

# Sonus NetScore™

## Enhance Network Performance and Health

Enhance your Sonus network's performance with real-time, actionable analysis in a turnkey solution. NetScore delivers deep insight into your network's performance through Key Performance Indicator (KPI) scores, customizable threshold alerts, prebuilt visual reports, drilldown analysis and more.

Sonus Networks builds the world's most advanced IP-voice networks, but even the best networks degrade in performance over time. Shifts in network traffic, transient overloads, outdated configurations and inefficient call routes can all negatively impact network performance. In order to keep your Sonus network running at optimal efficiency, you need to monitor and analyze the key performance metrics for each of your Sonus network elements.

For years, Sonus has provided network performance management to our customers as a service, using sophisticated tools and a time-tested methodology. Now, we've packaged many of the same benefits into a powerful, standalone solution that network operators can use to monitor and self-manage their network's performance every day. Sonus NetScore is a software-based solution that automatically captures, scores and analyzes Call Detail Records (CDRs) and trunk group utilization data from Sonus network elements, then transforms that data into actionable information through visual reports and alerts.



## A Healthy Network Starts Here

An inefficient network can cost you more money to operate, in addition to lost customers and lost productivity. Yet before you can optimize your network's health, you need to understand its pain points. With NetScore, network operators can monitor and pinpoint problems before they occur, using customizable threshold alerts that automatically detect potential performance issues. NetScore monitors Sonus' network elements in real time and delivers a current pulse on your network via graphical reports and alerts. A Web-based GUI provides simple-to-understand, visual interpretations of network trends and issues, with flexible query screens for deeper drill-down analysis. In order to provide the information that drives "healthy" changes such as improved routing, upgrades and capacity planning, NetScore captures the key performance metrics in the network.

## Easily Manage QoS and SLAs

The NetScore solution includes a full range of customizable alarms that send real-time alerts when thresholds are reached, enabling network operators to proactively address performance issues before network quality is compromised. NetScore supports both static thresholds and dynamically changing thresholds, based on your network's recent historical performance, so network operators can accurately manage QoS and SLA performance as traffic loads shift and new routing schemes are introduced. In a competitive market where QoS assurance can mean the difference between customer retention and customer attrition, NetScore helps network operators improve QoS levels and satisfy SLAs by measuring key performance indicators such as packet loss, jitter and post-dial delay at the network element and trunk-group level.

NetScore now supports the entire SBC portfolio and extends the coverage to 3rd party CDRs. The 3rd party device support enables customers to spread across more elements in their network for analyzing, monitoring and tracking the behavior.

### Sonus NetScore delivers real-time insight into network behavior that:

- Reduces network outages and overloads
- Improves call quality
- Provides better visibility into resource allocation and capacity planning
- Eliminates time-consuming manual analysis

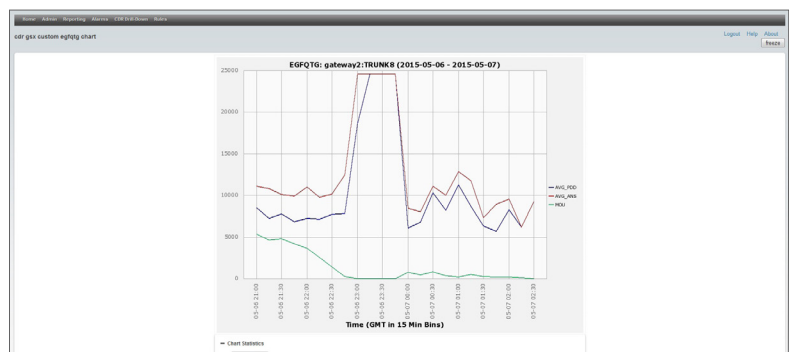


Figure 1. Sonus NetScore showing KPI by Trunk Groups

## NetScore is like having a team of Sonus engineers monitoring your network 24/7:

- Advanced analytics
- Graphically enhanced dashboards
- Complete KPI diagnostics
- Customizable, real-time alerts
- Deep drill-down analysis
- Trunk group statistics

The screenshot shows the Sonus NetScore Alarm Manager interface. At the top, there are navigation tabs: Home, Admin, Reporting, Alarms, and CDR Drill-Down. The 'Alarms' tab is selected. Below the navigation, there are filters for Type (all), State (5), and Thresholds. A 'Refresh' button is on the right. The main area contains a table with columns: Name, Type, State, Severity, Entity, Num, First On, Last On, Email Sent, Trap Sent, Info, Detail, and Chart. There are four rows of alarms, all with a 'raised' state and 'High' severity. The first row is 'CDR\_OVERLOAD' (system type, 4 instances). The other three rows are 'Large\_PDD' (static type) with 21, 25, and 18 instances respectively, associated with gateway5, gateway10, and gateway9.

Name	Type	State	Severity	Entity	Num	First On	Last On	Email Sent	Trap Sent	Info	Detail	Chart
CDR_OVERLOAD	system	raised	H...		4	2011-7-18 03:50	2011-7-18 14:12					
Large_PDD	static	raised	H...	gateway5	21	2011-7-17 22:00	2011-7-18 03:15			!	...	
Large_PDD	static	raised	H...	gateway10	25	2011-7-17 21:30	2011-7-18 03:45			!	...	
Large_PDD	static	raised	H...	gateway9	18	2011-7-17 17:45	2011-7-18 03:45			!	...	

At the bottom of the table, it says '4 Alarms Shown' and '4 Total Alarms'. There is also a 'Perform Action' button.

Figure 2. Sonus NetScore Alarm Manager

## Virtualization

NetScore can be deployed on any industry-standard server using VMWare hypervisors. The virtual edition of NetScore features the same proactive analytic solutions that improve user experience and reduce operational costs—without compromise. By using common management and code base, Sonus has provided a low-cost path for existing customers as they evolve their networks to virtualization architecture.

## Better Visibility Into Your Network

NetScore enables network operators to analyze traffic at macro and micro levels—from a single session border controller to a single IP trunk group and even a single endpoint—for better visibility into bandwidth and billing considerations. NetScore fits seamlessly into the Sonus network architecture, retrieving CDRs and trunk group utilization data in real time. NetScore can also store historical data for trending analysis, which helps network operators accurately plan for network capacity.

## Value-Based Routing

Sonus Value-Based Routing (VBR) is an enhanced feature set providing intelligent routing based on cost and quality of service (QoS). It is an intelligent routing solution for telecommunications carriers in the business of call termination services. Such a carrier purchases call termination services from its vendor carriers and sells call termination services to its consumer carriers. NetScore provides a new configuration screen called Value-Based Routing, which configures TG-based KPIs to be collected and made available to the PSX Master for VBR integration.

## Platform Specifications

### Hardware Specifications

- HP DL380 G8 carrier grade, NEBS compliant server
- 2 RU
- Dimensions: (H x W x D) 3.38 x 17.54 x 27.25 in (8.59 x 44.55 x 69.22 cm)
- Weight: Maximum 60.00 lbs (27.27kg)
- Optionally requires External Storage (For High Availability).

Note: Please contact your sales or channel contact to get the exact specifications.

### Operating System

- Red Hat Enterprise Linux 6.4 certified

Note: If customers have a server with Red Hat Enterprise Linux 6.4 already installed on it, customers must uninstall Red Hat and reinstall it according to the instructions given in the NetScore Installation Guide.

### Pre-Defined KPIs

- Answer Bid Ratio (ABR)
- Answer Seizure Ratio (ASR)
- Average Call Hold Time
- Busy Flash Seizure Ratio (BFSR)
- Far-End Congestion Ratio
- Internal Congestion Ratio
- Mean Opinion Score (MOS)
- Packet Loss
- Post Dial Delay (PDD)
- Minutes of Use (MOU)
- Network Effectiveness Ratio (NER)
- Q.850 Call-Disconnect Causes
- Ratio of Seizures with High Jitter/

### Packet Loss

- Cumulative Route Index
- Jitter
- Call Attempts
- Short Calls
- Long Calls

### Pre-Defined Dimensions

- Network (the whole network)
- Gateway
- Ingress/Egress Trunk Group
- Ingress/Egress Super Trunk Group
- Destination and Sub-Destination
- Route Label
- Ingress/Egress Signaling IP End Point (Signaling IP Address) - Local and Remote
- Destination and Ingress/Egress Trunk Group
- RouteSelected

### User Interface

- Supported browsers: Mozilla Firefox version 34 or later; Google Chrome version 41 or later; Microsoft Internet Explorer versions 9, 10, and 11. NetScore is best viewed with Mozilla Firefox.

## CDRs, Collection, Retention

- Supports ASCII CDRs from GSX 6.4 and higher.
- The File Collector collects stats from GSX and SBC.
- Raw CDRs are retained for 7 days by default (# of days configurable)
- Calculated KPIs are retained in the database for 12 months by default (# of months configurable)

## Report Types

- KPI
- KPI Custom Reports
- Q850
- E411
- Call Disconnect Distribution
- Margin Reports
- CDR On-Demand Report KPIs
- Trunk Group On-Demand Report KPIs
- Codec distribution
- MSRP reports

## About Sonus Networks

Sonus brings intelligence and security to real-time communications. By helping the world embrace the next generation of Cloud-based SIP and 4G/LTE solutions, Sonus enables and secures latency-sensitive, mission-critical traffic for VoIP, video, instant messaging and online collaboration. With Sonus, enterprises can give priority to real-time communications based on smart business rules, while service providers can offer reliable, comprehensive and secure on-demand network services to their customers. With solutions deployed in more than 100 countries and nearly two decades of experience, Sonus offers a complete portfolio of hardware-based and virtualized Session Border Controllers (SBCs), Diameter Signaling Controllers (DSCs), Network-as-a-Service (NaaS) capabilities, policy/routing servers, and media and signaling gateways.

### Sonus Networks North American Headquarters

4 Technology Park Drive  
Westford, MA 01886  
U.S.A.  
Tel: +1-855-GO-SONUS

### Sonus Networks APAC Headquarters

1 Fullerton Road #02-01  
One Fullerton  
Singapore 049213  
Singapore  
Tel: +65-68325589

### Sonus Networks EMEA Headquarters

Edison House  
Edison Road  
Dorcan, Swindon  
Wiltshire  
SN3 5JX  
Tel: +44-14-0378-8114

### Sonus Networks CALA Headquarters

Homero No. 1933-902  
Col. Los Morales, C.P. 11510  
Mexico City, Mexico  
Distrito Federal  
Mexico Tel: +52-55-1950-3036  
Int'l Tel: +1-978-614-8741

To learn more, call Sonus at 855-GO-SONUS  
or visit us online at [www.sonus.net](http://www.sonus.net)

Microsoft Partner  
Gold Communications

Voice  
Unified Communications  
Business Productivity Solutions  
Midmarket Solution Provider

The content in this document is for informational purposes only and is subject to change by Sonus Networks without notice. While reasonable efforts have been made in the preparation of this publication to assure its accuracy, Sonus Networks assumes no liability resulting from technical or editorial errors or omissions, or for any damages resulting from the use of this information. Unless specifically included in a written agreement with Sonus Networks, Sonus Networks has no obligation to develop or deliver any future release or upgrade, or any feature, enhancement or function.

Copyright © 2015 Sonus Networks, Inc. All rights reserved. Sonus is a registered trademark of Sonus Networks, Inc. All other trademarks, service marks, registered trademarks or registered service marks may be the property of their respective owners.