



Performance Management

Now that your end-points are IP-enabled, are you confident you...

- ◆ Are efficiently monitoring server health, gateway capacity, media resources and device registration?
- ◆ Have visibility into bandwidth consumption & capacity on Monday morning when Voicemail traffic typically increases?
- ◆ Have defined thresholds for optimized voice performance?
- ◆ Are proactively alerted when call quality drops below acceptable levels?

Clarus Systems, a leading provider of integrated management and testing solutions for IP Communication and Contact Center deployments, upgrades and transformations, introduces Performance Management capabilities that allow you to take control of your mission critical applications by proactively monitoring voice quality, performance, and security. Included only in the latest release of ClarusIPC® Plus+, enhanced monitoring and alerting takes an end user perspective and provides actionable, near-real time insight into exactly what's happening within your Unified Communications environment.



Actionable Insight to MEASURE, MONITOR & ALERT

- ◆ *Voice Quality*
- ◆ *Service Availability*
- ◆ *Voicemail Access*
- ◆ *Call Routing*
- ◆ *Security & Compliance*
- ◆ *Server Health*
- ◆ *Gateway Capacity/Status*
- ◆ *Device Registration*
- ◆ *Media Resource Availability*

DIAGNOSE | TROUBLESHOOT | VALIDATE

New Monitoring & Alerting Features

Clarus Systems' capabilities have come full circle with the latest version of their flagship application, ClarusIPC Plus+, which delivers strategic solutions for efficient management of IP communications at each stage of the lifecycle.

This new version extends the company's integrated pillar approach to empowering Unified Communications by offering system validation through troubleshooting and diagnostics, business intelligence for detailed reporting and analytics, and performance management to define thresholds for optimized voice performance including server health, gateway capacity, media resources and device registration.

Built upon monitoring and alerting capabilities of Voice Monitor, including:

- ◆ Voice Quality
- ◆ Service Availability (calling and voicemail access)
- ◆ Incorrect Call Routing
- ◆ Security & Compliance

Performance Management capabilities provide actionable, near real time insight into what's happening within the UC environment. ClarusIPC Plus+ 2.4 extends capabilities to monitor server health, gateway capacity, media resources and device registration, including:

- ◆ End User perspective on Voice Quality
- ◆ Business logic to make rules more actionable
- ◆ Voice Service Availability - monitoring & alerting

Identify Issues Before they Arise

Voice performance monitoring allows enterprises to set parameters within their existing workflow for specific alerts of interest that relate to their goals and objectives. Through a consistent interface, these alerts help lower downtime, improve overall productivity and automate the data gathering effort to reduce the time to repair and recover. The policy summary window lists all defined Policies; the Alert Rules they contain; the call window during which they will be enforced; the clusters against which they will be run; and their last time of execution. Alert examples include:

Bandwidth Watch	911/Emergency Calls
Ex-Employee Call Watch	Executive User Error
Gateway Low Call Volume	Incorrect Call Routing
Malicious Calling	Poor Voice Quality
Service Unavailable	Suspicious Call Activity

Managing Key Performance Indicators

Accessible through a web-based, interactive dashboard (Figure 1), the latest version of the ClarusIPC Plus+ solution integrates performance management capabilities that create real-world "What-if" scenarios to predict capacity issues before they have a chance to impact end users. By monitoring KPI's such as server health, gateway capacity, media resources and device registration, you consistently maintain the ability to estimate future bandwidth needs.



Manage Voice Efficiently

Advanced monitoring features within ClarusIPC Plus⁺, allow users to efficiently observe voice quality, call volume, service availability, and security conditions through the use of a sophisticated rules and policy engine. The application is designed to allow you to monitor Call Detail Records (CDR) and Call Management Records (CMR) using a rules-based template of custom-defined policies to set alerts and monitor system availability including:

- ◆ Poor voice quality;
- ◆ Blocked or dropped calls;
- ◆ Incorrect Call Routing;
- ◆ Suspicious or fraudulent calls; and
- ◆ Calls of long duration or to specific destinations.

By accessing critical information from Cisco Unified Communications Manager, monitoring and alerting provides intelligence to answer questions like, who made what call, when, and where. This provides a unique ability to report in near-real time, further reducing unauthorized IP Telephony calls and toll fraud.

In addition, performance monitoring helps enforce voice quality standards by utilizing the most accurate (K-factor) MOS metrics. For increased

usability, voice monitoring can apply different policies at varying times and days of the week as well as generate alerts and notification via SNMP or email.

Benefits to Service Provider & End Customer

- ◆ Decrease reaction time/mean time to repair
- ◆ Proactive monitoring of high priority issues
- ◆ Enhance security monitoring to detect toll fraud and malicious calls

New KPI & Device Registration Monitoring & Alerting Features

- ◆ Server Health
 - ◆ CUCM Server Performance
 - ◆ CUCM Services
 - ◆ Customers know when to install more CallManagers, Hard Drives, and Network Infrastructure before impacting end users.
- ◆ Gateway Call Activity
 - ◆ Number of active calls by specific gateways
 - ◆ Status of any PRI channel on MGCP controlled gateways
- ◆ Device Registration Changes
 - ◆ % unregistered by location, pool, etc.
 - ◆ Actionable insight into the state of their phones.
 - ◆ All phones in one subnet (floor) unregistered - suggests a switch issue

- ◆ All phones unregistered to a CallManager
- ◆ Media Resource Availability
 - ◆ Resources available to provide Music On Hold (MOH), Transcoding (Codec), Media Termination Points (MTP).

Proactively manage system health to prevent large-scale outages or unplanned downtime:

- ◆ Agent-less, 24x7 monitoring of the health of multiple CUCM Clusters
- ◆ User defined policies and rules for system performance thresholds
- ◆ Flexible alerting capabilities tied to each policy

Optimizing UC Strategies

As new enterprises adopt IP Telephony, more voice engineers will look to maximize the performance of their converged network. With ClarusIPC Plus⁺ performance management capabilities, you are empowered to make business driven decisions that directly impact your voice investments. Intended for Managed Service Providers and large IP-enabled enterprises, including enhanced monitoring and alerting capabilities in your overall Unified Communications strategy will provide the actionable insight necessary to effectively optimize application performance.

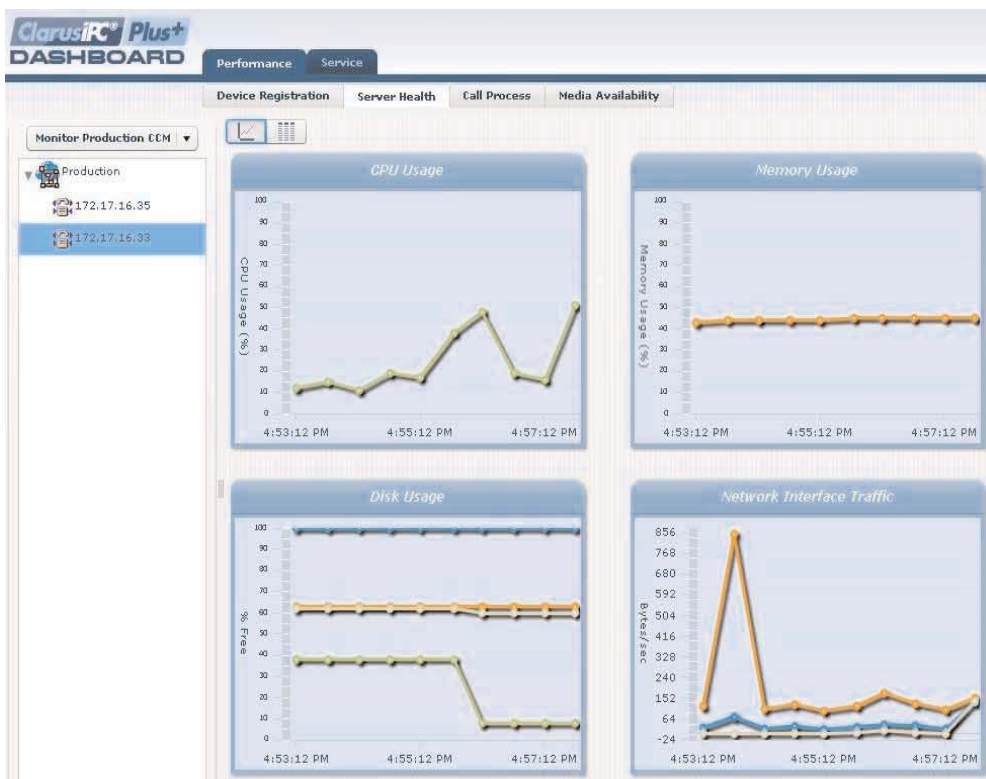


Figure 1: Interactive Performance Dashboard

ABOUT CLARUS:

Clarus Systems, Inc. provides integrated voice service management, testing and monitoring solutions for IP Communication and Contact Center deployments, upgrades and transformations. Privately held and based in Redwood City, Calif., Clarus Systems is widely recognized for its award-winning application, ClarusIPC[®], which maximizes system availability and performance through automated, end-to-end testing, monitoring, reporting, troubleshooting, and operations management. Clarus Systems' solutions ensure ongoing, validated telephony environments that can serve as the foundation for unified communications. The company attributes its success to its roster of elite Global 2000 enterprises, system integrators, and managed service providers within the financial services, aerospace & energy, and public sector & education market segments.

