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# Elastic Packet Processor

## Cloud-First Packet Processing For A Cloud-First World

## Introduction:

Deploying security tools to monitor workloads in the cloud is extremely difficult. This lack of sufficient security monitoring and alerting in the cloud is a barrier to cloud adoption and cloud maturity. Nubeva is on a mission to solve this problem. As part of our product strategy, we created the Prisms Service Processor (PSP) with Elastic Packet Processor (EPP).

## Challenges Solved By Elastic Packet Processing:

**Cloud Infrastructure TAP Immaturity**: Infrastructure packet mirroring, like that offered by cloud platform providers can be expensive at scale and not yet available for all regions and workloads. These utilities offer only limited traffic filtering capabilities and no replication. While the agentless packet acquisition is a good step forward, all cloud infrastructure TAP and mirror should use Nubeva Prisms with our new PSP VTAP termination for filtering and replication to multiple, rather than single, tool and storage destinations.

**Workload Tax**: Packet replication taxes the source workload which drives up costs and drives down performance. The more you process mirrored packet streams at the source and the more destinations you send replicated streams to, the more source CPU, memory and bandwidth is consumed. This takes resources away from the primary duties of the source workload. Resource consumption like this can trigger elastic events and additional costs purely due to monitoring, security and compliance overhead and not related to the core purpose of the workload tasks.

**Simultaneous Monitoring and Recording:** Traditional security and performance monitoring solutions wait until something goes wrong before they start capturing packets for deeper inspection. This means that they have to wait until a problem or threat happens again before they can really track down the issue. We believe one time is plenty. With nation-state packet multiplexing and massive throughput, every packet can be both inspected and stored for follow up and deeper analysis.

## What About Cloud Taps?

Cloud Taps such as Azure VTAPS, is a one-to-one tap and mirror configurations but cannot provide advanced filtering or multi-destination replication.

Nubeva is partnering with cloud providers to enhance their native taps.

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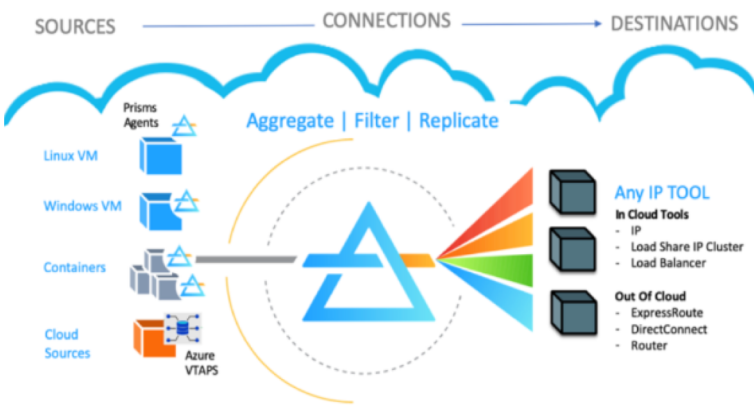
## Solution:

Nubeva Prisms' PSPs are purpose-built for packet processing at scale. The PSPs orchestrate mirrored traffic between cloud workloads and security tools, enabling security solutions not previously available be deployed in the cloud. Nubeva Prisms provide the only cloud-native solution for advanced packet stream processing.




Nubeva Prisms' Elastic Packet Processor (EPP) runs inside the PSP. The EPP is its own high-performance, autoscaling packet stream processor that handles the heavy lifting of advanced filtering and replication of traffic between sources and destinations. Sources can be any workload in the cloud equipped with a Nubeva Prisms agent or configured with an agentless solution like a cloud infrastructure TAP or mirror.

## Solution Highlights:

**Massive Low-Cost Performance and Throughput Gains:** Near **w**ire speed speed on 10Gbps and 25Gbps is 10 times or more than any other traffic mirroring product. Combined with an elastic architecture, Nubeva Prisms PSP is, by far, the best solution for servicing traffic mirroring at cloud scale.

**Application Performance Boost:** Maximize your workload's bandwidth by minimizing mirrored traffic to tools. Workloads send a single stream of mirrored traffic to an elastic packet processor which performs advanced filtering and replication to multiple destinations. Get one-to-many replication without multiplying the bandwidth, CPU or memory overhead consumed by the source workload.

**Cloud Network Optimization:** Minimize excess cloud network usage and maximize visibility. By filtering a single, mirrored packet stream at the source workload and then replicating it to multiple security, monitoring and storage tools, you are able to dramatically reduce the amount of extraneous and repeated data flowing across your network.

**Security and Forensic Storage at the Same Time:** Nubeva Prisms PSP lets you immediately send processed packet streams to security tools like IDSs while - at the same time - sending full, unfiltered packet streams to indexed storage for forensic follow-up, anomaly detection and threat hunting. Detect and store at the same time from the same, single mirror.

**Foundation for the Future:** PSPs are the foundation for cloud visibility. The ability to run multiple services as modular packet processing engines is the foundation to deliver even more advanced services.

### Massive Performance and Throughput Gains with Nubeva PSP

Competitors are 50x more expensive for the same bandwidth.