

## *nGenius Real-Time Monitor 1.4*

NetScout Systems *nGenius Real-Time Monitor (RTM)* software, a component of the CiscoWorks LAN Management Solution (LMS), is a Web-enabled traffic and performance monitoring system that delivers multiuser access to real-time Remote Monitoring (RMON) information for troubleshooting and maintaining network availability. Used with Cisco Catalyst® 6500 Series Network Analysis Modules (NAMs), *nGenius RTM* provides early visibility into network issues and problems before they become critical.

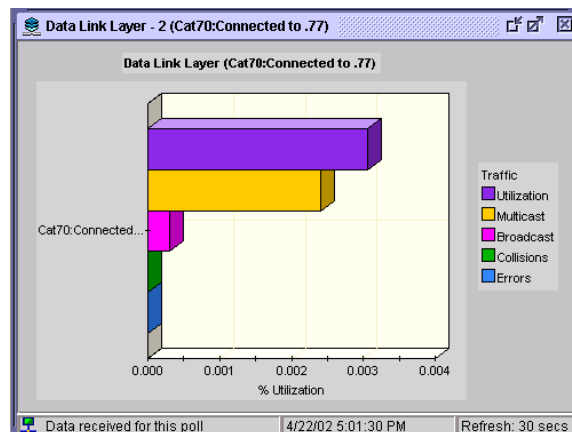
### Highlights

- Real-time visibility into network traffic from data link to application layer
- Intuitive troubleshooting drill-downs
- Seamless integration of real-time and historical information
- Multiuser access via Web browser
- Comprehensive packet capture and protocol analysis
- Automated, proactive alarm management of network activity
- Support for Differentiated Services Monitoring (DSMON)
- Integration and device import
- Scalable server for fast, easy, and secure system configuration

The *nGenius RTM* solution is a powerful, Web-based, real-time performance monitoring, fault isolation, and troubleshooting tool. In addition to its multiuser, Web server architecture, it includes two key applications known as the *nGenius Traffic Monitor* and the *nGenius Packet Analyzer*. Both applications are integrated within the *nGenius* graphical user interface (GUI) and can be launched by IT and network managers to perform specific network monitoring and troubleshooting tasks. Because it supports intelligent troubleshooting drill-downs, a comprehensive packet analysis application, and a historical record of network activity, *nGenius RTM* is ideally suited for today's dynamic, evolving enterprise and e-business networks.

The *nGenius Real-Time Monitor* application provides key information to network managers to permit fast, assured decision-making. Views, such as data link layer vital signs, provide critical utilization, broadcast, multicast, and error percentage statistics in one easy-to-read graph (Figure 1).

Figure 1  
*nGenius Real-Time Monitor*





## Critical Information in the First View

IT and network managers have no time to waste when solving problems in their complex distributed networks. That's why it is important to give them the critical information they need first. The *nGenius* Traffic Monitor application "first views" displays single or multisegment, real-time performance information at the data link, network, and application layers. These views can assist the IT and network manager to quickly and easily troubleshoot and resolve traffic-related issues.

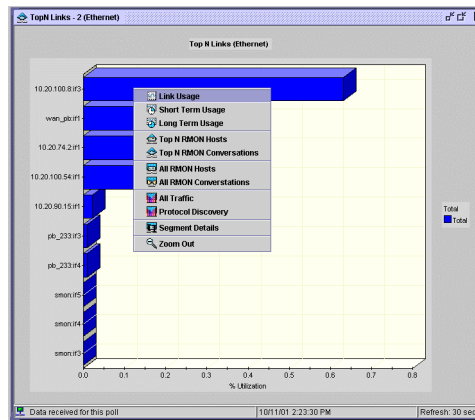
## Intuitive Troubleshooting Drill-Downs

When hit with network brownouts, network managers need quick and easy troubleshooting tools to avoid lost revenue, productivity, and customer satisfaction.

*nGenius* Traffic Monitor drill-downs get you to the answers in three clicks or less, so information is right at your fingertips.

The *nGenius* Real-Time Monitor application delivers real-time visibility into network performance. The screen shown in Figure 2 displays TopN Links usage information and permits intuitive drill-downs to each segment currently available from the Traffic Monitor tree.

Figure 2  
TopN Links



## Simultaneous Real-Time and Historical Views

Because enterprise and e-business managers cannot wait for a monthly report, real-time troubleshooting is an absolute necessity. In addition, IT and network managers require current and historical information to identify the root cause of a problem. *nGenius* Traffic Monitor provides this data seamlessly using an integrated historical database.

Real-time data on network performance is provided in blended views based on daily, weekly, and monthly intervals and the intuitive Web-based access to aggregated data allows network managers to rapidly troubleshoot their networks anytime and from anywhere on the network.



## “ My Favorite Views”

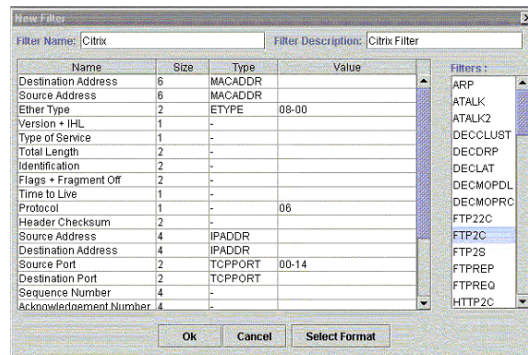
*nGenius* RTM offers users the flexibility to create and launch a “My Favorite Views” screen for quick retrieval of information that is meaningful to them. They can also customize the screen to display graphs in a familiar way each time they launch their view.

## Comprehensive Packet Capture and Protocol Analysis

The *nGenius* Packet Analyzer is a comprehensive, Web-based protocol and network analysis application that is fully integrated with the *nGenius* RTM solution. The *nGenius* Packet Analyzer provides depth and insight into data analysis using advanced auto-capture, filtering, and decoding tools to quickly pinpoint and resolve problem areas. As networked infrastructures become more complex through the adoption of switched infrastructures and high-speed links, the diagnosis of problematic conditions becomes inherently more difficult. The *nGenius* Packet Analyzer helps resolve network and application issues by providing total network visibility from the data link layer to the application layer.

The RTM v1.4 Packet Analyzer offers a highly enhanced filter editor, which provides a set of already defined filters from which the network manager can create custom filters (Figure 3).

Figure 3  
RTM v1.4 Packet Analyzer



## Proactive Alarm Management of Network Activity

One of the fundamentals of real-time performance management is being alerted the instant the system detects a problem. Setting threshold alarms is one of the key functions that *nGenius* RTM offers. This powerful and flexible tool can warn the network manager of high segment traffic utilization, or provide an alert on application utilization to ensure that e-business applications have the bandwidth they need.

## Differentiated Services Monitoring

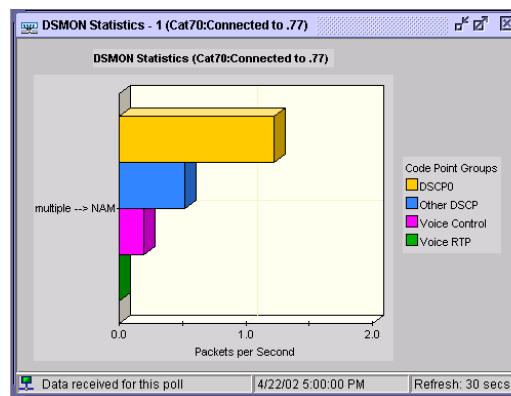
*nGenius* RTM supports the DSMON Management Information Base (MIB) by monitoring network traffic usage of differentiated services code point (DSCP) values (RFC 2474). Each DSCP value may be given a different preference by a forwarding device. This affects which packets are dropped or delayed during periods of network congestion. By polling DSCP usage counters, RTM can determine network throughput for traffic associated with different DSCPs. This data can be analyzed to “tune” DSCP allocations within a network, based on the quality of service (QoS)



policies for that network. Network managers can also guard against QoS policy violations by monitoring DSCP usage by applications other than the designated ones. *nGenius* Traffic Monitor provides DSMON views that display DSMON statistics, protocols, and hosts.

The DSMON statistics view provides network managers with graphical information on the utilization of the DSCPs. If packet rate from the show menu option is selected, packets-per-second details are presented for the various DSCPs (Figure 4).

Figure 4  
DSMON Statistics View



### CiscoWorks Integration

Using the Cisco Management Connection third-party application interfaces, IT and network managers can launch the *nGenius* RTM from the CiscoWorks management desktop to quickly access and apply the appropriate management tools for administering, configuring, monitoring, and troubleshooting their networks.

### CiscoWorks Device Import

During initial configuration, the *nGenius* Device Import Utility populates the *nGenius* Server database with new or existing RMON agents. Devices from existing Cisco TrafficDirector and Resource Manager Essentials (RME) inventories can be imported easily by using the Bulk Device importation capability to reduce the time it takes to set up and add new monitored elements such as NAMs and mini-RMON-enabled switches.

### *nGenius* Server

The *nGenius* Server is a scalable, Web-based server for real-time monitoring and troubleshooting. Because it is easy to use and supports multiple users, the server is ideally suited for today's complex, growth-oriented enterprise and e-business networks.

The intuitive user interface of the server provides simplified setup and out-of-the-box configuration. Its scalability, based on multitransaction processing and multithreaded polling, easily allows for the global monitoring of an array of devices, including NAMs and RMON-enabled switches. And, its asynchronous device configuration capability allows users to perform concurrent device processing, receive asynchronous device status feedback, and view enhanced device error displays.

## Complements the NAM

*n*Genius RTM complements the Cisco NAM by providing multi-NAM management via a centralized console. RTM enables NAM customers to readily configure multiple NAMs and view statistics collected network-wide. RTM automatically discovers the NAMs as monitoring agents making NAM configuration fast and easy.

## Server, Client, and Web Browser System Requirements

The server, client, and Web browser system requirements can be found in the product overview document for the LAN Management Solution and on the Cisco online documentation site under *n*Genius RTM. Refer to these documents and other product installation documentation for more detailed information on setting up and configuring this solution.



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