GSMA Update on IMEI Activities

Outreach Director, IMEI Blacklist Service

3rd ITU-T Study Group 11 Regional Workshop for Africa on "Counterfeit ICT Devices, Conformance and Interoperability Testing Challenges in Africa"

30 September 2019

The GSMA represents the interests of mobile operators worldwide

The GSMA was founded in 1987

12 Offices worldwide:

London | Dubai | Atlanta | Brussels | Barcelona | Hong Kong | Brasilia | Buenos Aires | Sao Paulo | Nairobi | New Delhi | Shanghai

The GSMA represents the interests of mobile operators worldwide

Uniting nearly **800 mobile operators**

With **300+ companies** in the broader mobile ecosystem

GSMA events, attract over **200,000+ delegates** from across the global annually

The GSMA works to deliver a regulatory environment that creates value for consumers by engaging regularly with:

Ministries of Telecoms | Telecoms regulatory authorities | International & non-governmental organisations

Connecting **24,000+ industry Experts** Exclusively for GSMA Members, InfoCentre² is your place to connect with a global community of industry experts

GSMA Working Groups provide frameworks and standards in commercial, operational and technical matters that help maintain and advance mobile industry ecosystems

Eight billion+ Mobile connections worldwide

Why GSMA

120+

Operators Participating

120

Lookup Customers & Partners

40

Countries of Active Blacklist Participation

1.2m
/month

Lost & Stolen Records

>7m
/month

IMEI Enquiries Processed

Active Participation in ITU and Regional Telecommunication Organization

Agenda

- Updates on GSMA support in the African region on Counterfeit and Stolen mobile device topics
- GSMA Lookup Service
- GSMA IMEI Blacklist Exchange
- GSMA Device Database Web enhancement
- Other activities current taking place

# Côte d'Ivoire: "We Care" Initiative

While the number of mobile users continues to increase at a fast pace in Latin America, demanding more and better services, the leading mobile operators in the region want to ensure that each of its users may enjoy the transformative benefits of mobile technology in a safe and reliable environment.

To achieve this goal, operators have decided to join forces as an industry and take on – throughout several markets in the region – a series of commitments so that the mobile phone and mobile networks can provide various solutions to social problems.
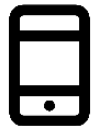
Côte d'Ivoire's mobile industry has recently announced to participate GSMA's We Care initiative, to enable report and distribution of lost and stolen mobile devices information

# Kenya: SMS based IMEI lookup service
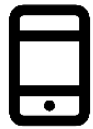
Valid IMEI

Invalid IMEI

1555

Valid IMEI
Dear Customer, the IMEI you submitted is valid for (brand name) and (device model). Visit the link https://ca.go.ke/industry/type-approval/overview/ for more details. Thanks

Invalid IMEI
Dear Customer, the IMEI you submitted is invalid. Visit the link https://ca.go.ke/industry/type-approval/overview/ for more details. Thanks

Public Lookup Service
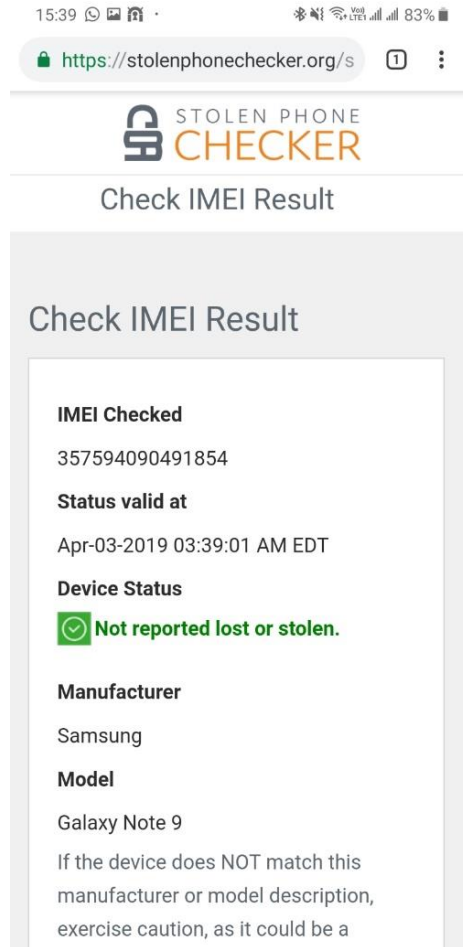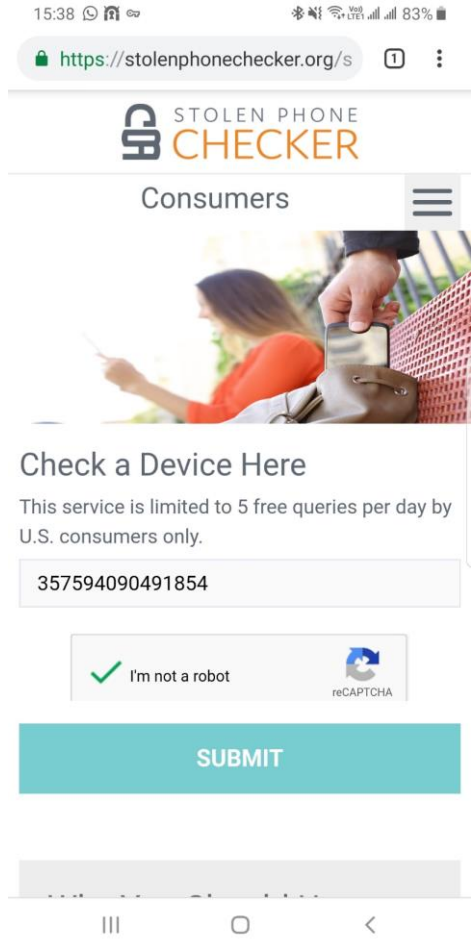
US Sample

GSMA collaborates with the industry to provide public lookup service through website and other lookup service

Enable public access to lost and stolen device information, so as to check prior to purchase of new and 2nd hand mobile devices

Public Lookup Service as First Step of Public Awareness

Argentina

Canada

Costa Rica

Colombia

Dominican Republic
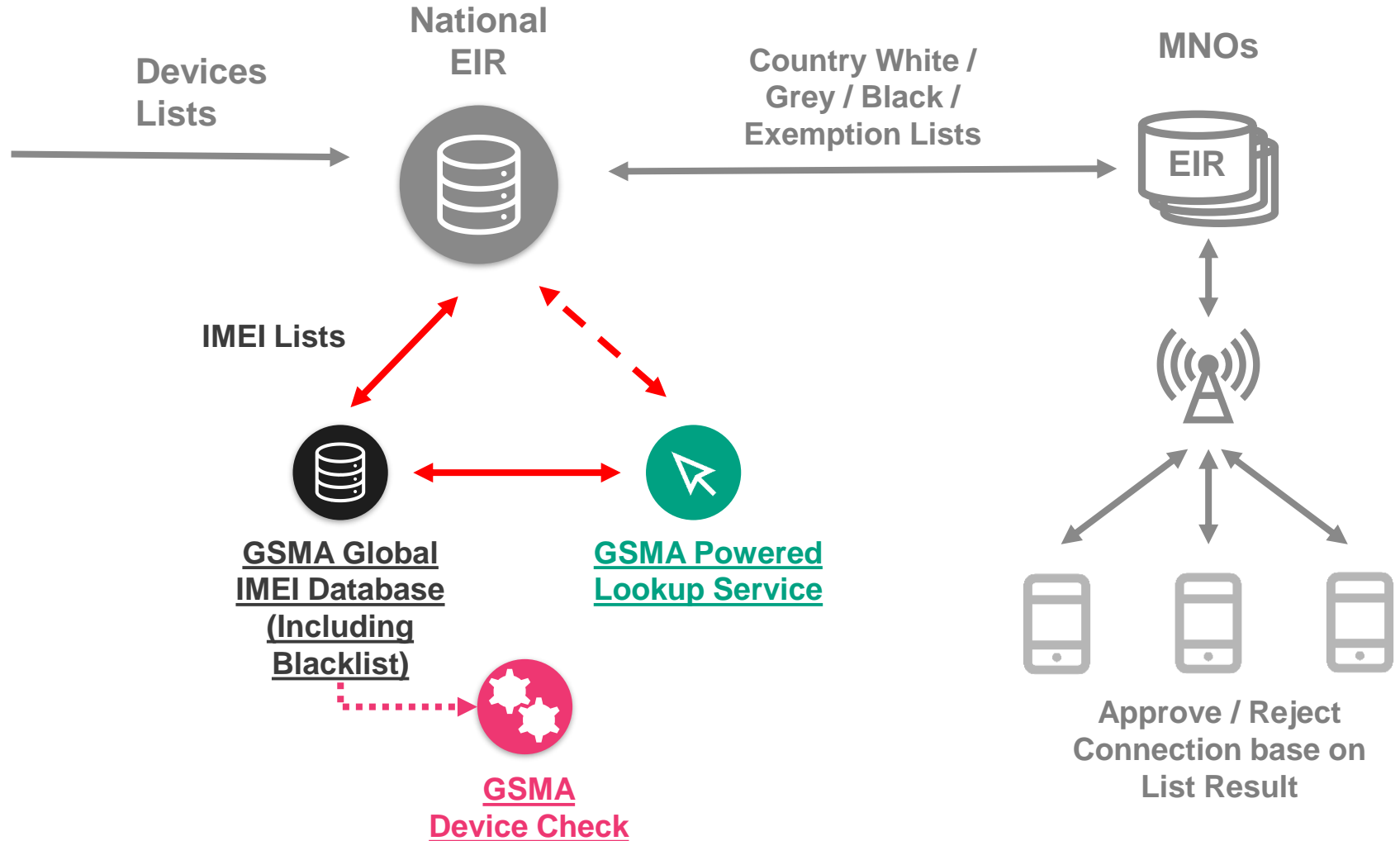
Honduras

Mexico

New Zealand

USA

And More……

How GSMA helps to tackle device crime

National EIR

Devices Lists

Country White / Grey / Black / Exemption Lists

MNOs

EIR

Registered Imports

Type Approval

GSMA Device Data

Amnesty List
Measured from network before system switch on

IMEI Lists

GSMA Global IMEI Database (Including Blacklist)

GSMA Powered Lookup Service

GSMA Device Check

Approve / Reject Connection base on List Result

Overview for illustration Purpose Only

GSMA as a Key Enabler

GSMA Device Check

Brand Owner / Device manufacture applies for TAC during its design phase and use it to allocate IMEI in each 3GPP compatible devices.

GSMA allow access these TAC data for enabling governmental activities

New Service Options
- API based enquiry
- Web based 1-by-1 enquiry (in development)

GSMA Global IMEI Database

Global IMEI Database **is a free service to Operators and selected organisations** exchange enables government, regulator and operators to exchange IMEI globally, allowing extended industry to understand and act on flagged devices

Current Service (Black List)
- Lost & Stolen Mobile Device
- Faulty & Broken
- Duplicate IMEI

Roadmap
- Registered devices
- Homologation / import channel evasion
- Amnesty Devices prior to regulation enforcement

GSMA Powered Lookup Service (New)

GSMA provides **free service to provide web based,** co-brand website with government or regulator to provide public lookup service.

Improve public awareness and understanding on IMEI related regulations

Service
- IMEI validation with Model and Brand name
- Enquiry of IMEI on Lost & Stolen Mobile Device
- Simple Yes / No for easy customer understanding on device status with Local specific enforcement data

GSMA Device Data – New Access Option

API Integration

JSON based API for retrieving TAC / IMEI Information, to evaluate if TAC is properly allocated from GSMA allocation process

Benefit:
Fully integration with automated applications with minimum operation and maintenance required

Use Case:
- Service / workflow integration
- Imported / Local Manufactured Device Declaration
- National EIR device checking

GETHANDSETDETAILS Sample JSON Structure

```
{
 "portName":"Hong Kong",
 "country": "Hong Kong",
 "portType": "SEA",
 "deviceId":"01343000"
}
```

Sample Response

```
{
"statusCode": 200, "statusMessage": "GetHandsetDetails - Success", "deviceId": "35411507",
"brandName": "Brand ABC", "modelName": "ABC 123", "internalModelName": "ABC 123",
"marketingName": "Next Gen Super Phone, Super Phone", "equipmentType": "Smartphone",
"simSupport": "2 UICC", "nfcSupport": "Yes", "wlanSupport": "Yes", "blueToothSupport": "No",
"operatingSystem": [  "Android" ],
"radioInterface": [  "NONE" ],
"deviceCertifybody": [  "Not Known" ],
"LPWAN": [ "Cat-NB1"," Cat-NB2" ],
"manufacturer": "Brand ABC, County XYZ",
"tacApprovedDate": "2015-11-25",
"gsmaApprovedTac": "Yes"
}
```

GSMA Device Data – New Access Option

Web based enquiry (Coming Soon)

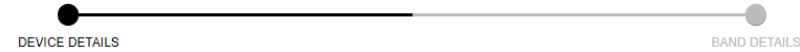Web based login for regulator to enquire individual TAC / IMEI information

Benefit:
Easy to use web interface for quick enquiry of small amount of TAC / IMEI

Use Case:
Regulator enquiry
Type Approval Evaluation
Import clearance

GSMA Workgroup – Continuous effort on tackling device crime

As participated by GSMA members, investigative works are being conduct on below topics on device identifiers

IMEI Weakness Report

Identify and verify device's IMEI implementation vulnerability for corrective actions

Next Generation Identifier

Identify possible enhancement on device identifications

eSIM based blocking

Alternative implementation for blocking mobile device

In conclusion, dealing with device crime requires national and international cooperation

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