

# Network Instruments Observer Reporting Server 14: Enterprise-class Performance Management

## Abstract

Network Instruments® is a long-standing, well-known provider of application-aware network performance monitoring and troubleshooting solutions. And as their solutions have been enjoying steady growing adoption and deployment, an increasing number of shops using their packet-based monitoring, recording, and analysis products are realizing that there is a distinct opportunity to get more value out of these rich viewpoints. In particular, aggregating detailed performance information across multiple instrumentation points via the Observer Reporting Server empowers IT operators with the means to make troubleshooting even more effective and efficient, while also opening the door to proactive and preventative practices which can help to avoid issues in the first place.

---

Aggregating detailed performance information via the Observer Reporting Server empowers IT operators.

---

## Issues

As network technologies have become increasingly mature, stable, and standardized, and network designs have advanced to the point that outages are rare, the focus of most network operations teams has begun to shift towards issues of efficiency and performance. In particular, this means better appreciation for the network's ability to deliver the services and applications upon which their organization's business processes depend.

Many organizations have answered this need by embracing the rich, application-aware management visibility which is made possible by the deployment of passive packet-inspection performance monitoring technologies. These products, such as the Network Instruments' Observer® family, provide the ability to look deeply within traffic streams to understand who is talking to whom, what applications or services are being used, what volume of traffic is being generated, and what quality of experience has been achieved. Such full-stack information is truly indispensable when it comes to troubleshooting and finding the root cause of difficult performance degradation issues, which often can only be found using these techniques.

And now, those same operations teams are looking for ways to further optimize their task efficiency, get more out of the investments they have made in instrumentation (and managed infrastructure), and make the shift from tactically-oriented reactive practices to more strategic, proactive postures.

## Aggregated Analysis

Network Instruments has offered the Observer Reporting Server (ORS) for several years as a central point of convergence for data collection and analysis across multiple Observer instrumentation devices and types, including direct packet monitors (Observer Probes), direct packet recorders (GigaStor™), and NetFlow. ORS complements the Observer platform of troubleshooting and analysis tools by adding a broad range of cross-device reporting and dashboard capabilities, including the ability to organize and present performance data by business-relevant groups such as application, location, and department. This overarching set of capabilities delivers analysis of performance issues and trends in an aggregated manner, across the entire enterprise—a systemic view which pays many dividends in terms of both command and control.

# Network Instruments Observer Reporting Server 14: Enterprise-class Performance Management

With the version 14 release of the Observer platform, several significant new features have been added to ORS which raise its value and impact to enterprise-class levels:

1. Multi-tier deployment options: ORS can be deployed in single, 2-tier, or 3-tier architectures to meet and grow gracefully with the performance management needs of any organization. Single-tier deployments are optimized for high volume NetFlow management deployments, whereas 2-tier and 3-tier offer the ability to also include data from Observer Probes and GigaStor appliances at various levels of quantity and scale.
2. Extensive improvements to reporting configuration and flexibility: Network Instruments has opened ORS reporting capabilities to leverage all metrics and measurements being captured by their systems, and has shifted data presentation from data-centric to solution-centric workflows. These new workflows are delivered as templates but are also open for customization by product users, allowing adaptation to specific local practices.
3. New automated, time-oriented baselining: A key challenge to understanding performance issues is recognizing whether or not what is happening right now is normal for the current time of day and day of the week or day of the month. New, time-based graphical views of data that provide this context have been added, allowing visual analysis of current metric levels versus regular patterns of behavior over time, greatly improving the accuracy of diagnosis efforts.
4. Significant performance improvements: The ORS is delivered on a purpose-built appliance, and Network Instruments strives continuously to improve the capacity and performance of that platform as well as the ORS software application running on it. With this release, 2x to 4x improvements will be seen in report generation times, along with capacity expansion to support virtually unlimited NetFlow volumes.

## Key Implications

The ORS offers an ability to directly improve both reactive incident investigation tasks and workflows, typically measured in terms of reduced Mean Time to Repair/Restore (MTTR), as well as the reliability and integrity of the network, typically measured in terms of extended Mean Time Between Failures (MTBF). It is important to note here that MTTR and MTBF are historically measures of hard failures, meaning complete loss of function, but for the reasons discussed above, today's challenges are often less about availability and more about peak efficiency and degradations. Consequently, operations professionals should consider not only tools that help improve these metrics with respect to availability, but also with respect to performance.

The ORS delivers a positive influence on MTTR because of the centralized, coordinated role it can play in delivering information in real-time regarding current health and activity in the network, coupled with fast drill-down capabilities to facilitate rapid investigations. This allows operators to start by looking for the broad indicators of a problem, and then drill down as far as they need to localize and analyze the issue to completion – even down to the packet analysis level if necessary. This top-down type of workflow is optimal for quick domain isolation and reveals details incrementally in order to facilitate problem troubleshooting with as little navigation as possible. Ultimately, any such workflow must be able to get to the deepest level of

---

The ORS offers an ability to directly improve both reactive incident investigation as well as the reliability and integrity.

---

# Network Instruments Observer Reporting Server 14: Enterprise-class Performance Management

truth – the packets themselves; however, such detailed troubleshooting should only be applied when absolutely necessary due to the incredibly fine level of granularity plus the sheer volume of data. Within the Network Instruments solution, this final detailed drill-down can mean navigating to a forensic packet data storage device, in this case one of their GigaStor platforms, where issues can be recreated and analyzed within the full context present as they occurred on the network.

In terms of improving MTBF, the ORS helps by acting as a long-term repository for a wide range of performance metrics from across the organization. Such a compilation can be the basis for analyzing details and trends in usage by application, location, and even user, so that capacity planning and engineering efforts are based on a deep understanding of how current resources are being utilized. Such reports also afford the opportunity for proactive investigation of trends in key performance indicators, including root cause analyses which now benefit directly from the addition of time-based behavioral context in this most recent product release.

## EMA Perspective

As an advocate for the continuous advancement of integrated service management and business-aware IT operations, ENTERPRISE MANAGEMENT ASSOCIATES® (EMA™) analysts strongly advise that network operators take specific actions to make meaningful progress towards proactive techniques and practices. First, it is essential that network health and performance be understood in the context of and as it directly relates to the applications and services which the network delivers, otherwise known as “seeing up the stack.” Second, this visibility needs to be applied across as much of the distributed infrastructure as possible, so that true end-to-end, system-wide performance can be fully understood and monitored. And lastly, the management tools in use should be regularly reviewed to determine whether or not they are delivering the full potential value in streamlining operations and paving the path to proactivity.

With these objectives in mind, Network Instruments’ Observer Reporting Server can be viewed as a positive enabler for improving the efficiency and strategic value of network operations. For existing Network Instruments customers, ORS represents an important catalyst for drawing significant additional benefits from existing investments in performance instrumentation. And for those new to Network Instruments, ORS represents a powerful set of performance management capabilities which evidence the enterprise-class quality of the overall solution.

---

Observer Reporting Server can be viewed as a positive enabler for improving the efficiency and strategic value of network operations.

---

## About EMA

Founded in 1996, Enterprise Management Associates (EMA) is a leading industry analyst firm that specializes in going “beyond the surface” to provide deep insight across the full spectrum of IT management technologies. EMA analysts leverage a unique combination of practical experience, insight into industry best practices, and in-depth knowledge of current and planned vendor solutions to help its clients achieve their goals. Learn more about EMA research, analysis, and consulting services for enterprise IT professionals and IT vendors at [www.enterprisemanagement.com](http://www.enterprisemanagement.com) or follow EMA on Twitter ([http://twitter.com/ema\\_research](http://twitter.com/ema_research)).

1966.100909