

Ribbon Analytics

Advanced Intelligence for Rural Voice Communication Networks



Real time IP communications traffic continues to explode and the complexities of assuring good network performance for signaling and media traffic that support the growth of new services such as mobile and HD voice, VoLTE, VoWiFi, OTT, SIP Trunking and Unified Communication services can create operational challenges for service providers. The ability to monitor network performance metrics and Key Performance Indicator's (KPI) is essential to ensure the best possible end user service experience, and compliance with Service Level Agreements (SLA).

Overview

Ribbon Analytics suite of operations applications, is a powerful tool for visualizing, analyzing and troubleshooting all available performance, fault, packet and CDR data produced by real-time communications media, signaling, call control and application network and software elements.

With a new powerful, horizontally scalable architecture, and an enhanced interactive ability to visualize and analyze network performance data, operators can monitor end to end service quality and quickly troubleshoot and resolve network problems over periods of time.

Analytics with Interactive Dashboards

Ribbon Analytics has an interactive and intuitive user interface that displays vital network KPIs with advanced and customizable reporting dashboards. You can add as many dashboards as you need and display them in a number of formats. With Ribbon Analytics, it allows you to quickly build, edit, filter dashboards, and interactively drill down into network issues.

Monitoring of Network Performance

Ribbon Analytics' enables operators to visualize real time network performance metrics and CDR data from fixed network and software elements, such as call controllers, media gateways, policy and routing, and SBC elements.

Challenge

- Rural voice communications networks need powerful, flexible and easy-to-use analytics tools to visualize and monitor network performance

Solution

With **Ribbon Analytics** for your fixed voice network, you will be able to:

- Monitor the network for KPIs and key trends
- Troubleshoot and alert on QoE issues

Benefits

- End-to-end network visibility
- Improved operational productivity and efficiency
- Faster troubleshooting, service issue identification and resolution

See Figure 1 below on how Ribbon Analytics provides monitoring & troubleshooting capabilities for Ribbon call controller C15, and SBC's for improved operational productivity and efficiency in your fixed voice network. Ribbon Analytics retrieves the call data records from the Call History Server (CHS) and develop powerful insights and operational intelligence of actual events happening in the network.

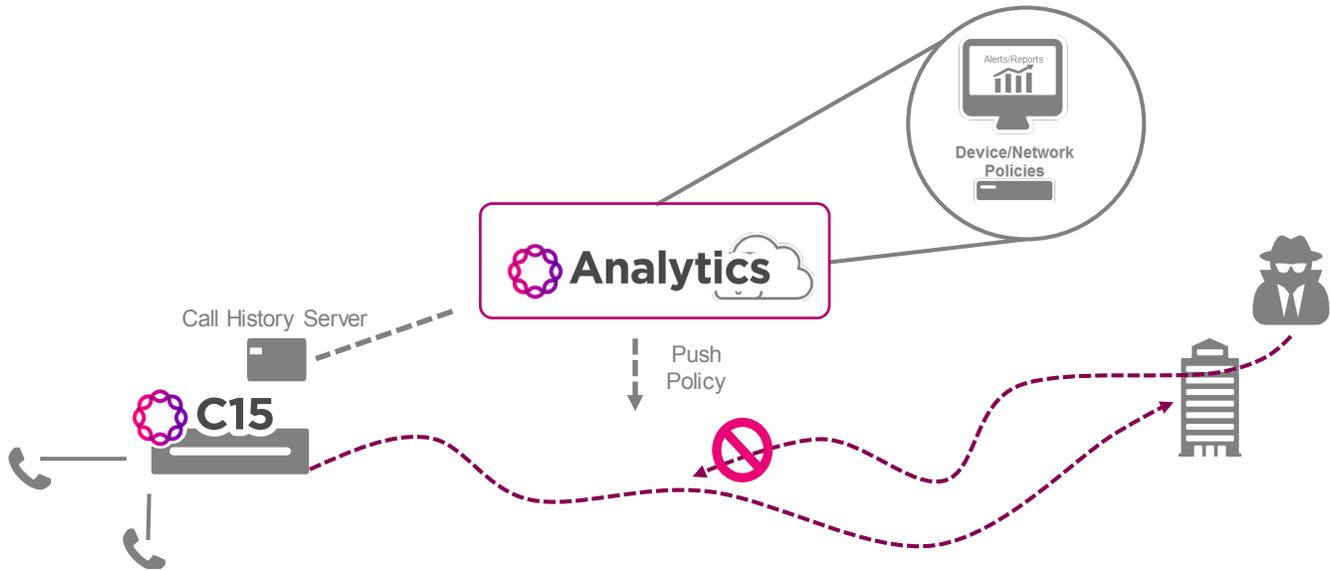


Figure 1. Monitor, Alert & Troubleshoot in C15 Network

Ribbon Analytics pulls the C15 .pcap files and uses the information to generate call records (CDRs), retrieve SIP PDUs, and retrieve call statistics (AMA billing records and QoS data). Operators can select a set of standard dashboards (Table 1) or customize dashboards to specific need and preferences, enabling flexible, interactive graphical visualizations for performance monitoring and operational report creation.

Out of the Box Dashboards	Description
Call Quality	C15 Call ASR and SIP Call MOS
Call Volumes	C15 call volumes by office, carrier, call type, and MOS
Heat Maps of the Most Frequent Calls	C15 most frequent call attempts and answered calls
C15 Report of the Top Calling DN	C15 report of the top calling DN who made the most call attempts and answered calls
C15 SIP Requests	C15 source IP who made the most SIP requests
C15 AMA and QoS Record Stats Table	C15 AMA record stats table and C15 QoS record stats table
C15 AMA and QoS Record Table	C15 AMA record table and C15 QoS record table
C15 CDR Stats Tables	C15 start CDR and stop CDR stats tables
C15 CDR Tables	C15 start CDR table and C15 stop CDR table
C15 SIP Message and Stats Table	C15 message table and C15 message stats table

Table 1. Out of the box use cases and dashboards

Finding and solving fixed voice communication network issues can be difficult or non-existent without the proper tools or end-to-end views. Ribbon Analytics enables network-wide troubleshooting and alerting capabilities based on KPIs and other metrics that cross thresholds. It helps network administrators quickly develop insights into data identified as leading indicators of potential problems, to troubleshoot operational problems, or perform root cause analysis on stored data to identify network performance issues and initiate needed improvements.

Ribbon Analytics

Ribbon Analytics leverages big data framework to respond to real-time communications operations, security and network quality incidents faster, more intelligently, and more efficiently. The heart of the Ribbon Analytics platform is its incident management, anomaly detection and policy mitigation capabilities. Figure 2, shows the Ribbon and other 3rd party elements supported by the platform to collect and analyze data across the entire communications network making it available to Ribbon Analytics applications.

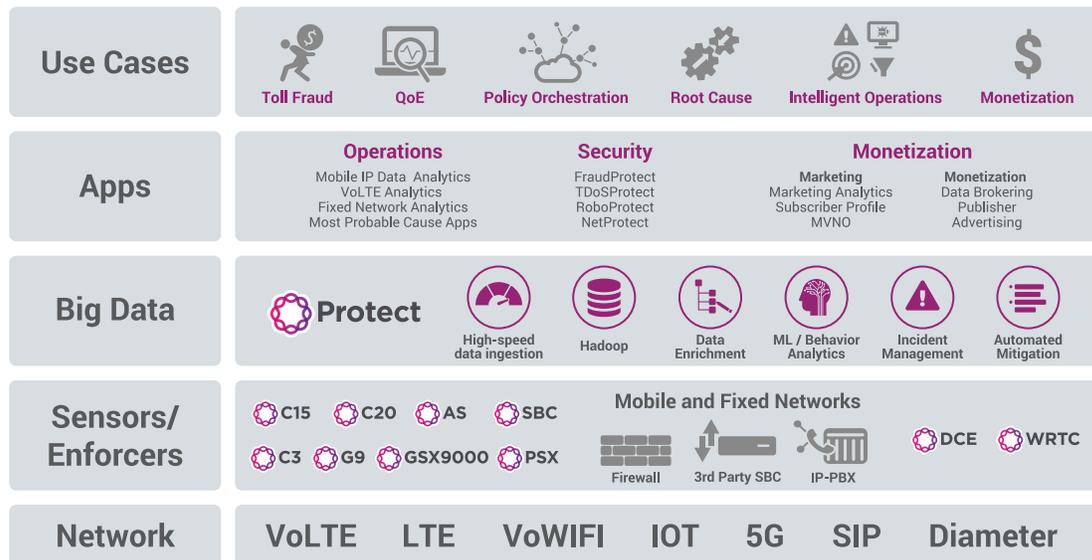


Figure 2. Ribbon Analytics

Summary

Ribbon Analytics application collects available fault, performance metrics, packet and CDR data produced by fixed voice communication network and software elements. Utilizing Ribbon Analytics customized interactive user interface to display reports, heatmaps, charts, and real time visual alerts, service providers can get better insights to increase network efficiency, improve bottom line and deliver the QoS and SLA guaranteed to customers.

About Ribbon

Ribbon Communications (Nasdaq: RBBN) delivers communications software, IP and optical networking solutions to service providers, enterprises and critical infrastructure sectors globally. We engage deeply with our customers, helping them modernize their networks for improved competitive positioning and business outcomes in today's smart, always-on and data-hungry world. Our innovative, end-to-end solutions portfolio delivers unparalleled scale, performance, and agility, including core to edge software-centric solutions, cloud-native offers, leading-edge security and analytics tools, along with IP and optical networking solutions for 5G. We maintain a keen focus on our commitments to Environmental, Social and Governance (ESG) matters, offering an annual Sustainability Report to our stakeholders. To learn more about Ribbon visit rbbn.com.

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