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IT Operational Clarity

Among all the change within IT, the one constant has been IP technology. While reliable and scalable, this reliance has consequences:

- 1. IT teams know less about how IT infrastructure connects and functions
- 2. There are no open standards defining the who, what, where, and how users and devices are communicating

The result: IT often struggles to keep on top of user experience and performance issues.

It's getting worse. Today's hybrid IT environment is increasingly difficult to manage. The growing number and variety of devices, whether related to IoT deployments, cloud migrations, or users at the network edge, are becoming unmanageable. IT teams are losing control.

As a tightly integrated part of Observer, GigaFlow eliminates the operational murkiness and enables comprehensive end-to-end operational visibility.

Observer GigaFlow intelligently combines numerous metrics, resolving these challenges by quantifying the health of every network interface, independent of location or ownership. This delivers enhanced end-user experience insight with enriched, high-fidelity forensics.

GigaFlow Stitching and Enriched Flow Records

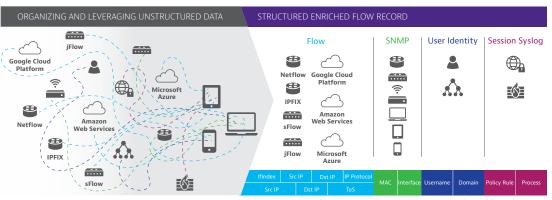
When is a flow not a flow? When it's an enriched GigaFlow record. Traditionally collecting and storing of flow traffic like NetFlow involves aggregating, pruning, or de-duplicating information. This results in a corresponding loss of fidelity that compromises forensic evidence and reduces effectiveness to solve issues.

In an industry first, GigaFlow reimagines flow to deliver its full potential. GigaFlow intelligently stitches and structures multiple sources of data (flow, SNMP, user identity, and session syslog) together into an enriched flow record.

Doing so provides in-depth details on network device types, connectivity, traffic control, and usage patterns down to individual users for all communication traversing the environment from any point of view.

Created in real-time, enriched records are then stored unaltered over time in a relational database, so IT teams can easily search and locate on any operational variable for long-term protection and assurance.

VIAVI brings the network to the table and exposes the infrastructure and traffic clearly to all business stakeholders serving as the go-to platform for every IT team.



Example fields shown; actual GigaFlow record can contain dozens of unique field

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End-User Experience

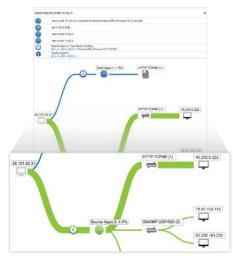
End-User & Application Capacity Management

GigaFlow provides network traffic visibility on a per interface basis down to the layer 2 switch. Gain usage and utilization insight by individual user or in aggregate spanning the service delivery environment from core to edge and into the cloud. This is ideal for general assessments of end-user experience at points anywhere along the conversation route, and valuable for quantifying asset cost/benefit efficiencies. For example, assessing the cost effectiveness of cloud deployments and accurately attributing costs of underlying IT assets to the resource users (e.g. department, business unit).

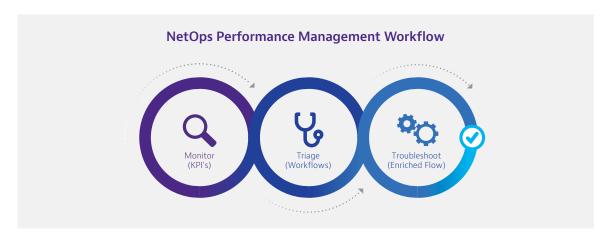
Summary Dashboard with Detailed Drill-Down

End-User Flow Forensics

GigaFlow offers real-time and long-term historical perspectives of end-user status as a function of underlying service health at every traffic device interface. The enriched flow records of GigaFlow dynamically capture all relevant data including timestamp and location continuously over extended periods. Because of this, IT teams can navigate to a specific event or anomaly in the past to troubleshoot and solve the problem by answering who it impacted and when, where, and how the incident occurred.



Full Flow Forensics with IP Detail



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Network Security

Threat ID with Scope & Impact Context

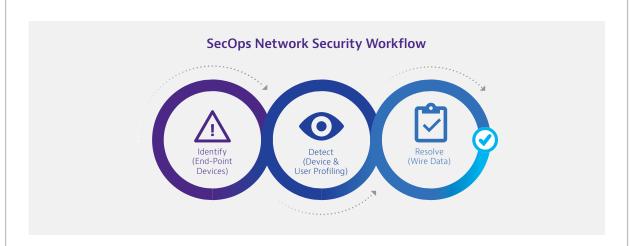
Out of the box, GigaFlow will automatically call home to obtain the latest black lists IPs, then checks it against all enriched flow records over time. GigaFlow can also alert on syn only flow records, often associated with rogue activity. Incidents from other security solutions can be passed to GigaFlow providing search and identification capabilities. This helps answer questions like: What was the host or device communicating with earlier? Where is the rogue host/device now? Who was using the host/device? This aids SecOp teams in their investigations and enhances existing security solutions.

Advanced Traffic Profiling

A core capability of GigaFlow is the ability to build a traffic profile of devices on the network. Hosts are characterized by type, usage, application, and communication activity. This can be used to assess acceptable usage (e.g. white lists). Profiles are maintained in real-time with all future networkgenerated device traffic evaluated against past behavior for unusual or anomalous activity. Ongoing SNMP polling has the added benefit of quickly detecting new and possibly rogue activity. For example, discovering compromised or bogus assets that serve as entry points for security threats (e.g. When is a printer not a printer?).



Threat Map with Classification and Event Details





Features and Benefits Summary

- End-user experience delivers in-depth situational awareness for each IT stakeholder; thereby ensuring optimal service delivery
- High-fidelity forensic visibility into every network conversation over time reducing mean time to resolution
- Advanced service path visibility ensures immediate problem domain isolation across a complex hybrid IT environment
- Automated threat assessment, creating a new line of defense utilizing an enriched flow record for immediate identification of rogue activity

GigaFlow Deployment

GigaFlow offers an extensible, easy deployment architecture with carrier grade scalability and a "pay-as-you-grow" pricing model. Options are available in various software capacities based on number of flows supported and emitting sources to satisfy the needs of any size organization.

Observer Platform Overview

Observer is ideally suited for satisfying business goals and



Observer Overview & GigaFlow Integration

Observer is a comprehensive network performance monitoring and diagnostics (NPMD) solution that offers valuable insight and assistance to network, operations, and security teams.

As the central dashboard and reporting resource, Observer Apex serves as the launch point with pre-engineered workflows for navigation into either GigaFlow or GigaStor for real-time or historical perspectives into service health.



GigaFlow is tightly integrated with Apex right out of the box. IT teams can begin their monitoring, troubleshooting, or investigation within Apex, and seamlessly navigate as required to either GigaFlow or GigaStor. Search by IP/MAC address or subnet then let Apex lead you to the information you seek in a couple of mouse clicks.

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