



CAMARA
THE TELCO GLOBAL API ALLIANCE

APIs and the developers perspective

How ETSI MEC and CAMARA collaborate

09.09.2025

CAMARA Open Source



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. 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).

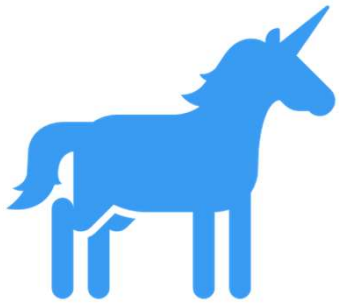


What is the CAMARA Project?

Key problems we try to solve



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Scale

Developers dream of being the next unicorn...
If apps, products, or services are built on our APIs they want them in all relevant markets and networks globally.



Consistency

Multi-nationals want consistency across all markets they operate in... they do not want APIs that only work in a single network in a single country. They do not want to try and build for the differences of each network.



Simplicity

Telco networks are complex, and every network is different.... Developers want simple, intent-based APIs.



Accessibility

We go to the developers where they are so the project is open sourced in the Linux Foundation. Allowing API users to work directly with CSPs creating the service.



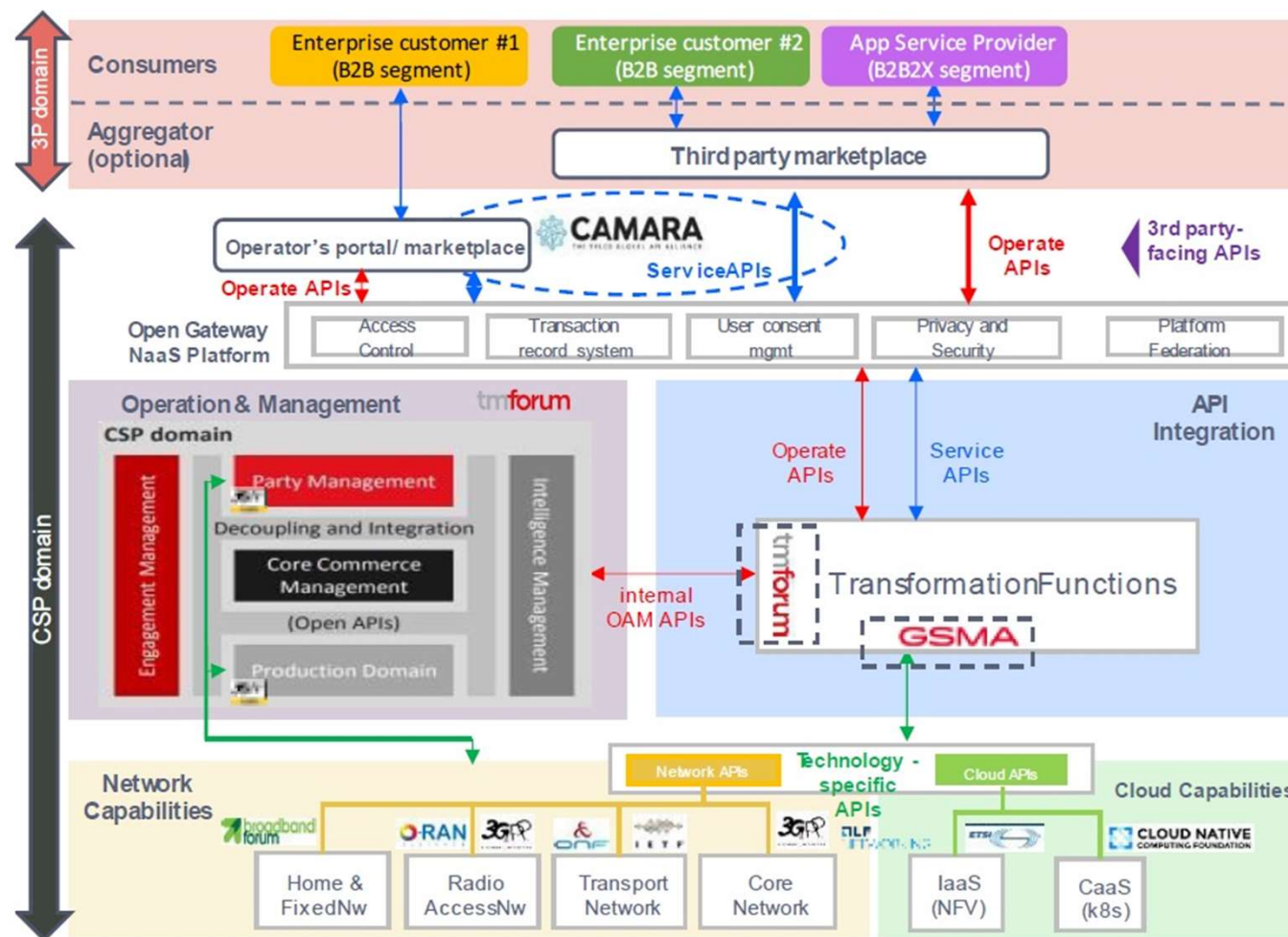
Demand Driven

We develop the APIs and design it in the way our customers need it. The demand is collected from organizations like GSMA OPAG but also from customers directly.

CAMARA – Scope / Collaboration with Open Gateway and TM Forum



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3rd Party-facing APIs

Service APIs

App-centric, developer-oriented
Apache2.0 lic, user -friendly, easy-to-use
Example: QoD, verify location, device status, Sim Swap, ...
Includes some management functionality used from the apps (in-app OAM APIs)

Hosted by **CAMARA**

Contributed by OpenGateway partners, directly or supported by bodies like
GSMA **5GFF** **tmforum**
bridge alliance **CableLabs**

Operate APIs

Management oriented
Easy-to-implement, easy-to-use, simple
Example: register, account, monitor, issue mgmt, order/purchase, pay...
Provides an easy integration of the NaaS Platform with marketplaces / portals

Contributed by OpenGateway partners, hosted by **tmforum**

Technology -specific APIs

Technical capability oriented, standard, (FRAND) deterministic
Example: policy setting parameter setting information check..

Contributed by specific domain SDOs



CAMARA project defines CAMARA APIs.

TMForum develops the Operate APIs.

Several SDOs cover the different technology domains that provide the telco capabilities.

More details can be found in the whitepaper "The Ecosystem for Open Gateway NaaS API Development" (jointly published by GSMA, CAMARA, Linux Foundation and TMForum) available [here](#).

CAMARA – Scope / Collaboration with ETSI MEC



CAMARA project defines CAMARA northbound APIs.

ETSI MEC standardizes southbound (edge) cloud APIs.

Developers working within an operator can use ETSI MEC APIs to implement the transformation functions for CAMARA APIs.

Developers working at the customer side can use the more simple CAMARA APIs for their use cases.

More details can be found in the whitepaper “MEC application developer guidelines for universal access to service APIs across the industry” (jointly published by ETSI MEC, GSMA Open Gateway, Linux Foundation CAMARA and TMForum) available [here](#).

How can developers use CAMARA APIs?




Integrate API call in own code, e.g. for Sim Swap:

- Get API definition and documentation from <https://camaraproject.org/api-overview/> (open&free!)
- Get API availability from GSMA public launch status map (linked in API description)
- Get API access e.g. from DT, Orange, Telefonica (linked in map)
- Aggregators are in progress to be added!

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Authentication and Fraud Prevention	Location Services	Communication Services	Communication Quality	Device Information	Computing Services	Payments and Charging	Service Management
Call Forwarding Signal	Geofencing Subscriptions	WebRTC Call Handling	Application Profiles	Connected Network Type	Simple Edge Discovery	Blockchain Public Address	
Customer Insights	Location Retrieval	WebRTC Event Subscription	Connectivity Insights	Connected Network Type Subscriptions		Carrier Billing	
Device Swap	Location Verification	WebRTC Registration	Connectivity Insights Subscriptions	Device Identifier		Carrier Billing Refund	
Know Your Customer Age Verification	Population Density Data		Home Devices QoS	Device Reachability Status			
Know Your Customer FIB in	Region Device Count		QoS Provisioning	Device Reachability Status Subscriptions			
Know Your Customer Match			QoS Profiles	Device Roaming Status			
Know Your Customer Tenure			Quality on Demand	Device Roaming Status Subscriptions			

API Description

The "Sim Swap" API is a service that monitors and detects changes in the SIM card associated with a mobile number. It provides businesses with insights into whether a SIM card has been swapped recently, either by returning a timestamp of the last change or a yes/no response for a defined period (e.g., the last 24 hours). Additionally, the API offers a subscription mode, enabling businesses to receive real-time notifications whenever there is a change in the SIM card status. This service is particularly valuable for enhancing security in scenarios like fraud prevention, account protection, and transaction validation by identifying potential unauthorized SIM swaps.



API Portfolio: Authentication and Fraud Prevention

- SubProject Wiki: [Number Insights](#) (incl. how to meet the team)
- API Wiki: [Sim Swap](#)
- API Repository: [Sim Swap](#)

API Repository Status: **Incubating**

API Status: **Stable**

API Version(s) and Release Date(s):

- v0.4.0 (14.11.2023)
- v1.0.0 (04.04.2025), Fall24 meta-release, patch release
- v2.0.0 (13.03.2025), Spring25 meta-release

API availability: Information which APIs are available in which country and



CAMARA Contacts



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Individuals and organizations from application developers / API consumers (e.g. enterprises and startups), aggregators, cloud operators, telco operators, network equipment vendors, system integrators, and software vendors are welcome to join CAMARA.

To access CAMARA technical resources like API definitions, API specifications or API code just visit the [CAMARA GitHub](#). All resources are reachable without any prerequisite. To create issues and start contributing to CAMARA you need a free GitHub account without any further prerequisite. This participation is free, without any fees or obligation to work.

If you are interested to be included in the CAMARA communication, please subscribe to all+subscribe@lists.camaraproject.org. You may unsubscribe from CAMARA and these communications at any time. Participation is free.

If you are interested to show your logo on the CAMARA website as “Participating Organization” you can send it to adm@lists.camaraproject.org. Participation is also free.

If you would like to join as CAMARA sponsor or associating organization, please don’t hesitate to use the enrollment link <https://enrollment.lfx.linuxfoundation.org/?project=camarafund>. Cost is depending on the kind of membership and the number of employees.





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