

# PERFORMANCE MONITORING TOOL

A powerful web based tool that provides mobile operators with critical performance information about their networks.



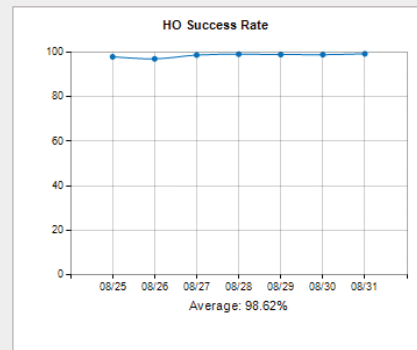
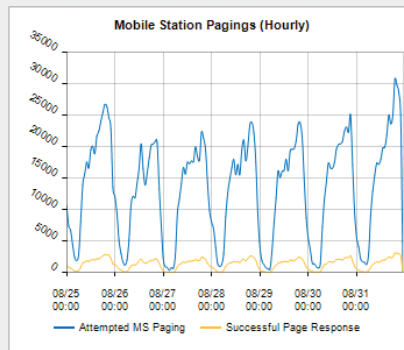
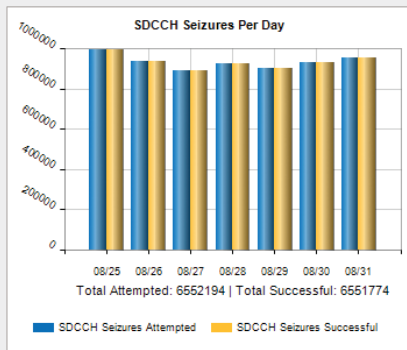
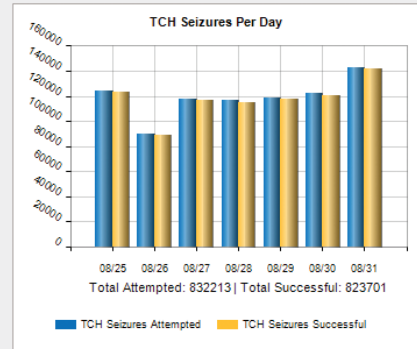
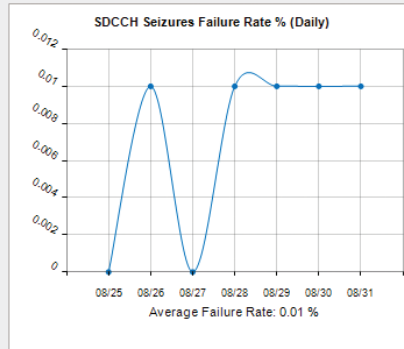
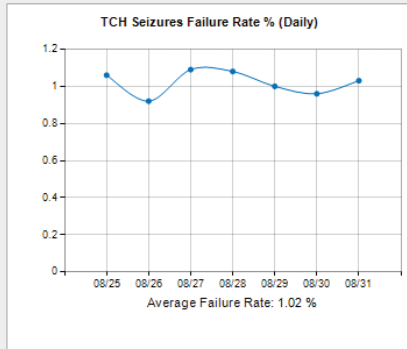
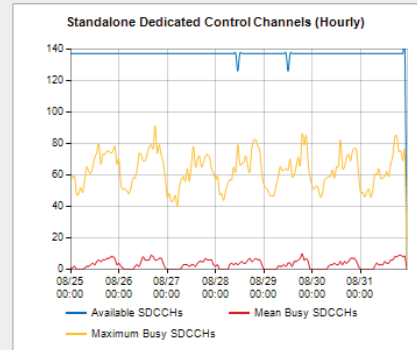
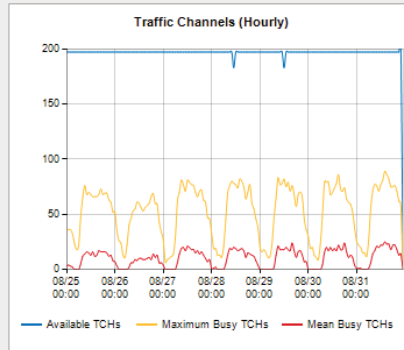
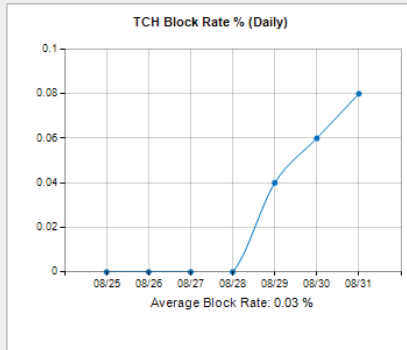
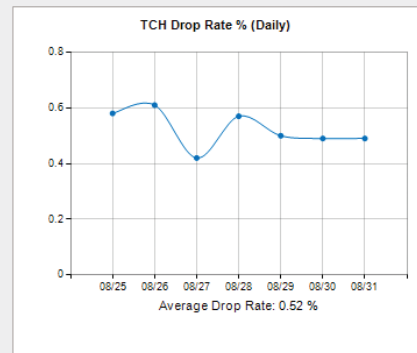
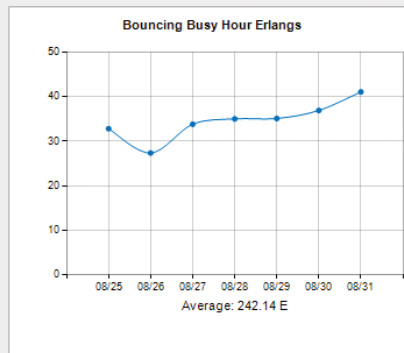
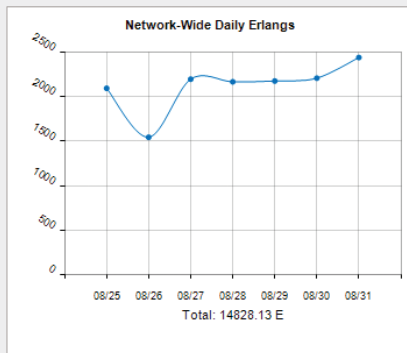
Requiring only an IP connection to the operator's data, the Performance Monitoring Tool displays network performance statistics and essential data in a user friendly format via a secure web site. Also, critical network alerts can be sent to users by text messaging and email. And weekly reports with key performance indicators can be automatically generated and sent to users by email.

The Performance Monitoring Tool provides a real-time understanding of the health of a mobile network. Key performance statistics include drop call rates, block call rates, traffic, handover statistics, and channel usage information. The Performance Monitoring Tool can also be utilized to understand how a network's performance changes when an operator makes configuration changes such as cell site additions, power adjustments, antenna modifications, frequency additions, traffic and control channel reallocations, and handover parameter alterations. Statistics are generated from raw data collected from the Base Transceiver Station (BTS), the Base Station Controller (BSC), and the Mobile Switching Center (MSC). Statistics are also generated from data extracted from Call Detail Records (CDR) and from event files collected from packet data/IP network nodes.

With GWS' Performance Monitoring Tool, users can access information that can be used to assist with future network growth or budgeting. For example, through the identification of sectors that begin to exhibit blocking, actions may be taken to relieve this congestion, such as adding an extra TRX, adding extra sites, enabling directed retry, etc.

The Performance Monitoring Tool also has statistically based alarms that trigger when certain criteria are met; thus providing a quick summary of the network's immediate health. Operators can also adjust alarm and other monitoring settings in the Tool to fit the unique characteristics of their network. And GWS has a team of developers that can customize the Tool to fit an operator's needs including tailored reports and analyses.





## About GWS

Global Wireless Solutions, Inc. defines the industry standard for network benchmarking, performance analysis and testing. Working with some of the world's largest wireless network providers, GWS offers standardized, high-quality network data and engineering analysis to its customers through a suite of benchmarking products, services, and diagnostic apps that includes drive, venue and in-building testing.

Founded in 1996, GWS is headquartered in Dulles, VA. At last count, GWS has driven more than 9 million data collection miles for its customers. For more information, visit [www.gwsolutions.com](http://www.gwsolutions.com) and follow us on Twitter at @gwsolutionsinc.