



Ribbon Assurance

An optimized network = lower operational costs + higher customer satisfaction



The Need To Do Much More With Less

Today's telecommunication landscape has undergone a dramatic change. For the last ten years, users have moved from the one-size-fits-all model where the telephone provider or the cable company provided all the communications and content, to a new world where services are becoming a commodity that can be obtained from over-the-top (OTT) service providers. Skype, WhatsApp, Facebook, GoogleVoice, etc. are threatening the traditional business models with disruptive, innovative applications that have changed the way users communicate and consume content forever. However, all these OTT providers share a common weakness: reliability and quality. These services depend on a reliable IP network to operate but this reliability is entirely out of their control.

Traditional service providers have entered the Internet Services revolution later and are facing two problems. On one hand, they need to compete with the OTT providers who are eroding their revenue and leaving them as just IP "pipe" providers. On the other hand, the constant and progressive increase of bandwidth and low latency requirements that these OTT applications are putting on their network are driving the end-user to expect much more from their "pipe" provider. But in a landscape of declining revenues, increasing requirements and limited resources, how can the traditional service providers compete and counterattack?

One way is to increase multimedia services that directly compete with the OTT applications by providing a higher value (such as integration with the TV, or other traditional services) while at the same time including federation to interoperate with them. Another way is to introduce TPM/DPI solutions into the

network that optimize the usage of the available network resources, throttle the applications that consume high bandwidth and prioritize the delay of sensitive traffic in the network. However, before these solutions can be implemented, operators need to have a knowledge of their network, identify risky points and links, have a way to quickly respond to issues or outages and provide top of the line customer services that OTT and "freemium" applications cannot provide.

Managing the performance of the network and the time to respond to issues keeps costs down and makes service providers competitive in this challenging market landscape.

Ribbon Assurance

Deployed by some of the world's leading and most successful service providers, Ribbon Assurance is a state-of-the-art suite of tools that provides quality assurance, quality metrics, customer care and service diagnostics for Ribbon's Fixed Network Transformation Portfolio.

Ribbon Assurance's advanced suite of analytical tools and services are designed to manage service providers' service assurance agreements by enabling the verification, validation and reporting of line and session quality issues in real time as well as tracking and swift closure of customer reported issues, ensuring rapid response and high levels of customer satisfaction.

Additionally, Ribbon Assurance empowers carriers to optimize their networks – technically and financially – through an enhanced understanding of network usage, network profitability, network performance metrics, and a range of Mean Time to Repair (MTTR) reports.

Ribbon Assurance offers carriers a unique ability to reduce customer churn by efficiently working and communicating customer reported issues, and proactively ensuring the reliability and predictability of network operations with advanced capabilities, including the automatic raising and closing of trouble tickets.

Quality Assurance for Increased Customer Satisfaction

Ribbon Assurance software and services give service providers an extensive suite of quality metrics, Key Performance Indicators (KPI's), Key Capacity Indicators (KCI's) and quality assurance capabilities.

By proactively highlighting potential issues including congestion and outages, Ribbon Assurance enables carriers to resolve threats in real time and safeguard subscriber satisfaction. Ribbon Assurance also empowers Customer Service Representatives (CSRs) with the tools and knowledge-base to solve many customer issues immediately while the customer is on the line without sending the problems to the next support level.

Simplified Management and Service Visibility Reduce Operational Costs

Ribbon Assurance simplifies the management of networks through a collection of tools and monitoring capabilities focused on both enhancing the end-user experience and planning for network growth.

With Ribbon Assurance, service providers know in real time the status of their network without having to send engineers to the field. Ribbon Assurance can identify patterns and highlight possible issues for CSRs in regions of the network, allowing them to provide more information when providing technical support.

Ribbon Assurance reduces the complexity of the service provider network, which means less labor hours and fewer truck rolls. Additionally, Ribbon Assurance enables capital investment optimization by improving network efficiencies and fostering revenue growth.

Reduced Risks

Ribbon Assurance's Subscriber Diagnostics and Universal Ticketing tools reduce the risk in the service provider network by providing an easy-to-use web-based workflow system that reduces the reliance on highly skilled work force. Most activities are now performed automatically or require a lower cost operator.

Multi-Vendor Solution

The Ribbon Assurance suite provides the most value when used in conjunction with Ribbon's portfolio of market-leading network products, however, Ribbon Assurance can also work with elements from other vendors allowing the service provider to leverage a unified Service Assurance architecture throughout the entire network.

Ribbon Assurance Components

Ribbon Assurance provides quality assurance, quality metrics, customer care and service diagnostic functionalities by means of two sets of tools: monitoring tools and customer care tools.

Ribbon Assurance

Ribbon Assurance Capabilities			
Quality Metrics <ul style="list-style-type: none"> • Mean Opinion Score (MOS) • Performance and Capacity Metrics and Reports • Quality / QoS Metrics and Reports 	Quality Assurance <ul style="list-style-type: none"> • Verification, Validation and Reporting of Line and Session Quality in Real Time and for Post Processing • Real-time alarming of network issues 	Customer Care <ul style="list-style-type: none"> • Customer Trouble reporting and resolution tracking • One Solution across multiple network/ technology types • Work force management for engineers and technicians 	Service Diagnostics <ul style="list-style-type: none"> • Customer Service Trouble identification • Automated/scheduled subscriber testing • Service Qualifications ensures network can provide services being offered

Figure 1: Ribbon Assurance Functional Overview

Monitoring Tools

Ribbon Assurance provides Performance and Data Monitoring Tools that help reduce network complexity, increase a service provider's competitiveness and increase customer retention:

- **S-Series Real-Time Session Manager (RSM)** – Session-based VoIP and rich media services can place unique demands on the network. Service providers require tools to monitor Service Level Agreements (SLAs), provide QoS metrics, and enforce subscriber and network policies for consistent delivery of services. Ribbon Assurance uses the Real-time Session Manager functionality to monitor, assess and report on session quality and end-user experience.
- **NetOnline** – A hosted solution that collects performance and capacity data. The operator accesses the internet via a secure web-based connection to review reports. NetOnline provides a simple and secure access to service/network reports and offers a one-stop shop for multi-site reports with comparison across the network.
- **Performance and Capacity Audits** – A Ribbon service performed on a regular basis (typically every six months) to ensure network integrity.
- **OSS Integration Services** – A Ribbon service that integrates network/service Operational Measurements (OMs) with third party systems.

Customer Care Tools

Ribbon Assurance provides an advanced suite of customer care tools that reduce the time required to solve network issues and increase customer satisfaction:

- **Universal Ticketing** – When a customer contact is made, the customer service representative must be instantly armed with all the necessary information: customer billing information, service features/facility information, common cause outage information and any related effects of network disruptions. The Ribbon Assurance Universal Ticketing application brings this information together in an intuitive, concise ticket that provides system-recommended actions

and tracks all touches for post-analysis to optimize operational workflow. The Universal Ticketing module of the Ribbon Assurance portfolio provides unparalleled operational versatility in customer service operations. Built on three decades of experience in leading the industry's OSS field, the core Universal Ticketing platform provides off-the-shelf OSS solutions for trouble ticketing and diagnostics platform requirements. Universal Ticketing is a true telecom OSS developed for mission-critical mainstream call centers within the telecom industry, meeting traditional market requirements and adapting to evolving network infrastructures. Using the core platform, tickets for new services can be developed, tested and introduced in days, rather than months. This ultra-rapid deployment capability allows Ribbon Assurance Universal Ticketing to quickly evolve as new business opportunities open up, providing a fast time-to-market platform.

- **Subscriber Diagnostics** – Enable simplified access to testing and diagnostic infrastructure. This is coupled with expert logic to isolate the source of the customer problem and provide a recommended next step in the resolution process. Ribbon Assurance Subscriber Diagnostics can be delivered across access and core networks in multi-vendor environments. Its testing capabilities are designed to pinpoint triple play service, configuration and network faults in plain, easy-to-understand messages. The service agent can perform simple line or VoIP service testing on demand from within the trouble ticket by pressing a single button or from an extensive test board GUI. Anyone with the proper permissions can perform a test, either from the Ribbon Assurance Subscriber Diagnostic client on a local computer or from the web client on a remote computer. Tests can also be automated from a list or a set of configured workflow rules and run at predefined intervals and set up to automatically generate and route trouble reports when faults are found. Loop pre-qualification and actual Performance data generated and maintained by Subscriber Diagnostics are used for foot-printing and service monitoring.

Monitoring	Customer Care		
<p>Performance & Data Monitoring Tools</p> <ul style="list-style-type: none"> • RSM • NetOnline • Performance and Capacity Audits • OSS Integration Services 	<p>Universal Ticketing</p> <ul style="list-style-type: none"> • Universal Ticketing for all operations: • Voice • DSL • IPTV • Voice • DSL • IPTV 	<p>Subscriber Diagnostic</p> <ul style="list-style-type: none"> • Web Care and integrated test boards • Line testing and diagnostics (Narrowband, sideband, IP test, CPE, VoIP, FTTx, Loop) qualifications...) 	<p>Workforce Management</p> <ul style="list-style-type: none"> • Auto dispatch • Mobile Workbench • Workforce Reports

Figure 2: Ribbon Assurance Components

- **WorkForce Management** – Provides an intelligent handling of customer support and installation tickets to the field workforce based on a profile of skills and availability. It includes ticket handling capacity monitoring to manage each user's personal queue and the work duration of the ticket as well as provide reports and charts for analysis and active workload management. It also includes a Mobile Workbench that allows the workforce to access the workflows while on the road.

Summary of Key Features and Benefits

Universal Ticketing

- Significant cost reduction on operating expenses since the same staff can process more tickets
- Increased quality of experience through service availability with extremely short MTTR intervals
- Built-in workforce management system or can be linked to an existing carrier tool
- Built on open database to allow custom reports
- Permits concurrent operations on the same ticket for fast time-to-resolution
- Flexible and secure environment

Subscriber Diagnostics

- Reduces operating expenses
- Eliminates the need for in-depth technical knowledge
- Reduces the need for external test equipment
- Can be deployed in TDM, NGN and IMS environments
- Increases first-call resolution rates
- Improves customer service and subscriber satisfaction
- Eliminates unnecessary truck rolls
- Enables loop qualification and bandwidth prediction

NetOnline Portals

- Hosted solutions with no Capex cost
- Performance and capacity monitoring
- Automated daily report e-mails providing element and network status
- Provisioning, patch Level and License usage reports
- LOG and alarm reports for quick RCA

Workforce Management

- Immediate and detailed tracking of the issue resolution work
- Mobile workbench for online access to tickets and service orders with real-time updating, clearing and finalization, time tracking, metallic testing, DSL port query, etc.
- Security
- Removes the need for operations and planners to access elements directly

Contact Us

We are here to help. Let us know if you are interested in a quote or if you have any questions.