



# VOICE QUALITY MEASUREMENTS

(VQM)  
for Ribbon

## VQM DASHBOARD

Cordell's Voice Quality Measurements (VQM) utilizes Linux VM Ware™ or a Cordell AC or DC powered platform to collect and store CDR files for up to a year. With its User-Friendly Dashboard, VQM allows personnel to access Ribbon Call History Server CDR information (incorporating originating and terminating WireShark™ data into a single call record) to easily generate reports. Connectivity to the Ribbon C15™ is accomplished via telnet connectivity. CSV files allow for easy downloading of database information.

The system includes as standard, advanced graphing capabilities for Round Trip Delay (RT), Jitter, Packet Loss and MOS score graphing. VQM includes several standard reports and searches, such as 911, Carrier totals, originating/terminating CDR etc. Personnel also has the option to build and store these as required.

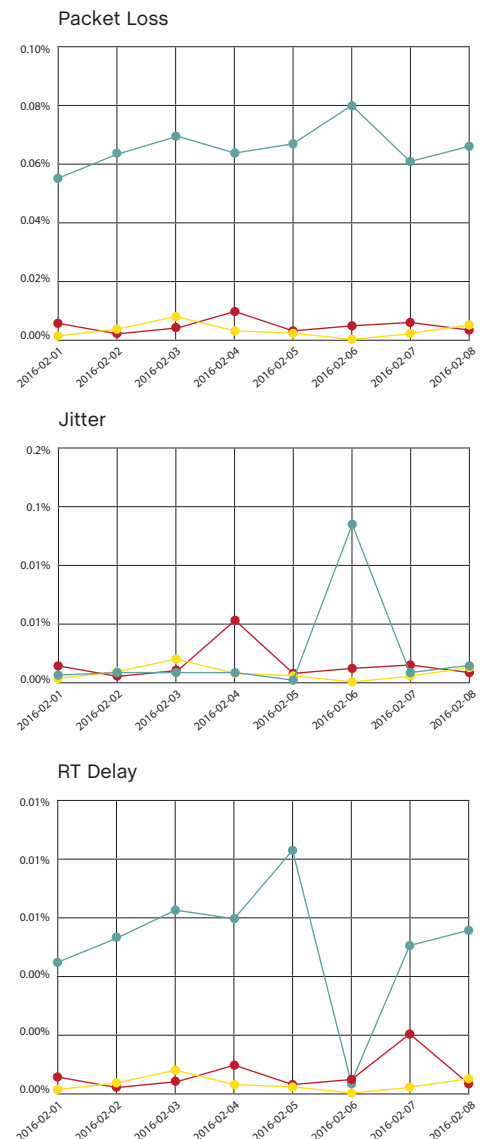
## Call Record Reports

- MOS Scores
- Track International Call Abuse
- Usage by Carrier and Trunk
- Directory Numbers Search - ORIG and TERM

**Troubleshooting:** User-friendly Dashboard GUI, simple selecting of value on the graph to see the Call Records (and DN) with problems.

## Graphs and Reports

- Packet Loss
- Jitter
- Round-Trip (RT) Delay
- MOS Scores
- Repetitive "Robo" calling Alert via Alarm
- Nuisance Calling (same number) - Alarm
- Discover - Disconnected Phones with Traffic
- Alert Due to High Traffic



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## Composite Values:

Based on the 3 VQM Measurements (Packet Loss, Jitter, and Round-Trip Delay), we are able to calculate a composite value that represents the overall quality.

The composite value can be expressed as Rating Factor (or R Score) with a range from 0 to 100, or a MOS (Mean Opinion Score) with a range from 1 to 4.5.

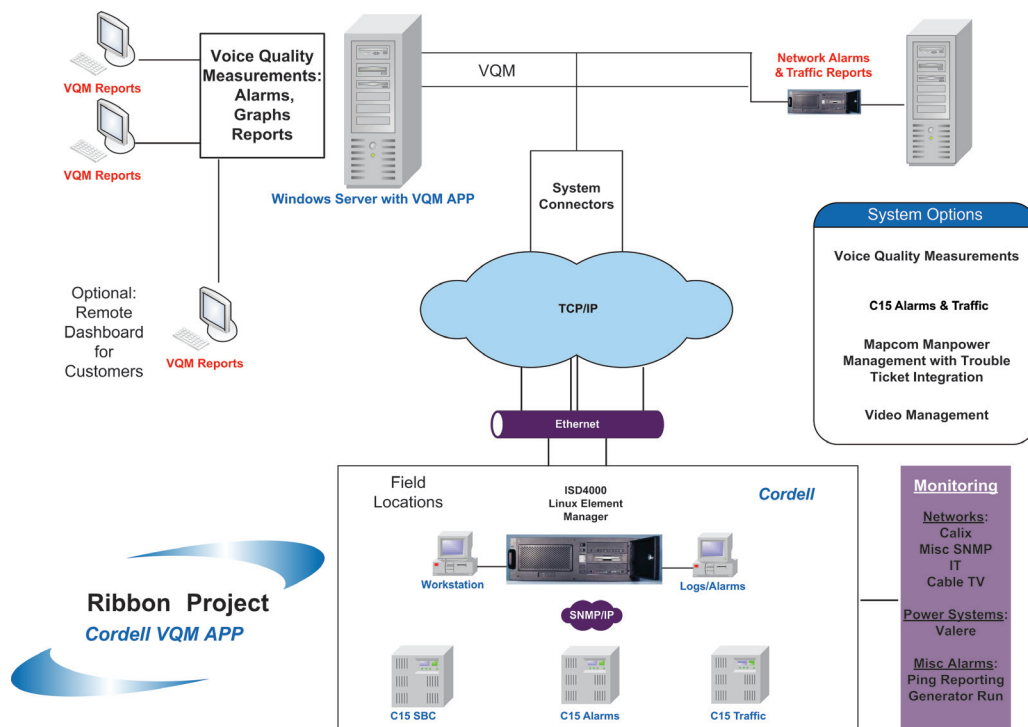
R Score	Satisfaction Level	MOS
90-100	Excellent	4.3+
80-90	Satisfactory	4.0-4.29
70-80	Warning	3.7-4.0
60-70	Minor	3.2-3.6
50-60	Major	2.7-3.1
0-50	Critical	1.0-2.6

## GUI with Dashboard Included

Ability to allow access to your customer or other departments.

NOTE: They can see only their data.

## Cordell Voice Quality Measurement for Ribbon C15



## Acceptable VM Platforms:

- Microsoft HyperV
- VM Ware OVF
- KVM

## Requirements:

(Based on system size.)

- VQM: VM Platform
- 2-4 Platform Cores
- 8GB-32GB RAM (Depending on Switch size)
- 500GB-1TB of Storage