Extending Amazon VPC Traffic Mirroring

cCloud® Visibility Suite Strengthens Security, and Helps Assure Experiences and Successful Cloud Migration

Business Benefits

- **Strong Cybersecurity Posture**

  Reliably provides visibility, data, and network intelligence for Network Detection and Response

- **Assure End-User Experiences**

  Comprehensive visibility assures reliable and responsive experiences with network-aware applications

- **Optimize Performance**

  Reliable visibility for efficiently optimizing performance whether developing new applications or migrating existing applications to Amazon Web Services (AWS)

Technology Benefits

- **Extend Amazon VPC Traffic Mirroring Value**

  Captures, multiplies, relays, filters, and converts network data to maximize the value of each Elastic Network Interface traffic mirroring stream

- **Turn-Key, Fast Time to Value**

  Just 1 person within 1 day can onboard the visibility tool suite using machine images, scripts, installers, and configurations

- **Lower Operational Risks**

  High-quality real-time and historical packet and flow data strengthen security, and minimize unplanned service disruptions and outages

The Challenge

Customer satisfaction, competitiveness, operational efficiency, and profitability all rely on secure and responsive cloud-hosted applications. Therefore, visibility is essential for IT Operations to efficiently assure that network-aware application performance and end-user experiences are secure and responsive. Ideal actionable visibility and data come from network packet and flow data because it provides a thorough understanding of cyber-attacks, malware behavior, and the interactions between end-users, IoT devices, applications, and services. But accessing network traffic can be challenging in public cloud environments.

The Solution

cPacket Networks and Amazon Web Services (AWS) collaboratively address these challenges by providing visibility into cloud workloads running in Amazon Virtual Private Cloud (VPC) environments. Amazon VPC Traffic Mirroring replicates network traffic flowing to and from Amazon Elastic Compute Cloud (Amazon EC2) instances and forwards it to out-of-band security and monitoring appliances on an EC2 instance or a fleet of instances behind a Network Load Balancer for content inspection, threat and performance monitoring, and troubleshooting. cPacket extends Amazon VPC traffic mirroring with its cCloud suite of tools for AWS and on-premises virtualized environments that use Cisco NFVIS, VMware ESXi, Microsoft Hyper-V, and Redhat KVM. Using the cCloud suite democratizes data, visibility, and actionable intelligence to the NetOps, SecOps, AppOps, CloudOps, and SRE teams by leveraging these tools:

cPacket cCloud® Visibility-as-a-Service Suite for Cloud Environments			
cVu-V®	cProbe-V®	cStor-V®	cClear-V®
Cloud Packet Broker+ that consolidates, processes, and brokers mirrored packets to multiple tools and/or storage	Cloud Flow Generator and Exporter that transforms packet data into industry standard flow data for consumption and analysis by other tools	Cloud Packet Capture - records, tags, and replays cloud network traffic for forensic analysis, regulatory compliance, and session analysis	Cloud Analytics that correlates, analyzes, and visualizes data, plus provides the administration for all cPacket products from within a single-pane-of-glass

End-to-End Visibility, Data for Multi-Cloud and Hybrid Environments

cPacket's broader portfolio includes similar physical appliances (cTap®, cVu®, cProbe®, cStor®, and cClear®) that when used with the cCloud suite provides unified visibility that seamlessly spans multi-cloud and hybrid environments for branch offices, campuses, distributed enterprises, and data centers.

Analytics, Rich Visualizations, and Consistently Simple Workflows

With its unified architecture, cClear-V seamlessly spans on-premises, cloud, and hybrid environments to provide consistent workflows and dashboards in a single-pane-of-glass for data acquisition, analysis, reporting, and administration of all cPacket products. The data correlation, analytics, and KPIs give IT teams actionable intelligence to understand, troubleshoot, sand optimize performance.

Flexible and Cost-Effective Pricing

cCloud is offered as Visibility-as-a-Service (VaaS), so you can scale as needed and pay for what you consume. cCloud component instances can be instantiated on-demand for timed use (e.g., hourly, weekly, monthly, etc.) or you can bring your own usage license. Flexible licensing plus using cVu-V to multiply mirrored packets to multiple destinations will contain your traffic mirroring costs.

Advanced Packet Processing Increases IT Operational Efficiency

cVu-V has advanced processing features such as filtering, traffic aggregation, and load balancing that extend the utility of Amazon VPC traffic mirroring so you can maximize your mirroring investment. These features reliably provide the right data to each tool in real-time to increase time-to-results and reduce unnecessary traffic.

Packet and Flow Data Strengthen Cybersecurity

AWS customers are responsible for securing all data and applications in their respective Amazon VPC environments and should use cCloud components to process, multiply, and relay packets to Network Detection and Response and other cybersecurity prevention solutions. cProbe-V should be used to provide flow data to SIEM tools. cStor-V should be used for forensic analysis, incident response, regulatory compliance, and record keeping.

Visibility, Reliable Data Acquisition, and Analytics Drive Experience Assurance

Data, analytics, and AIOps results from packet and flow data presented in customizable dashboards using cClear-V facilitate monitoring, baselining, and optimizing network-aware application performance. Dashboards and alerts give actionable intelligence to assure that end-user experiences meet business needs and service level agreements. Data should also be relayed by cVu-V to AIOps solutions so they can provide additional actionable intelligence and automation to further improve experience assurance, operational efficiency, and mean time to resolution (MTTR).

Intra-Cloud Traffic Monitoring Assures Cloud Migration Success

The cCloud suite of tools extend Amazon VPC traffic mirroring by providing enhanced intra-cloud traffic visibility, data and, performance KPIs to Application Performance Monitoring (APM) tools that will help assure successful cloud-first and cloud-smart migration of new cloud-native applications, lifting-and-shifting legacy applications, or both.
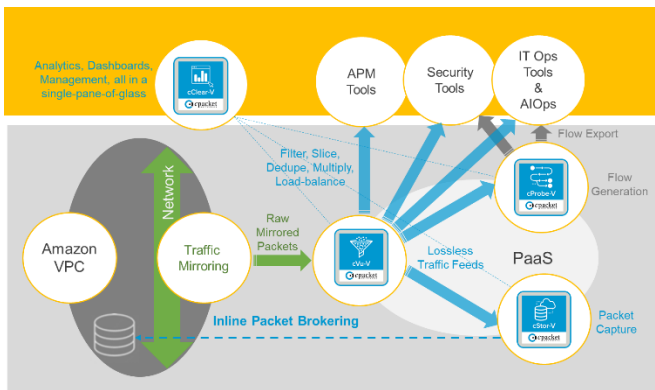
cCloud tools extend traffic mirroring to create a visibility service chain

Amazon VPC Traffic mirroring from Elastic Network Interfaces (ENI)

About cPacket Networks

cPacket Networks enables IT through network-aware application performance and security assurance across the distributed hybrid environment. Our AIOps-ready single-pane-of-glass analytics provide the deep network visibility required for today's complex IT environments. With cPacket, you can efficiently manage, secure, and future-proof your network - enabling digital transformation. cPacket solutions are fully reliable, tightly integrated, and consistently simple. cPacket enables organizations around the world to keep their business running. Our cutting-edge technology enables network, application, and security teams to proactively identify issues before negatively impacting the business. The result: increased security, reduced complexity, and increased operational efficiency. Learn more at www.cpacket.com