

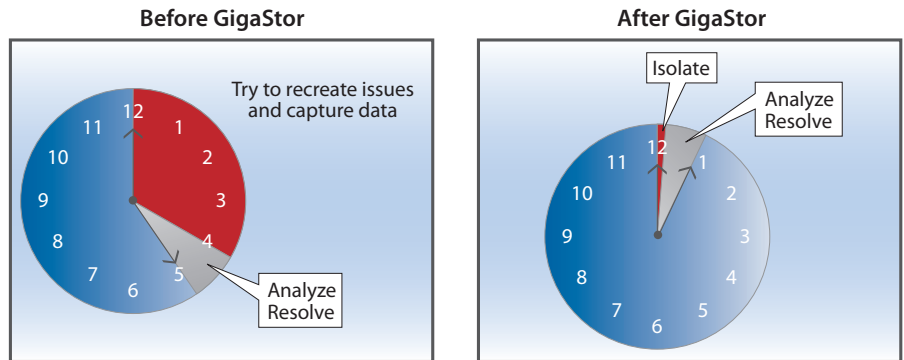


### Stop missing critical network events

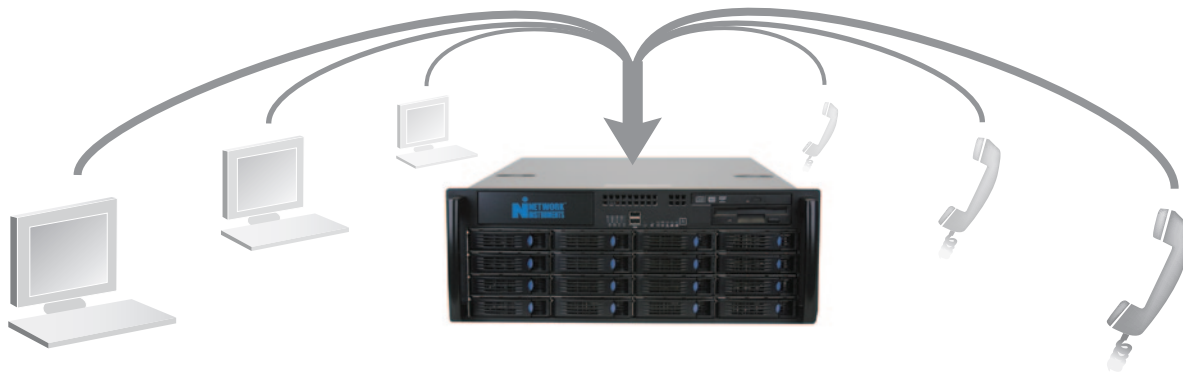
With Retrospective Network Analysis (RNA), just rewind your network to quickly troubleshoot sporadic performance problems. The Network Instruments® GigaStor appliance relies on RNA technology to isolate and troubleshoot network, application, and security issues. This high-performance device captures every transaction, packet, and protocol, retaining them for hours, days, weeks—even months. With this data and GigaStor's unique time-based navigation, your network team can apply 20/20 hindsight to tackle every problem and anomaly.

### Turn Back Network Time

- Quickly reduce Mean Time To Resolution (MTTR)
- Solve intermittent problems without having to recreate them
- Isolate application issues by locating problematic transactions
- Store up to 576 TB of network data
- Use GigaStor Portable for in-the-field forensics



Capture, store, and analyze up to 576 TB



### Ideal for handling:

- Network outages
- Unified Communications
- Application rollouts
- Capacity planning
- Security forensics
- Troubleshooting sporadic problems

### The RNA Advantage

RNA acts like a 24/7 surveillance camera for the network—allowing you to review events in context by showing what happened before, during, and after a network event.

# GigaStor: Massive storage and comprehensive analysis

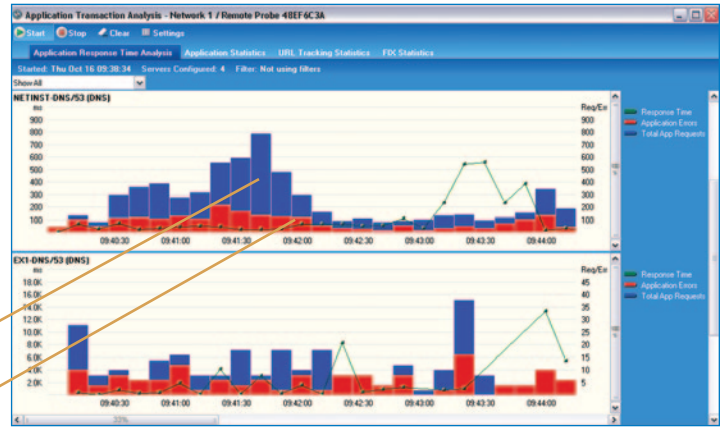
## High Capacity Storage

- Capture and store up to 576 TB of network data
- Retain hours, days, or weeks of data
- Offload to a SAN for nearly unlimited storage

## Application Performance Monitoring

- Ease rollouts with pre-deployment assessments
- Define normal application behavior and establish baselines using trending reports
- Isolate transaction issues, identify latency
- Gain in-depth metrics on common applications such as:
  - Citrix
  - E-mail
  - UC/VoIP
  - Financial
  - Web
  - Oracle
  - SQL

as well as network management protocols such as LDAP, DNS, DHCP, and more. For the complete list please visit the Application Analysis section of the website.



Track application requests, errors, and response times

Application Transaction Analysis

## Data Stream Reconstruction

- Rebuild communications from captured traffic
- Reconstruct web pages, e-mails, documents, and VoIP calls
- Document policy violations, investigate network problems, and identify unauthorized activities

## Expert Analytics

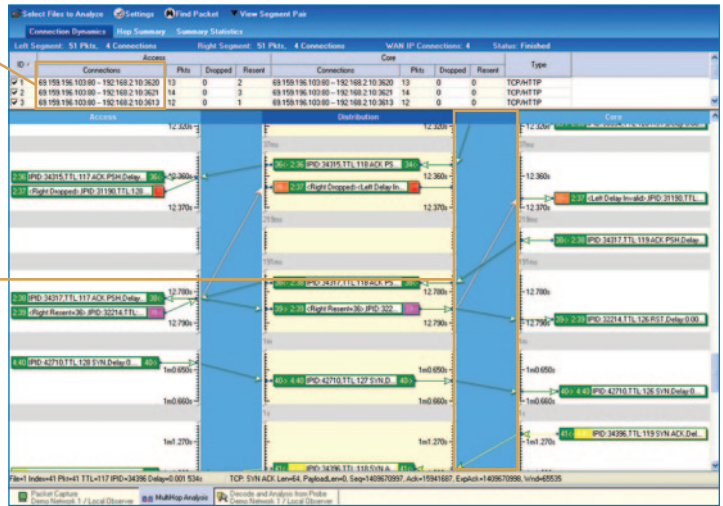
- Over 600 Experts to isolate and identify performance issues
- Differentiates between network, application problems
- Experts work in real time and post-capture
- Backed by industry-leading decodes

## Conversation Analytics

- Unique, graphical view to quickly identify retransmissions, dropped packets, latency and response time issues
- Microburst analysis provides nanosecond detail-ideal for transaction-heavy companies

Track conversations across segments

Pinpoint transaction delay



Conversation Analytics

## Unified Communications

- Maintain performance with over 70 in-depth VoIP metrics
- Score call quality based on industry standards
- Save and play voice conversations and streaming video
- Monitor:
  - H.323
  - SIP
  - MGCP
  - SCCP (Cisco "skinny")
  - Avaya CCMS
  - Nortel UNISim
  - Mitel traffic

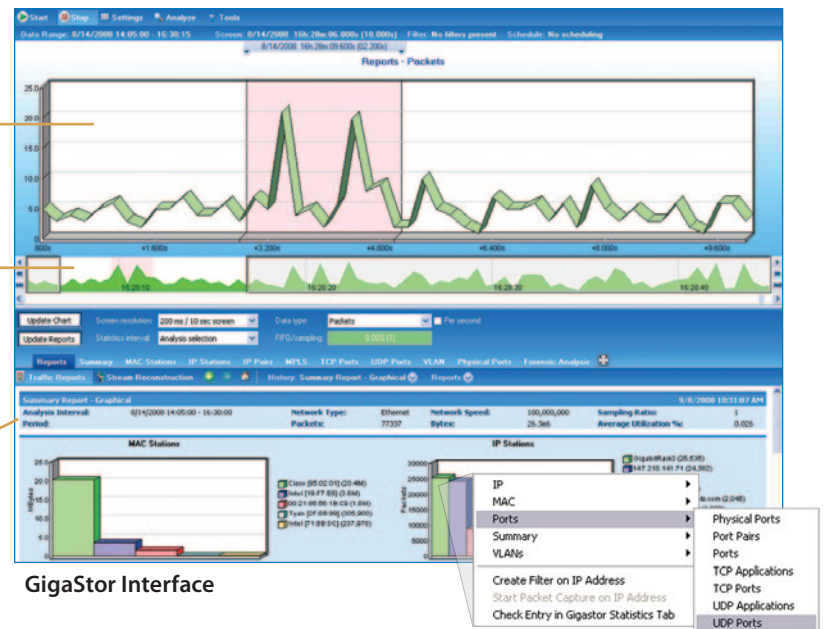
## Robust Interface Now with Active Reporting

- Time-based navigation simplifies problem isolation
- Next-step analysis streamlines troubleshooting flow
- Easy access to reports
- Macro and micro views for big-picture and detailed views

## Network & Security Forensics

- Compare historical traffic against Snort rules to identify attacks and anomalies
- View breaches exactly as they happened
- Identify compromised machines and network infrastructure
- Drill down for to determine the incident source and time

User-definable workflow and reports



GigaStor Interface

## GigaStor: Get proof. Take action. Move on.

By capturing and saving every packet traversing the network, GigaStor makes it easy to “rewind” your network, determine the source of the problem, perform comprehensive analysis, and move on. Use GigaStor to provide complete visibility into any network, application, or security problem.

## Network Troubleshooting

The help desk receives a notice of poor call quality sporadically impacting a user's VoIP phone. All other phones are functioning properly, and aggregate statistics show that overall VoIP quality is high. A quick check of network statistics reveals that while some links have periodically experienced high usage, overall network usage appears to be normal.

Resolving network troubles with GigaStor is an easy three-step process:

### 1) Isolate the timeframe and user

Use GigaStor's unique time-based navigation system to select the appropriate timeframe and the user reporting the problem.

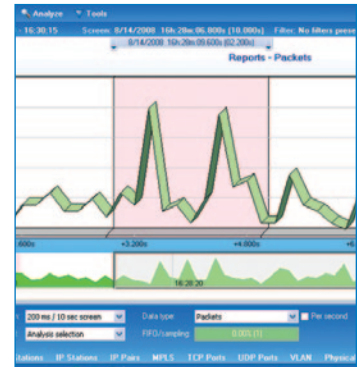
### 2) Drill down on the call

Select the specific time of interest around the user's VoIP call attempt.

### 3) Let the Expert do the work

Use GigaStor's comprehensive VoIP Expert with call detail records and aggregated VoIP health statistics to diagnose the issue. In this case the engineer determined based upon expert analysis that the phone set was mistakenly configured to send packets with an incorrect TOS/Precedence Setting. When trying to converge over a router during peak usage, the lack of QoS resulted in contention, which caused poor call quality.

**1**  
Isolate



**2**  
Identify



**3**  
Resolve

## Compliance

GigaStor can provide network visibility and document potential policy violations.

An employee was being reviewed for possible dismissal by human resources. Among the offenses, the employee was accused of browsing prohibited web sites. The network team was tasked with providing conclusive proof to HR of the infraction; providing only domain names and web addresses was not enough.

### 1) Isolate the timeframe

Rather than starting a packet capture and monitoring on-going activity, the administrator uses GigaStor to quickly isolate the employee's most recent web activity. Using the GigaStor control panel, select the timeframe when the selected activity occurred.

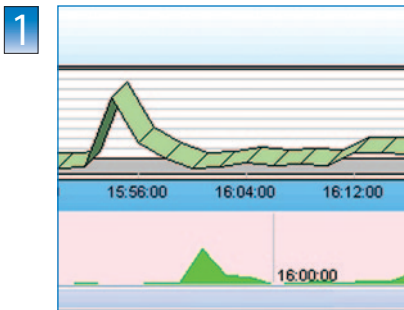
### 2) Drill down on user data

Next, the engineer selects the specific user, whose traffic patterns are graphed to display periods of excessive activity from the system in question. The filtered data reveals all the web sites visited by the employee.

### 3) Get proof

By right-clicking on any Internet address, GigaStor can reconstruct the captured packets into the original web pages. The reconstructed web pages offer solid proof that the employee visited a prohibited site.

### Isolate



### Identify

**2**

File Name	File Size	Content Type	Start Time	End Time
home.aspx	10417 bytes	text/html; charset=utf-8	2008-08-14 14:05:37.600	2008-08-14 14:05:37.951
math.js	5316 bytes	application/javascript	2008-08-14 14:05:37.967	2008-08-14 14:05:38.064
style.css	51 bytes	text/css	2008-08-14 14:05:38.268	2008-08-14 14:05:38.268
WebResource.axd	3972 bytes	text/css	2008-08-14 14:05:38.277	2008-08-14 14:05:38.292
testof.css	7326 bytes	text/css	2008-08-14 14:05:38.529	2008-08-14 14:05:39.065
ScriptResource.axd	79718 bytes	application/javascript; charset=utf-8	2008-08-14 14:05:38.537	2008-08-14 14:05:42.901
testof.css	456 bytes	text/css	2008-08-14 14:05:39.353	2008-08-14 14:05:39.353
WebResource.axd	51 bytes	text/css	2008-08-14 14:05:38.498	2008-08-14 14:05:38.498

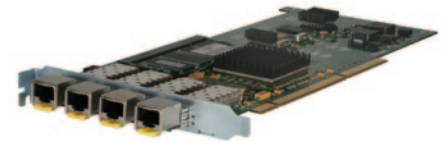
### Document



## Gen2™ Technology – Our Commitment to Capture

We take unparalleled efforts to guarantee your ability to capture and process data on today's (and tomorrow's) high-speed networks. That's why we design and manufacture our Gen2 capture card to be the fastest available.

- Optimized, purpose-built adapter
- Nanosecond time stamping provides unparalleled precision
- Onboard processing maximizes analysis and filtering performance
- Firmware-based upgrades ensures a future-proof investment



Gen2 Gigabit Capture Card

## GigaStor Hardware Options

### Deployment

The GigaStor is a rackmountable appliance available in standard 2U, 3U or 4U form factors. The appliance reports back to any Observer Expert or Observer Suite console on the network.

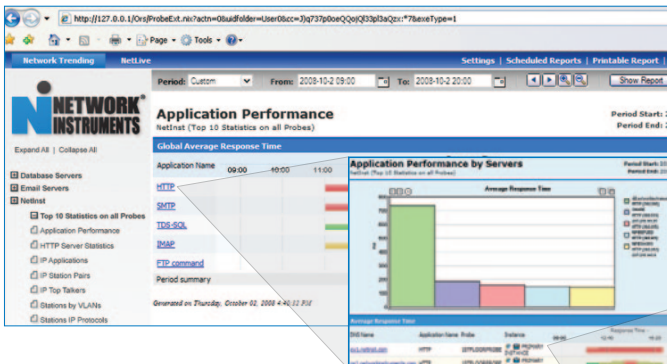
If mobility is a concern, Network Instruments offers GigaStor Portable, a luggable, all-in-one unit for performing in-the-field forensics. The portable unit includes up to 4 TB of total storage, Observer Suite, and GigaStor Probe software in a self-contained system for collecting, analyzing, and displaying all captured network data.

Choose from five configuration options:

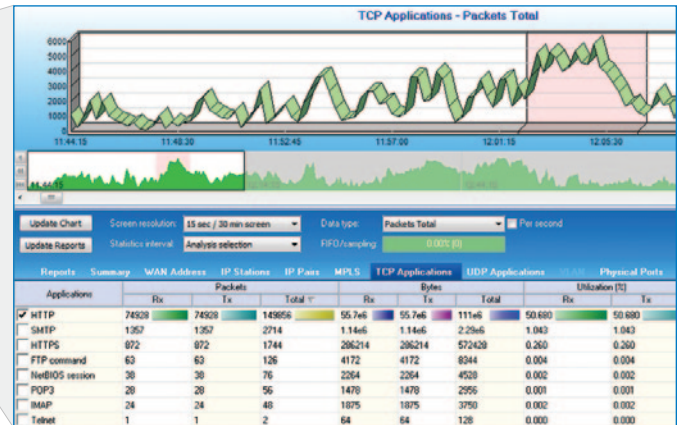
<b>GigaStor Standard</b> 2 TB – 16 TB	<b>GigaStor Expandable</b> 32 TB – 96 TB	<b>GigaStor SAS</b> 32 TB – 576 TB	<b>GigaStor SAN</b> Offload to SAN	<b>GigaStor Portable</b> 2 TB or 4 TB portable unit
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## Integrate with Observer Reporting Server for Enterprise-Wide Aggregate Performance Monitoring

For powerful enterprise-wide reporting with the ability to drill down for complete problem resolution, pair the GigaStor with the Observer Reporting Server. Together, the two provide a seamless solution for maintaining network and application performance, identifying risks, and reducing MTTR.



Drill into Observer Reporting Server to troubleshoot a slow server issue



GigaStor identifies the conversation responsible and provides a path to problem resolution

Access the GigaStor via the Observer Reporting Server interface to analyze network traffic transmitted before, during, and after the problem occurred.

### Operative Software Products

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[www.operativesoft.com/html/observer.htm](http://www.operativesoft.com/html/observer.htm)

