CUSTOMER FIRST

24 - 26 SEPTEMBER, 2019 | CASCAIS, PORTUGAL

DAY 2, TOMORROW'S HERE
11:00 – 11:45, WEDNESDAY, SEPT 25

Dealing with Dangers of Voice Fraud

What fraud vectors are currently and in the future compromising the voice business and what can we do?

Malick Aissi
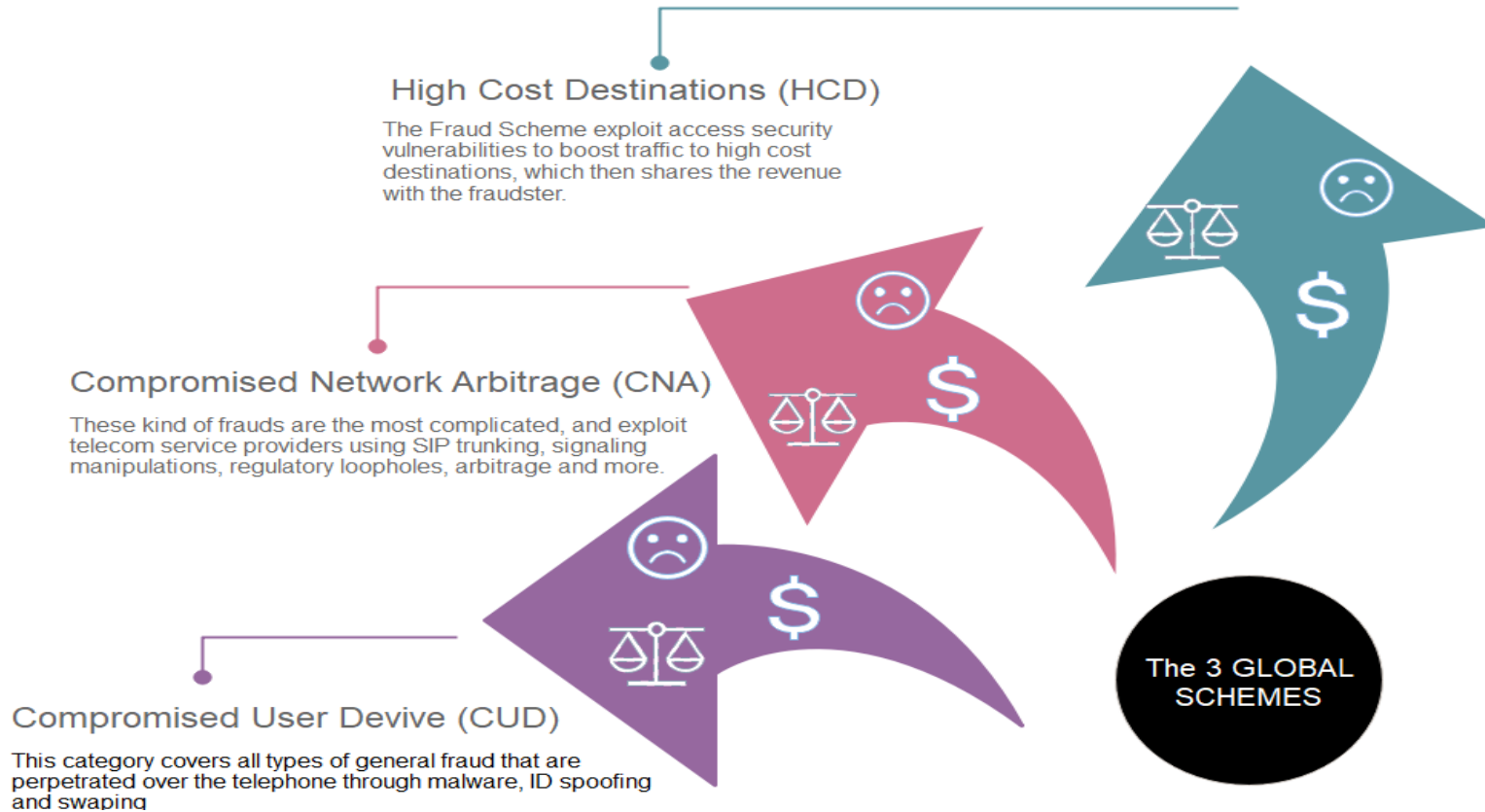VP Business Assurance and Risk Management, iBASIS

BE THERE FIRST

Malick Aissi

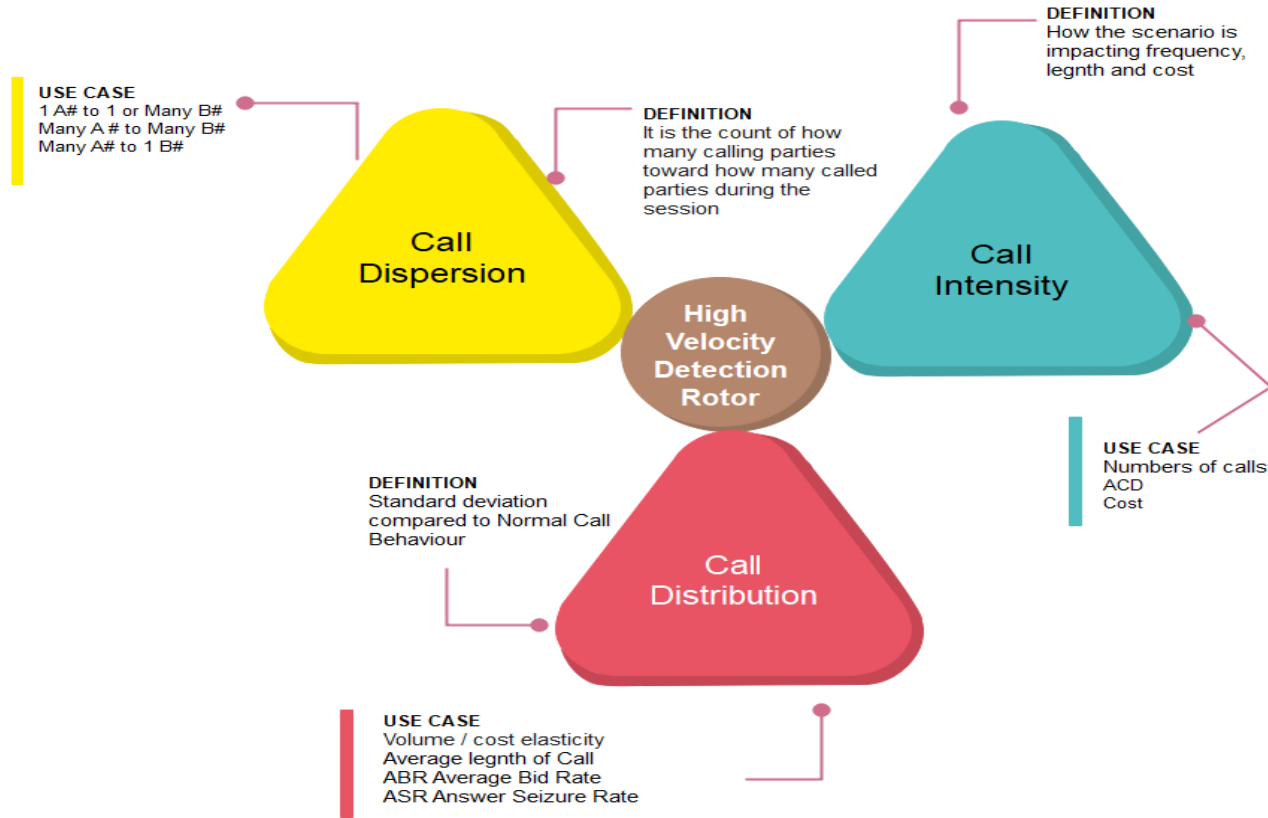VP Business Assurance and Risk
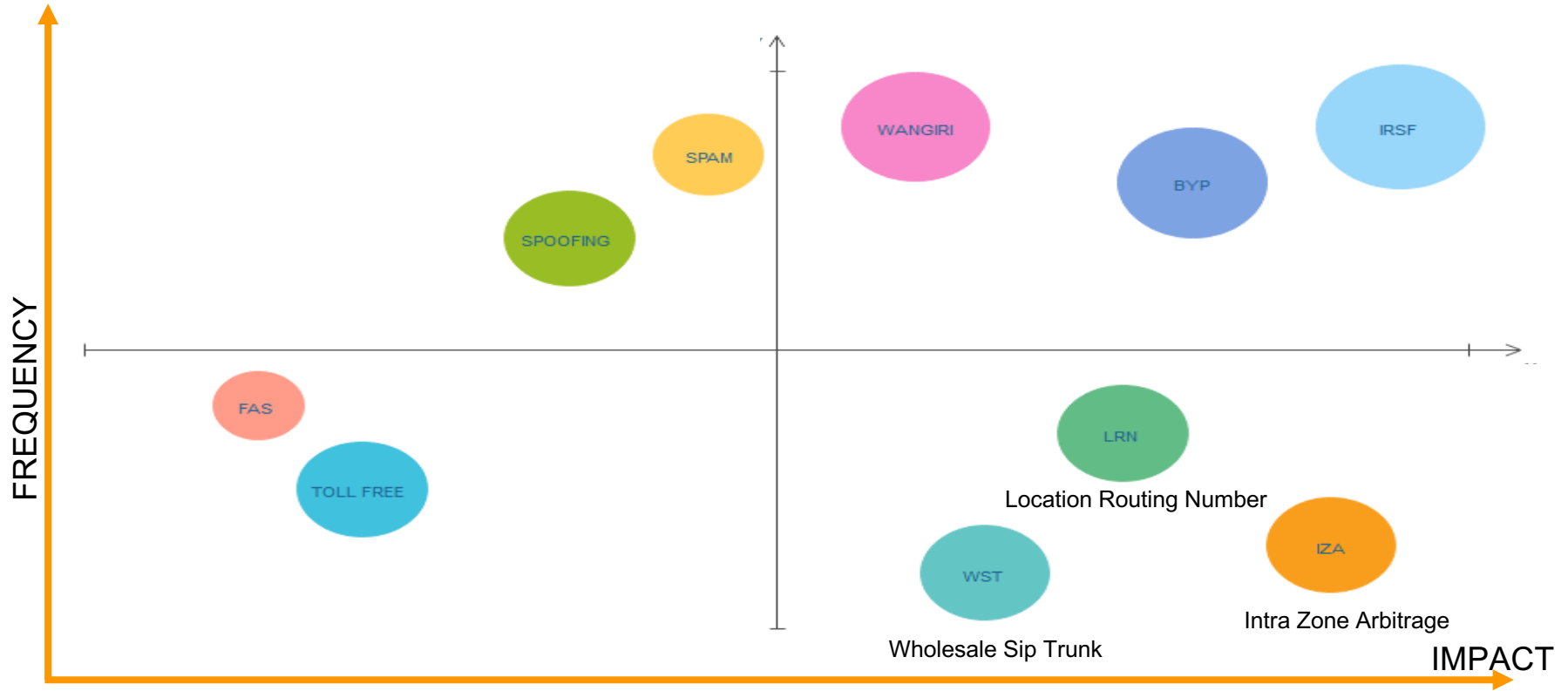Management Services
iBASIS

Agenda

- Fraud Threats We Are Facing

- Top 6 Uses Cases — "The 6 Plagues Of Telecom Industry"

- iBASIS Response With our Fraud Protection strategy and systems

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High Cost Destinations (HCD)

The Fraud Scheme exploit access security vulnerabilities to boost traffic to high cost destinations, which then shares the revenue with the fraudster.

Compromised Network Arbitrage (CNA)

These kind of frauds are the most complicated, and exploit telecom service providers using SIP trunking, signaling manipulations, regulatory loopholes, arbitrage and more.

Compromised User Devive (CUD)

This category covers all types of general fraud that are perpetrated over the telephone through malware, ID spoofing and swaping

The 3 GLOBAL SCHEMES

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Crime Profiling

How the fraudster act and manifest the behaiviour : the crime modus operandi

SCENARIO SIGNATURE

3D CLASSIFICATION

Crime severity

It's how severe is the impact of the fraud : money losses, regulatory risk and disatisfaction level

IMPACT

ENABLER

Crime scene

The means and technics used to perpetrate: it's the crime scene and the material used

USE CASE
1 A# to 1 or Many B#
Many A # to Many B#
Many A# to 1 B#

DEFINITION
It is the count of how many calling parties toward how many called parties during the session

DEFINITION
How the scenario is impacting frequency, legnth and cost

Call Dispersion

Call Intensity

High Velocity Detection Rotor

DEFINITION
Standard deviation compared to Normal Call Behaviour

Call Distribution

USE CASE
Numbers of calls
ACD
Cost

USE CASE
Volume / cost elasticity
Average legnth of Call
ABR Average Bid Rate
ASR Answer Seizure Rate

FRAUD TYPES AUDIENCE QUADRANT
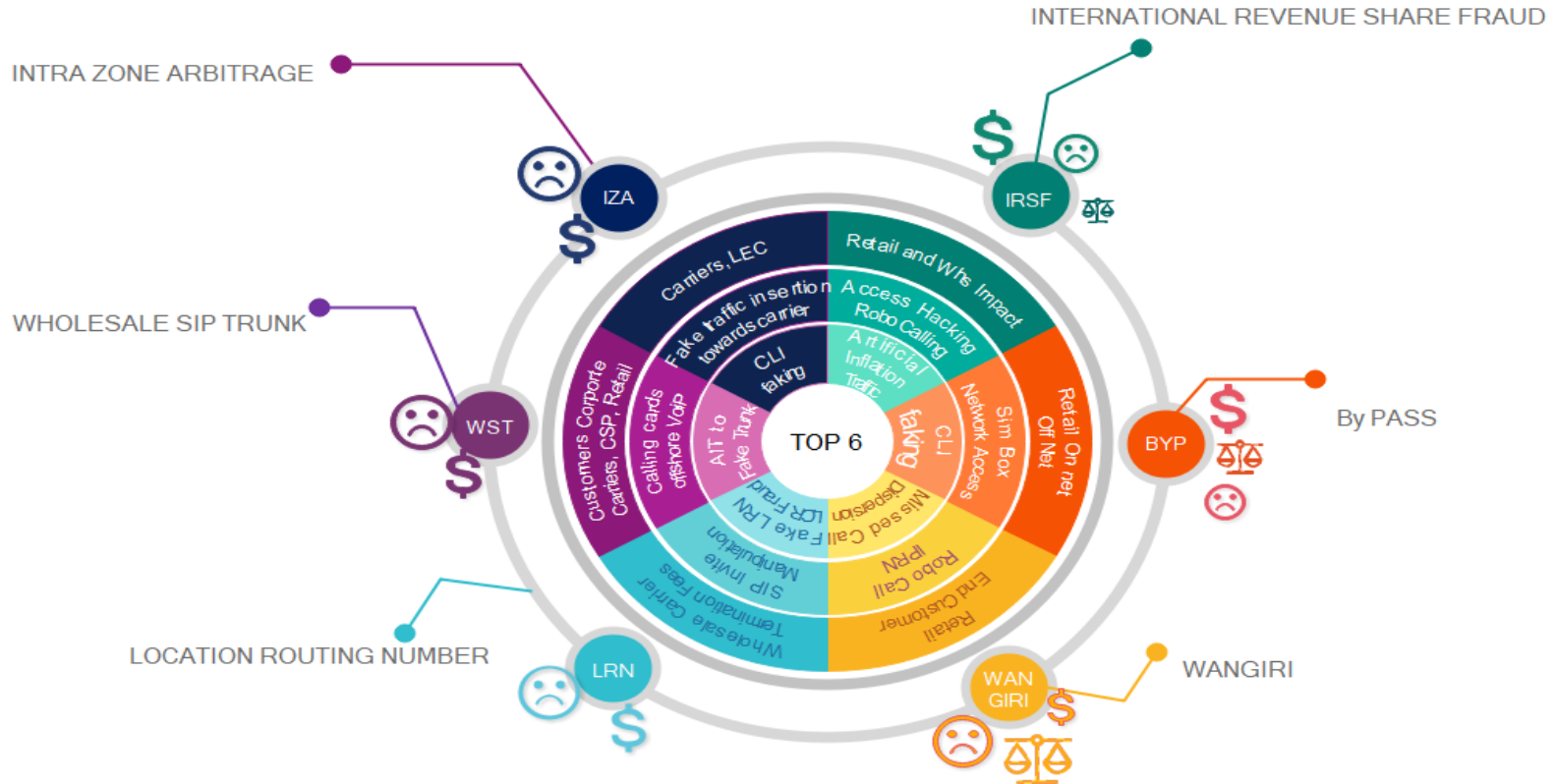
IRSF / CALL FORWARDING
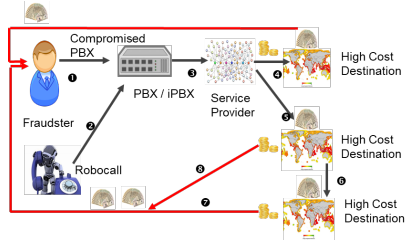
CALL FLOW

Fraudulent access to user credentials

Set user account to forward and transfer calls to HCD

Fraudster calls with PSTN or VoIP

PBX forward calls and transfer them to other high cost

MONEY FLOW

Hacked Enterprise refuses to pay

Service provider pays for terminating HCD

Fraudster has a Revenue Share with HCD
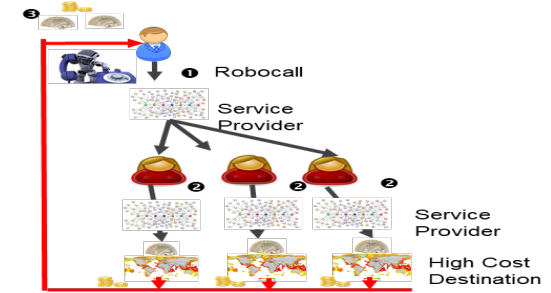
ByPASS / OTT ByPASS
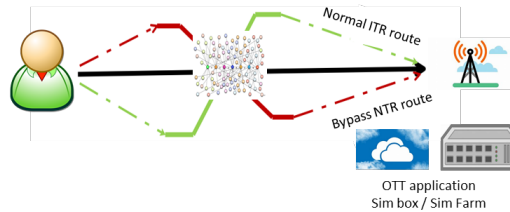
CALL FLOW

Fraudster obtain network access

Install sim box / farming

Intercept international incoming calls and transfer them to Domestic MSISDN's (CLI)

Calls are terminated at cheaper rates

MONEY FLOW

MNO gains NTR instead of ITR

The Balance between On net and Off Net could be negative

Fraudster has revenue ITR - NTR

WANGIRI

CALL FLOW

Fraudster uses Robocall with a high call dispersion to B numbers

Calls appear as "missed calls" with numbering plan similar to country

Customer calls back and is redirected to IPRN and HCD

Customer connected to voice mail or Call centers

MONEY FLOW

MNO face huge customer claims

Service provider pays for customers bill disputes and bill shocks

Fraudster has a Revenue Share with HCD

FRAUD USES CASES TOP 6 SCENARIOS

LOCATION ROUTING NUMBER

WHOLESALE SIP TRUNK

INTRA ZONE ARBITRAGE
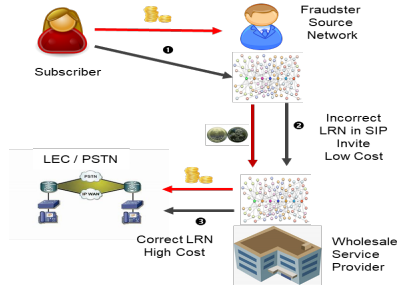
CALL FLOW

Fraudster manipulating to avoid paying extra charges from LRN

Fraudster insert in the SIP message wrong and cheaper LRN

The service provider will route and bill the fraudster using the LRN included in the SIP INVITE

The network that provides termination will route and bill for the call to the high cost destination using the correct LRN

MONEY FLOW

The CSP will under-bill its customer for the call and will have to pay for expensive call.
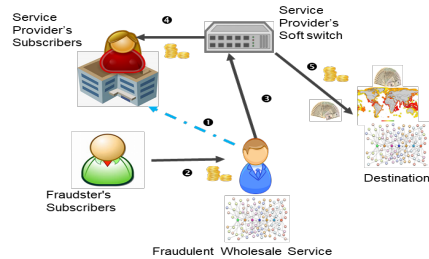
CALL FLOW

Fraudster using stolen credentials to terminate the calls with his wholesale SiP trunking,

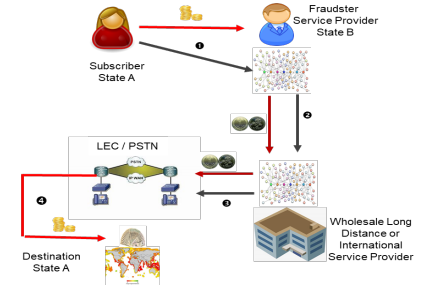Generates random calls from prepaid cards calls (non traceable)

Can use offshore platforms passing through hosted VPN

MONEY FLOW

Customers are billed but refuse to pay

The service provider will pay for the terminated calls

CALL FLOW

Fraudster manipulate CLI / PAI of calling number so that it appears less expensive
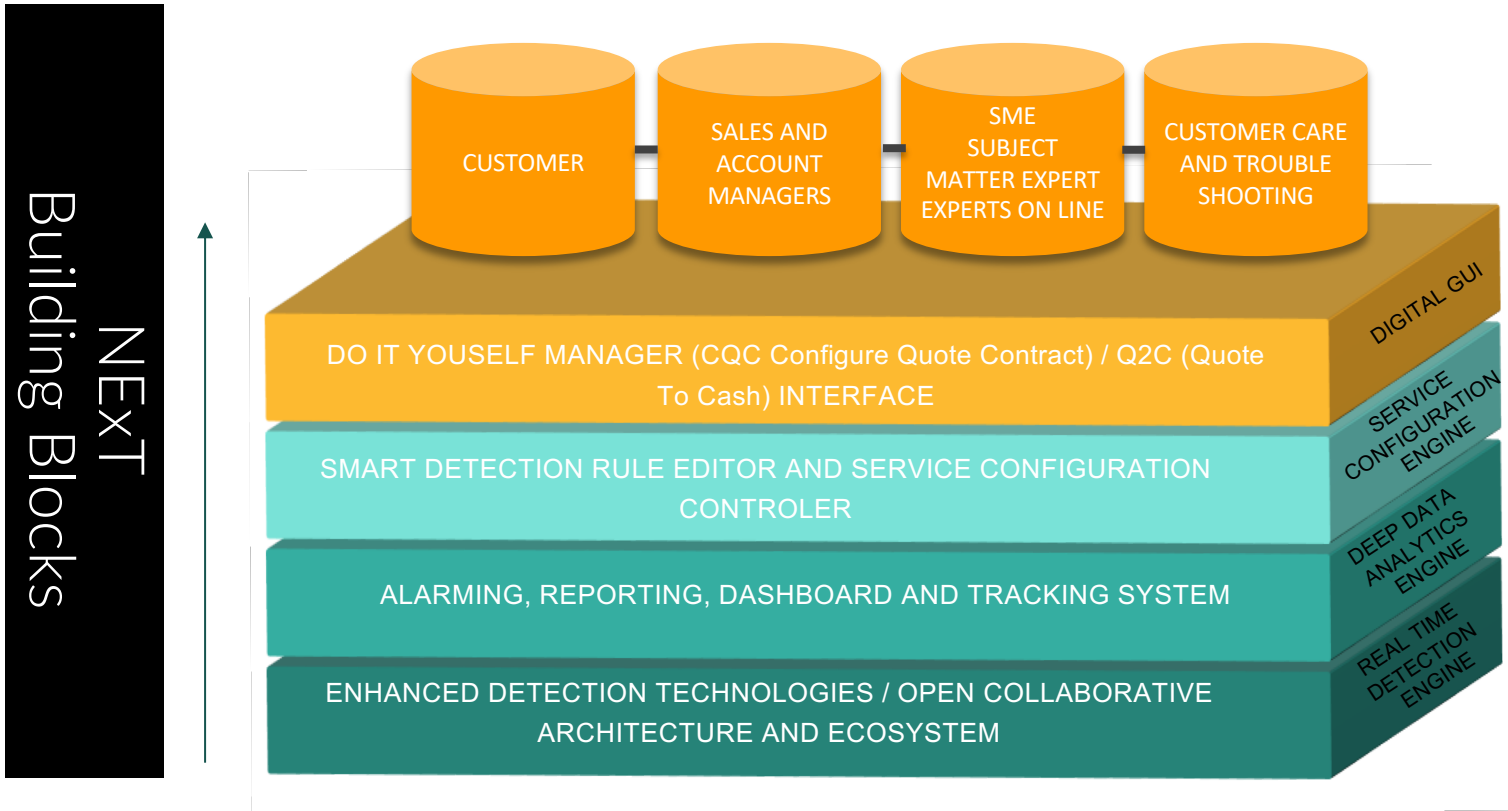
Wholesale carrier route the call as an intra zone CLI / PAI

But the terminated call will be invoiced to the LEC as an extra zone call by the terminating network

MONEY FLOW

Fraudster pays cheaper fees

The last "hop" of the call will be invoiced very expensive

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NExT Building Blocks

CUSTOMER

SALES AND ACCOUNT MANAGERS

SME SUBJECT MATTER EXPERT EXPERTS ON LINE

CUSTOMER CARE AND TROUBLE SHOOTING

DIGITAL GUI

DO IT YOUSELF MANAGER (CQC Configure Quote Contract) / Q2C (Quote To Cash) INTERFACE

SERVICE CONFIGURATION ENGINE

SMART DETECTION RULE EDITOR AND SERVICE CONFIGURATION CONTROLER

DEEP DATA ANALYTICS ENGINE

ALARMING, REPORTING, DASHBOARD AND TRACKING SYSTEM

REAL TIME DETECTION ENGINE

ENHANCED DETECTION TECHNOLOGIES / OPEN COLLABORATIVE ARCHITECTURE AND ECOSYSTEM

Tickets
200 000 +

Customers
700 +

BLOCKED
200 000+

Traffic
supervised
10 BILLION mn

Alerts
160 000 +

Revenue saved
(126;180) m$

Rules
configured
200 +

Risky
Destinations
supervised
300 +

Real Time
Transactions
25,5 Billion
pcdrs

FASG / GSMA

GSMA Fraud And Security Group to address Security and Fraud threats / Best Practices

GLF CoC

Code of Conduct and pledge to combat fraud by the industry. Manged by the Global Leaders Forum with i3F

STIR SHAKEN (FCC)

Initiative led by the regulator FCC to use certificates authority to authenticate legitimate calling number between operators

WANGIRI BLOCKCHAIN

Use of Blockchain technology to share a global distributed ledger of "blacklisted numbers"

THANK YOU