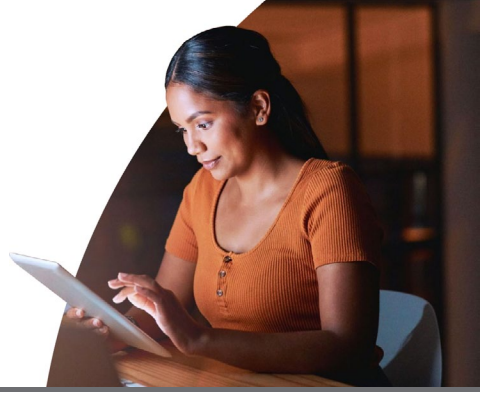
Ribbon Analytics: Application Portfolio



The Ribbon Analytics' application portfolio delivers a 360° understanding of IP data and real-time communications (RTC) usage enabling you to extract greater value for your end-users/employees, subscriber/customer relationships and networks while allowing you to fully comply with privacy policies.

This suite of applications enable you to secure your RTC network, monetize subscriber data with third parties, understand trends in RTC and IP data usage, enrich your CRM systems, identify network abuse, analyze pricing plans, enhance advertising offers, reduce churn, forecast network usage growth, and much more.

The Ribbon Analytics application portfolio consists of Operations, Security and Monetization solutions that deliver numerous use cases for services assurance, security and subscriber growth. Powered by big data analytics platform, and flexible next-generation software probes, you can grow your investment with numerous out of the box applications to speed up deployments and provide a significant return on investment.

Analytics

Marketing	Monetization	Orchestration	NetOps	Security	Application
	IP Data	VoLTE	UC&C		Session
Mobile RAN	Mobile EPC	IMS	Fixed	OTT/Cloud	Transport

Analytics Platform
One Platform for All Analytics Apps

DCE
Next-generation Packet Capture Probes

Operations

Ribbon Analytics "Operations" applications provide you with a comprehensive network view across multiple dimensions, including network element, cell, and device. This solution helps network planning and engineering teams to understand network trends and network operations to detect, troubleshoot, and verify fixes for network issues.

Operations applications provide you with detailed views of RTC networks, cell usage and congestion levels, devices, APNs, DNS servers, as well as information about roaming subscribers, e.g., identifying which operator networks the subscriber traversed. The Ribbon Analytics "Operations" applications include:

MOBILE CUSTOMER CARE-DATA USAGE - inspects each flow data for each subscriber in the network to provide the most accurate analysis of speed, latency, packet error rate, and failures. The Customer Experience applications (Network Usage, Network Performance and VoLTE/RCS) provide detailed information on every subscriber with context/session and sub-context updates.

Subscriber information is captured continuously, stored historically and can be reported on with various filters depending on care agent capabilities. Customer care agents can see the historical trends and real-time sessions of every customer along with the user location (cell, network element etc.,), device, or service category (e.g. Voice, RCS, progressive Video, Audio etc.,) and the quality associated with those dimensions.

MOBILE OPERATIONS ANALYTICS - represents an evolution of Service Assurance and Service Quality Management (SQM) by providing synchronized, end-to-end analysis of network performance & the delivered mobile web and application service quality. The Operations Analytics applications (Network Usage, Network Performance, VoLTE/RCS and Most Probable Cause) deliver the most relevant, intelligent and actionable analytics (KPIs/KQIs) and visualization (Reports/Alerts) distilled from the subscriber, service and network information.

DISCOVER - enables troubleshooting and alerting capabilities based on KPIs and other metrics that cross thresholds in real-time communications (RTC) networks. Network operators can quickly identify Quality of Experience (QoE) issues surfaced by various dimensions, isolate and drilldown on RTC network problems and ensure quality for their customers.

Furthermore, Discover provides a comprehensive end-to-end SIP call ladder diagram to visualize and troubleshoot the flow of SIP packets between different RTC network elements. Through a combination of filters, labels, ordering and narrowing-down the traffic you're interested in, you can generate an easy to follow view across disparate network elements that can assist in debugging and traffic analysis.

PLANNER - helps service providers avoid guesswork, minimize total cost of ownership, and optimize service quality and subscriber satisfaction. lets service providers create forecasts and run simulations to plan network capacity and manage network performance. The predictive analytics application uses machine learning (ML) to analyze historical data, and anticipate future trends and requirements. Network planners, traffic engineering teams, and network operations organizations use Planner to intelligently identify traffic patterns, size networks, plan system capacity, diagnose problems, and strengthen security. Customizable dashboards let administrators easily visualize traffic and run on-demand or scheduled "what-if" scenarios.

Security

To completely protect your real-time communications (RTC) network, a deep understanding of attack vectors targeting SIP is required. Ribbon Communications, a leader in SIP security and session border controller technologies, has the expertise and applications capable of identifying the specific threats such as fraud, telephony denial of service (T-DoS) attacks or data exfiltration techniques in RTC networks.

The Ribbon Analytics "Security" applications will detect and alert you to malicious RTC traffic flows. In addition, automated threat intelligence and security enforcement decisions can be shared across the network which reduces security management silos but more importantly, creates an overarching security umbrella that greatly reduces the RTC threat landscape. The Ribbon Analytics "Security" applications include:

FRAUDPROTECT – baselines your network calling patterns with behavioral analytics algorithms and seeks out repetitive calling patterns to anomalous places, based on subscriber or target detectors. Those known fraudulent or suspicious calls are flagged based on destination detection and other fraud scanning methods. As more fraudulent calls are made, they are quickly identified and terminated, thus mitigating any expensive telecom charges. FraudProtect will feed originating caller ID information for potential fraud to Ribbon Call Trust, our identity assurance solution.

TDOSPROTECT - uses advanced algorithms and techniques to detect and mitigate telephony denial of service attacks. Advanced policies are applied at the edge of the network to siphon out these unwanted, disruptive calls from your communications networks and applications.

ROBOPROTECT - uses advanced databases to quickly identify the source of the robocall and apply policies to the edge of the network to stop these calls before they disrupt your employees or customers. RoboProtect is also a complimentary and essential solution to many STIR-SHAKEN deployments. RoboProtect will feed originating caller ID information for potential robocalls to Ribbon Call Trust, our identity assurance solution.

NETPROTECT - distributes threat intelligence policies across the communications network so you can close the network-wide security aperture exposed by RTC traffic. Distributed security policies between your SBCs and next-gen firewalls allows you to stop bad actors at the edge of the network. It also enables your organization to have a more effective and holistic security methodology across the converged (data and RTC) network.

Monetization

Operators around the world looking to increase their revenues by monetizing their data assets face a great number of challenges including which use cases and customers they should focus on for the highest return, how to comply with their customer privacy policies, and how to create an entire new business sales and marketing channel.

The Ribbon Analytics "Monetization" applications enable you to monetize usage data and location information internally with your marketing departments or with third parties, while fully complying with subscriber privacy policies. Ribbon Analytics uniquely goes beyond traditional software based solutions and provides end-to-end marketing and sales services so operators can immediately realize new revenues. The Ribbon Monetization applications include:

MARKETING ANALYTICS - providing aggregate web and application usage reporting to enable carrier marketing and product teams to gain visibility into mobile network traffic composition and trends. Detailed metrics and select drill-downs are provided across a range of dimensions such as web destination brands, applications, devices, networks, gateway locations, carrier-provided subscriber demographics and the Ribbon content categorization application.

SUBSCRIBER PROFILE - provides session-level, daily or monthly subscriber level usage analytics to marketing, product and pricing teams in order to view detailed subscriber usage and use the enriched Ribbon Analytics usage information to externally model different behaviors, trends, usage distributions and pricing/usage plans.

CONTENT CATEGORIZATION – provides analysis of HTTP, HTTPS, and/or flow event records to enrich URL/domains/IP addresses with Category/Sub-Category (e.g. iAB labeling) and publisher identifications via Ribbon Analytics catalogues and patented "Dynamic Learning" technologies.

CDN/CLOUD PUBLISHER - provides analysis of HTTP, HTTPS, and/or flow event records to enrich CDN/Cloud identified URL/domains/IP addresses with actual publisher/customer identification via Ribbon Analytics catalogues and patented "Dynamic Learning" technologies.

ADID DISCOVERY - provides analysis of HTTP, HTTPS, and/or flow event records to enrich subscriber sessions with associated Advertising Identifier (e.g. Apple IDFAs, Google ADID, etc) via Ribbon Analytics catalogues and patented "Dynamic Learning" technologies.

ADVERTISING - provides subscriber advertising attributes for either internal advertising teams or external 3rd party ad network partners for use in media planning or ad targeting. Ribbon's Privacy DialTM controls in the platform process an ingested opt-in list of subscribers that limits the output delivered typically as a daily platform extract.

CAMPAIGN - provides analytics tracking of campaign advertising or promotions that are launched for a limited period of time by either internal marketing teams or external campaign sponsors or advertising partners. Detailed campaign metrics are generated from ingested HTTP usage logs that provides a campaign summary over the duration of the campaign as well as device report breakouts and a campaign audience analysis.

DATA BROKERING - provides a means to enable carriers to operationalize the exporting of aggregate or subscriber level HTTP analytics data to a number of 3rd parties in support of their data monetization strategies. Ribbon's Privacy DialTM controls in the platform process subscriber opt-in or opt-out rules as well as filtering of the amount and frequency of analytics data provided to 3rd parties as platform extracts according to defined business relationships with each 3rd party.

PUBLISHER - enables carriers to offer detailed web and application analytics to 3rd party publishers to provide in-depth into the mobile usage for their brands. Publishers are provided detailed metrics for aggregate mobile usage for their brand and breakdowns across a range of dimensions such as different forms of a publisher's content, device access, gateway locations, carrier-provided subscriber demographics and benchmarking of peer brands in similar content categories.

MVNO - provides aggregate web and application usage analytics reporting to enable carriers and their MVNO partners to gain visibility into mobile network traffic composition and trends. Carriers can view MVNO usage metrics across their wholesale MVNO partners and provide a service to enable web portal access for each of their MVNOs to view their own mobile usage.

RIBBON ANALYTICS: DYNAMIC LEARNING

Dynamic Learning enables the underlying rich Ribbon Analytics catalogs to be continuously updated to keep up with the ever-changing Internet. Ribbon Analytics has a rich catalog of web sites, apps, locations, devices, services, IPs, and network patterns, which enables Ribbon applications to classify more than 90% of all data activity on mobile networks. Ribbon leverages sophisticated machine learning algorithms to recognize new categories, and segments.

RIBBON ANALYTICS: PRIVACY DIAL™

Ribbon Analytics Privacy Dial™ provides a control layer that gives the operator the ability to fully manage their privacy policies including opt-outs, opt-ins, and access controls. These policies apply across capture, processing, and analytics layers, enabling the operators to enforce the appropriate policy for every use case.

RIBBON ANALYTICS: LOSSLESS AGGREGATION

Ribbon Analytics Lossless Aggregation provides a set of algorithms that reduce, aggregate, and compress usage data without sampling. This makes moving and storing large volumes of information fast, efficient, and cost effective for network operations and IT, so operators save on critical and expensive bandwidth and storage.

Contact Us Contact us to learn more about Ribbon solutions.