gslab | GƏVS

Tech Contributions to GSMA Operator Platform in Edge Computing Environments

Customer Overview

The GSMA (Global System for Mobile Communications Association) is a member-led organization representing mobile operators and businesses across the global mobile landscape. With current membership that includes 750+ mobile operators and 400+ organizations from the broader mobile ecosystem, GSMA envisions unlocking the full power of connectivity by discovering, developing, and delivering innovative solutions and services shaping the future of mobile communications.

The Context

GSMA's Operator Platform project aims to define a common platform to expose operator services/ capabilities to customers/developers in the 5G-era in a connect once, connect to many model – the first phase of which focuses on the edge. The Operator Platform Group (OPG) wanted a mix of industry leaders to represent the forum - including domain experts, telecom operators, telecom vendors, hardware vendors, and application development/ software services organizations (which GS Lab | GAVS represents). The initial agenda of the forum was to arrive at architectural and technical requirements of the platform for telco edge applications.

Type of Service Provided

Contribution towards documenting the architectural and technical requirements of the operator platform for telco edge applications

Technologies Used

Telecom infrastructure, Telco edge applications, Cloud native architecture, Telecom core architecture, 3GPP/ETSI standards

Solution Summary

Being a member and active contributor to GSMA's initiatives, GS Lab | GAVS participates in OPG meetings working towards creating technical documentation and whitepapers on the requirements of the futuristic operator platform. With over 19 years of experience in the telecom domain and rich expertise in 4G/5G core engineering services, GS Lab | GAVS played (and is continuing to play) a crucial role in defining and standardizing the initial set of requirements for core operator platform functionality and edge services enablement.

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Challenges

- Inability of 5G operators to monetize the capabilities of their networks
- Absence of ways to package and expose operator networks to others in a scalable fashion
- Need for deep technical expertise for requirements and design of the operator platform
- Completely new market and domain
- Futuristic solution with several practical and technical hurdles

Solution Highlights

- Contributed to two key technical requirements of the operator platform
 - Handling of non-SIM devices
 - Edge interconnection network
- Discussions for white paper contributions
- Obtaining validations from industry leaders
- Technical reviews
- Comprehensive documentation
- Reviews of technical contributions by other OPG members

Solution Impact

• Key contributions to an authoritative whitepaper titled

<u>GSMA Operator Platform Telco Edge</u> <u>Requirements 2022</u>

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Solution Details

With several years of experience in the telecom and communications sectors, GS Lab | GAVS has contributed immensely through their core engineering services to customers and partners. This vast experience coupled with rich expertise in 4G/5G technologies enabled the GS Lab | GAVS team to provide significant thought leadership in futuristic mobile technologies in this GSMA forum. As the first step the forum worked on documenting the requirements of the operator platform and detailing the technical, practical, and acceptance challenges in this huge undertaking.

This involved active participation in weekly meetings of the OPG, choosing the areas of contribution, taking ownership, and presenting the contribution in great detail for each iterative process of reviews and approvals. The GS Lab | GAVS team contributed to two key technical requirements of the operator platform:

1. Handling of non-SIM devices

It is expected that in the near future there will be numerous non-SIM devices using applications hosted on the operator platform. This contribution detailed the process requirements for authenticating such devices, profiling their access to edge applications, and defining their security requirements.

2. Edge Interconnection Network

Two edge cloud instances may need to establish a direct connection between them for operational reasons like application data sharing, application relocation, etc. This contribution focused on requirements for this network establishment, it's monitoring, and charging.

Solution Architecture

