



**VIAMI**



# **Observer GigaStor**

Post-event analysis and network  
security forensics

## Rewind. Review. Resolve.

### Stop Missing Critical IT Service Events

Observer® GigaStor™ is instrumental in solving IT service delivery issues whether related to network or application anomalies or security threats. The undisputed leader in forensic analysis, GigaStor eliminates the time-consuming task of recreating problems for troubleshooting or investigation. Just hit rewind to go “back in time” and review past network activity. Then, navigate to the exact moment a problem was detected or a malicious event is suspected to see detailed network conversations at the packet level before, during, and after the occurrence.

## Benefits

GigaStor is the perfect solution for security, compliance, and troubleshooting needs. It ends finger pointing between network and application teams providing fast and accurate problem identification and resolution while augmenting real-time security efforts—offering corporate-wide benefits and advantages. Features and benefits include:

- Web-based trace extraction enables third-party integration and easy sharing across IT silos
- Back-in-time functionality via time navigation interface means never having to wait for the problem to repeat
- With a number of form factors, select the configuration that's right for the organization, from a few terabytes to over a petabyte of capture capacity
- True line-rate gigabit, 10 Gb, and 40 Gb support with the industry's fastest, interdependently validated wire-rate packet capture and storage ensures total transaction visibility and intelligence into potential security breaches
- High performance, in-house designed Gen3™ capture card speeds packet analysis and shortens MTTR
- Integrated AES-256 data at rest encryption with no negative impact to capture or mining performance
- Tuned hardware-software design with advanced GigaStor accelerated analytics engine achieves simultaneous line-rate capture and the fastest packet capture mining in the industry for nearly instant network traffic awareness
- Built-in network, application, and service analytics for simple workflows and rapid troubleshooting wherever the problem may reside
- Expert analytics with detailed network and application awareness, including deep-packet inspection, facilitates problem solving and offers comprehensive views into possible security intrusions
- Fault-tolerant custom enclosures support four years of uninterrupted, 100% duty-cycle, line-rate capture without dropping a single packet for the ultimate in network conversation visibility and peace of mind
- Choose from rack-mount, portable, and software options to capture and analyze traffic in remote locations, at the edge to the data center core, including hypervisor visibility

“In the financial industry, losing any data is a big deal. That’s why we use Observer Analyzer Expert Edition and GigaStor to ensure we see everything.”

-Chicago Board Options Exchange

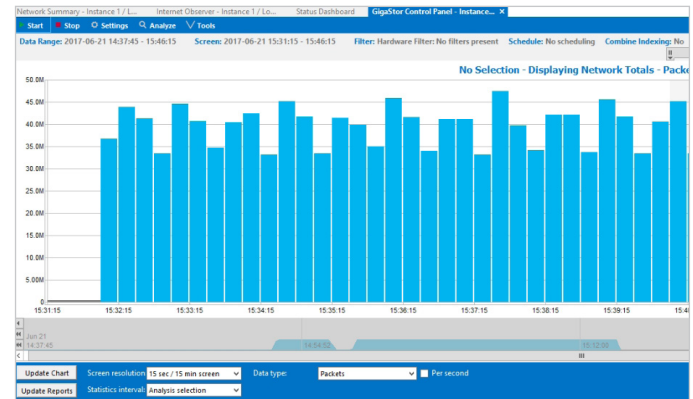
## Key Features

### Web-based Trace Extraction

Whether performing troubleshooting directly or sharing with third-party solutions, accessing packet-level data is easy with GigaStor web-based trace extraction. Critical service-level communications can be mined through a browser (without a thick client) by using the built-in web service.

### Time Navigation Interface

Simplify problem isolation with GigaStor’s unique time-based navigation system. Identify time of problem occurrence, and then navigate down to the nanosecond for quick and accurate root-cause location. GigaStor also offers a big-picture view with a macro timeline graph for proactive management.



## Root-Cause Analysis

Analyze up to a petabyte of data and beyond. Find the problem through root-cause analysis, minimizing downtime and user impact. From an enterprise-wide view, you can track numerous operational metrics including bandwidth utilization, network top talkers, application metrics, and even VoIP quality statistics.

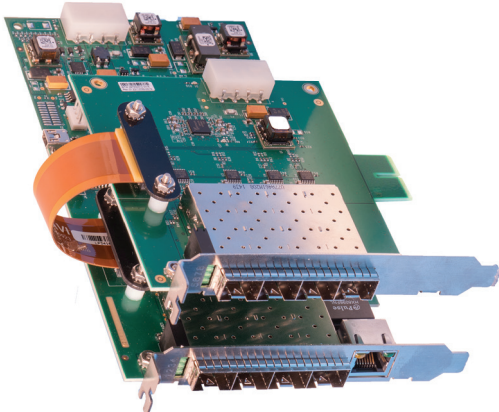
Expert Data	ID	Server	Status	State	Packets	Bytes	Start Time	End Time	Initial	Dur
OpenH23 MCU v1.1.7 - AndyY	192.168.1.166	192.168.1.178	Closed	Closed	1848	82768	11h:45m:40.525s	00:00:25	00:00:25	01m
RTCP/PCMU(G711)	5019	5008	Closed (Toned Out)	Closed	1203	22546	14h:07m:20.402s	14h:09m:39.499s	04:28:2s	01m
H323 Host Call	1720	1602	Closed	Closed	1637	347070	08h:48m:35.948s	08h:48m:55.780s	04:28:5s	01m
RTCP	5017	5009	Closed	Closed	1244	272684	17h:09m:15.524s	17h:09m:41.503s	00:05:8s	01m
H323 Host Call	1720	1602	Closed	Closed	776	64345	13h:42m:57.005s	13h:42m:24.593s	02:00:1s	01m

## Flexible Deployment Options

GigaStor is available in multiple form factors. Hardware versions include rack-mount and portable models. Gain core GigaStor functionality with the software edition which can be installed nearly anywhere from a laptop for any time, anywhere packet capture to a VM instance for hypervisor east-west traffic visibility.

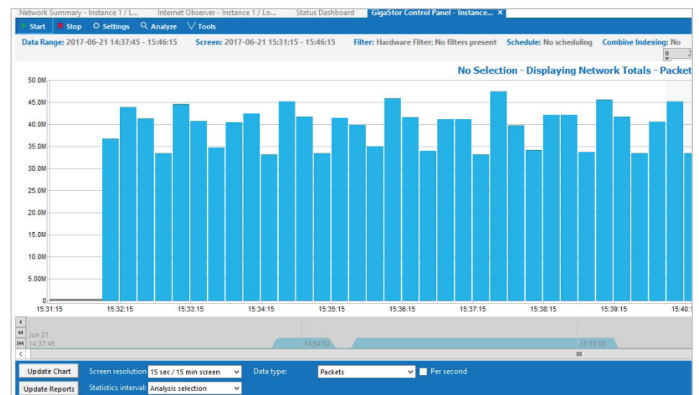
## Optimized Packet Capture

Custom Gen3 capture card provides the fastest write-to-storage performance and mining speeds in the industry. Designed to integrate nearly all core packet processing and analytics functionality in hardware, GigaStor is able to keep up with the fastest gigabit, 10 Gb, and 40 Gb network links in the world while delivering complete visibility into network conversations and application transactions. Independent third-party testing has confirmed no packet loss even under 40 Gb line rate conditions.



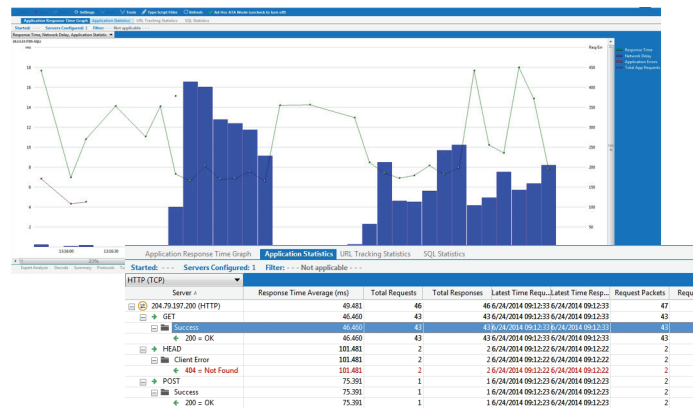
## Network Forensics — Security and Compliance

GigaStor serves as a network eyewitness, determining whether a problem relates to the network, security, or application. It passively captures and archives all data traversing the network for later analysis and reporting. Beyond rapid application troubleshooting, GigaStor is ideal for augmenting existing security initiatives and can provide crucial operational information for compliance objectives. With total awareness into all network conversations, it can aid in determining which assets and data were compromised in the event of a security breach, making it ideal for decisively sounding the all-clear during post-event investigation and clean-up.



## Application Analysis

GigaStor provides detailed intelligence for more than 30 well-known applications. Beyond basic response time, using expert analytics offers awareness into actual service error, reason, and response codes held within the payload, invaluable when the issue ultimately resides with non-network or operations teams. GigaStor can also display transaction-level details, crucial for understanding the interactions between application tiers. Together these capabilities mean fast problem resolution and improved user experience.



## Fault-tolerant Enclosures

Along with a custom Gen3 capture card, all rack-mount models are built on in-house designed 2U and 5U enclosures. Rugged frames limit chassis flex, while optimized plenums include tuned, geometric fan placement, rigid honeycombed RAID rack for vibration damping, and enhanced cooling. These standard features have been specifically designed for data center operation, at line-rate, 24x7x365 for four years of uninterrupted traffic.



“The Observer Platform Expert Analysis feature lets us quickly isolate and resolve routing and retransmission issues with the e-mail server. Without GigaStor, we could have spent hours trying to replicate the slowdown.”

- Central Du Page Hospital

## Product Options

Choose the right GigaStor for your organization’s size and needs. An array of options in an assortment of form factors, network speeds, port counts, and capacities are available.



Deployment

**Software Edition  
(Virtual Machine)**

**Portable for Remote  
Troubleshooting**

**Small Data Center or  
Network Edge**

**Medium Data Center**

Deployment	Software Edition (Virtual Machine)	Portable for Remote Troubleshooting	Small Data Center or Network Edge	Medium Data Center
<b>Monitoring Interfaces</b>	-	8 x 1 Gb/10 Gb SFP/SFP+ or 2 x 40 Gb QSFP+	4 x 1 Gb SFP	4 x 1 Gb/10 Gb SFP/SFP+
<b>Base Storage</b>	256 GB	6 TB SSD or 9 TB HDD	16 TB	32 TB
<b>Max Storage</b>	64 TB	6 TB SSD or 9 TB HDD	16 TB	32 TB
<b>Ingress Performance</b>	-	5/20/20 Gbps	4 Gbps	6 Gbps



Deployment

**Medium/Large Data Center**

**Large Data Center**

**Multiple Large Data Centers**

Deployment	Medium/Large Data Center	Large Data Center	Multiple Large Data Centers
<b>Monitoring Interfaces</b>	8 x 1 Gb/10 Gb SFP/SFP+	8 x 1 Gb/10 Gb SFP/SFP+	8 x 1 Gb/10 Gb SFP/SFP+ or 2 x 40 Gb QSFP+
<b>Base Storage</b>	96 TB	192 TB	288 TB
<b>Max Storage</b>	96 TB	768 TB*	1.2 PB*
<b>Ingress Performance</b>	10 Gbps	20 Gbps	40 Gbps

All appliances use the Viavi Solutions Gen3™ capture card.

\*via optional JBODs

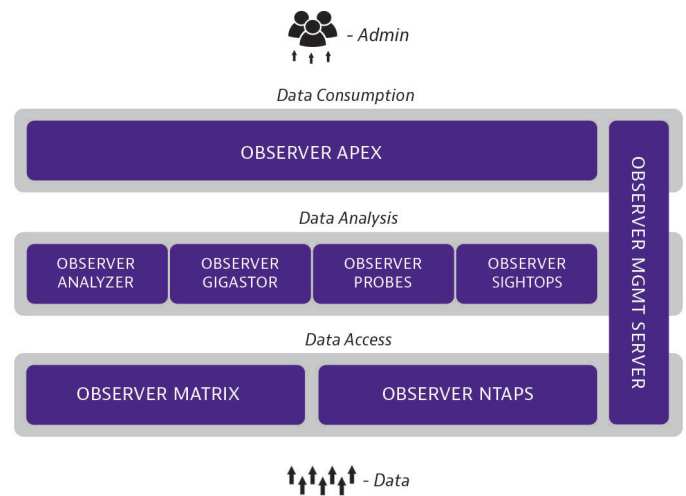
## Observer Platform Overview

The Observer Platform is a comprehensive network performance monitoring and diagnostics (NPMD) solution that offers valuable insight and assistance to network and operations teams. As an integral part of the Observer Platform, GigaStor plays a pivotal role in providing detailed transaction and network level conversations. This data is the basis for performing fast troubleshooting while populating easy-to-use Apex dashboards with deep-packet analysis and long-term reports.

Gigastor and the Observer Platform family of products are also ideally suited for satisfying business goals and overcoming challenges across the entire IT enterprise life cycle whether deploying new technologies, managing current resources, solving service anomalies, or optimizing IT asset usage.

Here are several Gigastor examples:

- Deploy
  - Fine-Tune Deployments – Track critical KPIs that indicate user experience by highlighting the before/after relationship to resource settings goals
- Solve
  - Improve Access and Performance – Detect anomalies using dashboards and workflows so the right team can be deployed
  - Attack Remediation – Forensically reconstruct with packet level detail to identify who did what, when, and where





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