CAMARA

THE TELCO GLOBAL API ALLIANCE

Presentation

15.04.2023

APIs enabling seamless access to Telco network capabilitites

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Telco network capabilities exposed through APIs provide a large benefit for customers. By simplifying telco network complexity with APIs and making the APIs available across telco networks and countries,

5G network capabilities
Introduction

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Telco network capabilities are functions partly available already in 4G but new and much more powerful in the 5G network. These functions enable to get information out of the network but also to configure the network.

The on-demand, secure and controlled exposure of these capabilities pave the way for transforming operator networks into service enablement platforms, facilitating the application-to-network integration, which will be key to deliver enhanced and service-tailored customer experience in the 5G era.

Abstraction API Architecture

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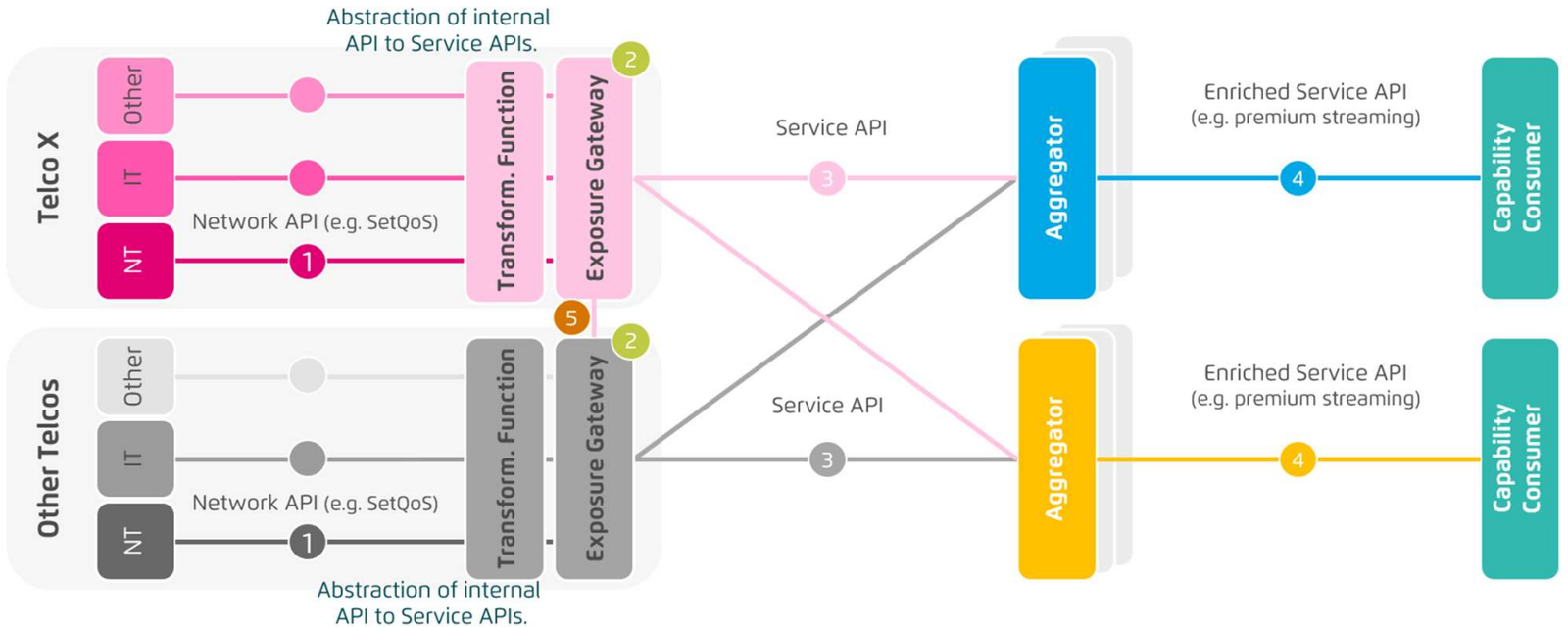
Abstraction from Network APIs to Service APIs is necessary:

- To simplify telco complexity making APIs easy to consume for customers with no telco expertise (user-friendly APIs)
- To satisfy data privacy and regulatory requirements
- To facilitate application to network integration



1 **Capabilities**
Exposable via Network APIs e.g. slicing, positioning, managed QoS, IDM etc.

2 **Exposure**
of Service Functions via Service APIs. Common means of access across all operators

3 **Service APIs**
Service APIs incl. also access control, billing, cross-operator federation etc.

4 **Technical Aggregation (optional)**
Enrichment of Service APIs e.g. cloud or platform providers etc.

5 **Interoperability**
e.g. API roaming, etc.

Abstraction API Distribution Options

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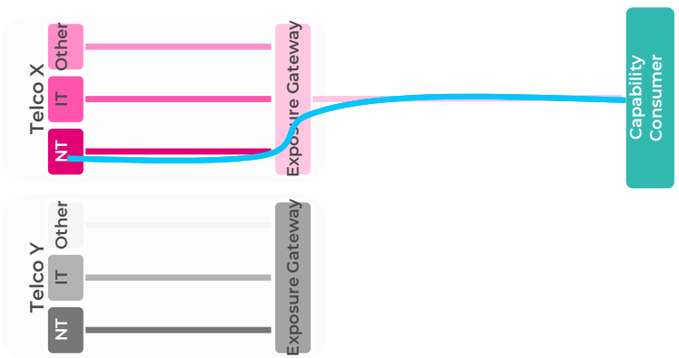
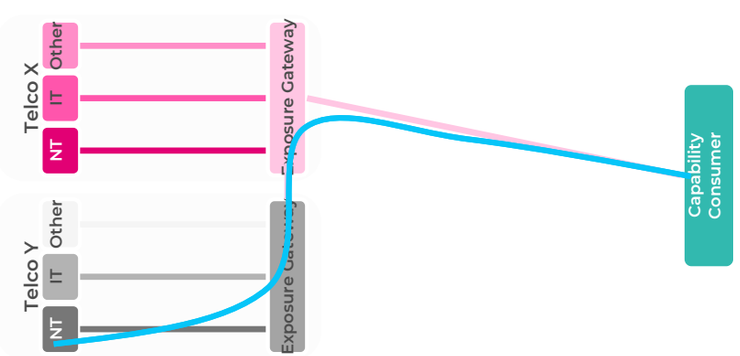
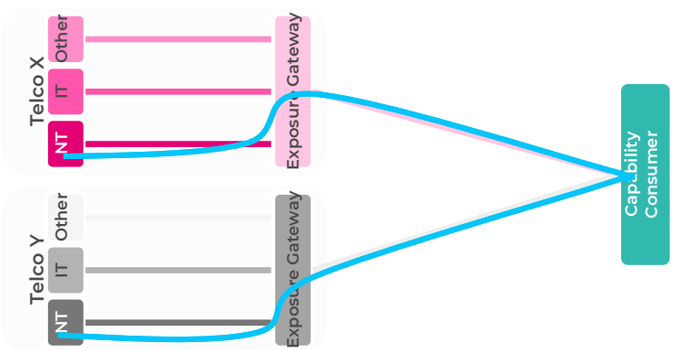
A. Single-Operator Relationship



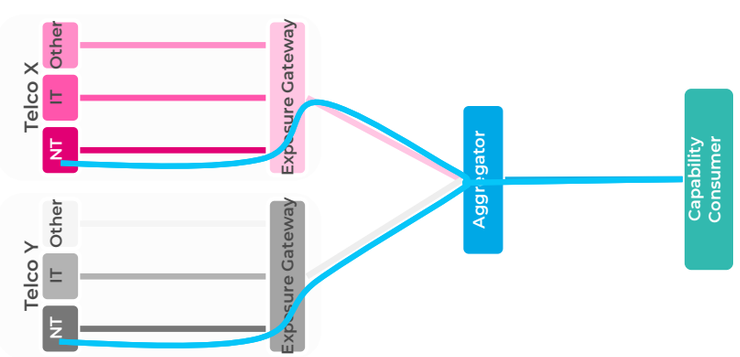
B. Single-Operator "API Roaming"



C. Multi-Operator Relationship



D. Operator Aggregation



Availability Benefit

Availability across telco networks and countries is necessary:

- To ensure seamless customer experience
- To accelerate technology development and commercial adoption (minimize implementation effort)
- To accelerate education and promotion
- To support application portability

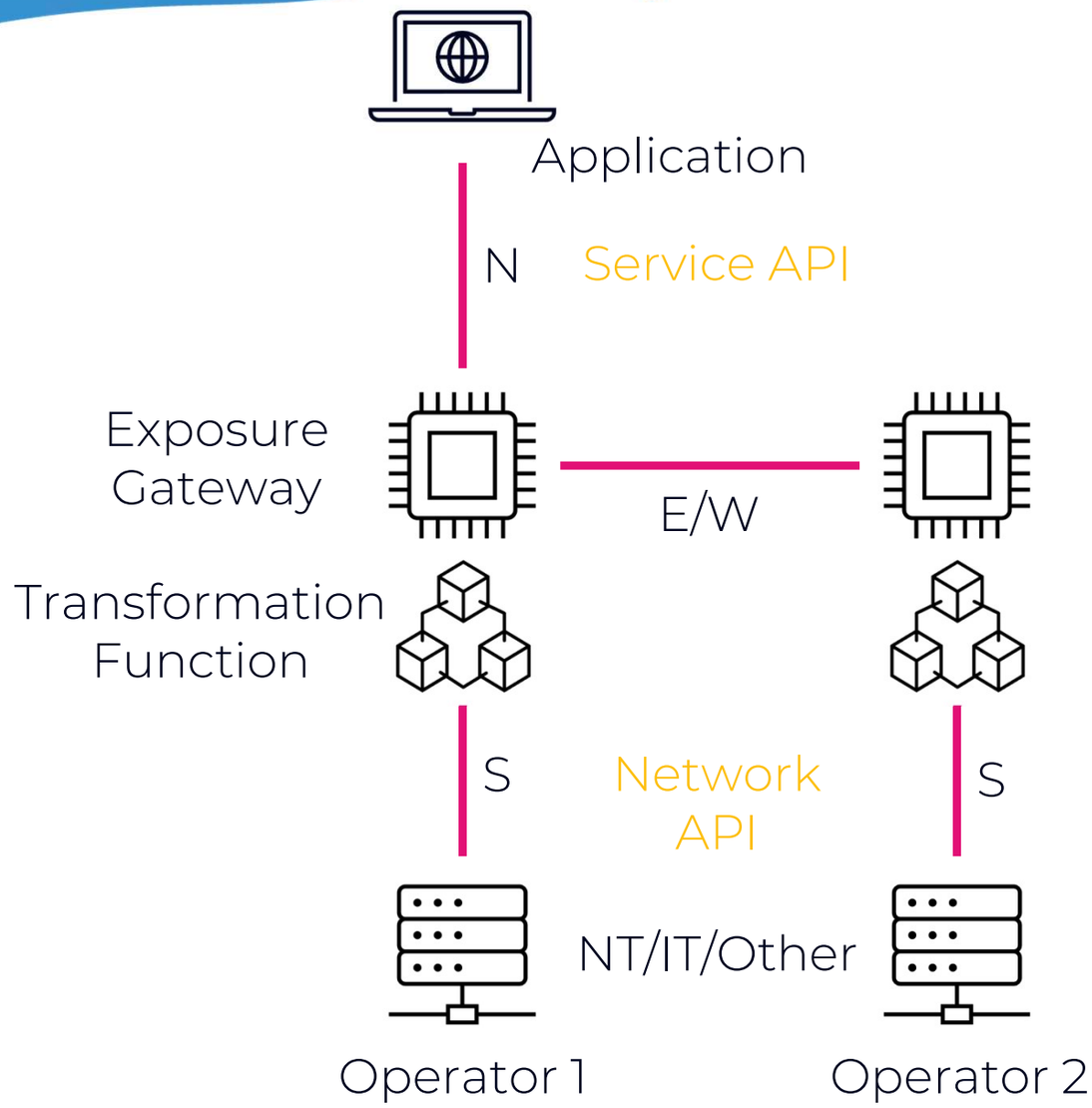
CAMARA Mission

CAMARA is an open source project within Linux Foundation to define, develop and test the APIs. CAMARA works in close collaboration with the GSMA Operator Platform Group to align API requirements and publish API definitions and APIs. Harmonization of APIs is achieved through fast and agile created working code with developer-friendly documentation. API definitions and reference implementations are free to use (Apache2.0 license).

CAMARA Scope

From functional perspective the scope is limited to **telco APIs**, that means APIs in the domain of telco mobile networks, telco fixed line networks or supporting these.

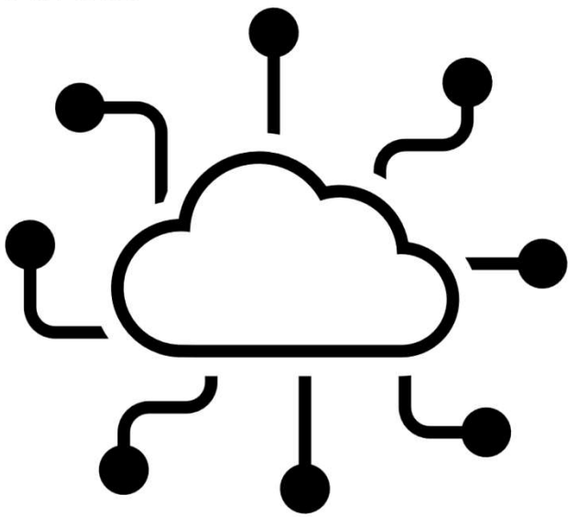
Thereby the focus is on the **northbound interface** (between telco operator and aggregator or capability consumer). To enable API roaming also the **east-/westbound interface** (telco operator to telco operator) is in scope.



CAMARA Scope

The scope of the CAMARA Project is:

- **Collect API requirements** from GSMA Operator Platform Group and other sources
- **Define Service APIs**
- Create test plan / cases / tools from an API consumer perspective
- **Develop and test Service APIs**
- Create developer friendly **documentation** for Service APIs



The following deliverables are provided by the CAMARA Project:

- **Service API definitions, code and documentation**
- Test plan, cases and tools for Service APIs both contained in deployment packages.

Project resources can be found in the **GitHub repository**: https://github.com/camaraproject/rep_main.

CAMARA Logos

Current Network API Families

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Carrier Billing CheckOut

Purchase, pay, and follow up on fulfilment of products

Device Identifier

Check the identity of the subscribers' device

Device Location

Check the location of a device.

Device Status

Check the network connection and roaming status of a device

Edge Cloud

Provide and manage network and compute resources for an application

Home Devices QoD

Request prioritization of traffic on a specific device on the home network.

Identity and Consent Mgmt

Provides solutions to capture, store and manage user consent

Number Verification

Allows users to verify the phone number of the connected device

OTP Validation

To offer secure user authentication to service providers.

Quality on Demand

Allows users to set mobile connection quality and get notifications

SIM Swap

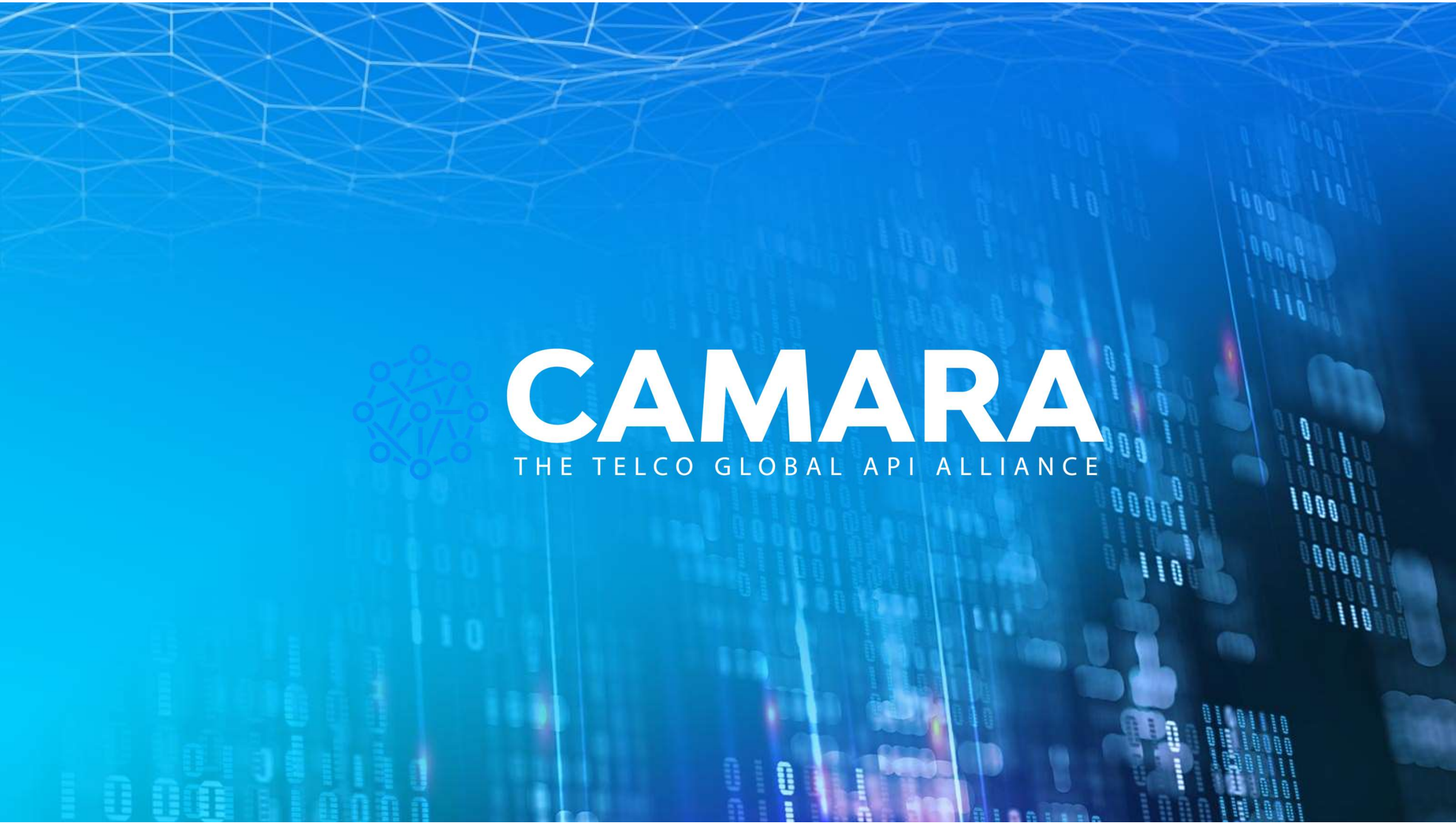
Allows users to get information on SIM pairing changes

CAMARA Contacts

Customers (enterprises and startups), aggregators, cloud operators, telco operators, and network equipment vendors are welcome to join CAMARA. Participation is free, without any fees or obligation to work.

If you are interested in joining CAMARA, please subscribe to all+subscribe@lists.camaraproject.org. You may unsubscribe from CAMARA and these communications at any time.

In case of further questions please don't hesitate to use our contact page at https://camaraproject.org/contact/.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