End to End Service Level Management for the Entire Cisco Unified Communications Ecosystem

The ReliaTel VoIP and Unified Communications Management Solution is the ideal platform to monitor, manage, and optimize the Cisco VoIP, UC, and collaboration ecosystem that drives business communications for many of the world’s largest organizations.

ReliaTel delivers comprehensive, end-to-end management across the entire Cisco environment including the Cisco UCM cluster at the core, the vast user population of endpoints, third party components such as Session Border Controllers, and the entire underlying communications transport infrastructure.

Enterprises, Contact Centers, Managed Services and UCaaS Providers around the globe leverage ReliaTel to drive higher Cisco service levels, using key ReliaTel capabilities to:

- Optimize UC Performance
- Ensure Quality and User Experience
- Increase Availability and Reliability
- Define, Maintain and Track SLAs
- Lower Mean Time to Repair
- Audit User Activity
- Increase Support Staff Effectiveness
- Automate Operational Processes
- Reduce VoIP and UC Operating Costs
- Ensure ROI from UC Investments

ReliaTel expertly monitors and maintains Cisco environments through a powerful, unified management design that proactively connects, extracts, alarms, notifies, reports, and provides secure access to Cisco VoIP, UC, and network technologies through a single pane of glass.

Enterprises, UCaaS and Managed Service Providers report ReliaTel delivers proven business value:

- “Reduced overall mean-time-to-repair by 27%”
- “Decreased engineering backlog by 50%”
- “Increased client satisfaction rates to 95%”
- “Saved over $84,000 in operational costs the first year of utilization”

Strategic Business Benefits for Enterprises and Service Providers

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Enterprises, Managed Service Providers, and UCaaS Providers all gain strategic operational and business benefits through the ReliaTel service assurance solution, such as:

- Voice and Network teams utilize ReliaTel’s real-time monitoring of key quality and performance analytics to preempt and resolve issues prior to service impact.
- Network Operations Centers utilize ReliaTel’s graphical real-time dashboards and deep diagnostics to optimize VoIP and UC operations.
- Management teams utilize ReliaTel’s dynamic service level dashboards and extensive reporting to reduce operational costs and plan resource needs.
- Managed Service Providers utilize ReliaTel’s rebrandable management portal, multi-tenant design, and extensive service reports to profitably manage client environments.
- UCaaS Providers utilize ReliaTel to ensure the quality, stability, reliability, and availability of the core UC communications services they deliver to clients.
A Complete Cisco Service Assurance Solution

Whether you are monitoring the CUCM cluster, Catalyst switches, or MGX edge devices, ReliaTel provides a scalable, adaptable solution that manages the evolving Cisco ecosystem. Utilizing a unique combination of real-time monitoring and in-depth performance analysis, ReliaTel delivers advanced operational management capabilities, including:

- Proactive fault and service level management
- Advanced notification with extensive escalation rules
- Real-time VoIP QoS and QoE analysis
- Dynamic Dashboards for Performance and Quality
- Interactive Knowledge Base to speed remediation
- Troubleshooting tools to diagnose and resolve issues, including VPN-less remote access and traceroute
- Performance Reporting to pinpoint recurring issues
- Traffic, CDR, and Capacity Reporting to ensure quality, resource availability, and throughput
- Automation for routine processes, data extraction, automated recovery, and scheduled maintenance

ReliaTel Comprehensive Cisco Support and Data Acquisition

ReliaTel monitors and manages an extensive array of Cisco Unified Communications and networking platforms, including:

- Unified Communications Manager
- Universal Gateways such as AS5300, AS5800 Series
- Access Routers from 2800 to 7000 Series
- Analog Gateways such as VG220, VG224
- Catalyst Switches
- Contact Center Servers and Gateways
- SIP Proxy Servers
- Cisco MGX Edge Concentrators

- Cisco Voice Portal suite
- PGW Softswitch suite
- Cisco IM/Presence, Jabber
- Cisco Telepresence - MXP, TMS, VCS
- Unified Contact Center Express 7
- Unified Intelligence Portal, Unified Meetingplace
- Unity Voicemail
- Related applications, systems, and servers

ReliaTel data acquisition for Cisco UCM platforms includes SNMP, database monitors, application SYSLOG events and AXL interfaces that provide all OS and Communication Manager service alerts. For Cisco networking devices, a combination of SNMP and Telnet/SSH access provides vital information including module status, interface alarms and performance results. Through ReliaTel's versatile data acquisition techniques, users gain access to all alarm, quality, status, connectivity, and performance metrics that are either polled or received from managed devices.

Flexible Configuration and Ease of Deployment

ReliaTel's architecture provides easy deployment through a variety of configuration models, including a cloud-based remotely hosted option that minimizes installation, administration, and support, as well as a classic premise-based configuration that provides maximum control and flexibility within your operations center. Further, the ReliaTel architecture provides:

- Support of virtualized central servers that scale to grow with your services
- Remote data collection agents in both a virtualized and stand-alone configuration to best meet your clients' needs
- Use of standardized device management libraries to expedite client on-boarding and activations
ReliaTel Cisco Fault and Service Level Management

ReliaTel delivers proactive fault and service level monitoring for Cisco UC environments, providing a single pane of glass for all Cisco-related alarms, as well as third party systems and transport layer devices.

ReliaTel intelligently detects issues and anomalies by analyzing and applying user customizable thresholds to collected data. Customizable severities, alarm notification and escalations deliver critical early warning to ensure that service levels are protected and business needs are met.

ReliaTel provides deep diagnostics and visibility for numerous conditions:

- Hardware faults
- Operating system faults
- Cisco application faults and failures
- Network connectivity faults
- VoIP QoS faults and degradation
- VoIP Gateway alarms
- Router and switch module issues
- Link status and alarms
- Server interface issues
- Database availability
- Network interface alarms
- Performance issues
- Layer 2 changes
- IP Phone status and failed conditions
- Collaboration endpoint issues

Monitoring and alarming is easily implemented using the ReliaTel off-the-shelf Foundation Kits that include a complete library of alarms, severities, connection types, automation events and intelligence required to manage Cisco technologies “out of the box.” Foundation Kits significantly reduce system and device implementation time, and expedite client activations for Service Providers.

Key troubleshooting tools provide operations and engineering staff with powerful capabilities to rapidly diagnose and resolve issues, including:

- Prioritized traceroute, on demand or scheduled periodically
- Cut-through secured remote access to monitored devices via RDP, VNC, SSH, Telnet, and more
- “Blacklisting” unique alarms to reduce the “noise” for specific end points
- Extensive logs of all user, message, alarm, and device activity

Using ReliaTel’s advanced alarm notification engine, automated actions can be executed directly on managed devices based on specific conditions.

ReliaTel Cisco VoIP and UC Knowledge Base

ReliaTel’s Knowledge Base provides manufacturer-recommended actions to resolve Cisco-specific alarms generated by each Cisco device. The Knowledge Base is delivered off the shelf with recommended actions for numerous Cisco components, and also allows operations teams to add their installation-specific intelligence to the system actions.

Through the portal, support teams have immediate access to the expertise required to resolve alarms more rapidly and accurately, using:

- Both system and user defined recommended actions
- Documentation and hyperlinks related to the component
- Actions for ping and trace routing to the device
- Alarm trends, and recurring alarm behavior for the device
- Instant access to centralized logs displaying every message retrieved from the device
ReliaTel Cisco Real-Time VoIP QoS and UC Quality Management

ReliaTel’s Cisco Quality of Service solution delivers live analysis and real-time capture of session statistics for every call traversing the environment, providing in-depth measurement and mitigation of QoS and QoE affecting issues. Passive analysis of live RTP sessions provides extensive quality metrics and real-time calculation of Mean Opinion Score for each call, including calls in progress, as well as the aggregated quality and performance impact of multiple concurrent calls.

ReliaTel enables users to quickly pinpoint VoIP and UC quality degradation as it happens by providing deep visibility into underlying network performance events occurring at the time of degradation. Through ReliaTel, users can rapidly identify and resolve the true root cause of quality issues using deep analytics, such as:

- Mean opinion score (MOS)
- Codec
- Latency, Delay
- Endpoint extension and IP address
- Jitter
- Packet priority
- Packet Loss
- R-factor

The ReliaTel dynamic Cisco QoS Dashboards deliver real-time visibility into quality conditions as they change, and include key troubleshooting tools, including:

- Real-time QoS trend views
- Interactive historical call views
- User active call views
- End-user QoS records correlated to CDR records
- QoS thresholds for alarming

ReliaTel detects quality issues as they occur, pinpoints their exact cause, and provides interactive dashboards that enable staff to rapidly resolve quality affecting problems before users are impacted.

ReliaTel Cisco Dynamic Performance Management Dashboards

The ReliaTel Performance Dashboards provide continuous, real-time visibility into Cisco communication and networking performance analytics and trends. Through the dashboards, Management, Operations, and Network staff have the business-critical metrics needed to quickly identify the specific resources at risk for Service Level Agreement violations, and business-impacting performance degradation. Dashboards include Cisco-specific analytics such as:

- Call Activity
- Registered Devices
- Channel Activity
- Call Activity Type
- Analog Access
- Annunciator Activity
- Authenticated Calls and Phones
- BRI Activity
- Bandwidth Available
- Average Expected Delay

ReliaTel Dashboards also include granular and aggregated metrics for a vast array of device related health and performance statistics, including:

- CPU Utilization
- Memory Utilization
- Disk Usage (Physical)
- Bandwidth Utilization (In/Out)
- Disk Usage (Logical)
- Interface Errors (In/Out)
- Network Utilization Table
- Response/Latency
- Running Processes
ReliaTel Cisco Performance, Quality and Capacity Reporting

ReliaTel provides a complete suite of Alarm, Performance, Quality, CDR, and Capacity management reports that deliver deep operational insight into the Cisco VoIP and UC environment. Through ReliaTel’s customizable reporting, users gain the deep analytics necessary to identify recurring issues, performance trends, resource utilization, call quality fluctuations, and traffic patterns at both the aggregated environment-wide level as well as a granular device, user, or individual session level.

ReliaTel Reporting for Cisco environments includes:

- Communication Manager Reports including hourly, daily, and weekly call activity
- Registered devices, channel activity, analog port access
- Annunciator activity, authenticated calls, BRI activity, transcoding resources
- Call Admission Control (CAC), busy hour, traffic analysis, gateway utilization
- CDR/CMR raw records reports (Correlated to the QoS records for the user endpoint calls)
- Route Group Reports including peak utilization and call concurrency per route group
- Phone failed reports, device status reports
- MGCP gateway reports

ReliaTel Key Business Benefits

Business Enabling Technology to Ensure Unified Communications Success and ROI:

- Manages Broader, Deeper Range of VoIP, UC, and Collaboration Technologies
- Increases VoIP and UC Service Levels, Quality, Availability, and Reliability
- Manages all TDM, VoIP, UC and Collaboration Platforms, plus IT Network Components

Maximizes Total Cost of Ownership While Driving Strategic Business Objectives:

- Provides a Unified Solution Across the Environment, Eliminating Multiple Proprietary Tools
- Reduces NOC Overhead and Operational Costs, Lowers VoIP and UC Support Costs
- Integrates with Existing OSS Tools, Ticketing, Network Management Systems, and Others

Ensures VoIP and UC Quality, Network Performance, and Communications Service Levels:

- Increases Real-time Operational Visibility and Control
- Knowledge Base Expands Staff Expertise and Ability to Support VoIP and UC Network
- Speeds Diagnostics, Mean-Time-to-Repair, Increases Accuracy of Resolutions
- Automates Maintenance and Recovery Processes, Improves Support Productivity
- Provides Actionable Insight through Quality, Performance, and Capacity Reporting

About Tone Software Corporation

TONE SOFTWARE is a global provider of monitoring and management software for business communication and collaboration ecosystems, and the IT infrastructures they rely on. TONE’s ReliaTel provides a unified approach for managing diverse communications and network technologies across the industry’s leading devices, and multiple vendors’ platforms, to ensure quality, availability, service levels, and return on investment.

Based in Anaheim, California, TONE is a privately-held corporation with over 40 years of experience and dedication to delivering quality solutions, exceptional technology expertise, and unparalleled service and support for our valued clients.