

# Tenor<sup>®</sup> Monitor



Tenor Monitor Alarm Events screen shot. Chart depicts Status, Alarm Number, ID, State, Severity, Source and Description.

**Tenor<sup>®</sup> Monitor**

User-friendly GUI

Monitor Alarms

Monitor Call Events

Monitor CDRs

Collect, Sort and Analyze Data

Create charts

Navigation Tree

Web-based On Line Help

## New Flexible Graphical User Interface (GUI) Monitors Tenor Network

**Tenor Monitor** is Quintum's extremely flexible, most user-friendly tool for monitoring alarms, call status, and CDRs on a Tenor-based VoIP network in real time. The Tenor Monitor offers a host of features that allows network managers to monitor up to 1000 alarms, 10,000 call events and 10,000 CDRs on Tenor equipped VoIP networks, right from their desktop.

The **Tenor Monitor** allows managers to collect, sort and analyze a vast amount of data. It offers a directly accessible navigation tree, built-in email capability, online debug tracers, easy to use chart management and a content-sensitive web-based on line help function.

### **Tenor Monitor provides a rich set of VoIP network monitoring capabilities including:**

- Alarm monitoring, which provides alarm viewing, collecting, and reporting via statistical tables and line charts.
- Call monitoring, which includes call viewing (auto display or on demand), continuous call event collection, and call management which can include monitoring start time and duration.
- CDR Monitoring, including viewing, collection and reporting.

Functionality allows users to control the refresh time, record buffer size, pre-schedule monitor start times, duration and/or end times. Users can get a one-time snapshot of currently active alarms or calls on a specific Tenor.

A vast amount of data can be placed into comprehensive statistical line charts, with multi-column sorting capability. The records are color-coded to easily determine the criticality of the alarm, call state and disconnect cause code.

**Tenor Monitor** can monitor up to three Tenor VoIP switches simultaneously, each of which has an embedded Tenor Monitor Agent that can handle up to eight simultaneous Tenor Monitor sessions. The Tenor Monitor Client can display up to 18 real time statistical line charts at one time.

**A comprehensive way to monitor all Tenors in VoIP networks**

**Quantum Tenor Monitor** provides a centralized real time Alarm, Call Event, and Call Monitoring with comprehensive statistical line charts and tables with multi-column sorting capability.

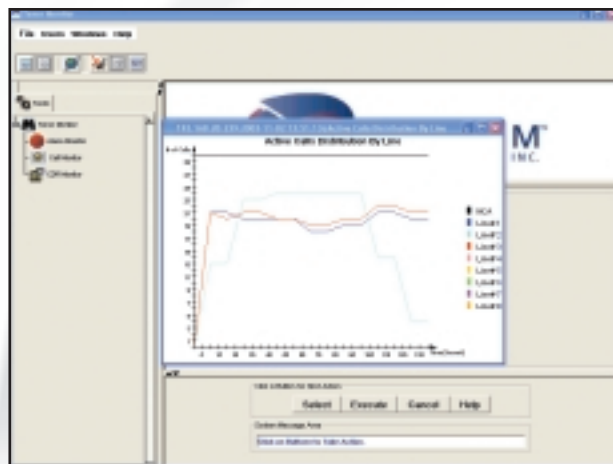
**User Controllable Monitoring Parameters:** Display Refresh Time, Record Buffer Size, Monitoring Start Time and Duration.

**High Performance Call Event and Call Detail Record Collecting:** Provides real-time Call Event and CDR Registration to a Tenor. The Tenor will send Call Event Records and Call Detail Records in real time back to the Call and CDR Monitor. Run time buffers are used to store all records.

**Content-Sensitive Web-based Online Help:** Providing content-sensitive web-based online help via a Help button. After a user clicks on the "Help" button and drags the cursor to a particular object on the screen, the system will display the corresponding html help page. It also provides a Help menu for the user to access the Table Of Contents of the on line help document.

**Cut-through Tenor CLI Interface:** This feature provides a telnet Command Line Interface (CLI) to a Tenor simply by entering the IP address of the Tenor.

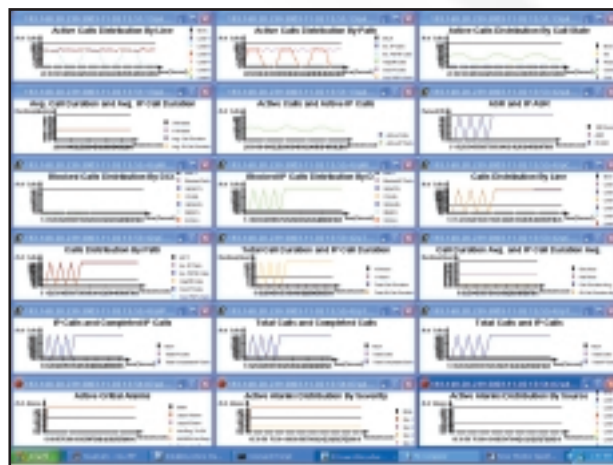
Quantum's Tenor Monitor is the first step of Quantum's solution to a network manager's goal of having a set of VoIP network monitoring tools that will allow them to oversee, address and improve their Tenor VoIP network conditions in a real time manner.



Charts can be created for such criteria as: Active Call Distribution by line, by Call State, Call Path, Active Calls vs. Active IP Calls, Call Duration, etc.

Call ID	Called #	Caller #	Duration	Initiation Time	Connection Time	Disconnect Time
1000000001	1000000001	1000000001	00:00:00	00:00:00	00:00:00	00:00:00
1000000002	1000000002	1000000002	00:00:00	00:00:00	00:00:00	00:00:00
1000000003	1000000003	1000000003	00:00:00	00:00:00	00:00:00	00:00:00
1000000004	1000000004	1000000004	00:00:00	00:00:00	00:00:00	00:00:00
1000000005	1000000005	1000000005	00:00:00	00:00:00	00:00:00	00:00:00

CDR Table showing Call ID, Called #, Caller #, Duration of the call, Initiation Time, Connection Time and Disconnect Time.



Charts can be created for a variety of call states and alarms, and can be manipulated and sorted simply by clicking on a column.