

Uses Simple Web-Browser Interface

Remote Access of all Network Nodes

Database Stores the Real-Time and Historic Data

Output Results to Text / Excel

Time and User-Specified Search Criteria

Statistical Results of PESQ, E-Model, Call Control Events, Time/Delay Measurements, Echo Measurements, Data Test

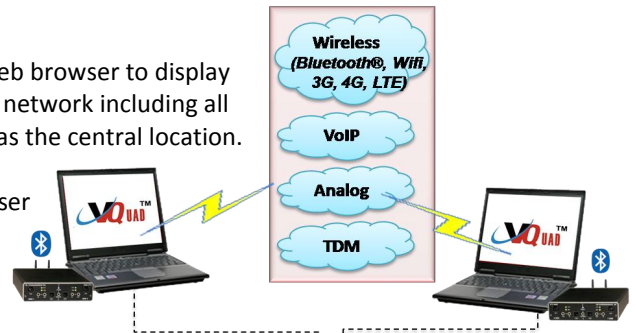
Customized Statistics Based on User-Definition

Customized Configuration Option for Required Result Display

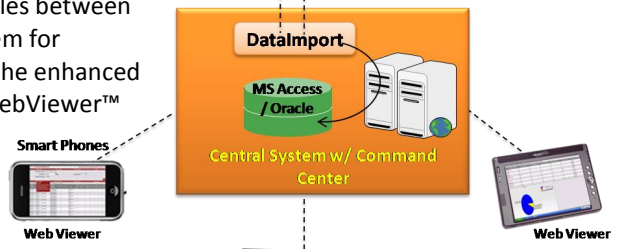
# VQT WebViewer™

## Overview

GL's WebViewer™ uses a simple web browser to display and access, in real time, the entire network including all individual VQuad™ probes as well as the central location. Current status of the entire test is displayed along with customized user statistics, and as well as remote accessibility of any node associated with the network.



Automatically transfer configuration files between the VQuad™ node and your local system for enhancements. Re-run the test using the enhanced VQuad™ configuration, all from the WebViewer™ browser running on either Windows® based or Mac based systems (including iPhone, Android, and iPad devices).



GL's VQuad™ provides automatic call control over several networks and supports transmit/capture of voice files in real-time from the various nodes. The degraded (recorded) voice files are automatically transferred to the Central Location where GL's VQT/EMU/VBA/NetTest analyzes and generates the various measurements. Additional analytical metrics are also provided as a result of the VQT algorithm including jitter, clipping, and level measurements.

- Voice Quality Testing (VQT)
- RTD / OWD
- Echo Measurement
- Automated / Manual Data Testing
- FAX Events

For information on VQT WebViewer™, refer to <http://www.gl.com/vqtwebviewerdemo.html>

## Main Features

- WebViewer™ access points support PC (Netbook, Macbook) and mobile devices (iPhone, Android, and iPad). View results remotely anytime anywhere using any of these access points.
- All results from individual VQuad™, VQT, VBA, EMU, NetTest applications automatically sent to WebViewer™ central database (Oracle or MSAccess).
- Database backup, export and import utilities.
- Query results based on a variety of mechanisms including, but not limited to, time, device ID, location/test name, result threshold, result condition or value.
- Display all result events or display on per call basis (all results within call are averaged with min/max values provided).
- User-defined statistics based on all results within database.
- Customized Reports for both Results and Statistics can be output as either Excel/Text formats.
- Display real-time status of entire network with ability to remotely access any node within network.
- Results include Voice Quality, Call Control (Call Failure, Call Dropped, Call ID), Echo Measurements, Data Testing (via Mobile device or PC Ethernet), Delay Measurements, Fax Tx Rx Events.
- Supports email alerts based on communication faults or VQuad™, VQT results below user-defined thresholds.
- Datalimport offline support allows importing the saved results from both VQuad™ and VQT.
- New VQuad™ Probe (VQT270), self contained unit includes VQuad™, Dual UTA and PC. Control via Ethernet Remote Desktop (with support for mouse/keyboard).
- Supported on WinXP, and Win7 (32 & 64 bit)



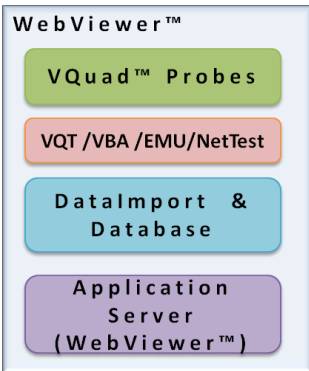
818 West Diamond Avenue - Third Floor, Gaithersburg, MD 20878, U.S.A

(Web) <http://www.gl.com/> - (V) +1-301-670-4784 (F) +1-301-670-9187 - (E-Mail) [gl-info@gl.com](mailto:gl-info@gl.com)

### Components of GL's WebViewer™ Solution

GL's WebViewer™ solution is a four tier architecture:

- The first layer is the **Physical Layer** that consists of GL's VQuad™ which establishes calls or direct connections using various interfaces.
- The **File Monitor Utility** transfers the degraded (recorded) voice files from the individual VQuad™ nodes to one of several VQT/VBA/EMU systems which are located on the second layer.
- Each **VQT/VBA/EMU/NetTest** automatically analyzes the degraded voice files and transmits the analytical results to a central database located at the **Data Layer**.
- This third layer provides a means for storing the captured results.
- The last layer is the **Data Access Layer (Application Server)** where the data presentation logic is contained.

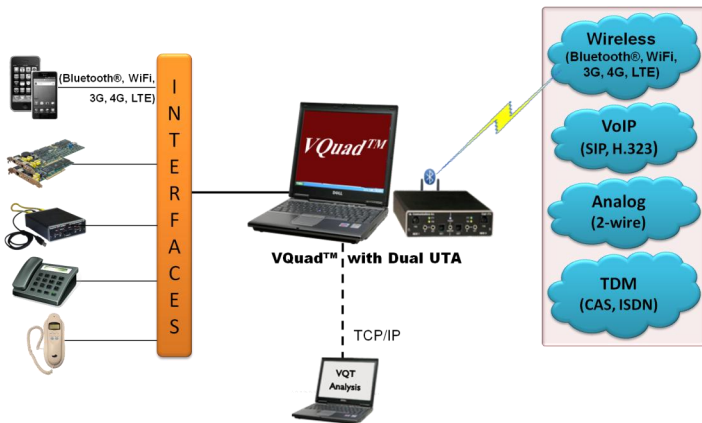


### VQuad™

New VQuad™ Probe, self contained unit includes VQuad™, Dual UTA and PC (VQT270). Control via Ethernet Remote Desktop (with support for mouse/keyboard).

VQuad™ with Dual UTA provides an active single box QoS solution generating calls and sending/recording voice over a variety of network interfaces in an automated and synchronized manner.

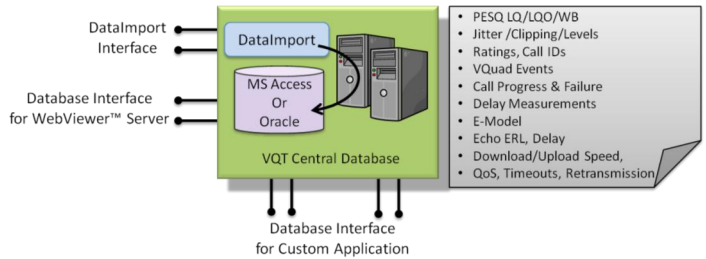
Using the VQuad™ associated applications (VQT, EMU, NetTest, VBA,...), analysis of the recorded voice files can automatically be executed with the results being transmitted to the Central database.



### Data Layer

An Oracle or MS Access database (user specified) is used to store the analytical measurement results along with all pertinent data associated with the VQuad™/VQT testing (Call Progress events, error events, timestamps, Call ID, location information). The database is accessed in real-time over the web using the WebViewer™.

A DataImport application is co-hosted with the database server running on the Data Layer. It collects the data posted by the probes and then updates the database using the collected data.

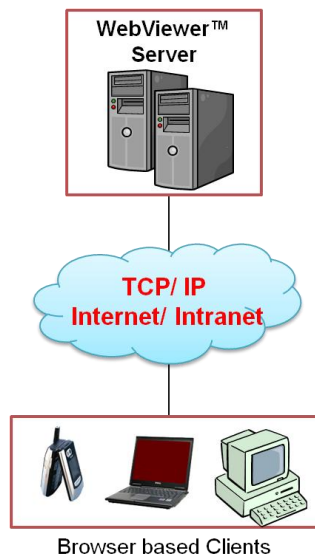


### Application Server

The WebViewer™ provides the means for accessing the VQuad™ Call Progress events, user-defined error events, delay measurement results, Data Test results, Echo Measurement results and VQT PESQ/VBA E-Model MOS measurements.

The results are queried over the internet using any browser-capable device such as desktops, table PCs, MAC systems (Mac, iPhone, iPad) or PDAs.

The application server is capable of serving the data in real-time or providing historic data based on customer selected filters.

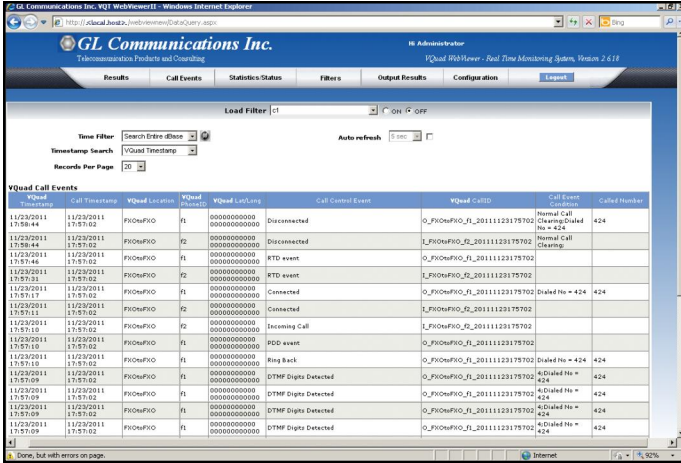


## GL Communications Inc.

818 West Diamond Avenue - Third Floor, Gaithersburg, MD 20878, U.S.A  
 (Web) <http://www.gl.com/> - (V) +1-301-670-4784 (F) +1-301-670-9187 - (E-Mail) [gl-info@gl.com](mailto:gl-info@gl.com)

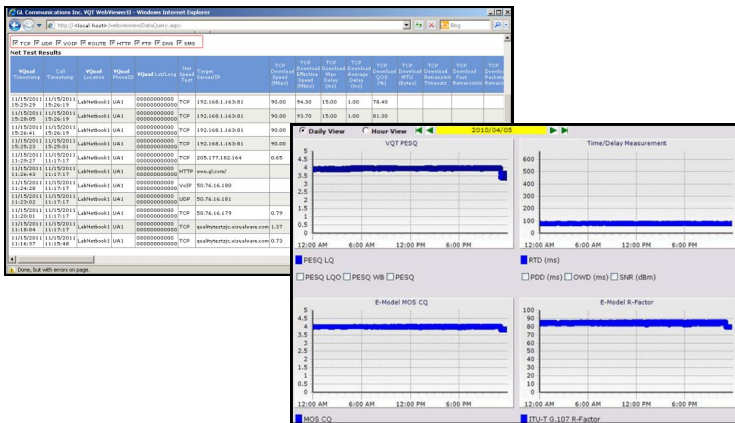
## Using the Application Server

Using any browser-capable-device, you can access all network results from anywhere in the world. When you open the WebViewer™ the following page will be displayed. The WebViewer™ can display the VQT PESQ results and ratings, VBA results including E-Model and ratings, VQuad™ Delay Measurement results (RTD, OWD, SNR, PDD), Echo Measurement results, Data Test results, FAX Events, and VQuad™ Call Control events including call failures and error events.



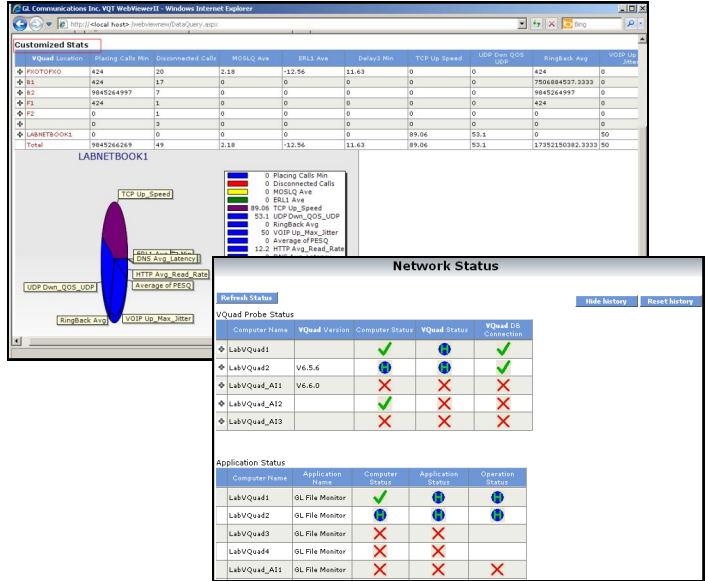
## View Results

- **VQT PESQ** - displays the VQT search results for the selected timestamp and for the specified criteria.
- **VBA (with or without E-Model)** - displays VBA E-Model results.
- **Time/Delay Measurement** - displays the calculated RTD(ms), OWD(ms), PDD(ms), SNR(dBm) measurements.
- **Voice Quality Graphical Display** - graph shows the VQT PESQ and VBA E-Model results according to Daily View or Hourly View.
- **Echo Measurement** - displays ERL (dB) and echo delay (ms).
- **DataTest Measurement** - displays upload/download speed, QoS, Timeout, Retransmission and other results related to TCP, UDP, VoIP, Route, HTTP, FTP, DNS & SMS tests.
- **Fax Events** - displays Duration (sec), Error, Event, Modem, Starting Speed, Final Speed, Completed Pages, Tx/Rx lines, Bad Lines, Encoding, Resolution, ECM (Error Correction Mode).



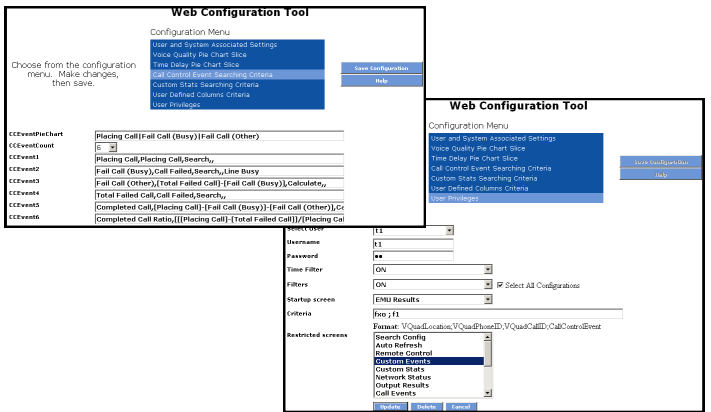
## Statistics/Status

- **Call Events** - customized Call Control Events are reflected in the Call Event Statistics view.
- **Time Delay Statistics** - displays customized delay measurements including RTD/OWD/SNR/PDD and associated Time Delay Pie Chart.
- **Voice Quality Statistics** - displays pie chart and measurements for both VQT (PESQ) and VBA (E-Model) parameters.
- **Customized Stats** - displays pie chart for the selected probes and records available in the database.
- **Network Status** - provides real-time status of all VQuad™ probes along with the VQT/VBA and Central Location status.



## Web Configuration Tool

The available configuration menu options are used to customize the search criteria. User and System Associated Settings, and the User Privileges options are accessible only by Admin to restrict the access and to control login details. However, users can customize the display and search criteria using Voice Quality pie chart slice, Time Delay Pie Chart Slice, Call Control Event & Custom Stats Searching Criteria, and User defined columns criteria configuration options.

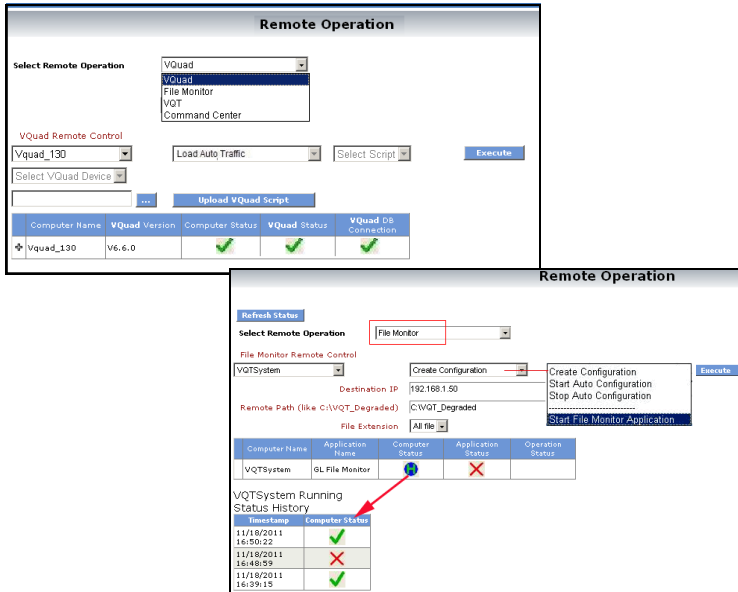


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### Remote Access

The systems (Command Center, VQuad™, VQT, File Monitor) that work in conjunction with the WebViewer™ can be accessed or controlled remotely through this web interface.

The various options are available to operate and control the systems remotely such as Start the application, Configure by loading the required scripts, Executing, and also to Stop and Exit from the applications.

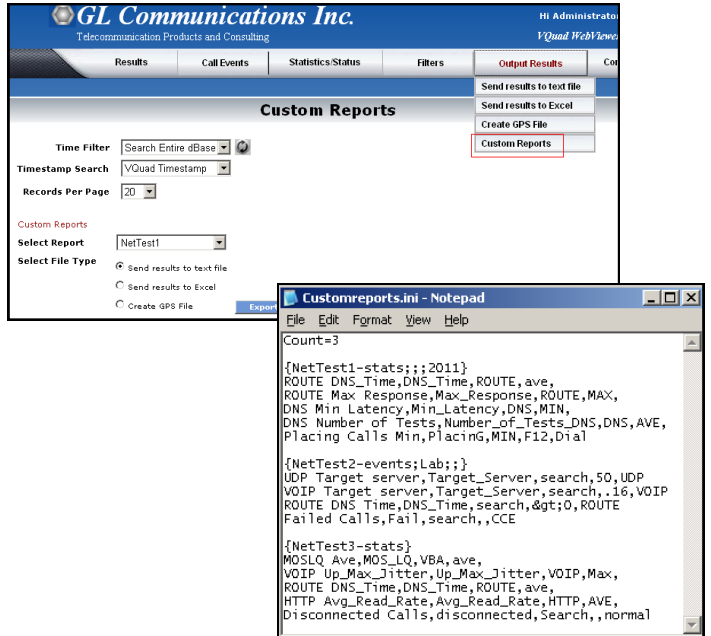


### Output Results

The user can save the search results to a local PC in \*.xls or \*.txt file formats.

Custom reports for the specified Events and stats criteria in the customreports.ini file are accessible via WebViewer™.

DataImport includes an option to customize the reports to be generated with different Custom Events (User-defined), and Custom Statistics criteria. The configurable customreports.ini file is located in the installation directory.



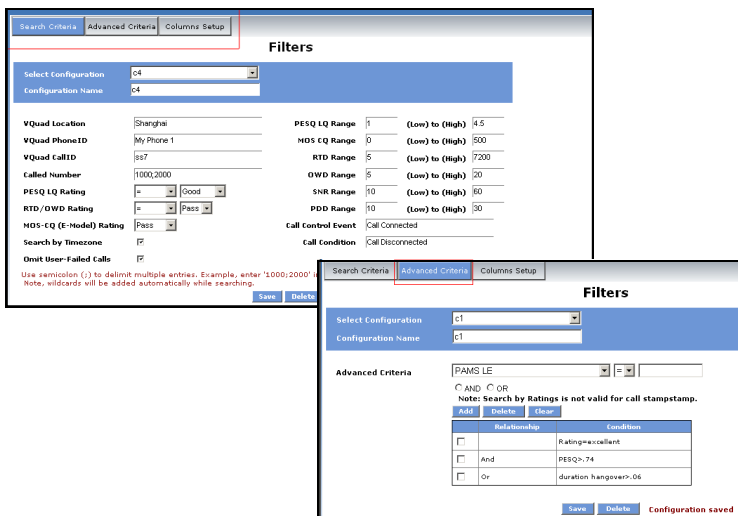
### Filters

Filters include options to configure Search Criteria (VQT, VQuad™), Advanced Criteria (VBA, VQT), and Column Setup for display.

Using the Search Criteria, the user may filter the search based on a variety of criteria including Called Number, Ratings, Measurement Range, and User-Specified Events.

Using Advanced filter Criteria VQT and VBA parameters can be ANDed or Ored to create filter conditions.

Using Column Setup, the VQT results display columns can be customized.



### Buyer's Guide

#### Related Software

- [VQT040](#) - VQT Web Viewer™
- [VQT041](#) - VQT Web Viewer™ w/ Oracle Database
- [VBA032](#) - Near Real-time Voice-band Analyzer
- [VQT010](#) - VQuad™ Software (Stand Alone)
- [VQT270](#) - VQuad™ Probe with Dual UTA
- [VQT030](#) - VQuad™ Command Center
- [VQT002](#) - Voice Quality Testing (PESQ only)
- [VQT600](#) - Data Server
- [VQT601](#) - Mobile Device Controller (MDC) Software
- [VQT610](#) - Target Server
- [VQT018](#) - VQuad™ Lite with Dual UTA FXO & Bluetooth® Devices
- [VQT241](#) - Dual Universal Telephony Adapter (UTA)
- [VQT242](#) - Dual UTA Bluetooth® Option
- [EMU037](#) - Echo Measurement Utility (EMU) Software
- [VQT442](#) - Mobile Audio Interface for Smartphones
- [VQT443](#) - 3-wire headset interface Adaptor for Smartphones
- [VQT204, VQT204u, VQT204e](#) - GPS for Dual UTA
- [VQT022](#) - VQuad™ Fax Emulation



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