



Observer Reporting Server Sample Executive Reports

High-level monitoring and custom network and application performance reporting for the enterprise

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Observer Reporting Server (ORS) offers high-level views of network and application performance across an enterprise on a single console. ORS connects to multiple Observer Suite consoles and aggregates critical network performance metrics into an overall view of network health. Network professionals use ORS to quickly identify performance problems, create and share reports on enterprise-wide network performance, and allow management to pull reports easily from their web browser.

Customize Reporting by Business Process

In addition to providing an easy-to-access view of performance, ORS provides flexible reports that can be segmented by individual business unit, user group, or infrastructure type. Network engineers and managers can create custom views and reports to monitor performance of specific applications and business processes, departments, servers, or remote offices.

Comprehensive Performance Information

The Observer Reporting Server reports on metrics, statistics, and data collected by the Observer® product family. This includes VoIP-specific metrics, NetFlow statistics, in-depth application information, transaction delay, top talkers, and link utilization. Additional details can be obtained by clicking on the individual report, business segment, or station.

For example, if managers notice unexpectedly high bandwidth use from a department, they can quickly and seamlessly drill down on the report to the individual link or user detail using the ORS and Observer. Root cause and Expert Analysis can then be performed using Observer.

Reports can be viewed at any time as data is continually sampled and collected. Through comprehensive performance metrics, IT managers can:

- View network or Internet Protocol trending data
- Examine usage activity by VLAN
- Monitor overall VoIP quality and drill down on specific calls
- Gain details on important applications such as Citrix, Oracle, MS Exchange, HTTP, SQL, and HTTP

Share Web-based Reports with Management

ORS allows network engineers to grant managers and consultants access to the reporting server via their web browsers. The network engineer sets the level of access for the manager, who can create reports online or have reports delivered on a scheduled basis via e-mail.

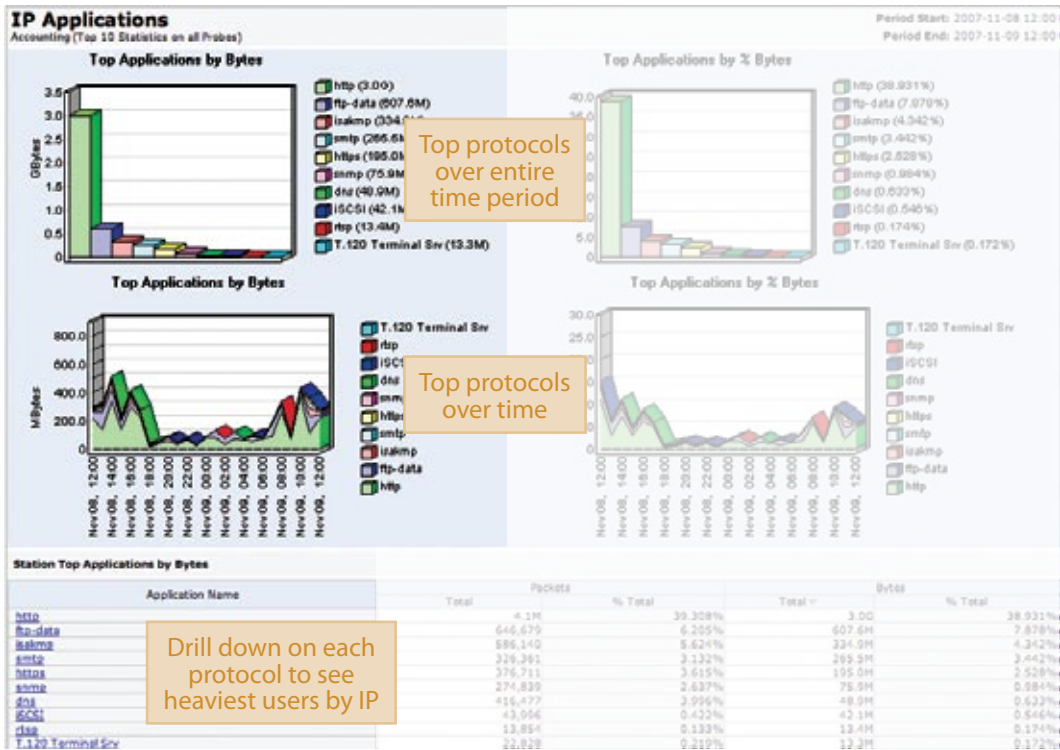
Drill Down on the Root Cause

Observer Reporting Server integrates with GigaStor™ combining high-level reporting with in-depth forensics in a seamless solution. This allows the engineer, upon discovering a problem presented by the ORS, to drill into GigaStor to review and analyze network traffic transmitted before, during, and after the problem occurred. This approach provides the unique top-to-bottom view necessary to identify and quickly resolve performance problems.



Observer Reporting Server Appliance

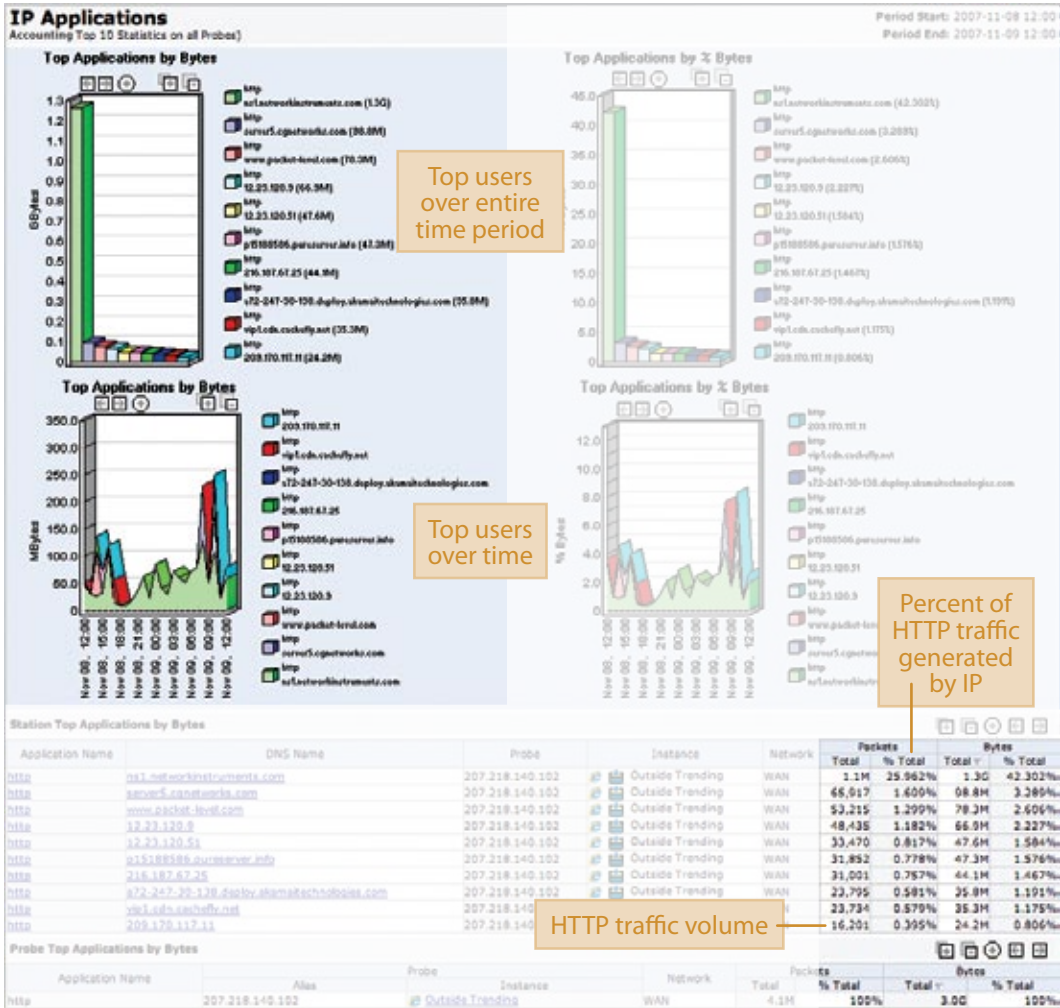
Observer Reporting Server collects data and reports from numerous Observer Suite consoles and probes across the network. The appliance is available as a stand alone unit or combined with Observer Suite.



The ORS Advantage
With this report, IT managers can:

- Proactively manage application delivery and performance
- Understand long-term trends in application use and performance
- Monitor and report on the application performance of any office
- Ensure appropriate allocation of bandwidth to business critical applications

The IP Applications Report shows the top 10 application protocols on a network graphically by bytes and as a percentage of network traffic. The graphs also display top protocols in aggregate and over time. Application traffic is displayed in a table by volume and percent of total traffic.

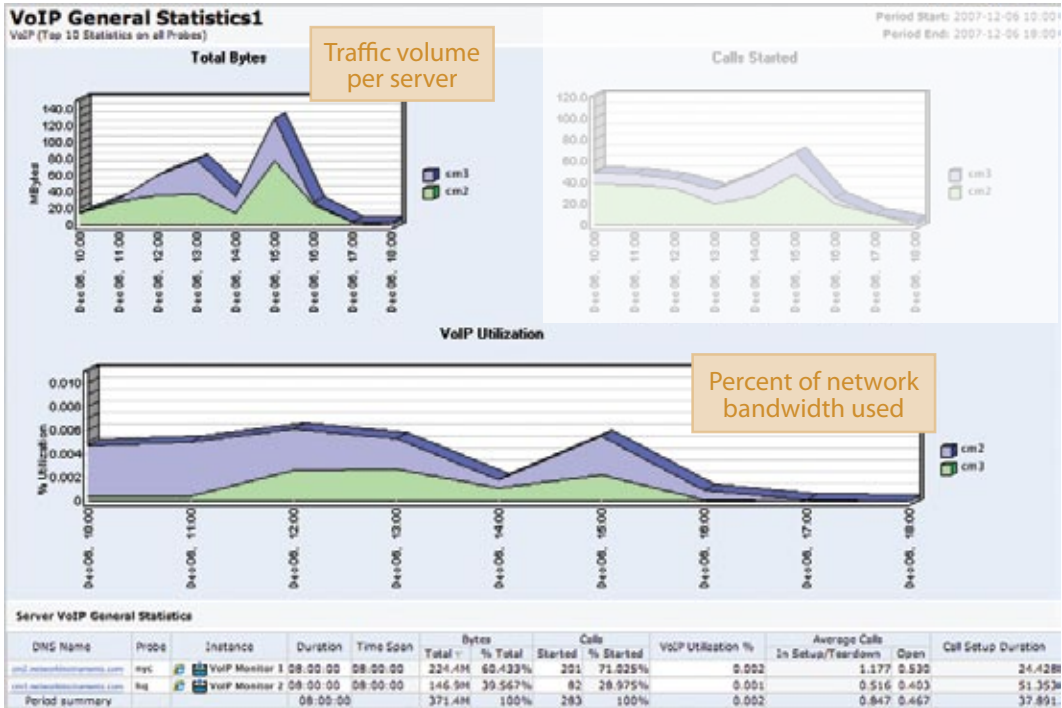


The ORS Advantage
With this report, IT managers can:

- Easily identify the source of protocol traffic
- Track top talkers for specific applications
- Identify any unexpected users or behavior

Clicking on the HTTP protocol within the Top Applications table of the IP Applications Report creates a report of the heaviest HTTP traffic generators. Filters can be set up to include or exclude specific user groups. The current report displays both internal and external users. A report could also be created showing only internal users or users outside of the company.

By default the report shows the top ten IPs, but managers can expand the report to show all IPs responsible for generating traffic.



- The ORS Advantage**
With this report, IT managers can:
- Quickly assess call quality across the network
 - Identify unexpected bandwidth spikes affecting performance
 - Determine the source of call quality degradation
 - Gauge the seriousness of VoIP performance problems

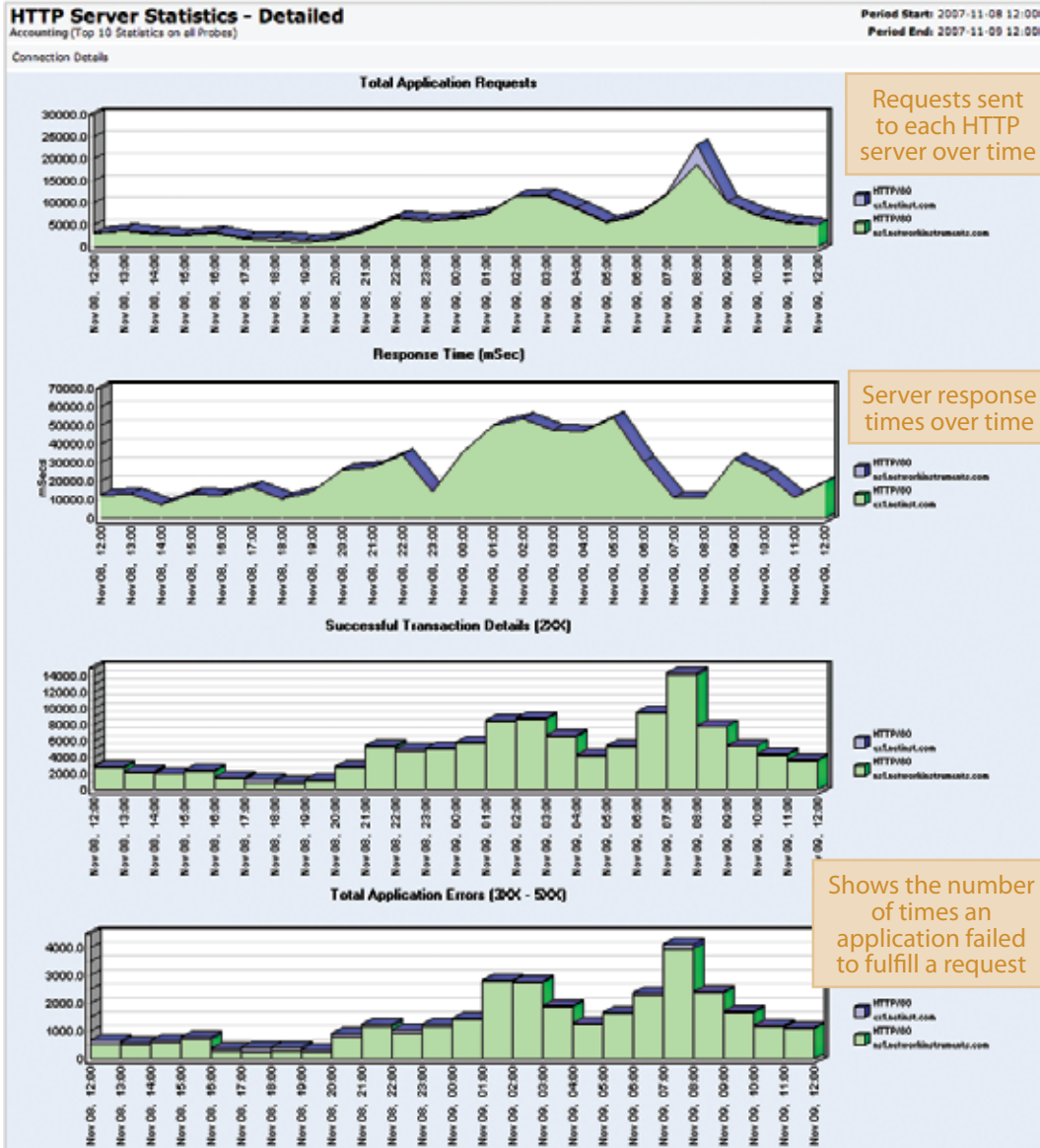
The VoIP General Statistics Report provides an extensive view of VoIP network activity and performance from VoIP utilization to the average number of calls generated.



This section provides call quality scoring, jitter, and burst over time. Call quality is measured by MOS (Mean Opinion Score) and R-Factor. MOS is scored on a scale of 1 – 5. In the MOS graph, each server’s score is layered on top of the other within the graph.

According to the table, the “cm2.networkinstruments.com” server had an average MOS of 3.96, while “cm3.networkinstruments.com” had a score of 3.987. With any decrease in call quality, an engineer can quickly identify or eliminate suspected causes of quality degradation.

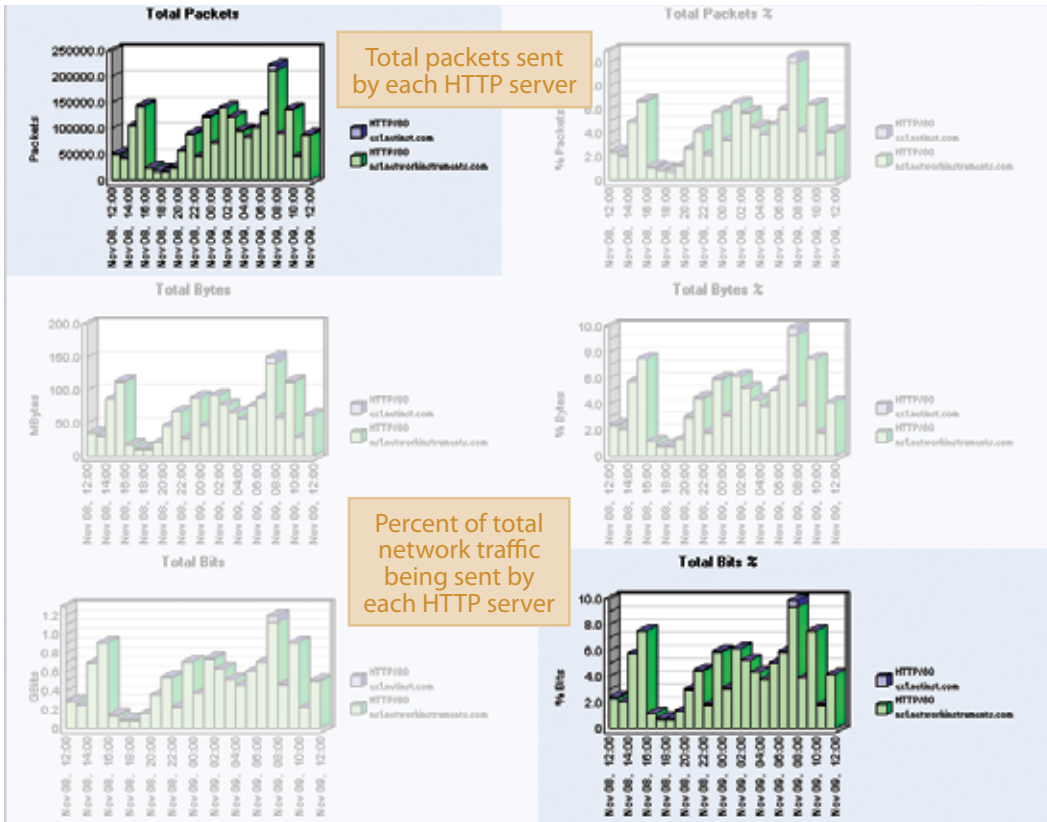
In this case, bursts are very minimal and therefore not contributing to any issue in call quality. Also based upon the previous page, VoIP bandwidth use remained minimal and constant throughout the time monitored.



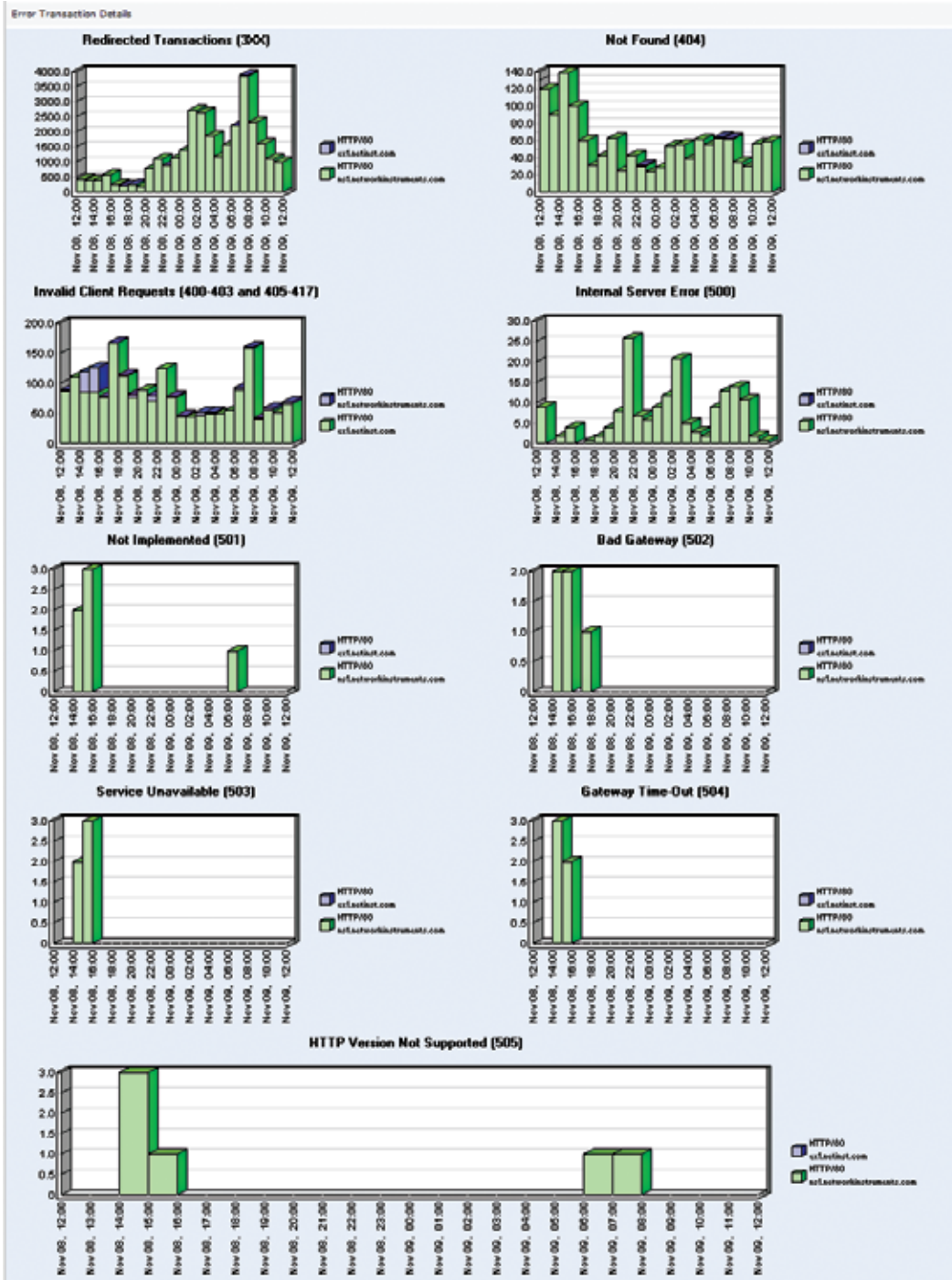
- The ORS Advantage**
With this report, IT managers can:
- Ensure the smooth and quick delivery of business-critical applications
 - Obtain in-depth application reports on Oracle, VoIP, SQL, MS Exchange, HTTP, and more
 - Monitor long-term trends in application response times
 - Pinpoint specific errors causing an application delivery problem

The HTTP Server Statistics Report shows an example of the in-depth performance metrics that can be tracked through the Observer Reporting Server. HTTP Server Statistics presents reporting on total server requests, average response time, and successful and failed transactions.

This is one of several in-depth reports on application delivery and performance. Other applications include Citrix, Oracle, VoIP, FTP, MS Exchange, Telnet, MS Networking (SMB), SNMP, SQL, POP3, and SMTP.



This section displays details on the successful transactions by total packets, bytes, and bits.



This section breaks out the total application errors into specific errors.

Application Name	Port	DNS Name	Probe	Instance	Network	Bytes	Successful transactions	Redirected transactions	Not found transactions	Invalid client requests	Internal server error	Not implemented gateway	Service unavailable	Gateway time-out	HTTP version not supported
HTTP	80	ml1.net-nstruments.com	207.218.140.102	Outside Trending	WAN	1.48e9	116173	30488	1375	116	171	6	5	5	5
HTTP	80	ml1.net-ni.com	207.218.140.102	Outside Trending	WAN	19.266	3984	23	3	1938	0	0	0	0	0



The ORS Advantage
 With this report, IT managers can:

- Monitor web traffic and bandwidth use of local and external users
- Know who is consuming the most bandwidth and why
- Ensure bandwidth use is properly allocated to remote offices

The Web Users Report tracks the IPs of top users of web-based protocols on the network. The report tracks local and external users separately. Information is presented over time and in aggregate for the selected time period. The information is also presented in two tables.



Top talkers for the entire time period

Top talkers for each day

Drill into GigaStor to identify protocols used by the IP

- The ORS Advantage**
With this report, IT managers can:
- Identify top talkers for the organization, office, or department
 - Spot any unexpected top talkers on the network
 - Monitor the noisiest network devices and users
 - Drill seamlessly into GigaStor to identify protocols used by the top talker

The IP Top Talkers Report shows the top network talkers based upon total traffic by IP. The report shows the IPs responsible for generating the most traffic. IP Top Talkers are displayed graphically as a total percentage and by volume of traffic.

The Observer Reporting Server includes an extensive list of default reports as well as custom reports that can be created to meet an organization's unique reporting needs. The following is a list of the default reports:

Citrix Server Statistics – Detailed network view
 Citrix Server Statistics – Detailed view by probe
 Citrix Server Statistics – Summary network view
 Citrix Server Statistics – Summary view by probe
 DNS Server Statistics – Detailed network view
 DNS Server Statistics – Detailed view by probe
 DNS Server Statistics – Summary network view
 DNS Server Statistics – Summary view by probe
 FTP Server Statistics – Detailed network view
 FTP Server Statistics – Detailed view by probe
 FTP Server Statistics – Summary network view
 FTP Server Statistics – Summary view by probe
 HTTP Drill Down Top 10 IP Pair Stations – For all probe groups
 HTTP Server Statistics – Detailed network view
 HTTP Server Statistics – Detailed view by probe
 HTTP Server Statistics – Summary network view
 HTTP Server Statistics – Summary view by probe
 IP Applications – Detailed network view
 IP Applications – Detailed view by probe
 IP Applications by CoS – Detailed network view
 IP Applications by CoS – Detailed view by probe
 IP Applications by QoS – Detailed network view
 IP Applications by QoS – Detailed view by probe
 IP Applications by QoS Wireless – Network view of wireless applications by QoS
 IP Applications by QoS Wireless – View by probe of wireless applications by QoS
 IP Station Details – Bytes and packets over time for a single IP station
 IP Station Pairs – Detailed view of top IP station pairs across network
 IP Station Pairs – Detailed view of top IP station pairs by probe
 IP Top Talkers – View of network top talkers
 IP Top Talkers – View of top talkers by probe
 MAC Station Details – Bytes and packets over time for a single station
 MSPRC Server Statistics – Detailed network view
 MSPRC Server Statistics – Detailed view by probe
 MSPRC Server Statistics – Summary network view
 MSPRC Server Statistics – Summary view by probe
 Network Top 10 Stations on all Probes
 Oracle Server Statistics – Detailed network view
 Oracle Server Statistics – Detailed view by probe
 Oracle Server Statistics – Summary network view
 Oracle Server Statistics – Summary view by probe
 POP3 Server Statistics – Detailed network view
 POP3 Server Statistics – Detailed view by probe
 POP3 Server Statistics – Summary network view
 POP3 Server Statistics – Summary view by probe
 Probes by Router Traffic – Top ten probe instances by router traffic
 Probes by Router Utilization – Top ten probe instances by router utilization
 Probes by Traffic – Top ten probe instances by station traffic
 Probes by Utilization – Top ten probe instances by station utilization
 Routers by Errors – Detailed view of top network routers with errors
 Routers by Errors – Detailed view of top routers with errors by probe
 Routers IP Protocols – Top routers by IP protocols
 Routers IP Protocols – Top routers by IP protocols by probe
 Routers Packet Sizes – Packet sizes for top network routers
 Routers Packet Sizes – Packet sizes for top routers by probe
 Routers Protocol Distribution – Protocol distribution for top network routers
 Routers Protocol Distribution – Protocol distribution for routers by probe
 Routers Top Talkers – Top talkers across network
 Routers Top Talkers – Top talkers by probe
 RTCP Server Statistics – Detailed network view
 RTCP Server Statistics – Detailed view by probe
 RTCP Server Statistics – Summary network view
 RTCP Server Statistics – Summary view by probe
 RTP Server Statistics – Detailed network view
 RTP Server Statistics – Detailed view by probe
 RTP Server Statistics – Summary network view
 RTP Server Statistics – Summary view by probe
 Server Applications – Detailed network view
 Server Applications – Detailed view by probe
 SMB Server Statistics – Detailed network view
 SMB Server Statistics – Detailed view by probe
 SMB Server Statistics – Summary network view
 SMB Server Statistics – Summary view by probe
 SMTP Server Statistics – Detailed network view
 SMTP Server Statistics – Detailed view by probe
 SMTP Server Statistics – Summary network view
 SMTP Server Statistics – Summary view by probe
 SNMP Server Statistics – Detailed network view
 SNMP Server Statistics – Detailed view by probe
 SNMP Server Statistics – Summary network view
 SNMP Server Statistics – Summary view by probe
 SQL Drill Down Top Ten IP Pair Stations – View of all probes
 SQL Server Statistics – Detailed network view
 SQL Server Statistics – Detailed view by probe
 SQL Server Statistics – Summary network view
 SQL Server Statistics – Summary view by probe
 Station Broadcasters – Packet sizes for top routers with most broadcasts across network
 Stations Broadcasters – Packet sizes for top routers with most broadcasts by probe
 Stations by Errors – Detailed network view
 Stations by Errors – Detailed view by probe
 Stations by VLANs – Top stations by VLANs across network
 Stations by VLANs – Top stations by VLANs by probe
 Stations IP Protocols – Detailed network view
 Stations IP Protocols – Detailed view by probe
 Stations Packet Sizes – Shows packet sizes for top network stations
 Stations Packet Sizes – Shows packet sizes for top stations by probe
 Stations Protocol Distribution – Protocol distribution for top network stations
 Stations Protocol Distribution – Protocol distributions for top stations by probe
 Stations Talking to IP – Top network stations
 Stations Talking to IP – Top stations by probe
 Stations Top Talkers – Top network talkers
 Stations Top Talkers – Top talkers by probe
 Telnet Server Statistics – Detailed view
 Telnet Server Statistics – Detailed view by probe
 Telnet Server Statistics – Summary view
 Telnet Server Statistics – Summary view by probe
 Top 10 Applications on all Probes
 Top 10 IP Pair Stations on all Probes
 Top 10 IP Talkers on all Probes
 Top 10 Probes by Router Traffic
 Top 10 Probes by Router Utilization
 Top 10 Probes by Traffic
 Top 10 Probes by Utilization
 Top 10 Routers by Errors on all Probes
 Top 10 Routers IP Protocols on all Probes
 Top 10 Routers on all Probes
 Top 10 Routers Packet Sizes on all Probes
 Top 10 Routers Protocol Distribution
 Top 10 Server Applications on all Probes
 Top 10 Station Broadcasters on all Probes
 Top 10 Stations by Errors on all Probes
 Top 10 Stations by VLANs on all Probes
 Top 10 Stations IP Protocols on all Probes
 Top 10 Stations Packet Sizes on all Probes
 Top 10 Stations Protocol Distribution on all Probes
 Top 10 Stations Talking to IP on all Probes
 Top 10 Web Servers on all Probes
 Top 10 Web Users on all Probes
 VoIP Call Drill Down
 VoIP Calls – Detailed network view
 VoIP Calls – Detailed view by probe
 VoIP Codecs – Detailed network view
 VoIP Codecs – Detailed view by probe
 VoIP Codecs Summary
 VoIP General Statistics – Detailed network view
 VoIP General Statistics – Detailed view by probe
 VoIP General Summary
 VoIP Quality Statistics – Detailed network view
 VoIP Quality Statistics – Detailed view by probe
 VoIP Quality Summary
 VoIP Station Details
 Web Servers – List of overall top web servers
 Web Servers – List of top web servers by probe
 Web Users – Top network web users
 Web Users – Top web users by probe
 Wireless Site Survey Control Frames – Top network stations
 Wireless Site Survey Control Frames – Detailed view by probe
 Wireless Site Survey Data Frames – Top network stations
 Wireless Site Survey Data Frames – Detailed view by probe
 Wireless Site Survey Frame Types – Top network stations
 Wireless Site Survey Frame Types – Detailed view by probe
 Wireless Site Survey Management Frames – Top network stations
 Wireless Site Survey Management Frames – Detailed view by probe
 Wireless Site Survey Signal – Quality and signal strength for top network stations
 Wireless Site Survey Signal – Quality and signal strength for top stations by probe
 Wireless Site Survey Speeds – Wireless speed for top network stations
 Wireless Site Survey Speeds – Wireless speed for top stations by probe
 Web Drill Down Application Metrics by Station
 Web Drill Down Top Ten IP Talkers on all Probes

About Network Instruments

Network Instruments provides in-depth network intelligence and continuous network availability through innovative analysis solutions. Enterprise network professionals depend on Network Instruments' Observer product line for unparalleled network visibility to efficiently solve network problems and manage deployments. By combining a powerful management console with high-performance analysis appliances, Observer simplifies problem resolution and optimizes network and application performance. The company continues to lead the industry in ROI with its advanced Distributed Network Analysis (NI-DNA™) architecture, which successfully integrates comprehensive analysis functionality across heterogeneous networks through a single monitoring interface. Network Instruments is headquartered in Minneapolis with sales offices worldwide and distributors in over 50 countries. For more information about the company, products, technology, NI-DNA, becoming a partner, and NI University please visit www.networkinstruments.com.

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