

Ascom's Preemptive Strike on Network Fraud to Boost Carrier Revenue

Game-Changing Technology put Carriers in the Driver's Seat

Ascom's Tesh Kapadia (VP Sales) talks with InterComms about his company's new Fraud Management, Revenue and Billing solution, FAST, which enables carriers detect and stop network fraud before it occurs



Mr Tesh Kapadia, Vice President, Sales, Ascom

Prior to joining Ascom, Mr Kapadia led Sales, Marketing and Strategic Alliance initiatives for a number of OSS/BSS ventures. Most recently, Kapadia was Vice President, Sales at Digital Route, where his primary responsibilities focused on the Latin America markets. Previously, he was Vice President in charge of the Asia-Pacific region for Telarix. Earlier in his career, Mr. Kapadia held executive positions at Portal Software, Sprint Canada and ISM (Information Systems Management). Kapadia is also a well-known and sought-

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after speaker at telecommunications conference and has authored white papers on inter-carrier settlement processes.

Q: Network fraud has rapidly escalated to become one of the foremost challenges facing carriers today, siphoning away interconnect revenue from carriers as well as complicating network utilization. What's the scale of the problem?

A: It's a huge issue that's become an urgent problem. It has been growing exponentially now for several years, which is why we stepped-in along with a number of our carrier partners to develop a solution that enables carriers to track suspicious traffic patterns and identify origins before fraud gets too far along to effectively stop.

- Unfortunately, carrier systems have been a step behind these flimflam operators from all over the world who have been using extremely sophisticated devices and illegal schemes to mask traffic and avoid interconnect fees. CFA estimates the yearly revenue loss to carriers at the US \$80 billion mark, and others believe that this is a low-ball figure and that in reality the number could be much higher.

Q: How so? In what other ways does fraudulent network use impact the wholesale interconnect business?

A: On top of significant revenue loss, it's important to understand that carriers are being forced to shift financial resources and staffing away from other areas of the business to fight fraud – areas like product development or other revenue enhancers. Furthermore, network utilization is adversely impacted – not just by unpaying traffic, but by traffic that's also difficult to detect, which undermines network utilization. Compounding the problem are products on the market that have been sold to fight fraud, but simply aren't effective (as well as extremely expensive) because they rely on outdated technology.

Q: You believe that your FAST solution is a disruptive game-changer. What's different about it?

A: FAST is multi-functional, for starters. It's a complete fraud management, revenue assurance and billing solution that not only enables carriers to detect and stop fraudulent traffic, but includes an expansive set of data mining tools that can be used to better understand customer and network use, which can lead to better business and product development. A number of operators are in advanced stages of deployment of FAST, and so far the experience is very positive.

We developed the solution with SVM (Support Vector Machines) Machine Learning (ML) technology and a robust 'In-Memory' technology to allow carriers users to instantly access and correlate xDR, Aggregated xDR and Subscriber xDRs to identify suspicious traffic patterns that may lead to fraud. The solution has 200 built-in fraud scenarios, 'Rules', which trigger fraud alarms. FAST also affords users the capability to set any number of user-defined thresholds. When fraud is detected, FAST automatically puts reconciliation processes and other measures into play.

Q: What are some of the Rules and controls that enable carriers to spot fraud?

A: That's the real beauty of FAST. Rules can be set very easily to quickly compare and verify lists, A-Number, B-Number, IMSI, IMEI, Country and so forth. It's able to detect and stop the most complex SIMBOX scenarios as well as track suspicious traffic, such as high call diversity, unusual usage, SMS, roaming irregularities, calls tied to low tariffs and so forth – all in real-time so that carriers can take preventative measures on the spot. FAST also enables carriers to block IRSF numbers, block PBX hacking and SIM stuffing and create Rules with Boolean Logic to establish new case conditions to keep ahead of any new fraud scenario that might hit carrier networks.

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Q: FAST deals with a lot of data to enable carriers to prevent fraud. How else is the data used to improve a carrier's interconnect business?

A: FAST's Smart Data Analysis TrafMiner tool allows carriers to slice and dice data far deeper into xDRs than ever before, all the way down to single records. FAST is extremely intuitive, so changing data views and making queries are easy. This is extremely important because it helps carriers to identify areas of the network that are underutilized and primed for growth, as well as areas of the network where efficiencies can be optimized.

As for business development purposes -- as well as fraud detection – FAST gives carriers the capability to make any queries they want at any given moment – including the ability to have them stored and displayed on dashboards. Examples might be charting the network's busiest cells and traffic routes, most-used international or premium destinations, or the number of hourly calls from Switch A to the USA, for example. Other examples could include views of where most incoming SMS originate dips and peaks in network traffic, as well as visuals of revenue per day, per customer segment. In a nutshell, it all helps carriers to better understand how their networks are operating in real time and the areas in which the need to focus on to drive growth.

Q: In terms of carrier billing, what does FAST do for carriers, and are there any integration challenges?

A: Like all our automated solutions, FAST is compatible with all systems and far more cost efficient than any present day fraud solution. Integration is easy due to the 'Automatic Test Concept' VM deployment built-in to the solution. FAST automatically consolidates multi-streamed data, such as price and billing information that comes in from different switches or CCS7, to quickly eliminate errors and redundancies. Comprehensive filtering tools quickly identify and correct any xDR data 'mismatches' that could result in revenue loss.

The solution's assurance functions instantly verifies tariffs and ratings, and computes single, daily, weekly and monthly interconnect charges to ensure service usage is in line with provisioning. In addition, FAST provides flexible configuration of multiple streams in order to 'compare stream,' such as Switch to Bill, Switch to Prepaid and so forth. Reconciliation reports can be generated and aggregated daily, weekly and monthly, along with automated monitoring to track and ensure compliance.

For more information please contact us at:

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