

GSMA Device Intelligence to Combat Crime and Fraud



Jason Smith

GSMA

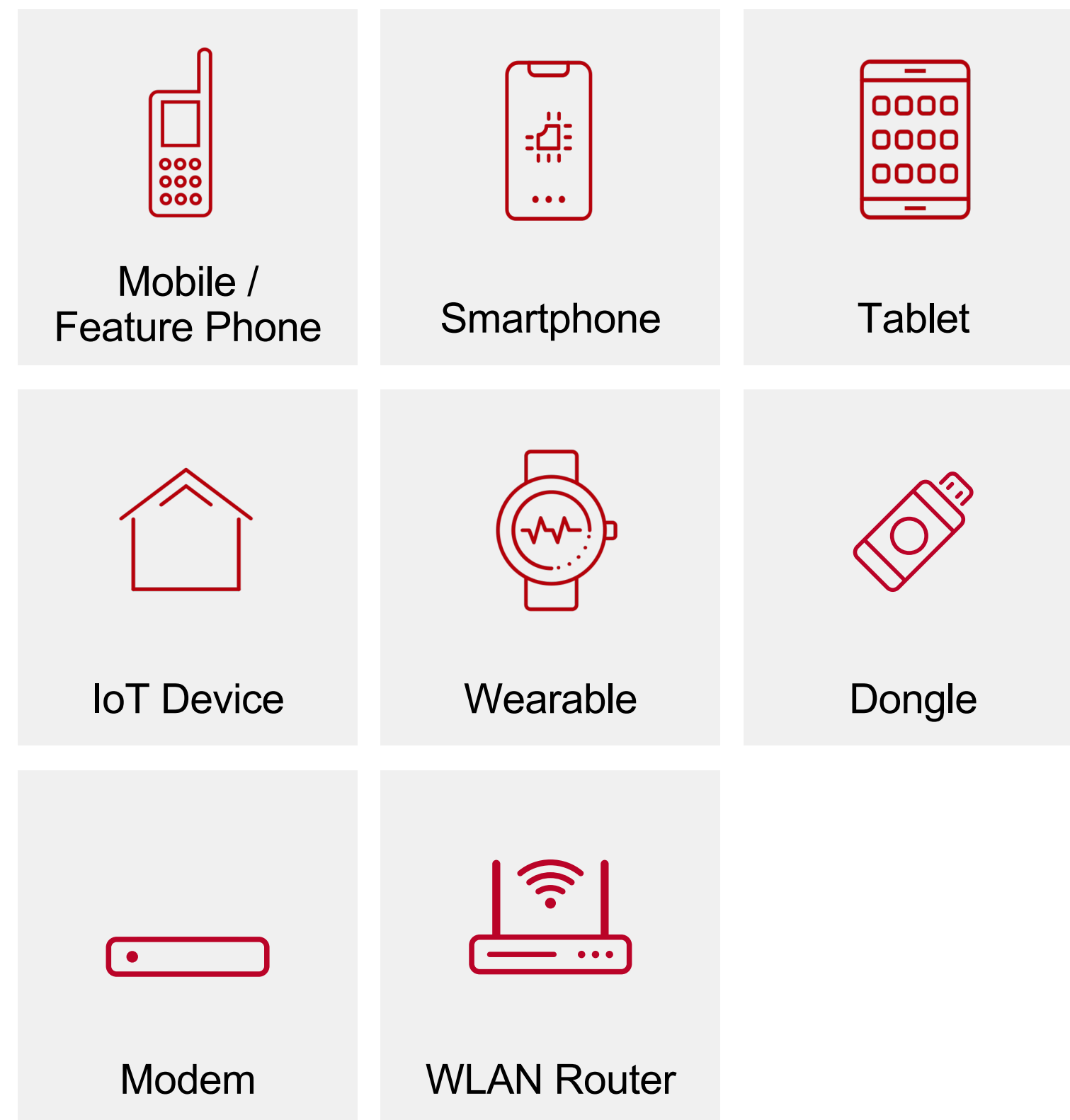
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ITU Workshop on Combating Counterfeiting and Stolen ICT Devices
13 October 2023

Our Data Primary Source

- We hold the records of over 200K+ Type Allocation Codes
- Details of over 8 Billion devices



Type Allocation Code (TAC)

86

Reporting Body Identifier

916102

Type Identifier indicating brand owner and device model allocated by Reporting Body

Serial Number

991292

Unique Number assigned to individual devices by the manufacturer

Check Digit

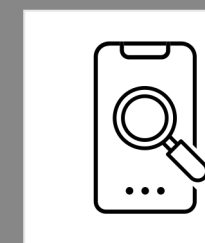
0

A function of the other digits [calculated by the manufacturer]

International Mobile Equipment Identifier (IMEI)



The 8 digit **TAC** identifies the brand owner, model and marketing name



The 15 digit **IMEI** identifies the individual device when seen on a network

Device Category

Available device attributes / properties

Device Identification

Manufacturer, consumer recognized marketing name, model name, brand name, year released

Hardware Information

Device type (M2M device, Tablet, Smartphone, Watch, etc.), screen size, chipset, CPU, clock speed, RAM, VoLTE enabled, IoT endpoint, IoT enabler, IoT controller

Operating System

OS name and minimum OS version (e.g. Android 8, iOS 11, etc.)

Network Protocols

2G, 3G, 4G, 5G, LTE Category, VoLTE, VoWiFi

Browser

Name, version, rendering engine, etc.

HTML5

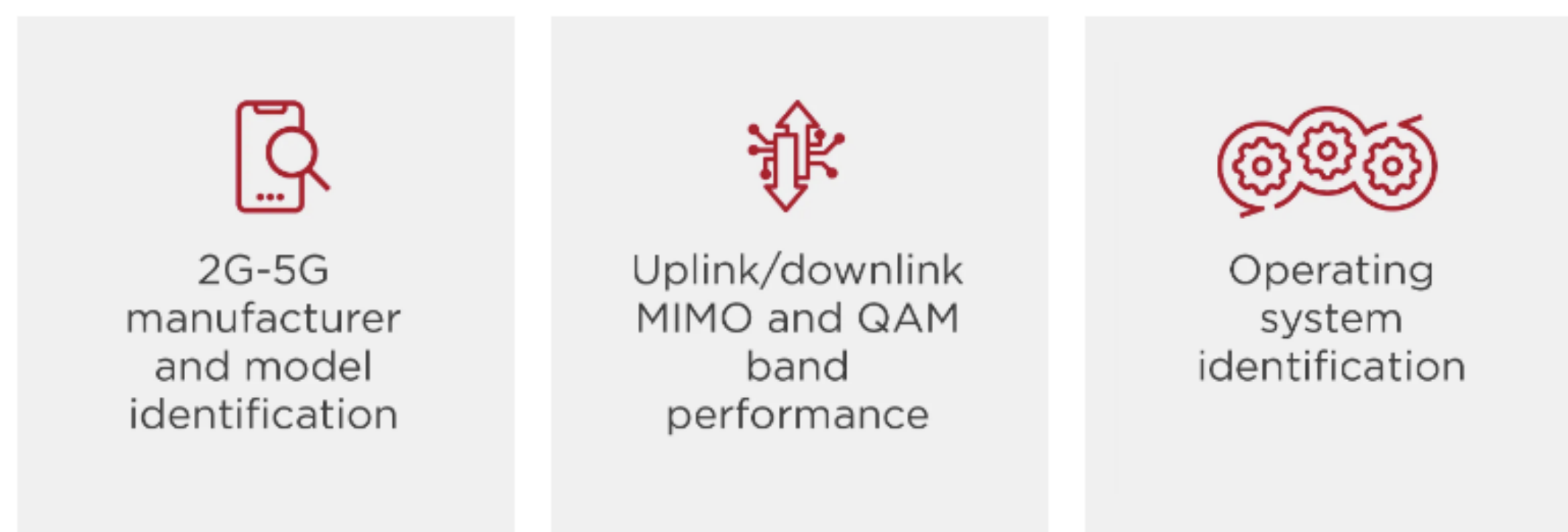
CSS, HTML5 properties

Multimedia

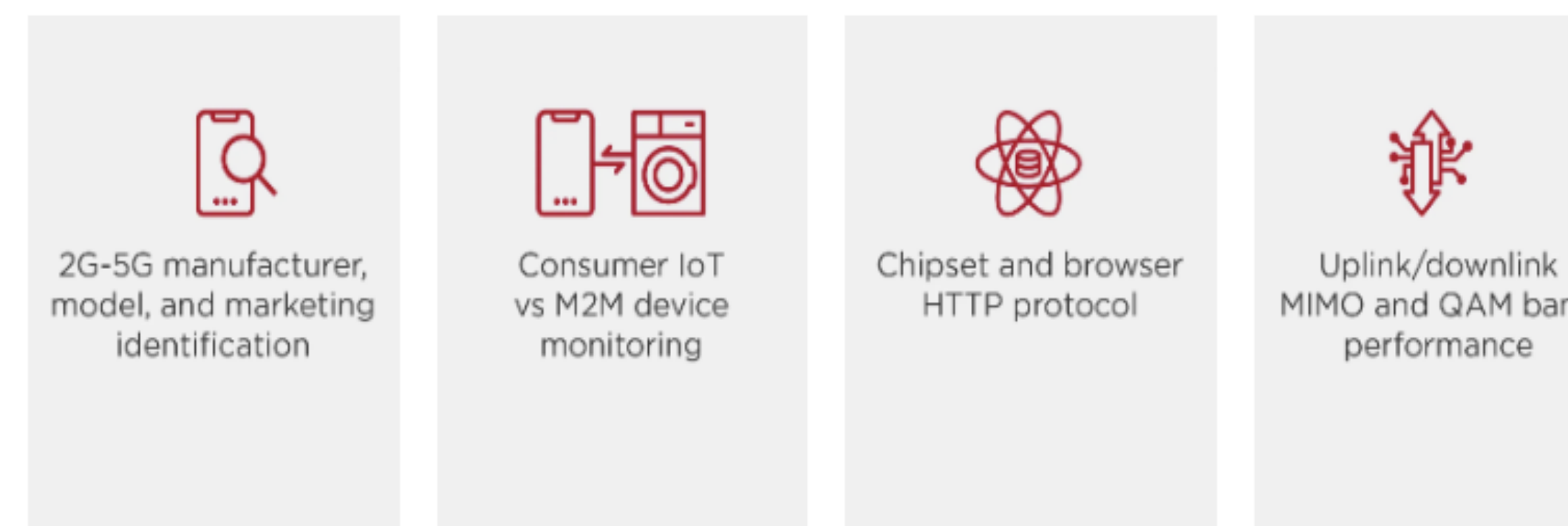
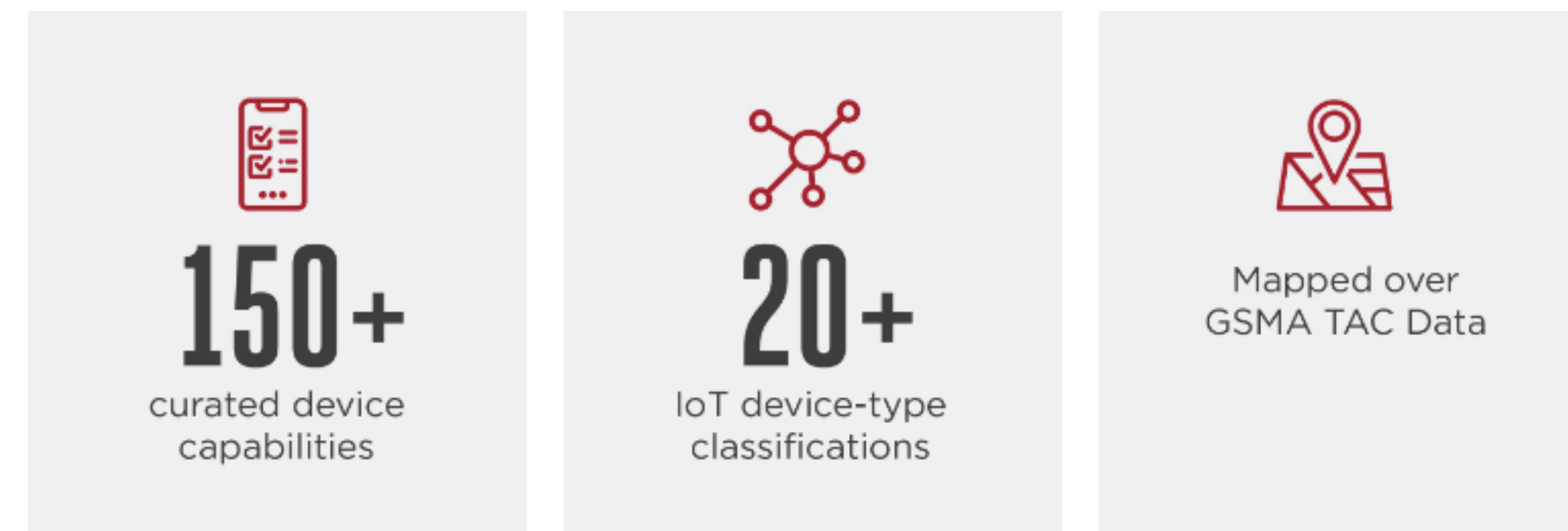
Streaming, Audio, Video codecs, Bluetooth

GSMA Device Information service types

GSMA Device Database



GSMA Device Map



GSMA Device Registry Ecosystem

Contributors



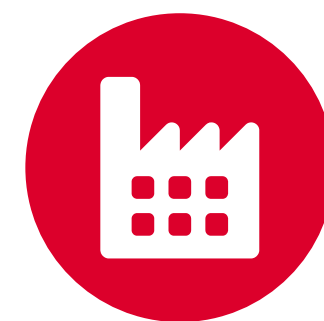
Insurer



Retailer



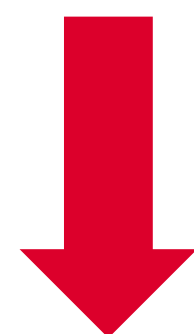
Distributor



OEM



MVNO



Network Operator Access

Device Status Exchange

- **120+** Mobile Network Operators
- **42** countries
- help protect **1+ billion** users



**GSMA
Device Registry**

Multiple lists and use cases to help prevent device crime



Safer Device handling

GSMA Device Check™

- Trade / recycle / repair / insure
- **300+** organisations
- **50+** countries
- **100+ million** devices queried per year



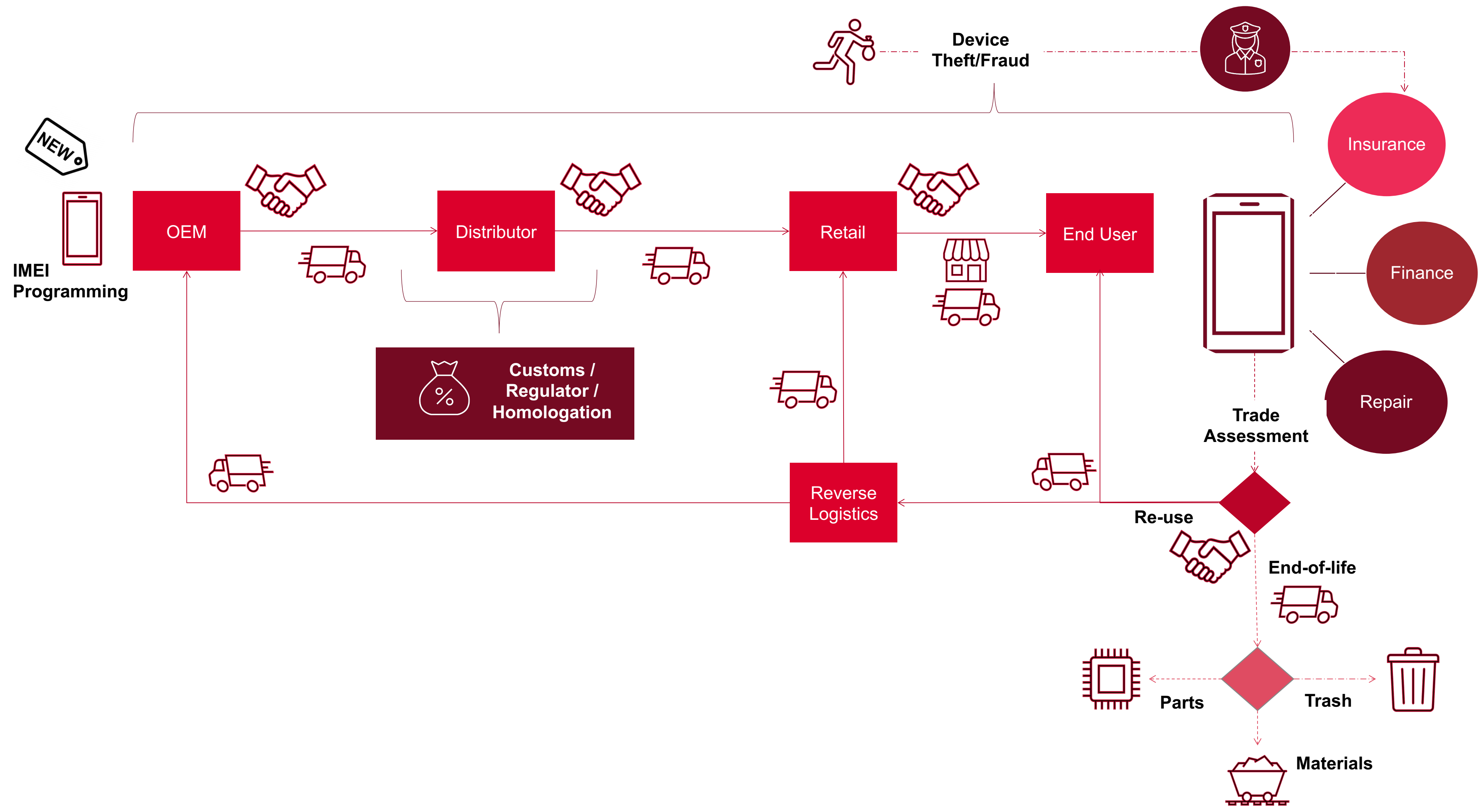
Device Registry Use Cases

Stolen or Lost	Fraudulently Obtained	Broken or Faulty	Court Ordered Block	Known Duplicate	Ownership Claim	Financial Claim
<ul style="list-style-type: none"> • Not with rightful owner 	<ul style="list-style-type: none"> • Obtained with no intent to pay 	<ul style="list-style-type: none"> • Technical and/or safety issue 	<ul style="list-style-type: none"> • MNO use only • Legal obligation 	<ul style="list-style-type: none"> • IMEIs known to have been copied into multiple devices • Help remediate security issues 	<ul style="list-style-type: none"> • Assert ownership • Prevent unapproved trade 	<ul style="list-style-type: none"> • Assert financial claim • Prevent premature trade

Block trade and use
(Block List)

Further investigation
(General List)

Expanding Role in Device Lifecycle



Next?

1. Use GSMA Device Database to help only use approved device types. *Free web account provided to government and law enforcement agencies.*
2. Use GSMA Device Registry to report IMEIs of devices that are lost/stolen, broken/faulty, blocked due to court order, and known duplicated IMEIs... consider new use cases for the General List.
3. Support Operator use of the GSMA Device Registry to block stolen devices.
4. Use GSMA Device Check to identify flagged devices and take appropriate action. *Free web account provided to government and law enforcement agencies.*
5. *Visit [gsma.com/services/contact](https://www.gsma.com/services/contact)*



**Thank you
for joining, any
questions?**