GSMA Operator Platform Group x LS

The Operator Platform & Telco Edge Cloud are defining the technical and commercial frameworks

to offer a unified global experience for 5G services, initially Edge Computing

Problem Statement: How to establish a commercially feasible and open global system where Enterprise Customers can buy (from a single provider), valuable services (leveraging the network resources of operators across the world), while encouraging healthy competition between providers, enabling channel partners and rewarding all parties involved.

The Operator Platform Project is defining an open technical framework

The TEC Project is exploring commercial frameworks (aggregation / federation / interop) including the creation of an enabling commercial entity

*5G Services: Edge computing, Network slicing, IoT, NaaS, IP Comms

Operator Platform – Problem statement

4G Service layer disintermediation

- In 4G the Operator offered best effort mobile broadband connectivity collecting fees from users for data usage
- Consumer services were provided by 3rd parties

In the 5G Era operators can use their 5G capabilities to:

- Provide basic capabilities such as compute storage connectivity (IaaS)
- Package advanced capabilities and open them to 3rd party service developers while participating in the service value chain (PaaS)

Note

In future, Operators will be able to supply consistent interfaces to deliver own Cloud services for Enterprises, or to enhance a hyperscaler's cloud solutions.

Size of the opportunity

Source: GSMA

From providing services to enabling services

- Operators can tap into the $620bn revenue opportunity from the enterprise segment
- Mix of B2B (about 60%) and B2B2C relationships
  - Public Safety opportunity is mostly B2B
  - Media and entertainment is mostly B2B2C
- Engaging with Enterprise requires a change of mind-set and refresh of business processes
- If Operators do not adapt, the opportunity will be provided by others or developed by themselves (e.g. Ocado)

Operator Platform Concept & Objectives

Guiding all the industry ecosystem – operators, vendors, OEMs and service providers–, to define a common solution for network capabilities exposure. As a first phase, the GSMA document will provide an end to end definition and requirements of the operator platform for ***edge computing support***

GSMA is defining:

- Operator platform requirements
- Architecture and functional modules

GSMA wants to engage with Standardization and open source communities

- That will deliver the low-level standard definition of the OP
- That will foster the development and availability of products based on such standard

High-level reference architecture, Source: GSMA

Operator Platform Group wishes to understand which standard and community activities can be re used and enhanced in order to reach these objectives

Operator Platform Group (OPG)

Operator Platform Group (OPG)

- Architecture, technical requirements
- Liaison with SDOs for technical specs and OSCs for open source code

30+ Operators

15+ Vendors

190+ members

Nov 2020

Operator Roles in the Edge Cloud Value Chain

Current progress: whitepaper launch

- Operator Platform Concept whitepaper has culminated in the release of TEC commercial requirements and first drop of technical requirements.
- Additional release of technical is planned to consider commercial requirements

Operator Platform Concept Whitepaper, Jan 2020

Phase 1

TEC: Edge Service Description and Commercial Principles Oct 2020

OPTEC Proposal Whitepaper v1 Oct 2020

Phase 2

OP Tech Requirements PRD Feb 21

Phase 1 documents available 29 October at www.gsma.com

So where are we at the moment?

Closed Phase 1 in October 20 with launch and release of 2 whitepapers – 1 on technical, 1 on commercials – catch up available with GSMA Thrive North America and APAC webinars.

<u>Start of phase 2</u>

- *Next release of whitepaper/PRD underway*
- *Identify and partner with relevant SDO and Fora who can supplement requirements and standardisation of the OP PRD*
- *Prioritisation of topics taken place, topic owners assigned with concept notes underway*
- *Pre-Xmas sprint to baseline concepts for all "must-have" topics*

Prioritisation discussion: assigned owners and contributors

Rank	Topic	MosCow	Owners	Contributors
1	API gap analysis with SDO & Associations, specifying API gaps	**Must have**	Plenary	BT, DT, Optare Solutions, Telefonica, Nokia, Telus, Altran
2	Use case and capabilities	**Must have**	BT	BT, DT, Telefonica, Summit Tech, Telus
3	Service access by devices that are attached to networks other than their home network (e.g. roaming, Wi-Fi, service discovery etc.)	**Must have**	Telefonica	BT, DT, Telefonica, Summit Tech
4	Access to OP services in a network different from the one to which the device is attached (e.g. those provided on another operator's network)	**Must have**	Altran	BT, DT, Optare Solutions, Telefonica
5	Device mobility	**Must Have**	Altran	Altran, BT, DT, Optare Solutions, Telefonica
6	Changes resulting from the commercial principles whitepaper	Should have	Telefonica	BT, DT, Telefonica
7	Security considerations	**Must have**	Intel	BT, DT, Telefonica
8	Call flows	**Must have**	Telefonica	BT, DT, Telefonica
9	NEW TOPIC: Edge features landscaping (proposed by Intel)	Could have	Intel	BT, DT, Telefonica, Telus
10	Low latency interaction between OP applications in different networks	Should have	Altran	BT, DT, Telefonica
11	Serverless models	Cloud have		Altran, DT, Telefonica
12	Management plane	Clould have		BT, DT, Optare Solutions, Telefonica
13	Local interfaces on an end-user device	Should have		BT, DT, Telefonica
14	NEW TOPIC: Building OP as a PaaS supporting multi-cloud and hybrid cloud with Cloud Native Technologies (proposed by China Unicom)	Could have		BT, DT, Optare Solutions, Telefonica, Summit Tech, Telus
15	Resource reservation	Should have	Telefonica	BT, DT, Telefonica

All “must-have” topics allocated, 4/15 topics to be assigned

Topic owners currently working on concept Powerpoints, first reviews

Phase 2: Final assigned owners and contributors
(as of 03/12)

Priority	Topic	MosCow	Owners
1	API gap analysis with SDO & Associations, specifying API gaps	Must have	Plenary group / Intel
2	Use case and capabilities	Must have	BT
3	Super group - Mobility (merger of topic 3,4 5)	Must have	Telefonica
4	Access to OP services in a network different from the one to which the device is attached (e.g. those provided on another operator's network)	Must have	Altran
5	Device mobility	Must Have	Nokia
6	Changes resulting from the commercial principles whitepaper	Should have	Telefonica
7	Security considerations	Must have	Intel
8	Call flows	Must have	Telefonica
9	Resource Reservation (merged with Edge Features)	Should have	Telefonica
10	Low latency interaction between OP applications in different networks	Should have	Altran
11	Serverless models	Could have	Ori
12	Management plane	Could have	Optare
13	Local interfaces on an end-user device	Should have	
14	NEW TOPIC: Building OP as a PaaS supporting multi-cloud and hybrid cloud with Cloud Native Technologies (proposed by China Unicom)	Could have	China Unicom
15	Resource reservation	Should have	Telefonica

- **Topics 1, 2, 3, 7 to be developed in group meetings, other topics developed offline**
- **New topic owners – Ori (topic 11) and Optare (12) – concept notes available by 18 Dec**

Outline Project Schedule – subject to change

Target interim release of phase 2 deliverables:

- summary paper of concept notes for phase 2 and Key use cases and capabilities paper
- fora engagement announcement

OP PRD complete

Next steps for OPG

- Identify and engage with relevant SDO's, Open-Source Communities and industry fora to deliver Standards and solutions for the requirements, seek dialogue to fill gaps
- Engage with value chain seeking feedback on Phase 1 and additional requirements in Phase 2 – welcome to join operators and vendors
- Add to existing requirements and expansion on specific topics, see prioritisation
- Gather Commercial requirements, assess Business Models and facilitate Charging Principles
- The future – look beyond edge capabilities, roadmap will move to NaaS, Network Slicing and other services the Operator Platform will offer.

The ask

- Comment/feedback on OP whitepapers
- Highlight any existing or future work that can map to functionality or interfaces in proposed paper or support phase 2 activities
- Appetite for collaboration, if further engagement is certain, please address OP Fora questions (issued separately)
- Responses received by 18 December will be prioritised

Thanks

GSMA