

Revenue Assurance

THE REVENUE ASSURANCE CHALLENGE

The inherent complexity of mobile operators' business in highly competitive markets and the continuous evolution of services offered pose a constant challenge in assuring revenue integrity and billing accuracy. The massive use of mature services, and the intrinsic risk of the not-yet-matured ones require maximum care in timely detecting leakages that, if ignored, might quickly and significantly impact revenues. Furthermore regulatory requirements such as the Sarbanes-Oxley Act, and other governing requirements, impose stricter and more detailed controls over the revenue generation chain. To minimize revenue leakage and meet stringent regulatory requirements, operators should ensure constant monitoring on CDR generation and rating, leveraging a highly industrialized and agile solution to implement controls on their network and all their services since the earliest phase of their life cycle.

INTEGRATED END-TO-END TESTING & CDR/RATING VERIFICATION SOLUTION

The **ANTS for Revenue Assurance** solution enables telecom operators to industrialize agile and robust revenue assurance operations integrating both end-to-end testing and CDR/Rating verification.

- End-to-end testing controls whether a service use case generates the expected CDRs and is properly rated,

according to the relevant charging cases and price plans. Pre-built or user-defined tests can be run over the air on a subset of network elements and user profiles (SIM/USIM). The scheduling and resource management engine seamlessly coordinates their execution across Remote Test Units (RTU) deployed throughout the network. In parallel, Remote Record Selectors (RRS) **capture the data generated at various network/IS nodes** so that it can be matched with the relevant charging cases and price plans.

- CDR verification also controls **CDR availability, integrity and accuracy** on real traffic. From multiple points (network nodes, service platforms, mediation, etc.) across a network, RRSs capture the CDRs designated to be verified, check the user-defined verification rules and produce the related indicators, and filter the CDRs to be forwarded to ANTS Server for further analysis.

MASSIVE TESTING AND EXPERTISE LEVERAGE

Many factors contribute to the exponential growth of the number of revenue assurance tests to be conducted, such as the number of service use-cases, price plans and user profiles, and the frequent network and service platform upgrades. At the same time, designing such tests requires in-depth expertise on the services and related charging rules. To help operators to overcome this challenge,

ANTS industrialization capabilities include:

- **Extensive process automation** to enable massive testing, from the design of use-cases, charging cases and verification rules to the production of Key Performance Indicators (KPI).
- **Virtual SIM Displacement** technology allowing end-to-end testing executed over the air by RTUs while all test SIM/USIMs remain centrally managed in SIM Archives - a must to efficiently cover all customer profiles on significant deployments.
- **Capitalization of experts' knowledge** through powerful editors that enable test use-cases and charging cases, as well as CDR verification rules and price plans, to be modeled and stored in an open Test Management Repository.

AGILE REVENUE ASSURANCE

The time factor is critical for revenue assurance success:

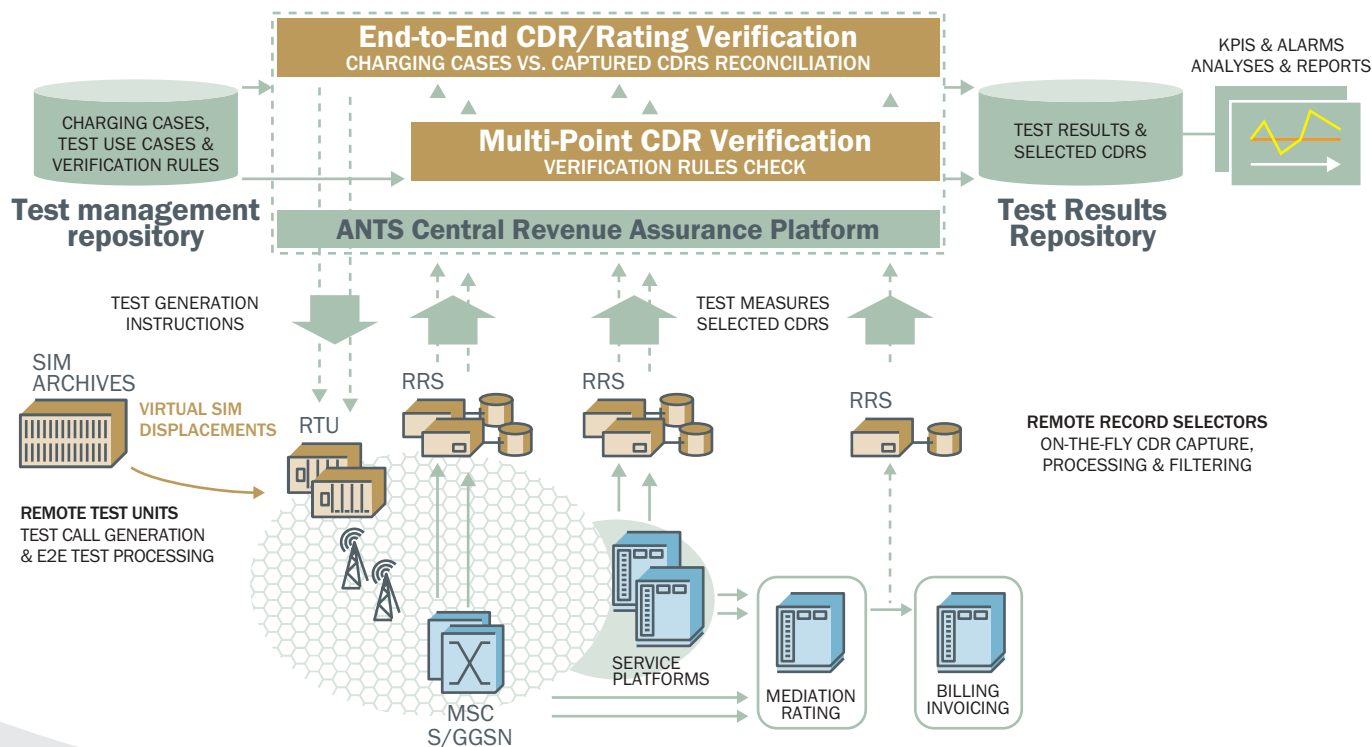
- Early leakage detection and diagnosis is available via **automatically produced KPIs** and alarms when thresholds are crossed, enabling managers and operators to prevent (with non-regression testing, for example) or identify immediately the leakage issue. Interactive exploratory OLAP analysis, detailed end-to-end test traces and ad-hoc testing then provide assistance and accelerate the diagnosis and resolution.
- **Rapid integration of new services** – pre-built libraries of end-to-end service use cases and KPIs providing extensive service coverage including video call, WAP/HTML navigation, contents download/streaming and IVR/VAS on all networks (GSM, GPRS, Edge, UMTS, PSTN, etc.) can be easily expanded by users with ANTS powerful graphical editors to ensure a “zero-hole” revenue assurance.

AUTOMATED CONTROLS FOR SARBANES-OXLEY COMPLIANCE

Compliance with the Sarbanes-Oxley Act is becoming an incumbent issue that most operators are called to face – requiring especially the design and implementation of a framework of controls along their revenue generation chain to certify its integrity and accuracy. From CDR generation to rating, an extensive number of controls can be implemented and automated with ANTS, significantly increasing the cost-effectiveness of the SOX compliance certification and strongly facilitating the auditors' work.

BENEFITS

- **EXTENSIVE REVENUE ASSURANCE CONTROLS** INTEGRATING REAL TRAFFIC AND ARTIFICIAL TRAFFIC ANALYSIS
- **“ZERO-HOLE” VERIFICATION: ANY SERVICE, ANY NETWORK, ANY SIM, ANYWHERE**
- **MASS-TESTING CAPABILITIES** THROUGH STREAMLINED REVENUE ASSURANCE OPERATIONS
- **PREVENTION OR EARLY DETECTION OF ISSUES** AND ASSISTED DIAGNOSIS FOR FASTEST RESOLUTION
- **SHORT TIME-TO-ASSURANCE** FOR NEW SERVICES DEPLOYMENTS



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