloud, multi-cloud, and hybrid IT environments. It extends coverage from branch offices to data centers with a single point of command and control. Complete visibility across north-south and east-west traffic paths for branch, data center, and cloud enables a hybrid IT environment for business-ready operations. cClear/cClear-V Appliances receive network-wide real-time status, usage, and alert information from all physical and virtual/cloud monitored devices. It then carries out real-time data analysis, rapid query, and comprehensive reporting functions through an integrated, single-pane-of-glass management dashboard that visualizes network-wide behaviors across multiple views with correlation, drilldown, and one-click access to captured packet data (PCAP).



Visibility Across an Entire Hybrid IT Environment in a Single-Pane-of-Glass

Versatile and Flexible Deployment

The cClear/cClear-V Appliances offer flexible deployment options that include dedicated physical servers, virtual machines (VM), and cloud-native instances. In any scenario, cClear/cClear-V Appliances enable network and security teams to manage and monitor the network regardless of the deployment type. The cClear/cClear-V Appliances are easy-to-manage and a cost-optimized solution that makes the best use of physical rack space to drive analytics. Using the cClear/cClear-V Appliances, you can access uniform, high-resolution data from across the network that yields more accurate analytics that network, security, application, and cloud teams can use with confidence for decision making.

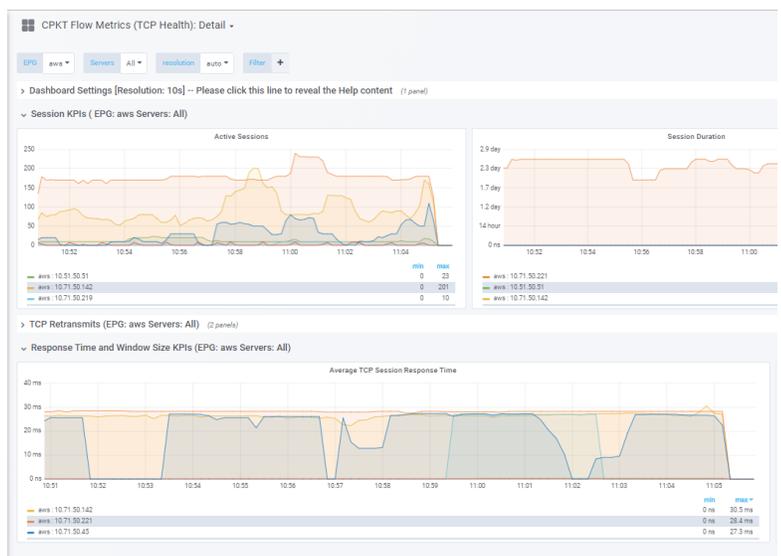
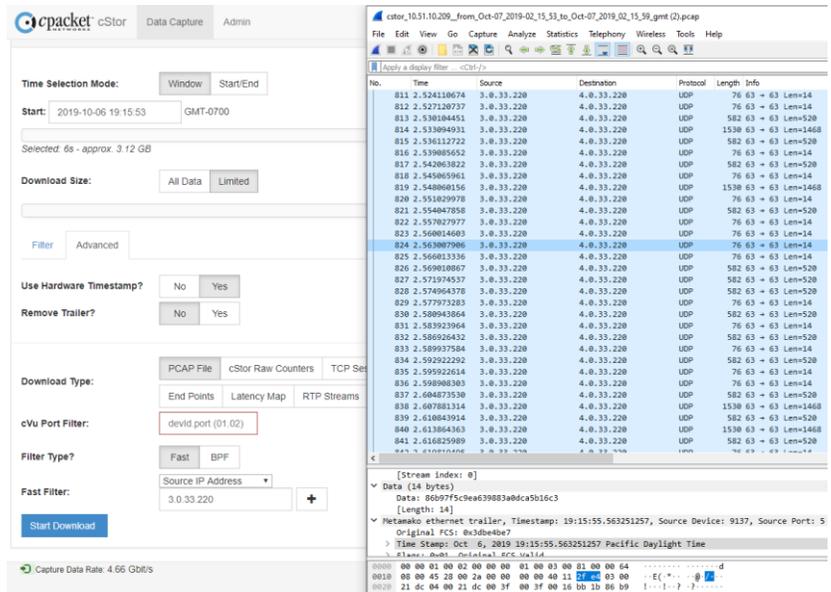
Consistent IT Workflows Simplicity

Workflows combine visualization of key performance indicators (KPIs) with the ability to drill down into packets/flows from a highly integrated and user-friendly interface seamlessly for the on-premises physical, virtual, and multi-cloud environments. The cClear-V virtualized appliance has the same features and functionality as the physical appliance, with flexible and scalable pay-as-you-consume licensing. The Appliances enables access to rich and consistent analytics by integrating with cloud-native VPC packet/traffic mirroring services such as AWS VPC Traffic Mirroring and Google Cloud Packet Mirroring. Easily customizable dashboards that visualize network behavior across multiple views for correlation and drilldown; with access to captured packet data (PCAPs) directly from the dashboard. – Analytics includes correlation, establishing baselines for comparisons, detecting, and predicting unplanned and undesired events using network traffic and KPIs. Seamless and holistic access to packet and flow data for any IT environment allows IT team to instrument and leverage consistent workflows. You can install and run either the cClear appliance or the cClear-V virtualized appliance anywhere in your IT environment; the data, results, visualizations, alerts, management, and workflows are consistent.

Open Architecture for Interoperability and Integration with other IT Tools

Open Architecture for Interoperability and Integration with other IT Tools

The Analytics Engine performs real-time analysis and rapid queries. Data, KPIs, and analytics results can be sent to third-party tools and solutions using the open RESTful API. With its open architecture, the appliances can be interfaced with third party analytics and security data and solutions, either locally or remotely to blend and display combined KPI metrics and PCAP data sources. This simplifies software upgrades, maintenance, and deployment of cloud services to reduce operational costs and ease of migration.



Deployment and Use Case

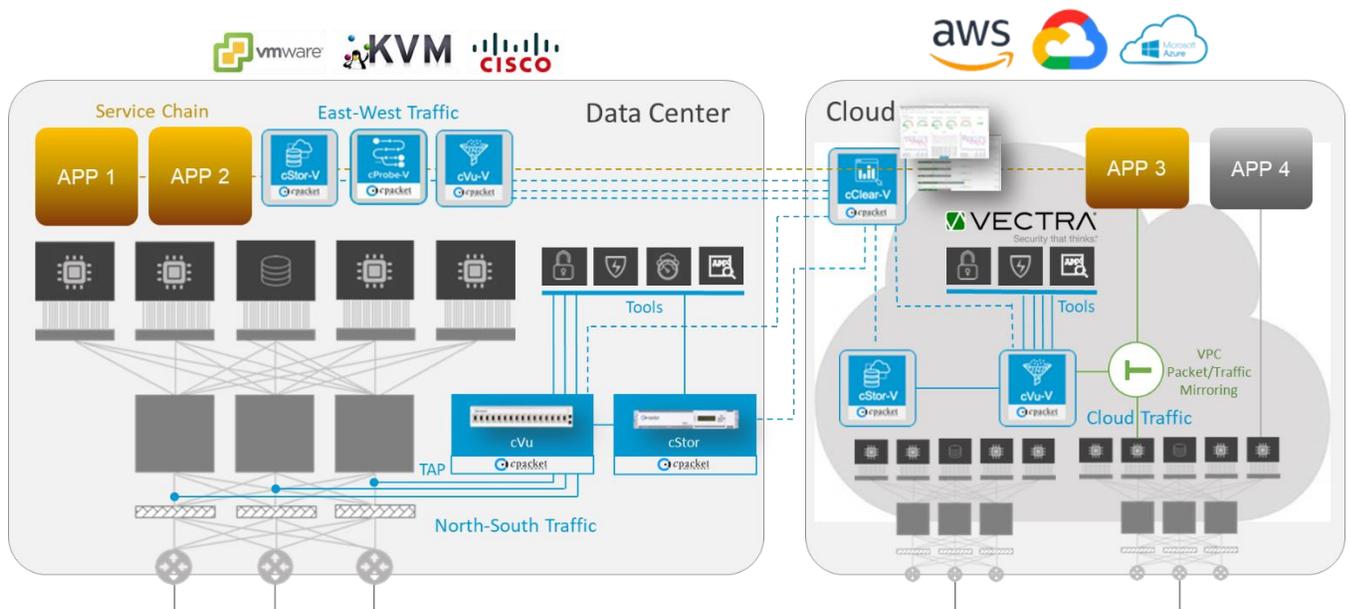
cClear Appliances facilitate detailed visibility into network traffic flowing through physical networks at data rates that range from 1Gbps to 100Gbps. cClear-V Virtualized Appliances provide visibility into network traffic flowing through virtual networks within virtualized environments, including public cloud infrastructure. More than just visibility, you also get observability into the behavior and performance of your entire network. Depending upon your specific infrastructure and environments, you can use either or both to scale to meet the current and future needs of the entire IT team.

Visibility and observability result from by acquiring and capturing network packets using multiple methods and devices. Real-time and stored network packet data are acquired by cPacket cVu®/cVu®-V Network Packet Brokers and captured and stored by cStor®/cStor®-V Network Packet Capture appliances, respectively. Visibility holistically and seamlessly extends across distributed data centers, branch offices, and hybrid environments.

You can deploy a virtualized cClear-V Appliance if your IT environment includes virtual environments and/or public cloud infrastructure. This choice is recommended for east-west traffic in public cloud infrastructure.

Using a physical cClear Appliance is recommended if your IT environment includes large data centers with north-south links.

Redundant appliances are recommended to assure continuity of visibility and observability.



Reference Design for Visibility into On-Premises North-South/East-West and Cloud using cClear-V

Technical Specifications

Key Features:

	On-Premises (physical, virtualized)		Cloud
	cClear	cClear-V	cClear-V
Single-Pane-of-Glass Analytics/Dashboards	Yes	Yes	Yes
Fully Integrated Workflows	Yes	Yes	Yes
Millisecond Analytics	Yes	Yes	Yes
Global Search	Yes	Yes	Yes
Data Correlation and Baselining	Yes	Yes	Yes
Open API	Yes	Yes	Yes
Network-Wide System Alerts	Yes	Yes	Yes
Remote Software Update of All Devices	Yes	Yes	Yes
Status Overview with Real-Time Port Utilization	Yes	Yes	Yes
Direct Connectivity and Drill-Down to Devices, Port Groups, Endpoint Groups	Yes	Yes	Yes
Multiple (cStor) PCAP Download/Merge with Time Selection, Size and BPF Filtering Criteria	Yes	Yes	Yes
Quick Filtering and Global Search for All/Specific (cVu) Ports with Unique String Pattern	Yes	Yes	Yes
Library of Predetermined and Saved Filters for Automation and Ease of Access	Yes	Yes	Yes
Customization of Graphical Dashboards and Import/Export of Shared Files and Utilities	Yes	Yes	Yes
Backup/Restore and Scheduling of Configuration files for All/Selective cVu/cVu-V, cStor/cStor-V Devices	Yes	Yes	Yes
Multi-User, Privilege-Defined User Roles with Centralized RADIUS/TACACS+ and Local Authentication Controls	Yes	Yes	Yes
SNMP based Notifications of Network Health and Threshold Crossing Events	Yes	Yes	Yes
Interactive Dashboards: <ul style="list-style-type: none"> o Network KPI Metrics o Packet Capture Panel o cBurst Analytics (up to millisecond resolution) o Packet and Flow Measurements o Network Connection Latency/Measurement o Top Talkers for understanding network utilization 	Yes	Yes	Yes

Technical Specifications:

	On-Premises (physical, virtualized)		Cloud
	cClear	cClear-V	cClear-V
Delivery Format	Appliance + Software	OVA	AMI, GCP, Azure
Physical/Hypervisor/Cloud IaaS Support	Dedicated Appliance	VMware ESXi, Microsoft Hyper-V, RedHat KVM, Cisco NFVIS	AWS, GCP, Azure
Physical/Virtual NIC Support	2x 10/100/1000 RJ45	Yes	Yes
Tunneling Support	VXLAN, ERSPAN	VXLAN, ERSPAN	VXLAN, ERSPAN
High-Performance Mode	Dedicated Appliance	DPDK/SR-IOV	DPDK/SR-IOV
Physical/Virtual Port (Management)	2	1	1
CPU/vCPU	Intel Xeon 8 Core	8	8
Memory	32GB	32GB	32GB
System Disk	240GB SSD	50GB (Recommended)	
Secondary Storage	1.9TB SSD	250GB (Recommended)	

Ordering Information

SKU	Description
CP_CCLEAR	cPacket cClear central management and analytics appliance. Redundant AC supplies. 2x 10/100/1000M RJ45 management ports. Maintenance not included.
CP_CLOUD_CCLEAR_V_SUB-xG (Where X is the capacity. Options 1,5,10,15,25,50,100, 250,500, 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.

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 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.