False Answer Supervision

The carrier business is competitive: voice products are increasingly commoditized, and margins are getting razor thin. Carriers need to differentiate from their competitors, by providing better, cost-effective, service to high value customers. That's what Datanomer's solutions help you deliver. Datanomers Big Data Solutions are comprehensive and unique: based on expert systems autonomics and cognitive science, are intuitive, accurate and can easily automate complex processes. One such solution is False Answer Supervision. The biggest telecom carriers in the world have benefited financially from the solutions.

Once you deploy our Fraud Management Solution, you will notice an immediate improvement in route quality. How?

Because, our advanced statistical machine-learning state-of-the-art technology is highly accurate and has global coverage that enables the deployment of our solution to break even in under a year. Your route quality improves substantially as you rid it of fraud. Your customers notice and give you more business, especially for premium traffic with higher margins. Your business differentiates and grows.

The Challenge

What is Fraud and How Does it Afflict Carriers?

Fraud has permeated in both carriers and enterprises, bleeding over $6B dollars annually from carriers. The result: Unhappy Customers Switching Carriers, Lost revenue for Carriers because of no fault of their own, Customer churn. Enterprises get unexpected, large bills and demands for payment.

Fraud Types

There are several types of fraud, But most important ones are:

1- False Answer Supervision (FAS),

2- Premium Rate Fraud (IPRF) and

3- Mobile Fraud.

False Answer Supervision (FAS)
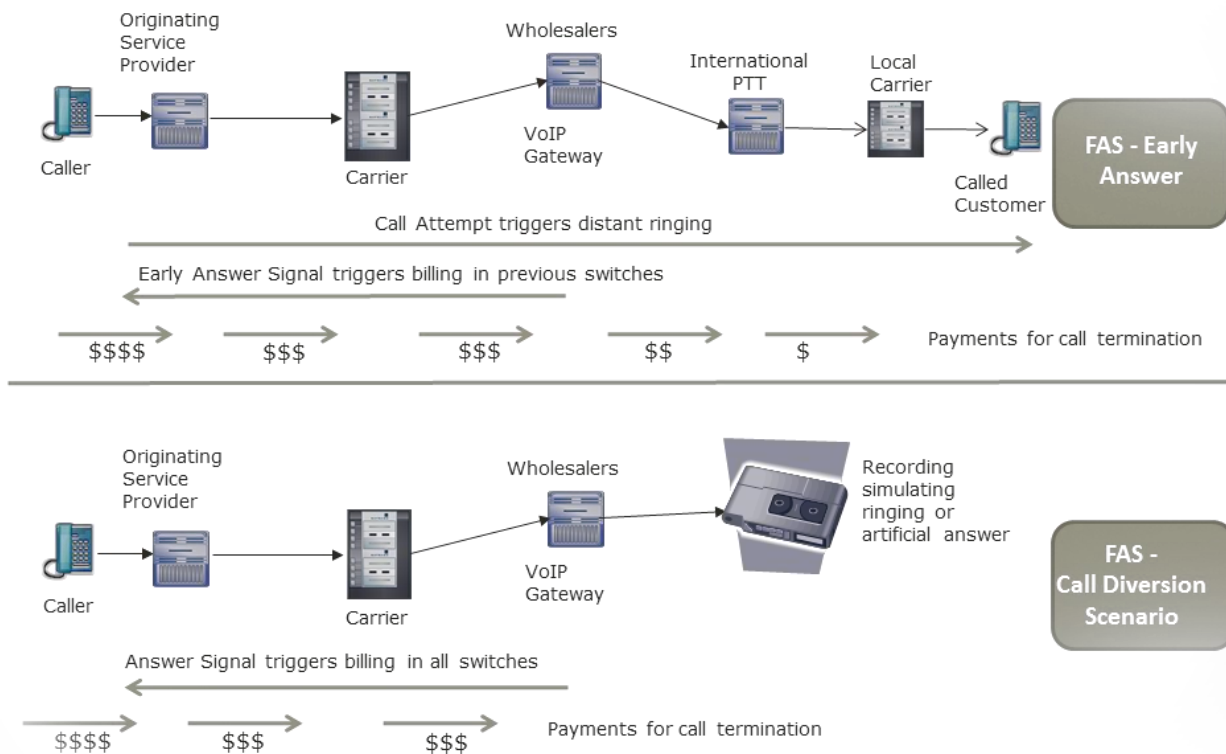
FAS is perhaps the most prevalent and is under the control of international carriers. So What is FAS? FAS occurs when a call is falsely answered by a downstream carrier so they can start billing well in advance of the real answer. Even worse for customers is a phenomenon, known as call hijacking, where the call is routed to an automated voice system designed to keep them on the phone while billing continues; not only do they get a huge bill, but the call does not even reach the dialed customer.

IPRF occurs when a premium rate service provider colludes with a hacker to break into a PBX, launch a large number of calls to an international premium rate destination, get a share of the profits from the distant service provider, and disappear before the break-in is found. The enterprise whose PBX was hacked refuses to pay the bill and carriers in the chain dispute billing, resulting in large losses for all concerned!

Mobile Fraud is very damaging to the mobile industry with cloned SIMs and roaming fraud generating many unpaid calls to distant high rate premium codes.

Carriers Fight Back
Carriers are now increasingly serious about fighting fraud. They have banded together, under the aegis of the standards i3Forum, to publish a process that removes traffic for weeks from those carriers without efficient fraud management systems, resulting in considerable revenue loss.
If you don't police fraud in your network, you risk losing revenue.

There are probe based solutions in the market that do not come close to our solution in delivering features and functions and aren't effective in eradicating FAS. They have their limitations:

- In case of probe based solution, you need to have the carrier launch several synthetic calls to a all these destinations. If not FAS goes undetected.
- Fraudsters are getting smart: for example, blended FAS which is done intelligently by the fraudulent suppliers in the network to avoid detection: FAS is switched on and off. for probe's synthetic calls to detect such blended FAS, the carrier needs to place several test calls to the same destination, daily, and then out of several to a destination, a couple may detect blended FAS. when you have blended FAS happening in the intl destinations, the OPex rises, the solution becomes more expensive than the issue it addresses.
- Probe based solutions cannot handle the volume of CDRs our solution can handle
- Probe based solution cannot accurately quantify fraud. Datanomers' statistical solution is not academic. It quantifies fraud. It helps you make decisions to remediate supplier and goes a step further than all other solutions in the market. Our FAS solution stores the cdrs of fraud calls which provides you with the irrefutable evidence that a supplier was doing FAS. Now we can dispute billing w/ suppliers, negotiate better rates with them, trouble shoot the issue, and insist on better quality

Best Practices Recommendation By I3 Forum
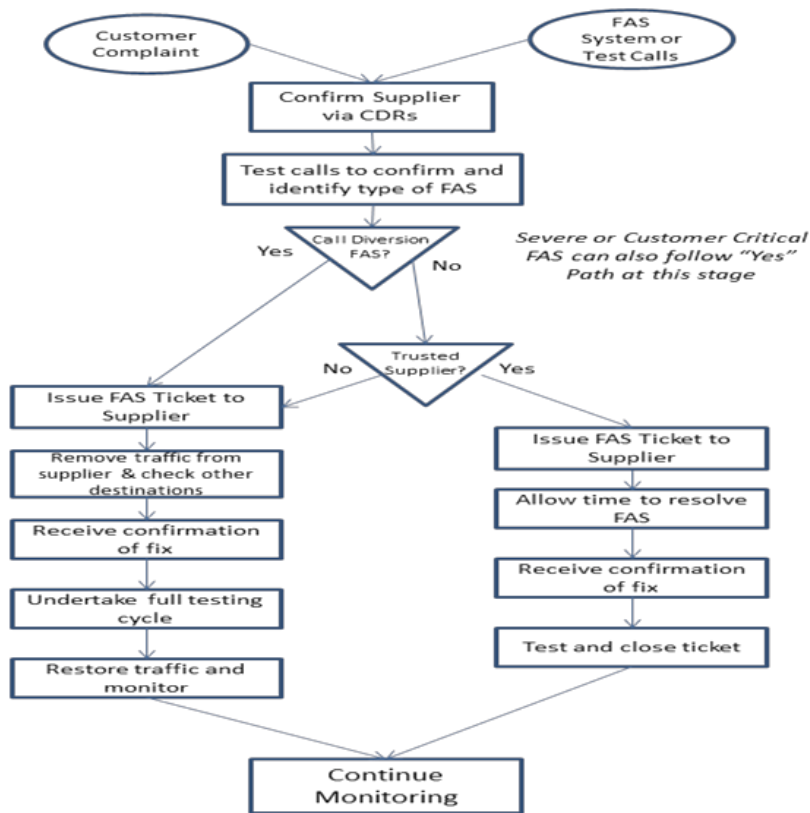
Outline Process for FAS Remediation

The Solution

Datanomer's Unique Solution
Datanomer's fraud management solutions are the most technologically advanced on the market and some of

the largest Global Carriers rely on Datanomer's solution to combat FAS, They statistically identify fraud directly from a carrier's CDRs. These global carriers have expressed <u>tremendous faith in our solutions</u>.

Datanomers FAS Solution Differentiator:

- Accuracy of 95% while detecting 90% of the fraud.
- 64-Bit industrial server architecture scales to 200M CDRs daily with peak processing rate of 10M CDRs per hour.
- Detects fraud in near real-time. It can easily integrate into your operations systems to stop fraud quickly before it is noticed, reducing customer trouble ticket volume by 15%.
- Stores fraud CDRs so that you can quantify the extent of the fraud, create reports on various suppliers and destinations, and withhold fraudulent payments.
- Covers 100% of worldwide destinations with no extra costs of test calls and probes
- With Datanomers' statistical solution, you do not have opex. because it doesn't generate synthetic calls

Datanomers Fraud Management Solution - How is it Superior ?

Parameter	Probe Based & Other Statistical Solutions	Datanomers Solution
Coverage	Limited to destinations with probes deployed	Based of actual CDRs
Blended & Widespread FAS	Synthetic calls, sometimes to expensive destinations Not Scalable	Global Coverage, covering large data volumes
OPEX	Increases OPEX	No OPEX
Landline Destinations	Covers only mobile networks	Landline destinations are covered

Fraud Quantification	Cannot quantify operations cannot prioritize severity	Quantifies % age fraud for severity
Alerts	Delayed	Near Real time
Evidence	No recorded evidence of FAS	Stores fraudulent CDRs to dispute billing
Accuracy	Probes – synthetic calls, accurate. Statistical solution - inaccurate	Advanced statistical solution, works of CDRs – accurate
Recommendation	No recommendation, identifies fraud, not how to fix it.	Recommends how to remediate fraud – insightful intelligence

Datanomers FAS solution is deployed in your data center managed and administered by you, or as some carriers prefer, in our private cloud and managed and administered by us. Our solution breaks even in under a year, the financials that prove this have been vetted by standards forum and independently verified by carriers