

VIAVI

Brochure

VIAVI Observer GigaStor

Post-event analysis and 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 and application anomalies or security threats. The undisputed leader in packet-based 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 conversation level before, during, and after the occurrence.

Key Features

Observer Apex End-User Experience Scoring

With its tight integration to Apex, GigaStor is the foundation on which end-user experience scoring is calculated on every network conversation. Apex dashboards can display these values rolled up from the site perspective, then through intuitive workflows navigate quickly to the root cause of the problem — including the individual conversation level if required for troubleshooting.

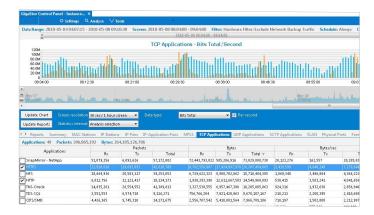


"In the financial industry, losing any data is a big deal. That's why we use Observer GigaStor to ensure we see everything."

- Chicago Board Options Exchange

Time Navigation Interface

Simplify problem isolation with GigaStor's unique timebased 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

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 Summary	Packets: 32,524 Packets Proces	sed: 32,524 Calls: 12								
	Summary Calls Analysis Graph	Gantt Chart VolP Settin	gs.							
Expert Data	ID	Server Status	State		Packets	Bytes	Sta	art Time En	d Time	Init
TCP Events	OpenH323 MCU v1.1.7 - AndyY - russells	192.168.1								
	2051020 (Jason Mauk) - 2051021 (Brett Me		Closed (Timed Out)		13103	2.85e6		7m 20.408s 14h:09		
	1000 - 1002	192.168.1	Closed		1637	347070		3m 35.948s 08h:48		
UDP Events	16060D6B@x.zultys Dev3 Andy Yee - Russ Shotts	207.218.14	Closed	1244					s 17h:09m 41.503s (s 13h:42m 24.593s)	
	Andy Yee - Kuss Shotts		Closed		//6	64345	13ho4.	Lm 57,0505 13h:42	m 24.5955 0	2.00.
ICMP Events										
	ID/ Stream	Station 1/ Port	Station 2/ Port	Status	State	Packets	Bytes	Start Time	Initial Setu Duration	
VoIP and Video- conferencing	🚊 🚰 OpenH823 MCU v1.1.7 - russells									
	A RTP/PCMU(G.711)	5016	5008			2189	652322	11h:45m 40.606s		01
Analysis	A RTP/PCMU(G.711)	5016	5008			2127	633846	11h:45m 40.725s		01
	A RTCP	5017	5009			5	690	11h:45m 52.511s		49.
Connection Dynamics	C H.323 Host Call	1720	1602			12	4075	11h:45m 40.562s		01
	A RTCP	5017	5009			5	710	11h:45m 52.599s		51
Reconstruct	C H.323 Host Call	1720	1602			10	1340	11h:45m 40.564s	00.075s	01
Streams	E 🚍 OpenH323 MCU v1.1.7 - AndyY	192.168.1.166	192.168.1.167		Closed	3088	919126	11h:45m 50.816s	00.002s	55
	A RTP/PCMU(G.711)	5020	5024			1840	548320	11h:45m 50.869s		55.
TCP/UDP Dump	A RTP/PCMU(G.711)	5020	5024			1224	364752	11h:45m 51.028s		54.
	A RTCP	5021	5025			4	552	11h:46m 02.786s		36.
Time Interval Analysis	C H.323 Host Call	1720	1452			9	3830	11h:45m 50.816s		55,
ranary sis	4									
Server	Expert Analysis									
Analysis	VoIP Call Jitter Max 38.73 exceeded the thr	reshold 20.00.								
What-If Analysis	VoIP Call Jitter (ms) Max 4.84 exceeded th	e threshold 2.50.								

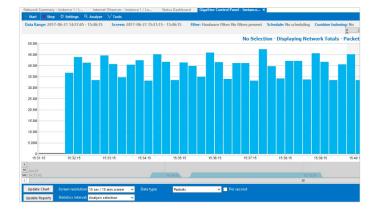
High-Speed Packet Capture

The GigaStor's custom 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 keeps up with the world's fastest enterprise networks. The advanced analytics and capture engines process, index, and then store each packet providing detailed breakouts of all network conversations and transactions while also making every packet retrospectively available for advanced application troubleshooting and security breach remediation.



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.



Application Analysis

GigaStor provides detailed intelligence for many well-known and user defined custom 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. Together these capabilities mean fast problem resolution and improved user experience.

Application Response Time Grap	oh Application Statistics URL Tra	cking Statistics	SQL Statistics			
Started: Servers Configured	d: 1 Filter: Not applicable					
HTTP (TCP) 👻						
Server A	Response Time Average (ms)	Total Requests	Total Responses	Latest Time RequLatest Time Resp	Request Packets	Rec
204.79.197.200 (HTTP)	49.481	46	4	5 6/24/2014 09:12:33 6/24/2014 09:12:33	47	
→ GET	46.460	43	4	6/24/2014 09:12:33 6/24/2014 09:12:33	43	
🖃 🚞 Success						
♦ 200 = OK	46.460	43	4	3 6/24/2014 09:12:33 6/24/2014 09:12:33	43	
HEAD	101.481	2		2 6/24/2014 09:12:22 6/24/2014 09:12:22	2	
🖃 🚞 Client Error	101.481	2		2 6/24/2014 09:12:22 6/24/2014 09:12:22	2	
404 = Not Found	101.481	2		6/24/2014 09:12:22 6/24/2014 09:12:22	2	
POST	75.391	1		6/24/2014 09:12:23 6/24/2014 09:12:23	2	
🖃 🚞 Success	75.391	1		6/24/2014 09:12:23 6/24/2014 09:12:23	2	
200 = OK	75.391	1		6/24/2014 09:12:23 6/24/2014 09:12:23	2	

Fault Tolerant Designs

GigaStor rack-mounted models are designed with tuned components and enclosures along with the custom Gen3 capture card. 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 capture for five years.

Portable Troubleshooting Flexibility

GigaStor Portable is unique in the industry, a compact long-term packet capture, analytics and storage solution that can be moved anywhere the service issue is located. Built with high performance SSD drives, GigaStor Portable leverages the same advanced, custom Gen3 capture card and user interface as the rackmount with support for networks up to 100 Gb. Take the power of back-in-time analysis wherever intelligent network troubleshooting is required with GigaStor Portable.



Features and Benefits Summary

GigaStor is the perfect solution for troubleshooting service issues, security investigations, and regulatory compliance reporting. 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:

- The foundation on which Observer Apex end-user experiencing scoring is calculated
- Independently validated line-rate capture performance at 60 Gbps with support for 100 Gb networks; accelerates service anomaly resolution and security investigations
- Back-in-time functionality means never having to wait for a service anomaly to repeat before resolving
- Scalable to more than a petabyte of storage capacity enables extended visibility into past service delivery health; AES-256 data-at-rest encryption ensures regulatory data privacy compliance
- Expert analytics offers detailed network and application intelligence including deep-packet inspection; ideal for in-depth transaction-level awareness into service and potential security issues
- Fault-tolerant custom design supports five years of uninterrupted, 100 percent duty-cycle capture without dropping a single packet

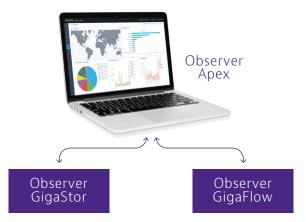
"Observer lets us quickly isolate and resolve routing and retransmission issues with the e-mail server. Without GigaStor, we could have spent hours trying to replicate the slowdown."

- Central Du Page Hospital

Observer Overview and GigaStor 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 preengineered workflows for navigation into either GigaFlow or GigaStor for real-time or historical perspectives into service health.



As an integral part of the Observer, GigaStor plays a pivotal role in providing detailed transaction and network level conversations. Beginning at an Apex dashboard, IT teams can easily navigate to the root cause of the service anomaly or security concern. Then they can investigate—if required—by mining the relevant conversations from GigaStor.

Observer Platform Overview

Observer is ideally suited for satisfying business goals and overcoming challenges across the entire IT enterprise lifecycle.



Observer GigaStor Models

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.

	G3-GSP-8P- 8TSSD G3-GSP- 2P40-8TSSD G3-GS-	G4-4G- 010-48T	G4-10G- 010-96T	G4-20G- 010-192T	G4-40G- 010-384T G4-40G- 040-384T G4-40G-	G4-60G- 010-576T G4-60G- 040-576T G4-60G-	G4-60G- 010-1152T G4-60G- 040-1152T G4-60G-	G4- OBSERVERONE
	2P100-8TSSD	010-481	010-961	010-1921	G4-40G- 100-384T	04-600- 100-576T	100-1152T	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+	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	48	96	192	384	576	1152	72
Rack Footprint	_	2U	2U	4U	8U	8U	16U	4U
WTD	20	4	10	20	40	60	60	10



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