FIRST ORION

TRANSPARENCY IN COMMUNICATION

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Solutions Architecture

FIRST ORION
TRANSPARENCY IN COMMUNICATION

We're Scam Protection Plus Much More

We provide transparency in communication, enhance the call experience, and empower people to trust their phones again.
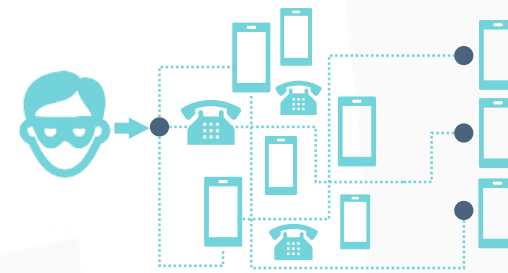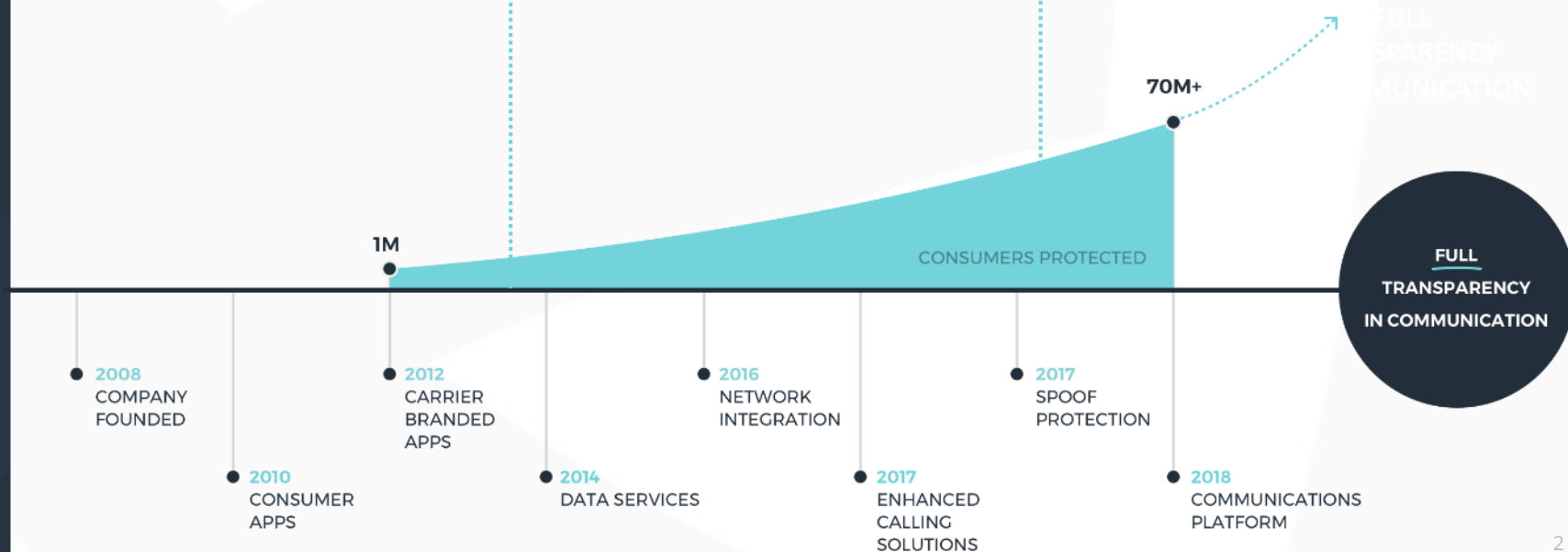
First Orion Evolution

1st Generation Scammers make 1000s of calls from a single number. Determining number reputation is simple.
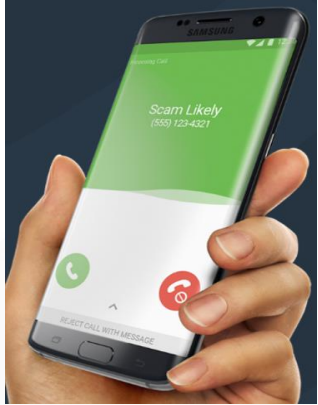

2nd Generation Scammers increase rotation of numbers. Number reputation assessed thru in-network data volumes and speed.

3rd Generation Scammers rotate numbers underline per call (e.g. "Neighborhood spoofing"). They infiltrate traffic at epidemic volumes, so assessing number reputation becomes obsolete.

70M+

1M

CONSUMERS PROTECTED

FULL TRANSPARENCY IN COMMUNICATION

2008 COMPANY FOUNDED

2010 CONSUMER APPS

2012 CARRIER BRANDED APPS

2014 DATA SERVICES

2016 NETWORK INTEGRATION

2017 ENHANCED CALLING SOLUTIONS

2017 SPOOF PROTECTION

2018 COMMUNICATIONS PLATFORM

Complete Call Transparency

Engage

SCAM/Fraud
Identification
+
Call
Categorization

Inform

Careful...
Possible Scam

Outbound
Call
Protection

Calling Name
(AccuName &
Enhanced AccuName)

CALL**TRANSPARENCY**
The Company Registry

CallPrinting™

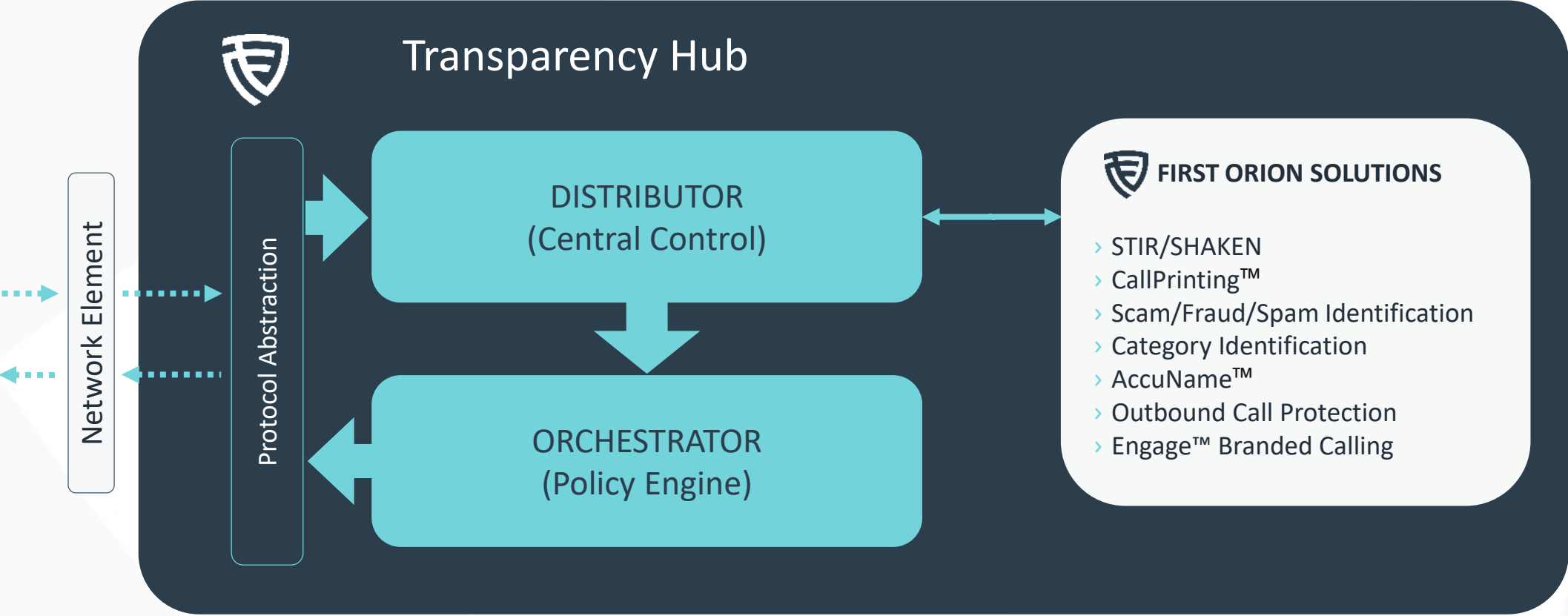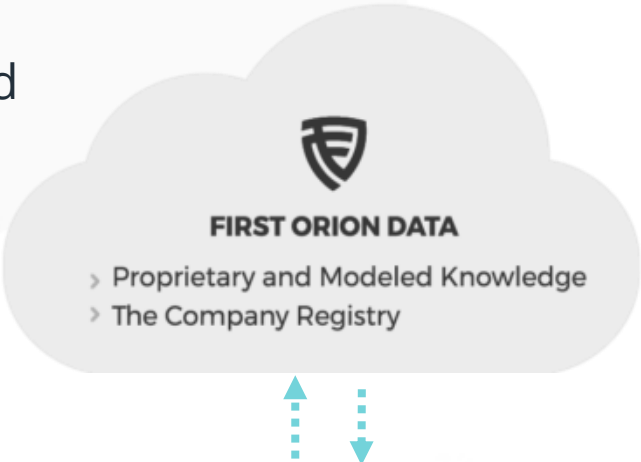STIR-SHAKEN
+
KMS

Big Data + STIR/SHAKEN + CallPrinting™ + SCAM Protection + …

First Orion collects and analyzes billions of disparate data points, distilling that data for decisioning phone calls

Selected Raw Data

Selected Refined Data

Real-time Call Decisioning

Detailed Protocol Inspection

Call specific data

Industry data

Historical data

Many, many More..

FCC data

CallTransparency

Refined Data Scoring

Phone Call Scores
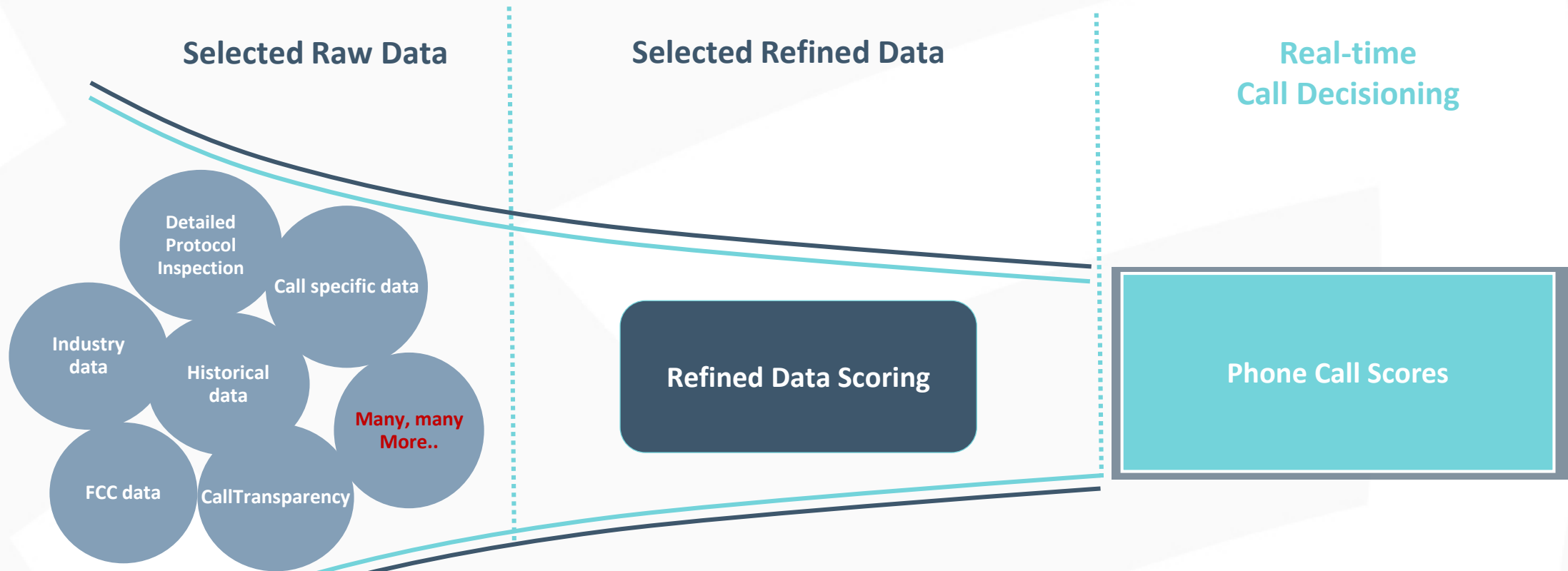
- We use machine learning and time series analysis to identify discriminating features and anomaly behavior
- Scam and spoof identification uses a combination of real-time analytics and artificial intelligence
- Offline and real-time analytics
- Manual and self-correcting models
- We continuously research scammer and spoof methodologies and changes

Enables carriers to easily launch STIR / SHAKEN with the ability to add a suite of solutions that drive revenue and deliver enhanced communications services for consumers and enterprises.

FIRST ORION DATA
> Proprietary and Modeled Knowledge
> The Company Registry

Transparency Hub

Network Element

Protocol Abstraction

DISTRIBUTOR
(Central Control)

ORCHESTRATOR
(Policy Engine)

FIRST ORION SOLUTIONS
> STIR/SHAKEN
> CallPrinting™
> Scam/Fraud/Spam Identification
> Category Identification
> AccuName™
> Outbound Call Protection
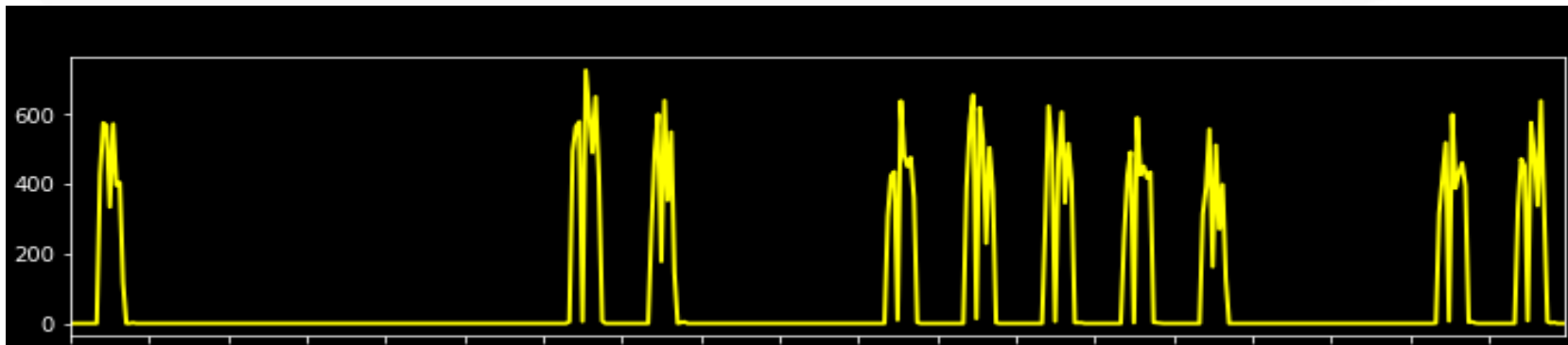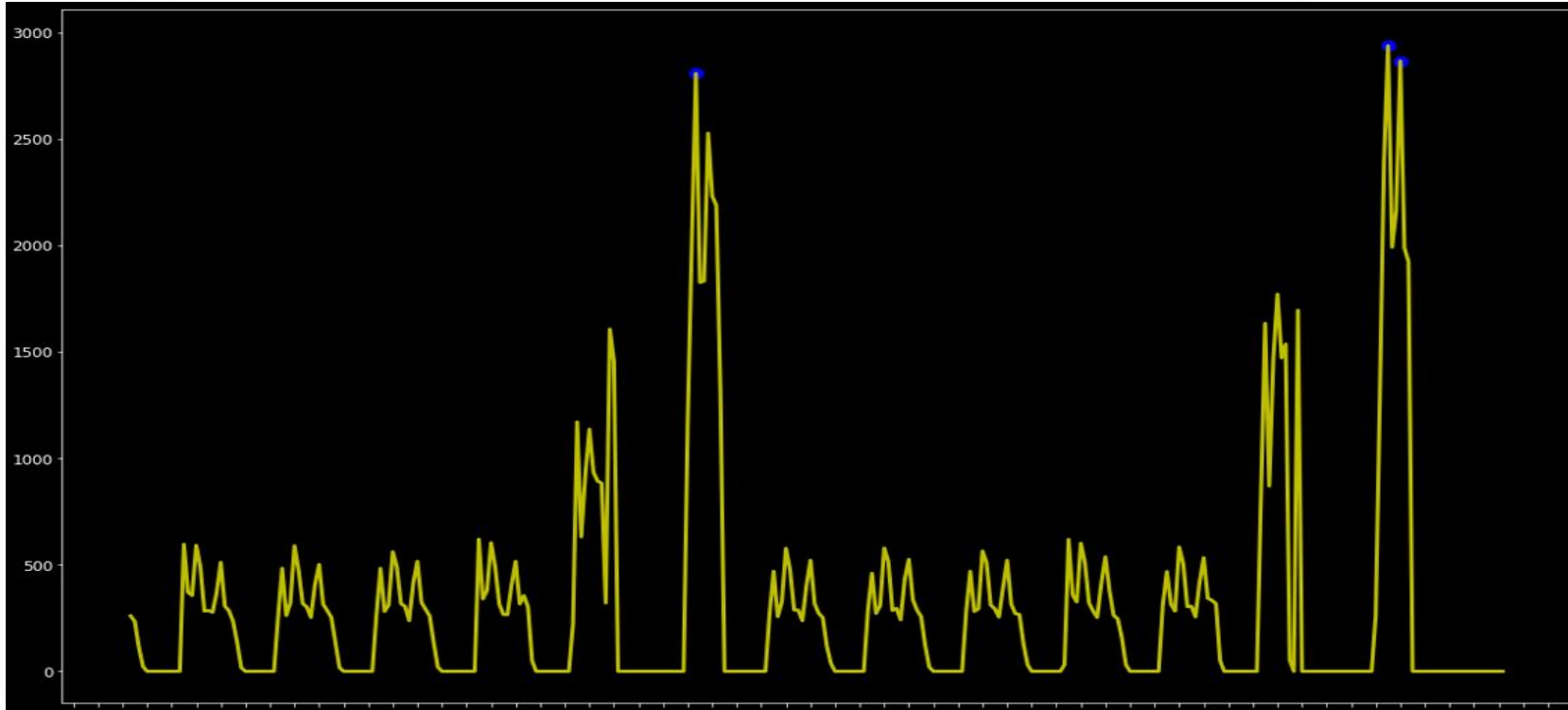> Engage™ Branded Calling

Analytics Engine

Observations

- Run-rate of ~1 BILLION scam calls detected per month

- During the week roughly:
  - 27% scam
  - 15%-18% spam

- During the weekend, the numbers drop significantly:
  - 10% scam
  - < 3% spam

- Even when a call is tagged as possible scam, people answer anyway and *get scammed*

- Even when a call is tagged as possible scam and the call is not answered, people call the number back and *get scammed*

- Enterprise spoofing

Analytics Engine – Observations
Enterprise Spoofing

Analytics Engine – Observations
Enterprise Spoofing