

The Role of Active Testing in Revenue Assurance

DATAMAT ANTS: From instantaneous detection to prevention – Leakage in today's complex service billing scenarios
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Revenue Assurance for new 3G services

Mobile service providers are struggling to be first to market with new 3G services before their competitors achieve first-mover advantage. Due to market pressures and 3G ROI constraints, operators must deploy these new services quickly, on the base of complex processes and systems. New services rely on real-time transactions, rating for prepaid is intelligent network (IN) based, service activation is automated, etc. So complex service delivery mechanisms built on a continuously evolving network infrastructure intrinsically increase revenue leakage risks – a challenge even more critical as the pressure for profitability increases.

Revenue Management is now a mission-critical corporate function. Revenue Assurance (RA) systems for mobile service operators are intended to support data acquisition from network elements, provisioning systems, mediation platforms, billing systems, order management systems, asset management systems, etc. Beyond these data access capabilities, leakage detection techniques (including monitoring, reconciling, and comparing) must be implemented along with powerful information delivery mechanisms such as dashboards, tracking and correction panels, and case management tools.

This expanded Revenue Assurance framework requires consideration not only of the technology, but also of the people and processes involved. Analysts and domain experts are necessary to quickly investigate suspicious data and to validate RA control violations. A thorough understanding of business processes and their interdependencies is critical as the cause of many leakages is often found in an erroneous process design or implementation.

A mature RA framework combines both process control and data quality and integrity verification along the revenue generation chain.

The role of Active Testing in Revenue Assurance

In an RA framework where timeliness and effectiveness of leakage detection activities require a proactive approach, Active Testing plays an essential role. It enables most capabilities of a modern RA system and can be used beyond the traditional CDR verification process. Active testing can be effectively configured to prevent leakages linked to network and service continuous evolutions, to provide measures and KPIs for new services monitoring, to support investigation of detected issues, and to control the revenue management processes.

Active testing varies widely from the traditional method of observing customers' traffic which involves KPI trends discrepancy monitoring on traffic/usage data warehouses – a method often slow in detecting leakage issues. With active testing, new services are controlled from a usage data accuracy point of view upon service delivery. This eliminates

Active Testing is a critical component of a proactive RA framework whenever infrastructure and service dynamics are really fast.

delays in controls, while waiting for data integration and consolidation, and KPI processing in the data warehouse, as well as the need of real customer data which is often problematic at the start of the service life cycle.

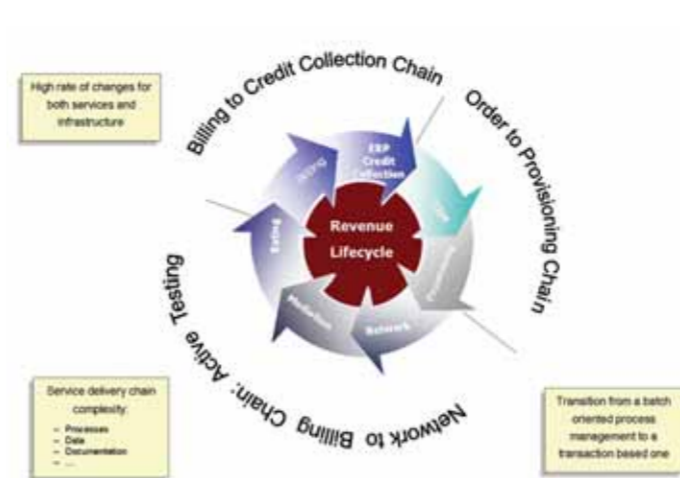


Figure 1: The role of active testing in facing the challenges of today's revenue management

In today's stringent and punitive regulatory environment active testing is a highly relevant approach for implementing SOX compliance and other regulatory and legal compliance certifications. Controls in identified areas of risk can be implemented through test campaigns with regularly scheduled reporting. The audit process is also simplified and streamlined by the availability of predefined, documented test libraries

Active Testing supports SOX auditors with certification activities and is a powerful risk assessment tool for Finance and Operation Departments

Datamat's ANTS for Revenue Assurance

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. Its centrally-managed process support and automation capabilities tightly integrate active testing with charging cases verification, based on a distributed traffic generation infrastructure providing well known reference data. ANTS enables the definition, execution and results analysis of charging data verification plans for all mobile services.

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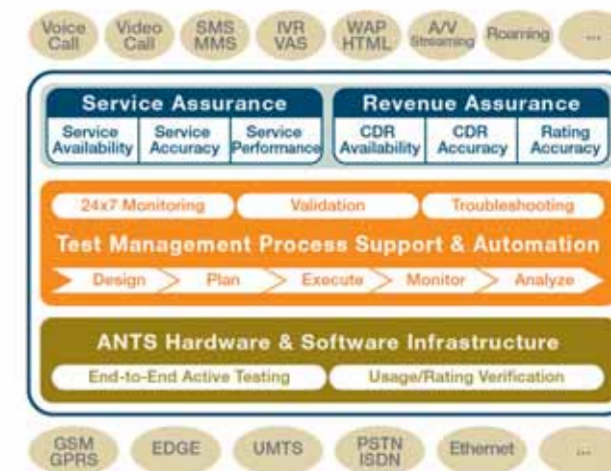


Figure 2: ANTS provides integrated service and revenue assurance

Service centric CDR verification is driven by extensive and automated test campaigns verifying a wide set of use- and charging-cases for these services. The resulting charging case repository proves to become a highly valuable asset for mobile operators, as a system supporting capitalization of key business and technical knowledge previously spread across many people and departments.

For prepaid rating verification, ANTS provides a clever approach through end-to-end measurements performed at the user level, when IN-based charging is in place.

Leveraging its industrialized test management capabilities and the agility for rapid test design and on-the-fly analysis, ANTS has proven its value in supporting operations related to Revenue Assurance:

- non-regression testing covering different service configurations, user profiles, service durations and involved volumes
- audit support for process certification, verification of the CDR production mechanism, validation of the correct application of price plans, and control of interconnection and roaming traffic charging
- revenue assurance control from the early phase of service deployment
- troubleshooting support to minimize problem resolution time

At TeleManagement World 2006 in Nice, the Revenue Assurance Catalyst TMF project team will demonstrate a proactive revenue assurance solution implementation for real-life new-generation services such as Location-Based Services, on a real-life revenue generation chain aligned with the TMF's SID and eTOM standards. Relying on ANTS, such an implementation articulates the major role played by active testing in enabling mobile operators to become not only extremely agile in resolving RA violation issues, but also proactive in identifying such issues – being then in the best position to minimize the impact on revenues and customer satisfaction.