

Anup Chathoth T-Mobile, CAMARA

T Mobile DEVF 11

5G network capabilities: Network as a platform



The on-demand, secure and controlled exposure of network 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.

Potential Business Use Cases





Network APIs offer the opportunity

- For customers to optimize their use cases and applications
- For operators to monetize their invest in 5G infrastructure

It's a win-win!

APIs enabling seamless access to Telco network capabilities





CAMARA mission

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, CAMARA enables easy and seamless access.

CAMARA attempts to solve key challenges for API availability and quality



Con you	?



Scale

Consistency

Simplicity

Accessibility

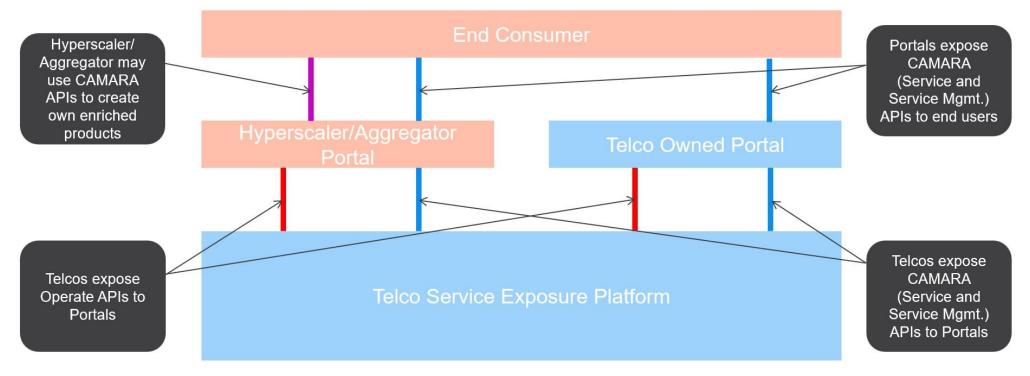
Demand driven

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. 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.

Telco networks are complex, and every network is different.... Developers want simple, intent-based APIs. 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. 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 APIs can enable multiple business models

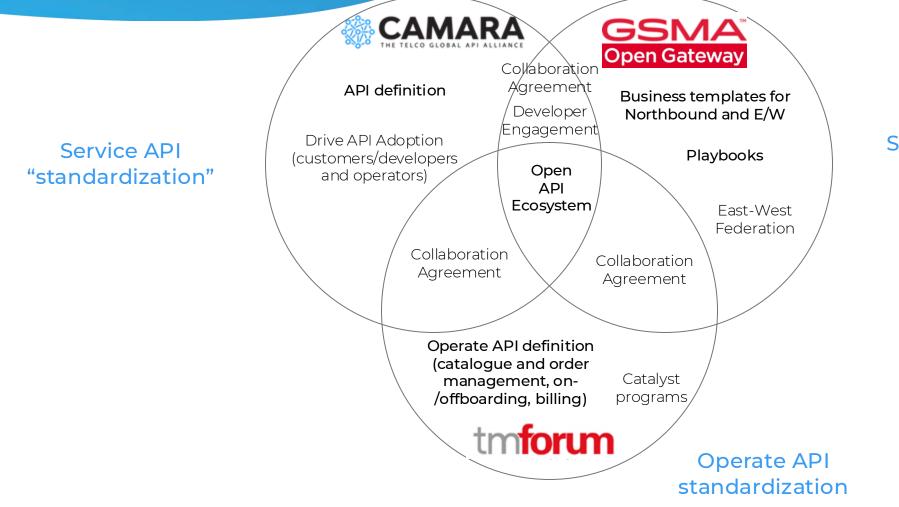




Hyperscalers and aggregators have the possibility to create own enriched products based on the CAMARA APIs and expose that in addition to the CAMARA APIs.

CAMARA – Scope / Collaboration with Open Gateway and TM Forum





Standardization of distribution channels

CAMARA ...where we are now



Prenier									General							Associate Membership		
accenture	Ŧ		T Microsoft	NOKIA	orange"	Ŧ Mobile	Tara		ZERO	CobleLabs	SE CENTILLION	Charter	INDY	invia		CopenID		
verizon*	O								SCENERA	Eshabodi								
Participating Dr	printerioni																	
TNCE	5⁄GFF	A		.d akross	AMAINTYA	- amdocs	WARGELA	AT&T	aws	axiata		BCTI	Bearinghoise.	bridge	troadpeak	Coppenie	Paned	Chino 🛞
cisco	(CI)	cloudoni):	۲	Cognizore	🔿 Colony	comviva	Constant	csl.	CTHNSSCO		DETECON	Domos	🖛 Ovivet3.auto	- LANTE-	E dge 🚟	<u>e</u>	ETIYA	EVIDEN
G	FUJีกรบ	GAPRSK	Gongle Cloud	GSMA	HCL Software	Healett Packard Enterprise	нкт	HUAWEI	IBM	() infoblp	INFO LYSIS	Infosys	intel	Distantion	****	<mark>&</mark> ltaltel	KDDI	
Lenovo	A unit		C LOUGHLAND	MATRUX.	MAVENIR	MICROCKS		nobstruct.io		🍎 tintina	Netcracker		HEMIN	NOS	NTTDATA	Ciper Sevena	Optiva	ORACLE
	quobis	Radisys	🐣 Red Hat	-CREPLY	stc	SEKURA))) Simptel	Singlet	SK telecom	SPRY FOX	称	startaletope ^(c)	SUMMIT	🔹 swisscom	syniverse	tos 🗐	* TELUS	
TruSense"	VROMBR	C Bhele Cinal	ZTE															

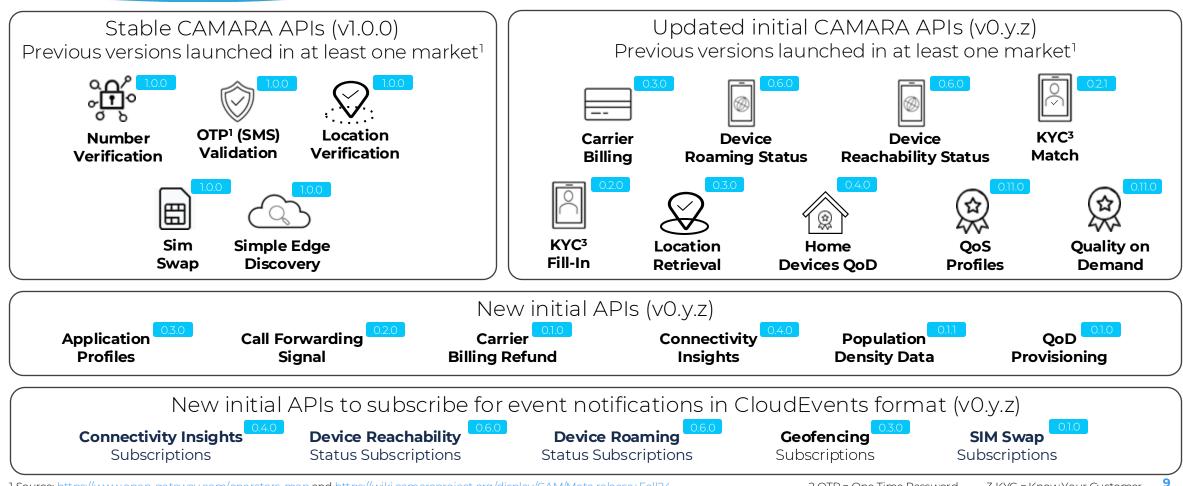
- 118 Named Partners
- 396 (+337*) companies participating in CAMARA
- 26 Active API family Sub Projects with 46 APIs, and 5 Working Groups
- 1128 (+1658*) people joined CAMARA
 - Development "home" for GSMA Open Gateway

* Number in brackets indicates companies and people who are in contact but haven't joined

•

Meta-release Fall 2024





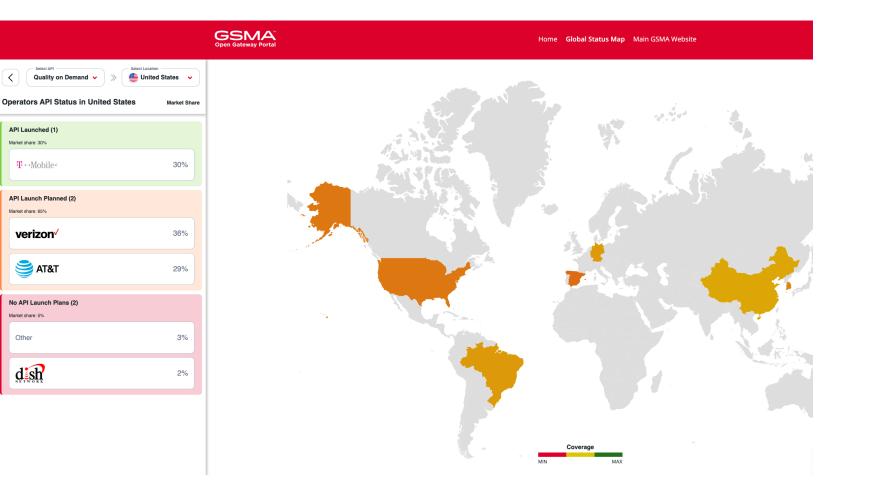
1 Source: https://www.open-gateway.com/operators-map.and https://wiki.camaraproject.org/display/CAM/Meta-release+Fall24

2 OTP = One Time Password 3 KYC = Know Your Customer

CAMARA / Open Gateway API public launch status



https://www.open-gateway.com/operators-map



A joint Venture to scale demand and supply of network APIs

ERICSSON

10111

DIRAPO

Singtel

Telstra

In Folia al

bhartí

nirtel

Jio

8.7 7:8194

- R & CD

vodafone

orange

DOM: N

.....

a t. Tiftett a

46471

110.013

(7177)

000

Telefónica

4347164

111110

THE .

a permiter

B-10

berewi-

Photo Section 1

verizon√

01110

Alle

0

AT&T

américa mó√il

701 HILL

T Mobile

Benefit for operators to participate in CAMARA



Increases usage and value of telco networks by providing easy access to network capabilities.

- 2 Enables developers to create new applications or improve existing ones with access to these capabilities.
- 3

Improve customer experiences in partnership with the solution developer ecosystem

Additional revenue to enhance existing use cases or build new services

Benefit for Developers to implement CAMARA APIs in their networks



Write once and re use it multiple times with a global scale

- Influence the ecosystem to meet your own requirements and market demands
- 5 Enables developers to create new applications or improve existing ones with access to these capabilities.

Build and expand your solution portfolio using network APIs

Our learnings so far





T-Mobile and Deutsche Telekom cordially invite developers to join us in hands on learning of our 50 network as a service API. Contest is open to development companies.

Learn More & Apply Now!

- Manage APIs as products with multiple RTMs and monetization models
- Invest in monetization capabilities digital experiences and programs to achieve scale
- Developers are already in your ecosystem. Engage with them better