Ribbon Analytics

Advanced Intelligence for Fixed 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

- Fixed 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
- Toubleshoot 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 C20, media gateways (G6, & G9), and SBC's for improved operational productivity and efficiency in your fixed voice network.
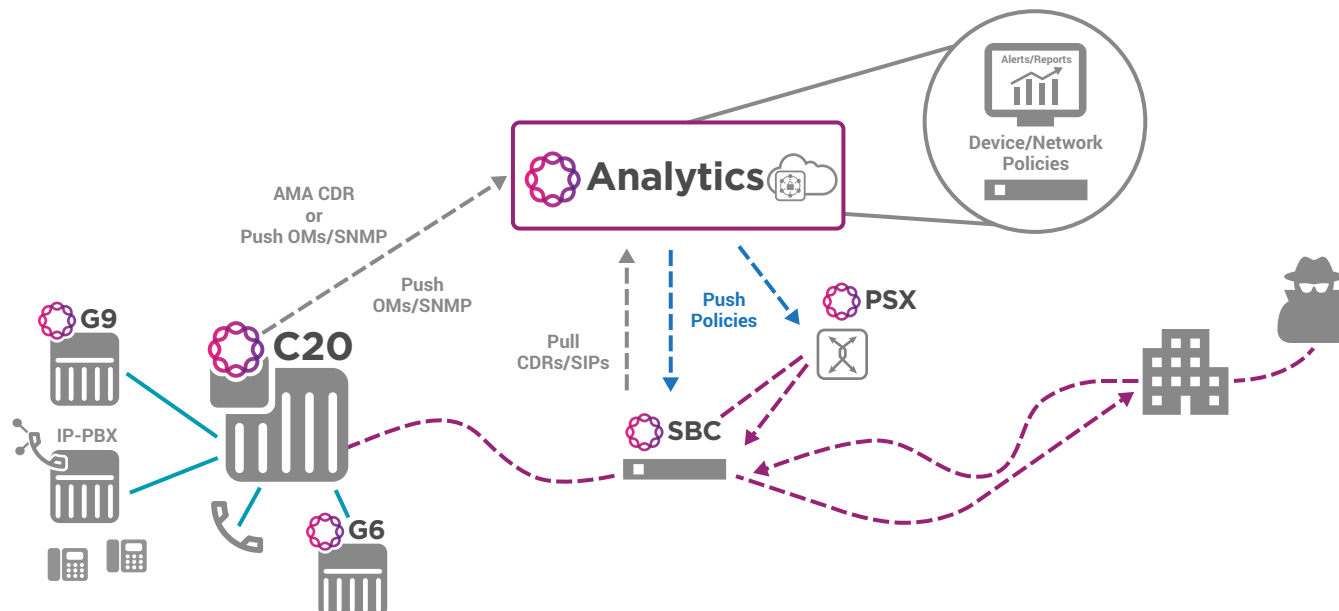
Figure 1. Monitor, Alert & Troubleshoot in C20 Network

The result is the ability to develop powerful insights and operational intelligence of actual events happening in the network. Operators can select a set of standard dashboards or customize their own according to their specific needs and preferences, enabling flexible, interactive graphical visualizations for performance monitoring and operational report creation. See Figure 2 below for a sample of the types of data that can be displayed on the dashboard.network.
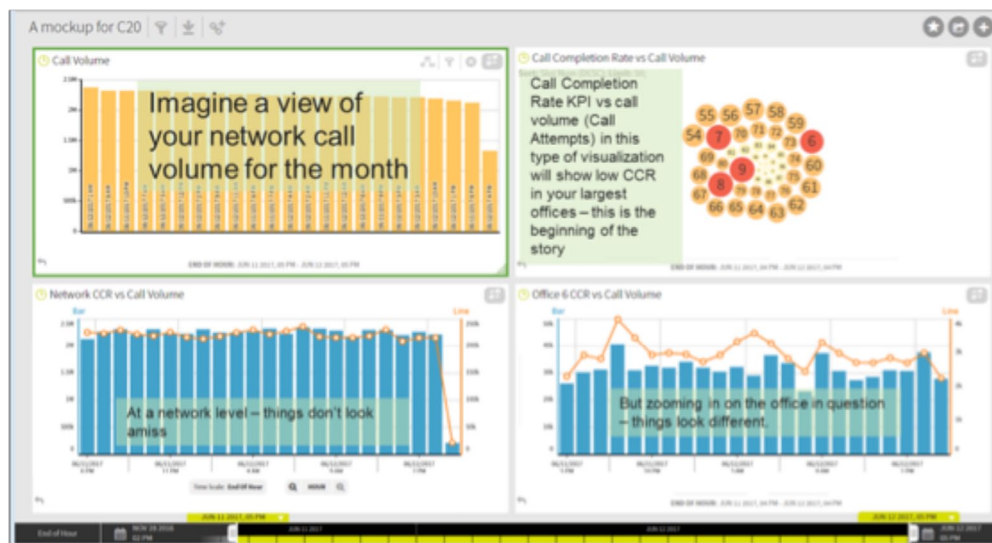
Figure 2. Dashboards for C20 Usage, Network Health, and Traffic Patterns

Key Performance Indicators (KPI) Aggregation Levels – examples (For Ribbon C20, G9)

- Announcement utilization
- Call Types
- CCB and CP Utilization
- Call completion rate
- System Memory studies
- Line Study
- Trunk Type Study
- Trunk QoS Study
- XPM Occupancy
- Call Stats
- Calling Number Analysis

Standard Key Performance Indicators (KPI) – examples (For Ribbon C20, G9)

- Ingress or Egress MOS
- Internal/Far-End Congestion
- Max active channels in a Trunk Group
- Network Effectiveness Ratio
- Peak Call Rate
- Peak trunk group utilization
- Route Index
- Short/Long Calls
- SIP Registration Failure
- Successful Calls
- Trunk Bandwidth usage

Ability to combine two or more of these aggregation levels.

Troubleshooting Your Network

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 3, 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.
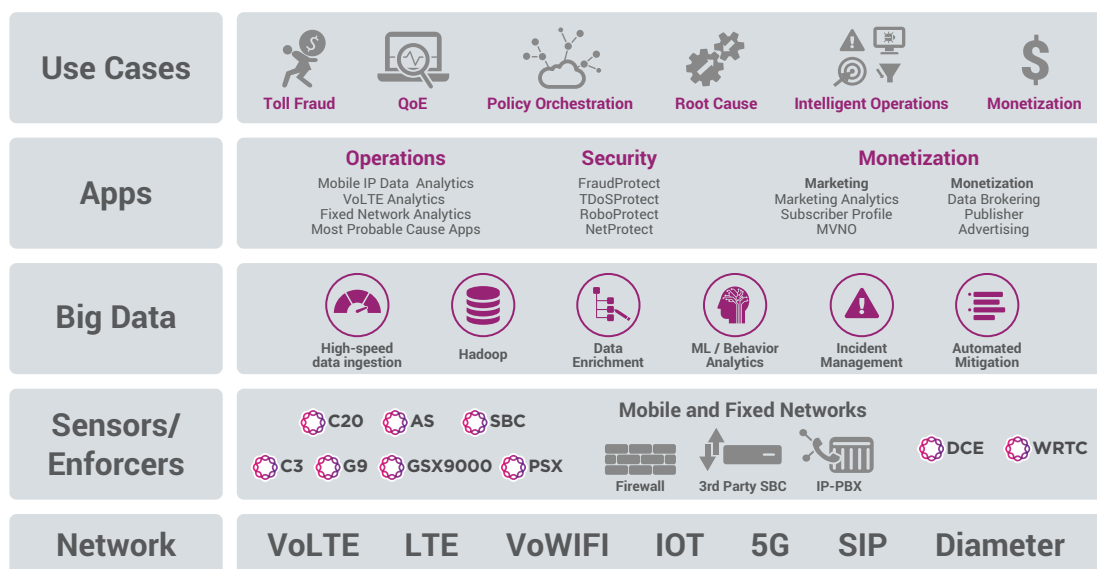

Figure 3. Ribbon Analytics

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.

Contact Us Contact us to learn more about Ribbon solutions.