

Observer Reporting Server Sample Executive Reports

Enterprise-wide monitoring and reporting with root-cause analysis

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www.networkinstruments.com

The Observer Reporting Server (ORS) lets you manage network performance with enterprise-wide views, macro- and micro-level reporting, and integrated drill-down into root-cause analysis. Network professionals use ORS to benchmark performance, quickly identify problems, create and share reports on enterprise-wide performance, and allow management to pull reports from any web browser.

Baseline Performance Metrics

ORS baselining is critical to proactively managing networks. Automatically establish baselines for all performance and time-based metrics, and identify performance problems before they impact the user. Network teams can use the color-coded baseline graphs to quickly determine if application delivery and performance is acceptable based on past network traffic patterns.

Real-Time Visibility

With its NetLive real-time reporting, ORS serves as the center of your performance monitoring and troubleshooting efforts. NetLive presents high-level, network-operation-center (NOC) views of network and application performance. Use NetLive to assess network conditions and pinpoint concerns. From these views, drill down and isolate network problems.

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 Monitoring

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.

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, e-mail, financial, 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.

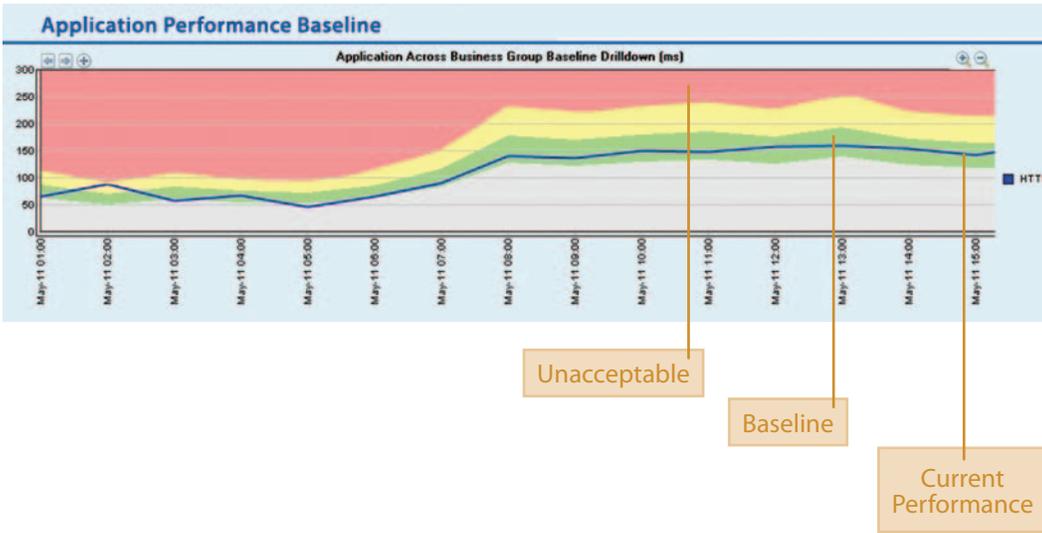
Drill Down to the Root Cause

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.

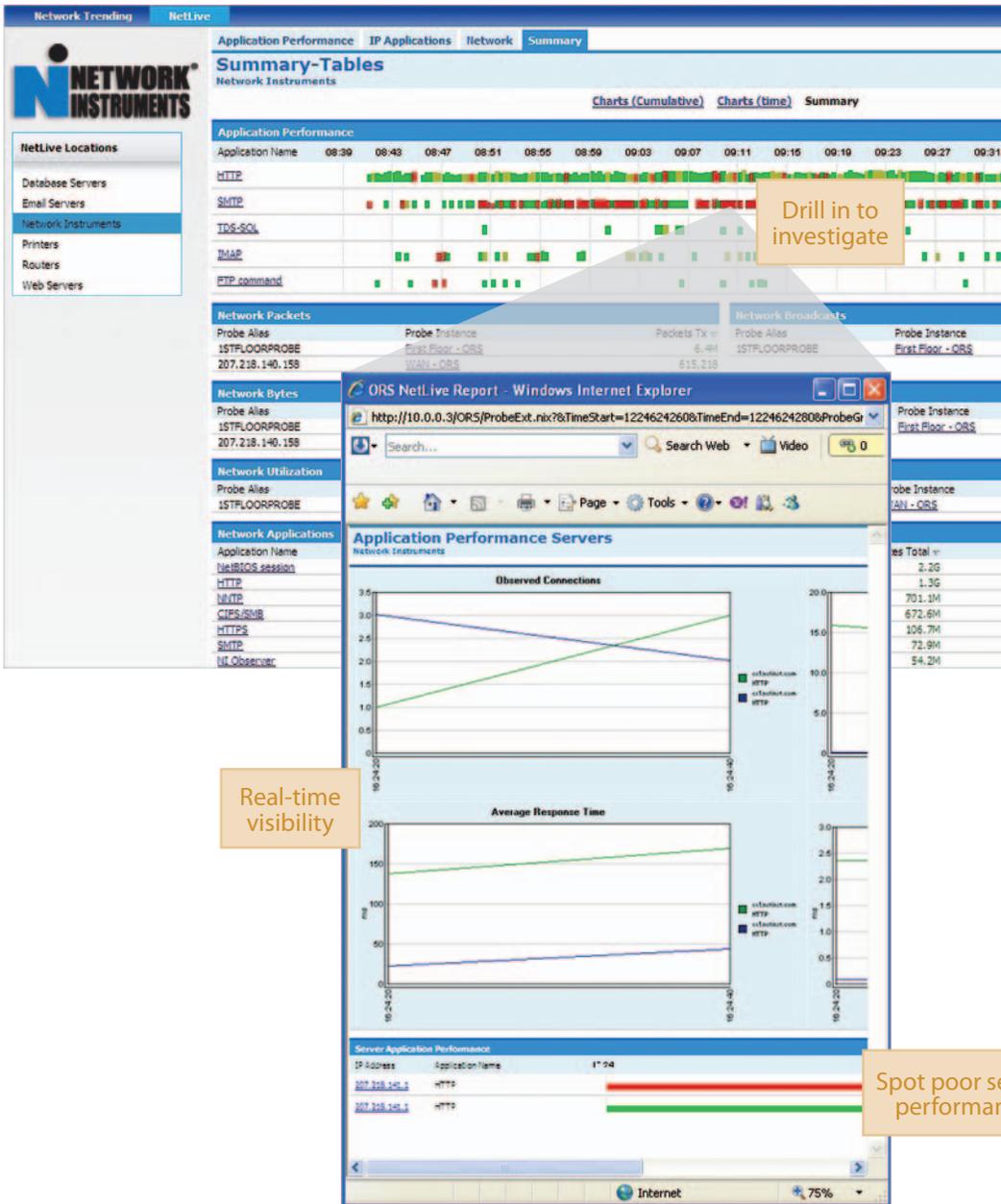


The ORS Advantage
With this report, IT managers can:

- Baseline all performance and time-based metrics
- Quickly assess and identify degraded performance
- Immediately shift to root-cause analysis and isolate problems
- Compare similar time periods and understand long-term trends

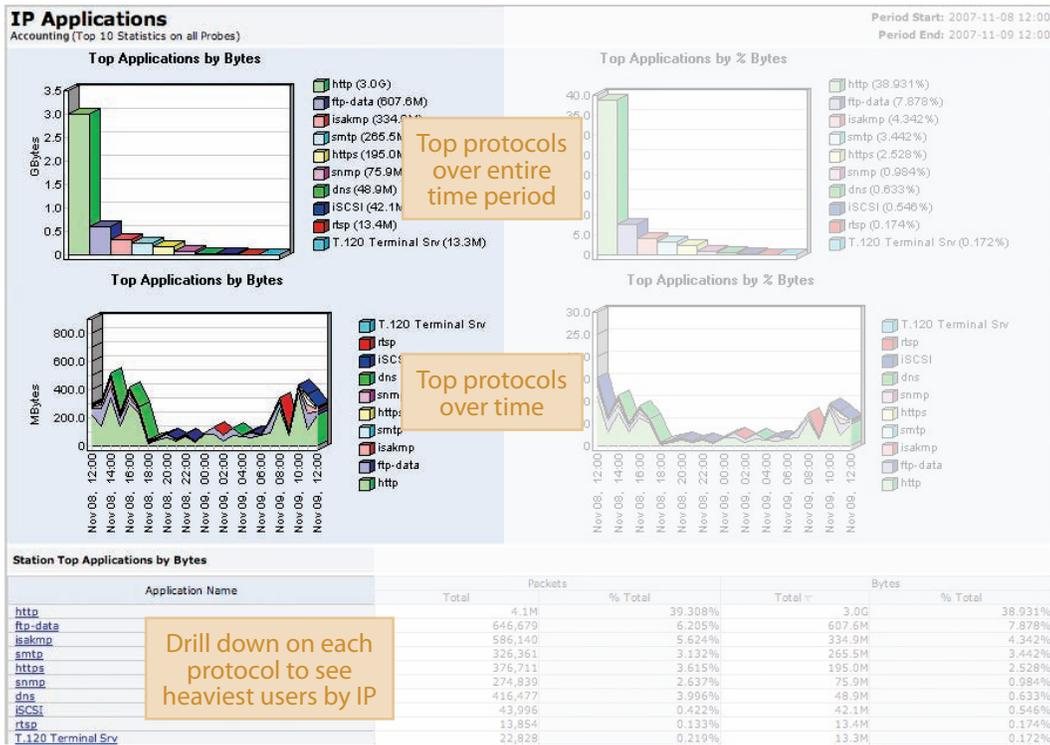
The baseline functionality automatically establishes baselines for performance and time-based delivery metrics including response time, MOS, and network utilization.

ORS calculates and displays the application performance baseline as well as deviations indicating degraded and unacceptable performance. The graph compares performance over time, including by time of day, day of week, or day of the month. Quickly drill down from performance graphs to investigate and resolve network, application, or server problems.



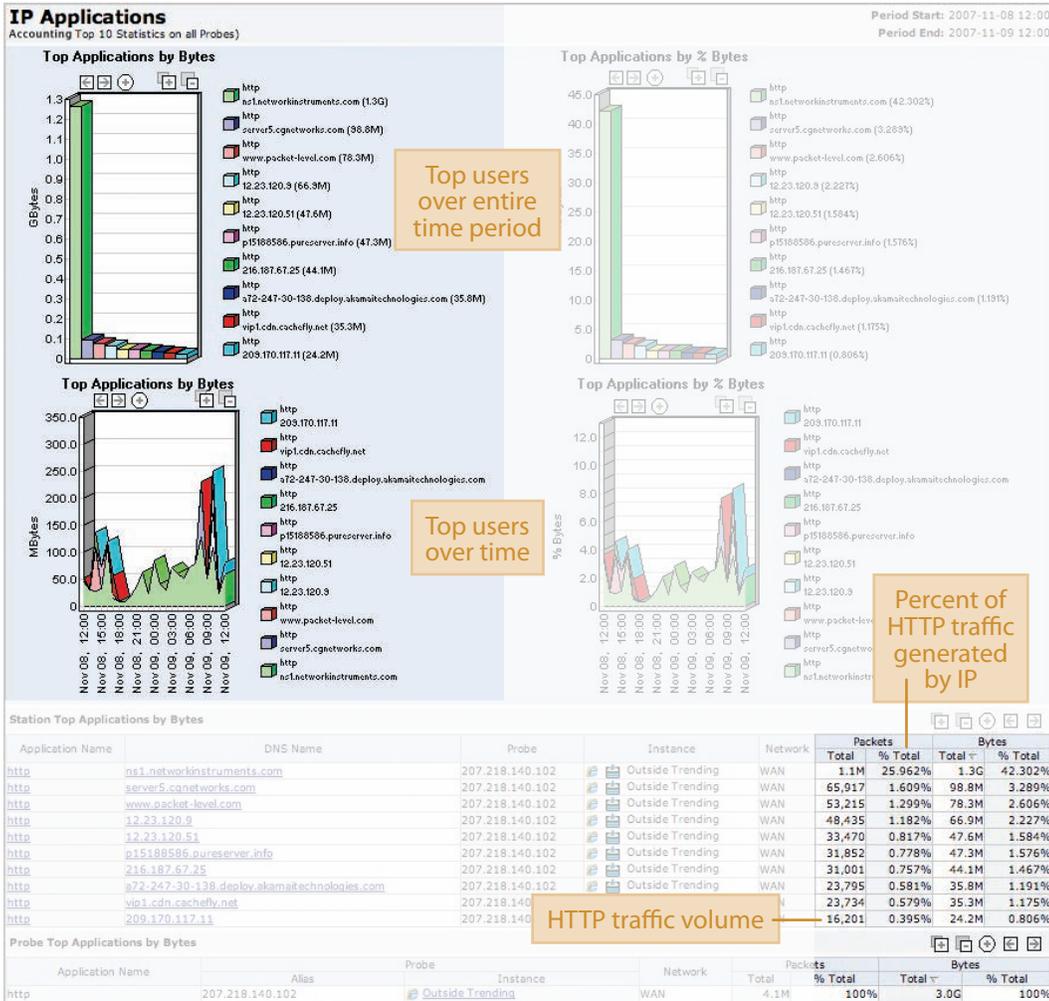
- The ORS Advantage**
With this report, IT managers can:
- Gain real-time TopN enterprise-wide visibility
 - Assess network conditions and pinpoint concerns
 - Monitor application performance globally
 - Customize views to meet business needs

The NetLive Summary Table shows a customizable view of TopN applications, network performance, and utilization reports for the last hour. NetLive tracks protocol performance in a manner that makes it easy to identify periods of poor performance. Drill into the protocol or a specific twenty-second increment for further investigation.



- 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.

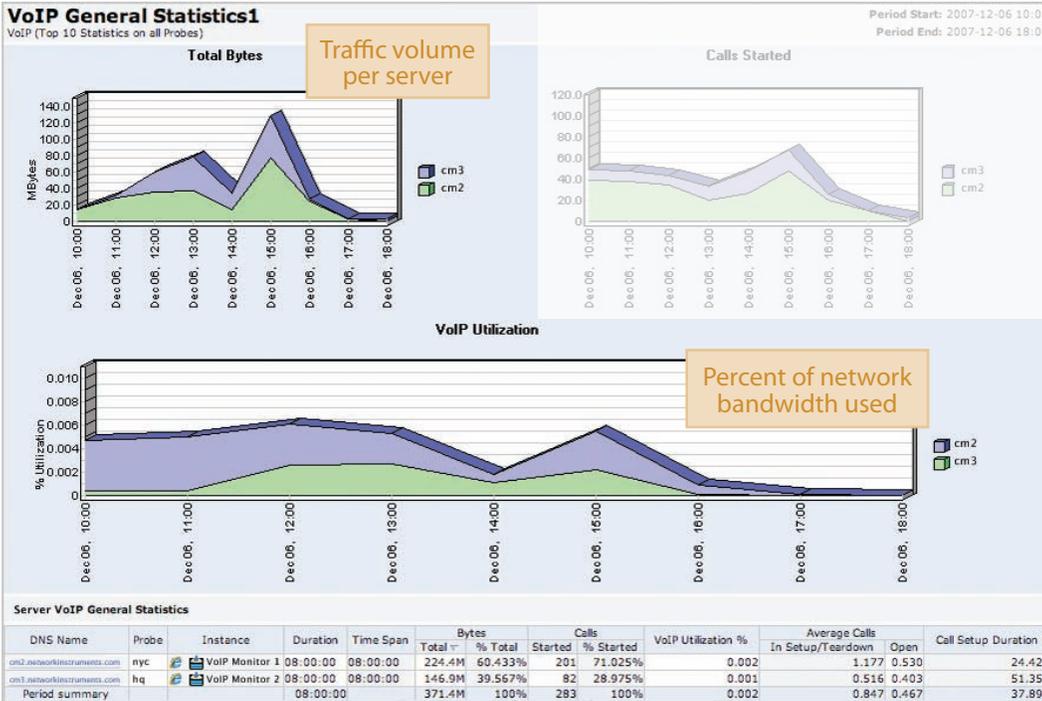


The ORS Advantage
With this report, IT managers can:

- 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.

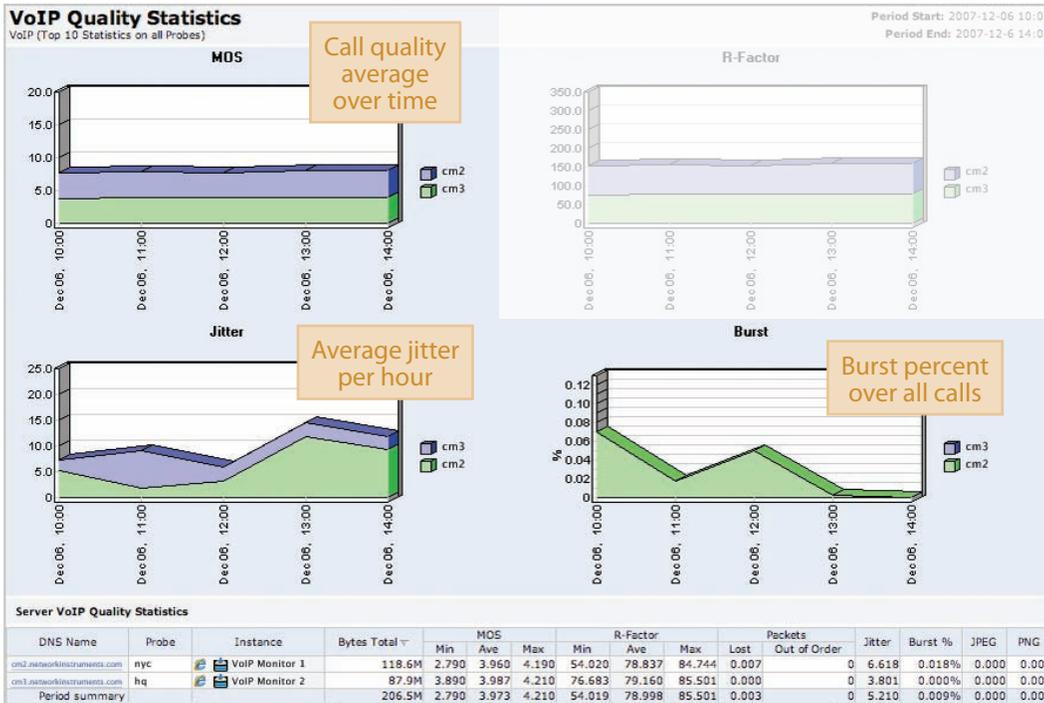
By default the report shows the top ten IPs, but managers can expand the report to show all IPs responsible for generating traffic.



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

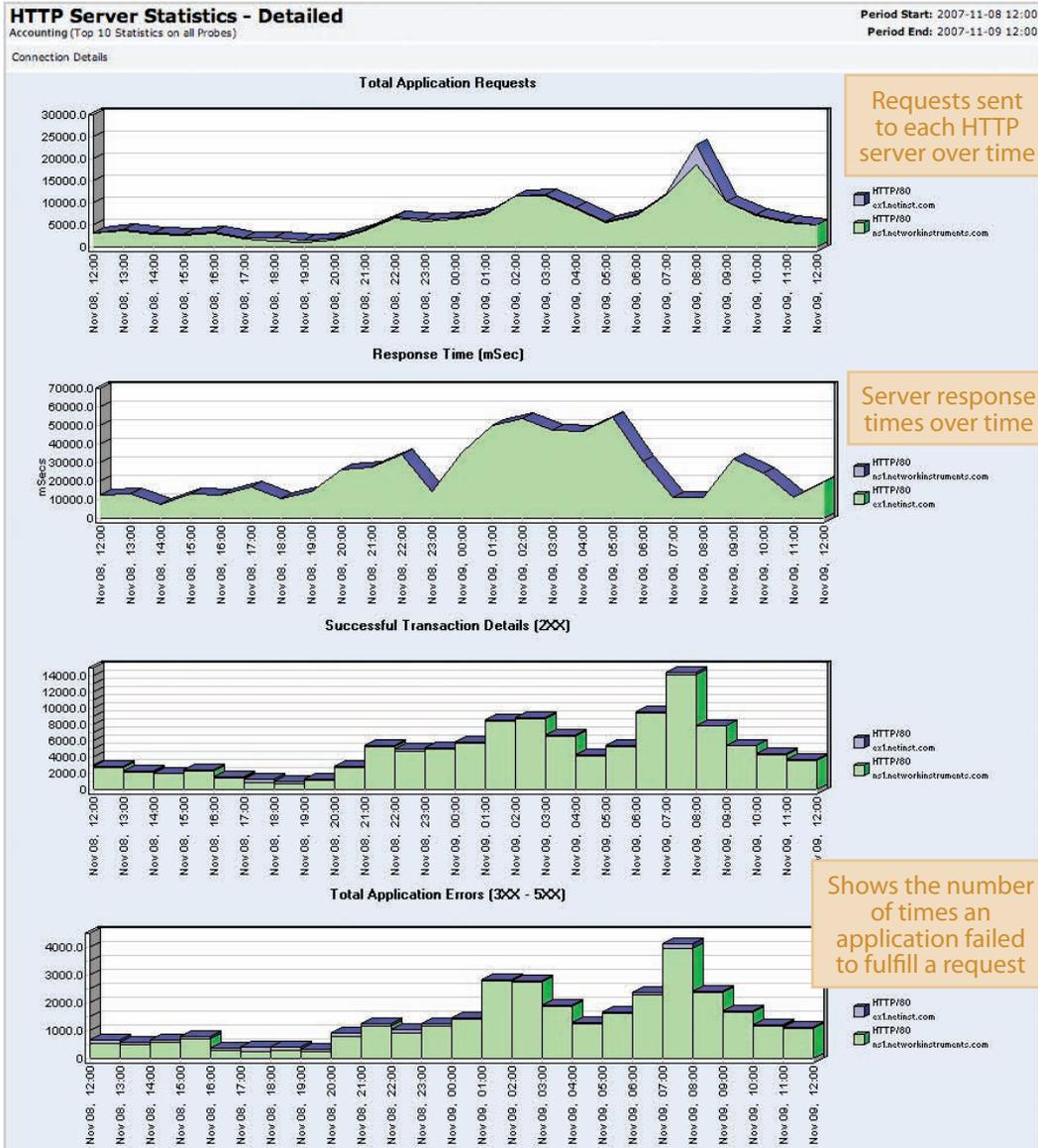
The VoIP General Statistics Report provides an extensive view of VoIP network activity and performance from VoIP utilization to the average number of calls generated.



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.



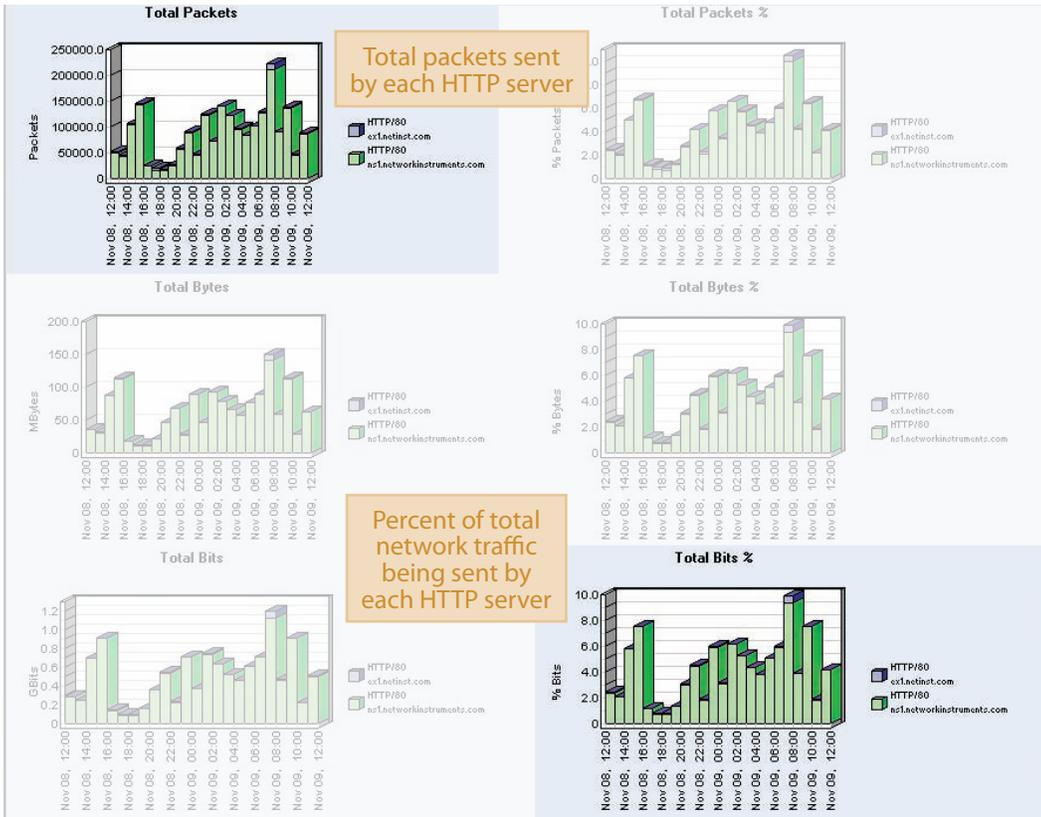
The ORS Advantage

With this report, IT managers can:

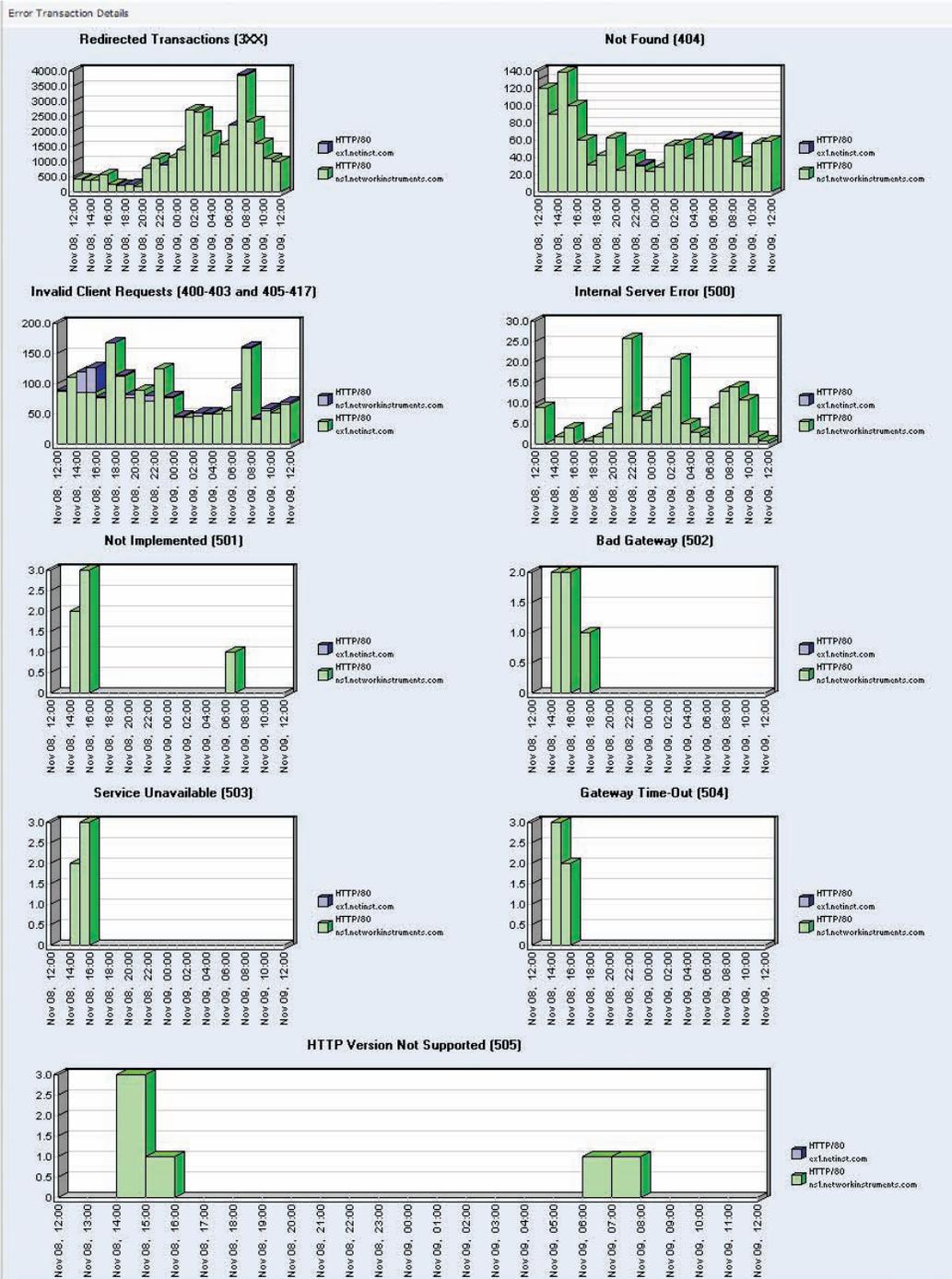
- Ensure the smooth and quick delivery of business-critical applications
- Obtain in-depth application reports on Oracle, VoIP, SQL, MS Exchange, HTTP, and more
- Monitor long-term trends in application response times
- Pinpoint specific errors causing an application delivery problem

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.

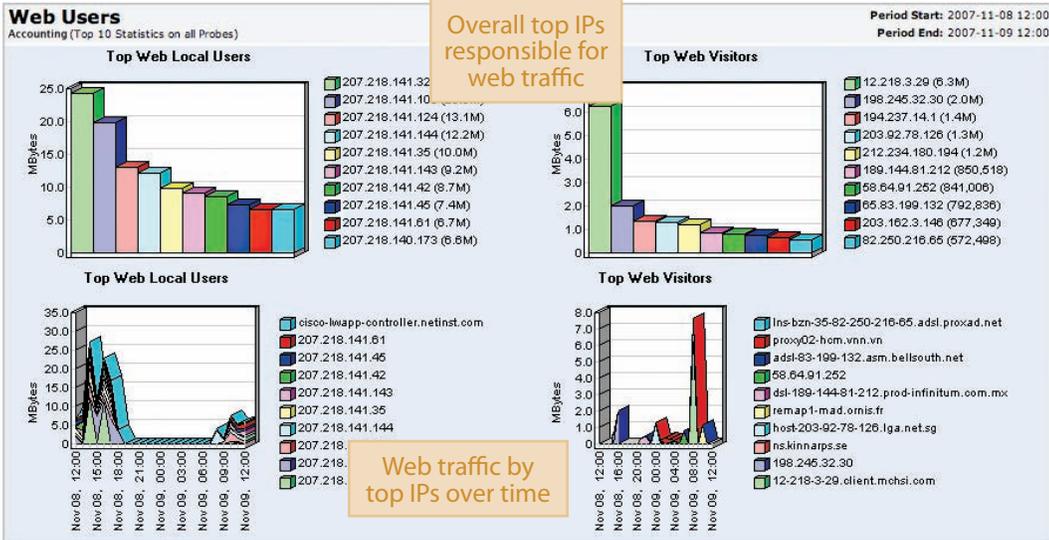


This section displays details on the successful transactions by total packets, bytes, and bits.



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

Application Statistics																
Application Name	Port	DNS Name	Probe	Instance	Network	Bytes	Successful transactions	Redirected transactions	Not found	Invalid client requests	Internal server error	Not implemented	Bad gateway	Service unavailable	Gateway time-out	HTTP version not supported
HTTP	80	ns1.networkinstruments.com	207.218.140.102	Outside Trending	WAN	1.48e9	116173	30488	1375	116	171	6	5	5	5	6
HTTP	80	ex1.netinst.com	207.218.140.102	Outside Trending	WAN	19.2e6	3984	23	3	1938	0	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

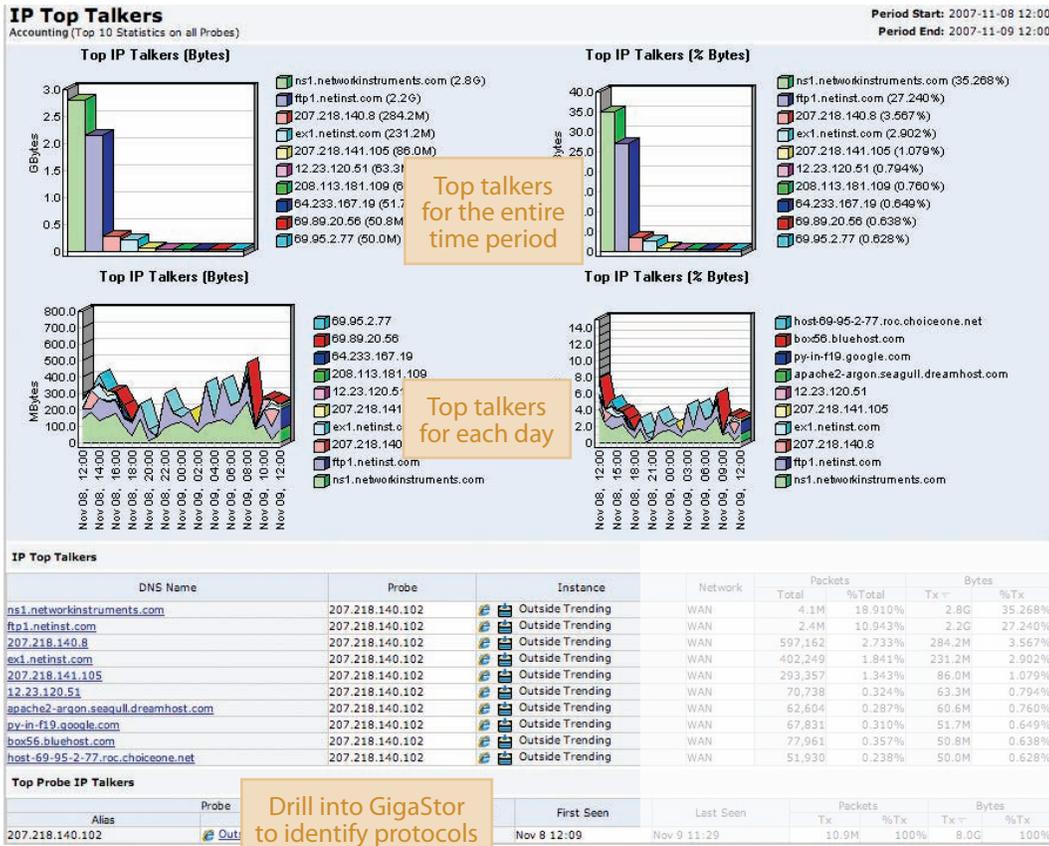
Top Local Users

DNS Name	Probe	Instance	Network	Packets		Bytes	
				Total	% Total	Total	% Total
207.218.141.32	207.218.140.102	Outside Trending	WAN	47,404	4.410%	24.4M	11.752%
207.218.141.105	207.218.140.102	Outside Trending	WAN	42,027	3.910%	20.0M	9.624%
207.218.141.124	207.218.140.102	Outside Trending	WAN	120,273	11.190%	13.1M	6.301%
207.218.141.144	207.218.140.102	Outside Trending	WAN	120,386	11.201%	12.2M	5.875%
207.218.141.35	207.218.140.102	Outside Trending	WAN	64,913	6.039%	10.0M	4.820%
207.218.141.143	207.218.140.102	Outside Trending	WAN	37,477	3.487%	9.2M	4.420%
207.218.141.42	207.218.140.102	Outside Trending	WAN	45,513	4.234%	8.7M	4.202%
207.218.141.45	207.218.140.102	Outside Trending	WAN	33,453	3.112%	7.4M	3.567%
207.218.141.61	207.218.140.102	Outside Trending	WAN	35,198	3.275%	6.7M	3.227%
cisco-lwapp-controller.netinst.com	207.218.140.102	Outside Trending	WAN	35,794	3.330%	6.6M	3.109%

Top Web Visitors

DNS Name	Probe	Instance	Network	Packets		Bytes	
				Total	% Total	Total	% Total
12.218.3.29.client.mchsi.com	207.218.140.102	Outside Trending	WAN	4,716	0.540%	6.3M	5.856%
198.245.32.30	207.218.140.102	Outside Trending	WAN	40,072	4.588%	2.0M	1.907%
ns.kinnarps.se	207.218.140.102	Outside Trending	WAN	29,173	3.340%	1.4M	1.275%
host-203-92-78-126.lga.net.sg	207.218.140.102	Outside Trending	WAN	28,518	3.265%	1.3M	1.241%
remap1-mad.ornis.fr	207.218.140.102	Outside Trending	WAN	25,076	2.871%	1.2M	1.151%
dsl-189-144-81-212.prod-infinity.com.mx	207.218.140.102	Outside Trending	WAN	16,274	1.863%	850,518	0.795%
58.64.91.252	207.218.140.102	Outside Trending	WAN	17,448	1.998%	841,006	0.786%
adsl-83-199-132.asn.bellsouth.net	207.218.140.102	Outside Trending	WAN	7,666	0.878%	792,836	0.741%
proxy02-hcm.vnn.vn	207.218.140.102	Outside Trending	WAN	13,009	1.489%	677,349	0.633%
ns-bzn-35-82-250-216-65.adsl.proxad.net	207.218.140.102	Outside Trending	WAN	12,301	1.408%	572,498	0.535%

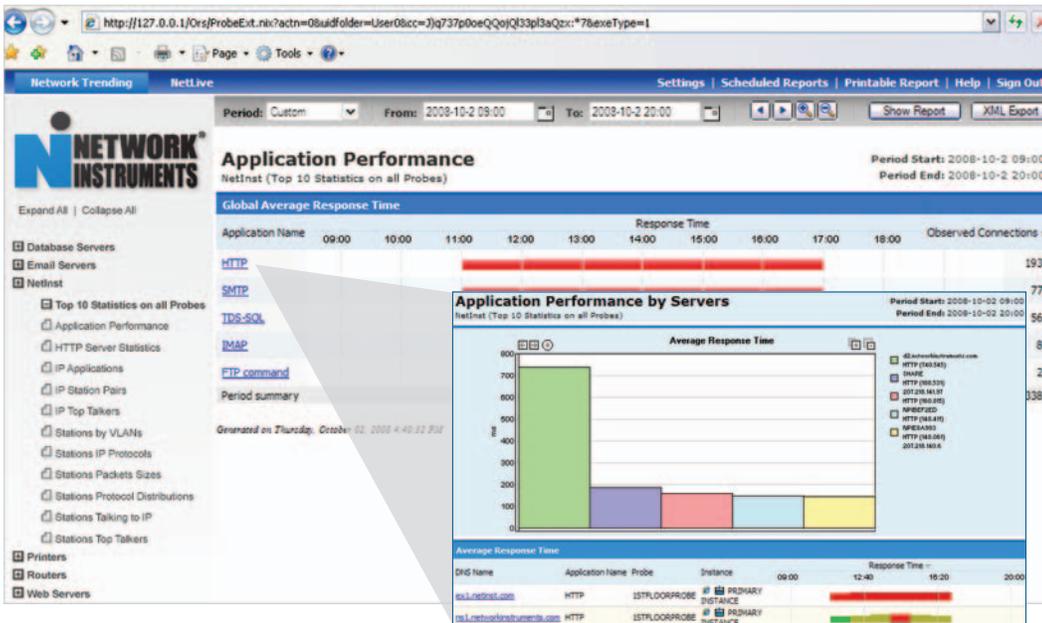
The Web Users Report tracks the IPs of top users of web-based protocols on the network. The report tracks local and external users separately. Information is presented over time and in aggregate for the selected time period. The information is also presented in two tables.



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.

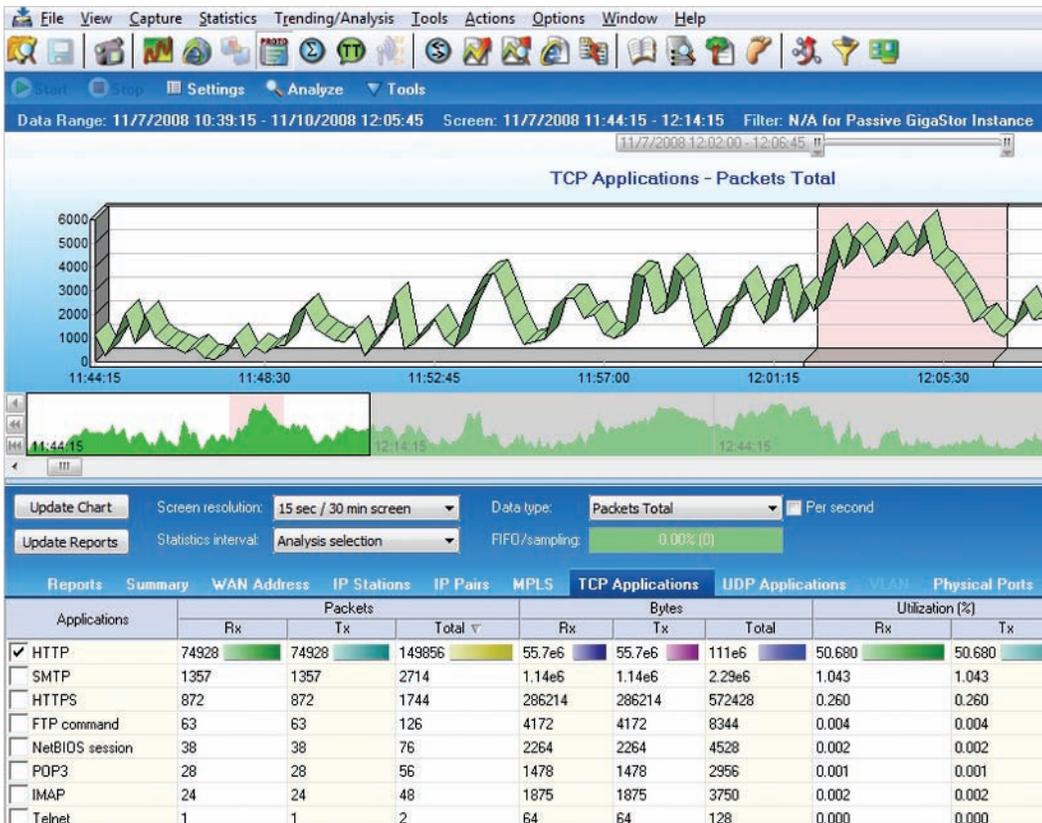


1 ORS identifies slow HTTP response times. Drill into the report to identify the specific server.

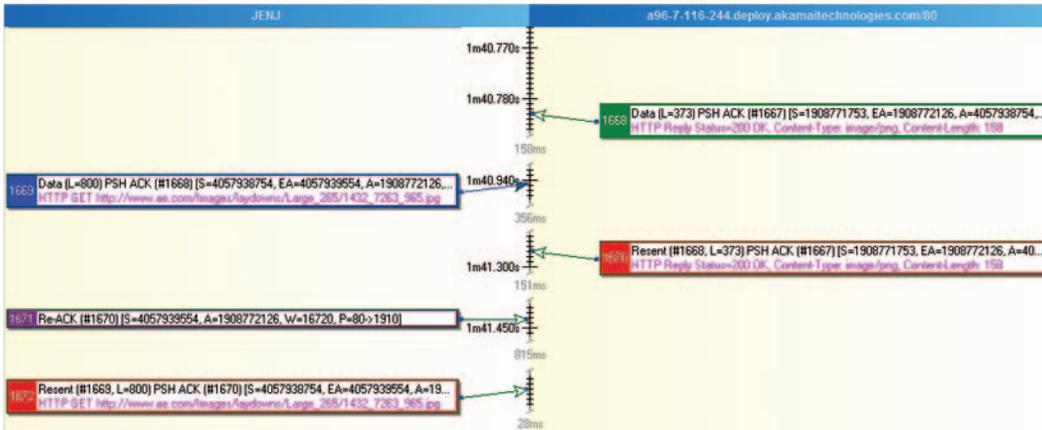
The ORS Advantage
 With dashboard to packet drill down, IT managers can:

- Quickly go beyond reporting into problem solving
- Analyze traffic before and after the problem occurred
- View network and application anomalies in full context

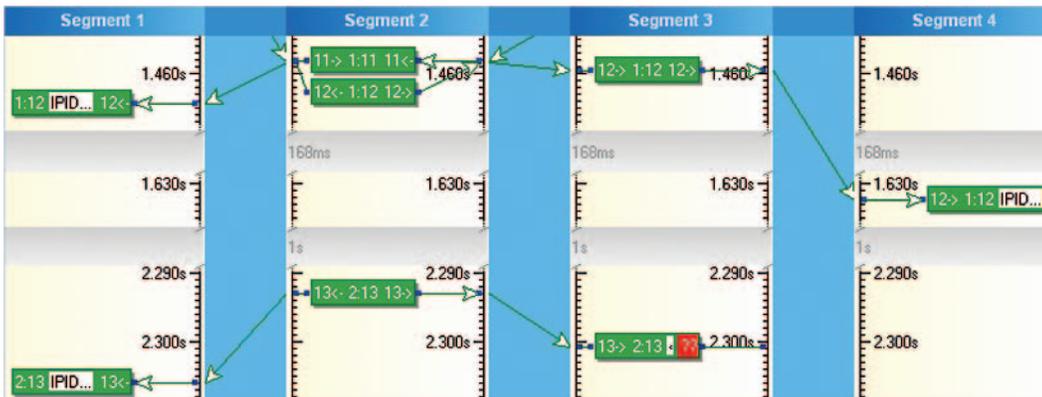
Unlike traditional reporting tools, ORS integrated troubleshooting capabilities allow network managers to go from application performance to diagnosing the delay source in one solution, as shown here in four easy steps.



2 With a single click, ORS isolates the specific server and time period in question for analysis in GigaStor. Identify the conversation responsible for the slow response time.



3 Use Connection Dynamics to identify and drill into the problematic request-and-response sequence.



4 MultiHop Analysis displays the same request-and-response sequence traveling across the network to determine the exact point of delay.

ORS serves as the center of your monitoring and troubleshooting strategy allowing your network team to not only identify performance trends and problems but drill into the root cause. Customize ORS reports to meet your management needs. Track trends and critical resources in real time. Use its integrated and in-depth troubleshooting and analysis to quickly resolve your problems.

About Network Instruments

Network Instruments, a leading provider of performance management and troubleshooting for fifteen years, helps organizations ensure the delivery of business-critical applications. The company's platform of management and reporting products provides comprehensive visibility into networks and applications to optimize performance, speed troubleshooting, and assist long-term capacity planning. Network Instruments achieved profitability in its first quarter and posted double-digit growth every year since its founding – without any external funding. Network Instruments is headquartered in Minneapolis with sales offices worldwide and distributors in over 50 countries. For more information, please visit www.networkinstruments.com.



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