

EXTENDED ANALYSIS

GWS takes benchmarking to the next level by providing custom reports to meet customers needs.

As the largest independent provider of wireless quality benchmarking services, GWS manages a nationwide fleet of test vehicles. In addition to this strong operational experience, GWS has developed custom analysis and reporting that support all major wireless technologies and test equipment vendors. No commercial off-the-shelf post-processing platform and no other benchmarking services provider has the same capability to provide accurate and reliable data for both single market and multi-operator, multitechnology testing programs like GWS can and does every day.

Building on the standard benchmarking reports, Extended Analysis extracts additional information from collected information to help customers achieve specific goals. This can include focused data mining to extract specialized information about a drive test or can provide a big picture view of the network to aid in evaluation of design guidelines at a macro level. Some of the custom offerings prepared by GWS and available in conjunction with Voice and Data Benchmarking campaigns include:

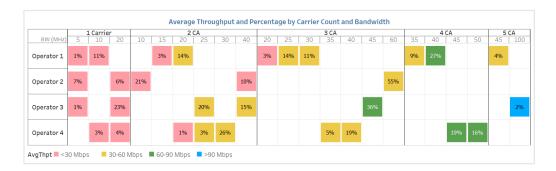
High Level Overview Reports: Summarized results present details of a benchmarking campaign in a format tailored to provide executive management a quick look assessment of the network.

Single Network Performance Reviews: Designed to highlight areas of interest in a market, identify trends and propose potential opportunities for improvement.

Multiple Network Performance Reviews: Provide a cross network perspective of benchmarking results. Useful for regulatory agencies assessing licensees or for corporate organizations evaluating regional performance.

Before and After Analysis: Benchmarking campaigns and reports in conjunction with new market acquisition and integration, network retunes, infrastructure vendor replacement and other important events.

SLA Validation: Customized testing to provide an independent assessment of service or equipment providers performance towards Service Level Agreement metrics.



Extended Analysis offers additional details on network trouble spots and specific diagnostics on call failures following delivery of the Voice and Packet Data reports including:

- Area Based Accessibility, Retainability and Reliability statistics
- Persistent Call Failure Report and Maps for historical drives
- Detailed call event spreadsheets
- Detailed (per second) data file for each call failure containing critical RF parameters for troubleshooting
- Detailed Drop Call Event Analyses/Diagnostics of negative events
- Worst Interference condition areas
- In-service Coverage Limited condition areas
- Handovers Resulting in Signal Degradation
- Soft Handover Analysis
- Handover Ping-Pong situations
- Over-Shooting Cell sites
- Estimated site count information on all carrier networks collected in the test area



Benchmarking for **28 YEARS**

Services provided in **25 COUNTRIES**

Tested **18,000 LOCAL** MARKETS

Driven and walked **16 MILLION MILES**

ABOUT GWS

GWS is the world leader in testing wireless markets. Services include:



benchmarking -Network data and engineering analysis through drive, venue, and in-building testing



MobiStat[™] -Interactive webbased reporting



OneMeasure[™] -Configurable app for mobile and Wi-Fi network

and mapping tool

Network

OneScore[™] -

research

performance

testing

performance ranking combining engineering data with consumer



Big Data Analytics-

Large scale network evaluations using big data tools and techniques



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