



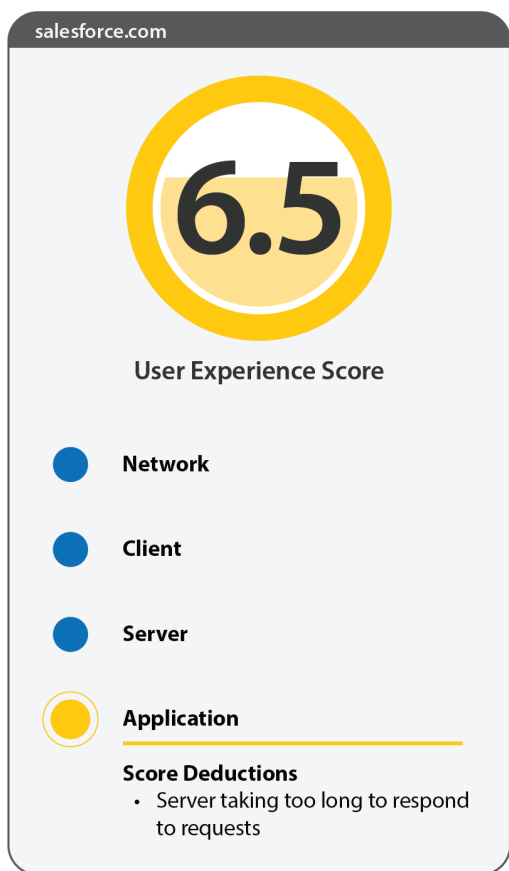
Brochure

# **VI.AVI** **Observer 3D GigaStor** **and GigaStor M**

Packet Insight For End-User Experience  
Scoring and Cybersecurity Intelligence

## Observer End-User Experience Scoring

The GigaStor and GigaStor M are the foundation on which Apex end-user experience (EUE) scoring is calculated on every network conversation. Once determined, they are instantly available within Apex dashboards individually or rolled up logically as required for real-time global visibility into IT service delivery health.

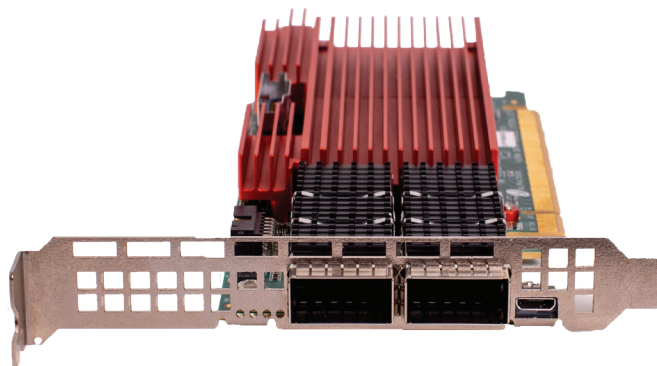


## Stop Missing Critical IT Service Anomalies

Together with Apex, Observer® GigaStor™ is instrumental in indentifying IT service delivery issues whether related to network and application problems or security threats. The undisputed leader in packet-based forensic analysis, GigaStor eliminates the time-consuming task of recreating events for troubleshooting or investigation. Using the Apex or GigaStor interface, easily navigate back-in-time and review network activity to the moment in question for detailed packet-level information of the problem, suspicious transaction, or malicious event. Investigations and resolution are always faster with Observer.

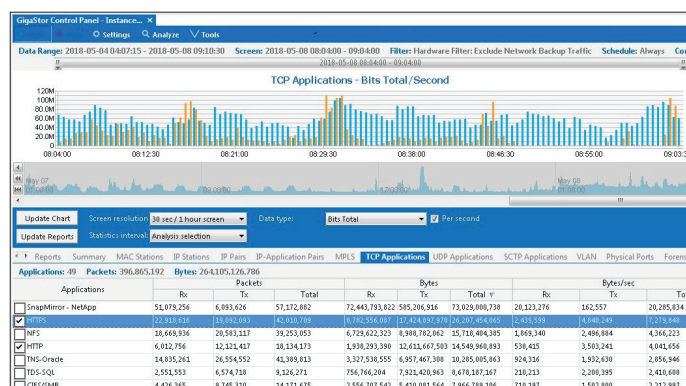
## High-Speed Packet Analysis and Capture Card

GigaStor and GigaStor M uses a custom capture and analysis card for in-depth visibility into network transactions serving as the foundation of the Apex EUE score. Designed to integrate nearly all core packet processing and analytics functionality in hardware, this unique design keeps up with the world's fastest enterprise networks. With GigaStor, network conversations are also retained via the fastest write-to-storage performance and mining speeds in the industry making every packet retrospectively available for advanced application troubleshooting and security breach remediation.



## GigaStor Time Navigation Interface

Rather than using the Apex UI, IT teams can also perform problem isolation with the integrated GigaStor time-based navigation UI. Identify time of problem occurrence, and then navigate down to the nanosecond for quick and accurate root-cause location.



## GigaStor and GigaStor M Root-Cause Analysis

GigaStor and GigaStor M offer integrated root-cause analysis, minimizing downtime and user impact. Use this as an alternate to Apex workflow troubleshooting. From an enterprise-wide view, you can track numerous operational metrics including bandwidth utilization, network top talkers, application metrics, and even VoIP quality statistics.

The screenshot shows the 'Expert Analysis' window with a table of network events and an 'Expert Analysis' summary below it.

Event Type	ID	Server	Status	State	Packets	Bytes	Start Time	End Time	Initial	Duration
TCP Events	OpenH323 MCU v1.1.7 - Andy Y - russids	192.168.1.1	Closed		7456	2,2246	11h45m 40.696s	11h46m 46.471s	00.070s	
TCP Events	2051020 (Jason Mauk) - 2051021 (Brett Messinger)	10.74.162.36	Closed (Timed Out)		13103	2,8546	14h07m 20.408s	14h09m 39.499s	04.812s	
UDP Events	1000 - 1002	192.168.1.1	Closed		1637	347070	08h48m 35.949s	08h48m 55.789s	04.285s	
UDP Events	1606008@kullis - DevJ	207.238.14.1	Closed		1244	272684	17h05m 15.524s	17h09m 41.503s	00.058s	
ICMP Events	Andy Yee - Russ Shotts	...	Closed		776	64345	13h41m 57.050s	13h42m 24.593s	02.001s	

**Expert Analysis**  
 VoIP Call Jitter Max 38.73 exceeded the threshold 20.0.  
 VoIP Call Jitter (ms) Max 4.84 exceeded the threshold 2.50.

## Network Security Forensics

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. It can also aid in determining which assets and data were compromised in the event of a security breach, making it ideal for post-event investigation and clean-up of a security breach.

## Application Analysis

Beyond the Apex EUE scoring, which provides comprehensive service intelligence and troubleshooting, GigaStor also provides detailed intelligence for many well-known and user-defined custom applications. Besides 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. Together these capabilities mean fast problem resolution and improved user experience.

The screenshot shows the 'Application Response Time Graph' with 'Application Statistics' selected. The table below summarizes the data.

Server	Response Time Average (ms)	Total Requests	Total Responses	Latest Time Req...	Latest Time Resp...	Request Packets	Requ...
204.79.197.200 (HTTP)	49.481	46	46	46 6/24/2014 09:12:33 6/24/2014 09:12:33	47	47	
GET	46.460	43	43	43 6/24/2014 09:12:33 6/24/2014 09:12:33	43	43	
Success	46.460	43	43	43 6/24/2014 09:12:33 6/24/2014 09:12:33	43	43	
200 = OK	46.460	43	43	43 6/24/2014 09:12:33 6/24/2014 09:12:33	43	43	
HEAD	101.481	2	2	2 6/24/2014 09:12:22 6/24/2014 09:12:22	2	2	
Client Error	101.481	2	2	2 6/24/2014 09:12:22 6/24/2014 09:12:22	2	2	
404 = Not Found	101.481	2	2	2 6/24/2014 09:12:22 6/24/2014 09:12:22	2	2	
POST	75.391	1	1	1 6/24/2014 09:12:23 6/24/2014 09:12:23	2	2	
Success	75.391	1	1	1 6/24/2014 09:12:23 6/24/2014 09:12:23	2	2	
200 = OK	75.391	1	1	1 6/24/2014 09:12:23 6/24/2014 09:12:23	2	2	

## Fault Tolerant Designs

GigaStor and GigaStor M rack-mounted models are designed with tuned components and enclosures along with the custom capture cards. The GigaStor appliance family offers transaction visibility at up to 100 Gb network interface speeds and more than a petabyte of data storage. All this while supporting 100% duty cycle, 365X24X7 traffic analysis and for GigaStor models, capture for five years.

"In the financial industry, losing any data is a big deal. That's why we use Observer GigaStor to ensure we see everything."  
 - Chicago Board Options Exchange

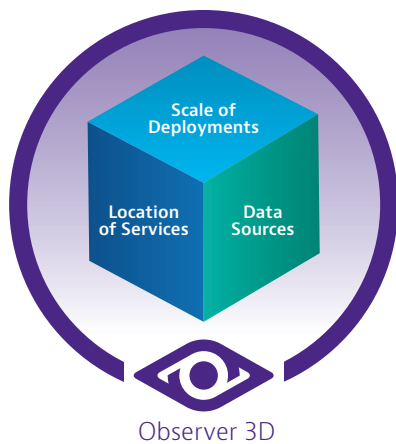
## Observer 3D Overview

Observer 3D is a comprehensive network performance monitoring (NPM) solution that offers valuable insight and assistance to network, operations, and security teams. GigaStor and GigaStor M are a critical part of Observer 3D, passing network transaction metadata to Apex for calculation of the EUE score.

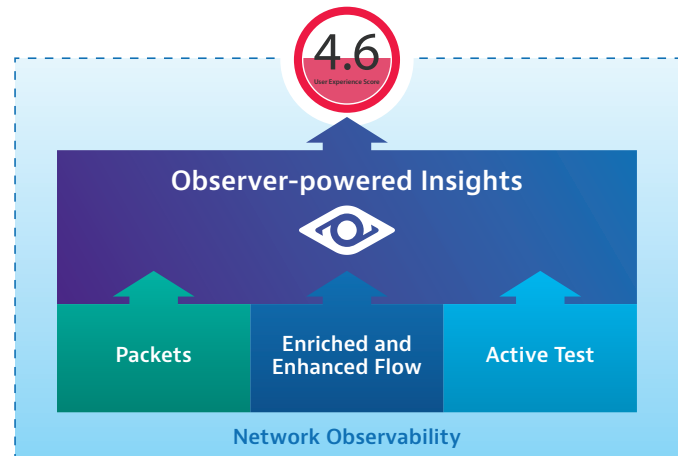
As the integrated dashboard and reporting resource, Observer Apex serves as point of central global visibility and the launch point for rapid troubleshooting with pre-engineered workflows that help identify root cause using packets, enriched and enhanced flow, and active test.

Observer 3D helps IT teams in three key ways:

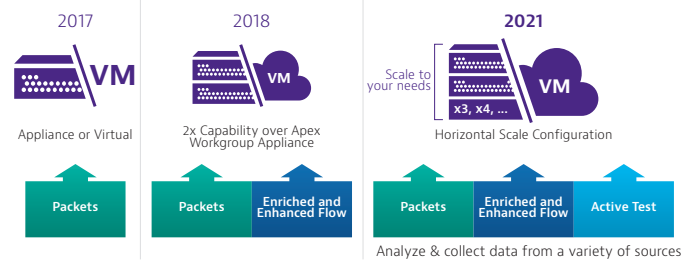
- Location of Services – Observer 3D provides observability into every hosting environment, whether private cloud, public cloud, SaaS applications, remote users, on premise in branch offices or in the data center. No matter the location, VIAVI has you covered. To learn more about how Observer 3D leverages predictive analytics to proactively deliver visibility into performance issues, visit the [interactive platform demo](#).



- Data sources – With Observer 3D, choose between a combination of wire data, enriched and enhanced flow visibility, active test insights, and metadata generation to enable smooth, timely resolution of performance and threat issues. Automated, role-based workflows make it easy to dive down into the network data for forensic level analysis, regardless of the type of data or source.



- Scale of deployments – Start small and grow as your business and monitoring needs and operational demands change. Whether that means flexibility in deployment with our 24T or ObserverONE solutions, or flexibility in pricing with our new tiered pricing and subscription models—VIAVI has you covered. Buy what you need when you need it using OpEx or CapEx budget, allowing you to balance your observability and budgetary needs without compromise.










“Observer 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

## Observer GigaStor Models

Choose the right GigaStor for your organization's size and needs. An array of appliance options in an assortment of form factors, network speeds, port counts, and capacities are available. GigaStor is also available in two virtual versions, GigaStor Cloud Edition (GCE) and GigaStor Software Edition (GSE) for monitoring visibility in the cloud or on-premises server.




### GigaStor

									
	G4-PT-010-8T G4-PT-040-8T G4-PT-100-8T	G4-4G-010-24T*	G4-4G-010-48T	G4-10G-010-96T	G4-20G-010-192T	G4-40G-010-384T G4-40G-040-384T G4-40G-100-384T	G4-60G-010-576T G4-60G-040-576T G4-60G-100-576T	G4-60G-010-1152T G4-60G-040-1152T G4-60G-100-1152T	G4-OBSERVERONE**
Monitoring Interfaces	8 x 1/10Gb (SFP/SFP+) or 2 x 40 Gb QSFP or 2 x 100 Gb (QSFP28)	4 x 1/10 Gb SFP/SFP+	4 x 1/10 Gb SFP/SFP+	8 x 1/10 Gb SFP/SFP+	8 x 1/10 Gb SFP/SFP+	8 x 1/10Gb (SFP/SFP+) or 2 x 40 Gb (QSFP) or 2 x 100 Gb (QSFP28)	8 x 1/10Gb (SFP/SFP+) or 2 x 40 Gb (QSFP) or 2 x 100 Gb (QSFP28)	8 x 1/10Gb (SFP/SFP+) or 2 x 40 Gb (QSFP) or 2 x 100 Gb (QSFP28)	8 x 1/10 Gb SFP/SFP+
Storage Capacity (TB)	8	24	48	96	192	384	576	1152	72
Rack Footprint	–	2U	2U	2U	4U	8U	8U	16U	4U
WTD Performance (Gbps)	20	4	4	10	20	40	60	60	10
WTD +meta data (Gbps)	10	4	4	10	15	25	35	35	10

\*Upgradable to 48T

\*\* Upgradable

### GigaStor M

			
	G4-10G-010-MD	G4-20G-010-MD	G4-50G-010-MD* G4-50G-040-MD* G4-50G-100-MD*
Monitoring Interfaces	8 x 1/10 Gb SFP/SFP+	8 x 1/10 Gb SFP/SFP+	8 x 1/10Gb (SFP/SFP+) or 2 x 40 Gb (QSFP) or 2 x 100 Gb (QSFP28)
Rack Footprint	2U	2U	2U
Metadata (Gbps)	10	20	50

\* New part numbers for 50 Gbps model



Contact Us **+1 844 GO VIAVI**  
(+1 844 468 4284)

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