GSMA
Open Gateway

More details in our microsite:
https://atnog.github.io/gsma-open-gw-apis/

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Context

- Introduction of advanced capabilities in 5G Networks
- Interest in providing such capabilities to customers
- Need for developer centric interfaces

Calendar Changes

Original Implementation Order

Implement **Device Information API** family → Implement **Communication Quality API** family → Implement **Location Services API** family

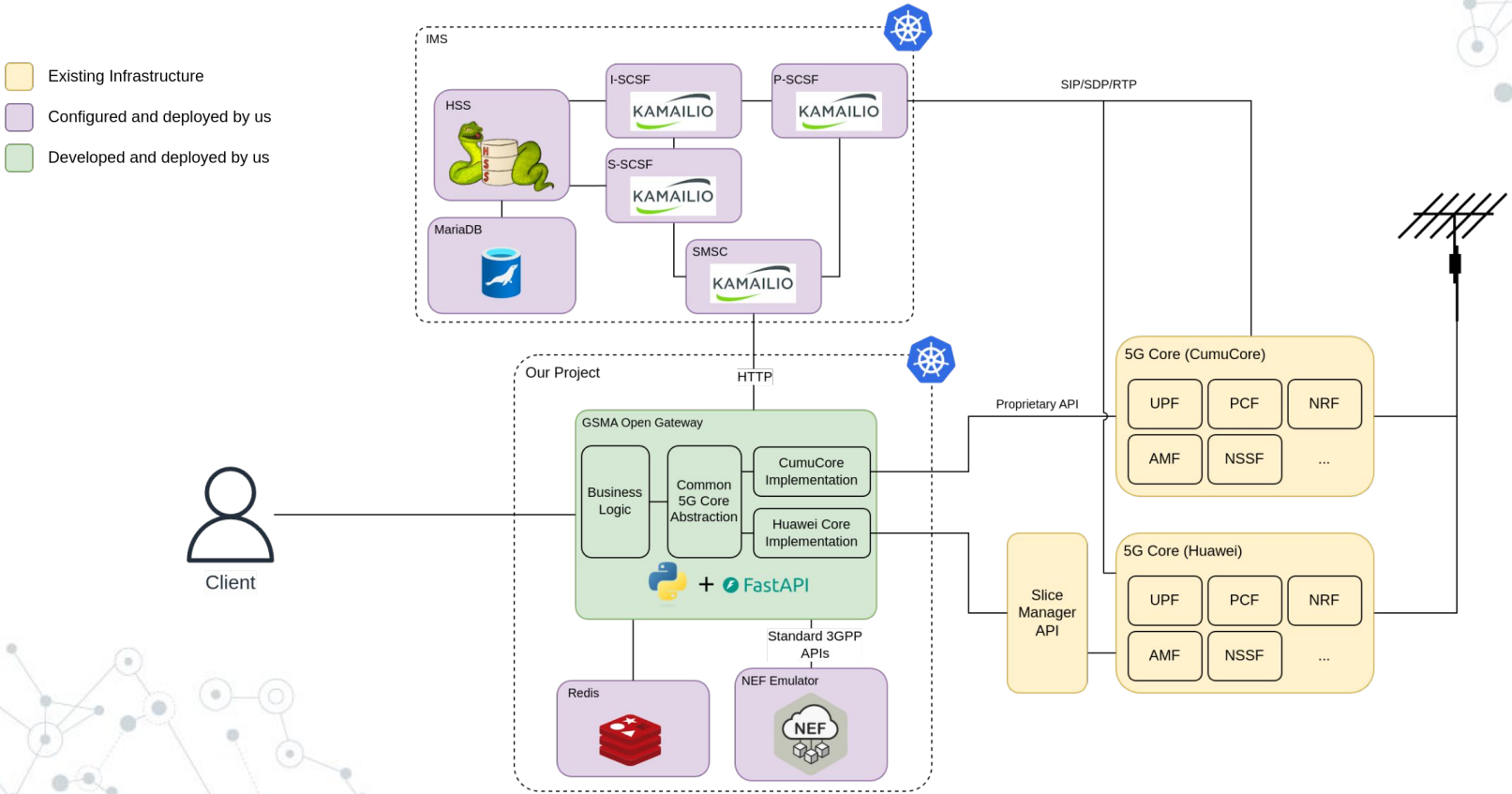
New Implementation Order

Implement **Location Services API** family → Implement **Communication Quality API** family → Implement **Device Information API** family

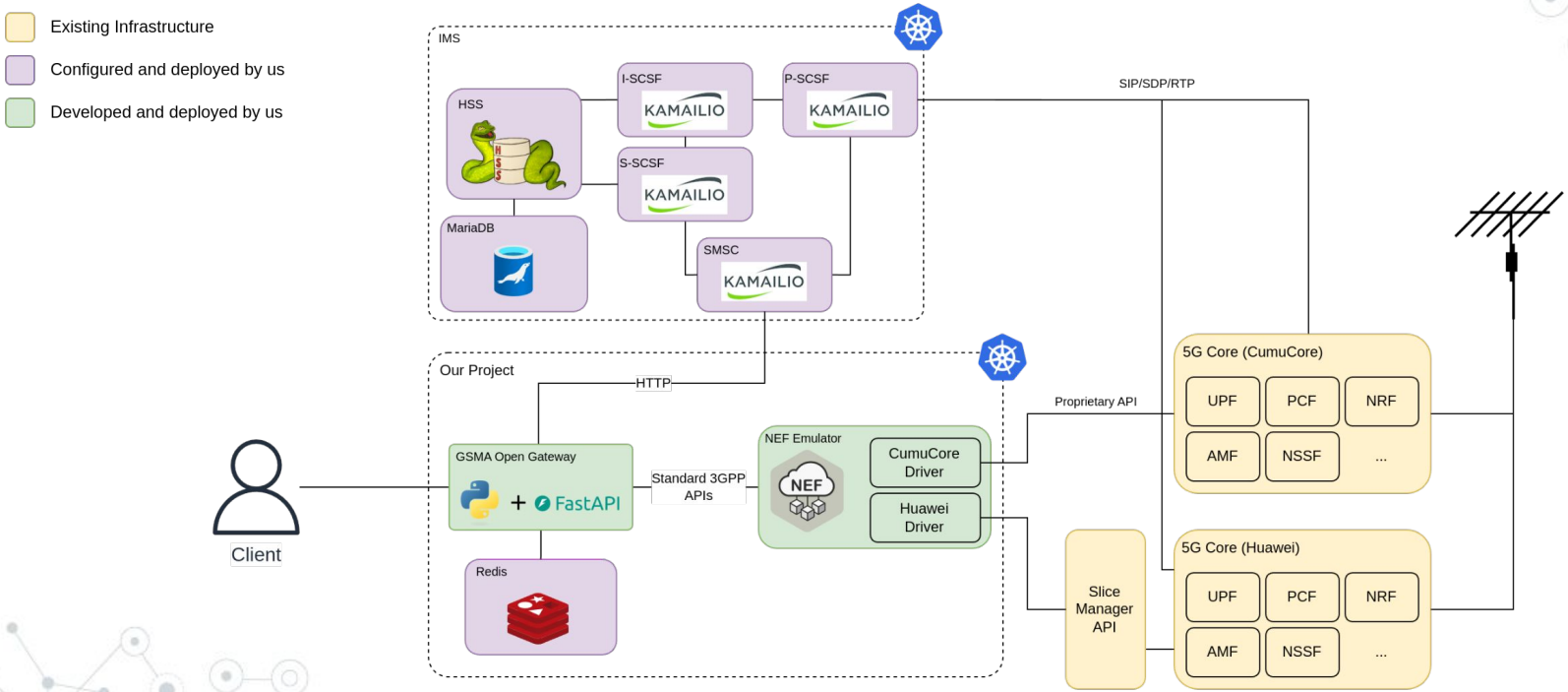
Use Cases


GSMA Open Gateway APIs
API Client
Network Operator
Request QoS modification
<<include>>
Get QoS profile
send/validate one time password
check/subscribe raoming state
check/subscribe to Network Quality for a Device
Create a geofencing subscription
Get device location
Check the presence of a device
Check population density
Request temporary QoS change
Receive notifications about network quality
Check/subscribe to device availability
Receive Area Entry/ Exit Notification
Receive notifications about roaming status
Check/Provide current QoS data
Provision QoS on the network
Allow to send SMS
Configure geofencing on the network
Check location data

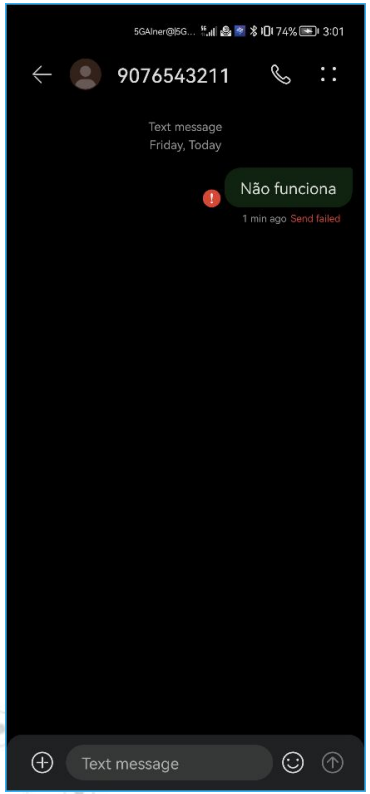
Architecture: Last time



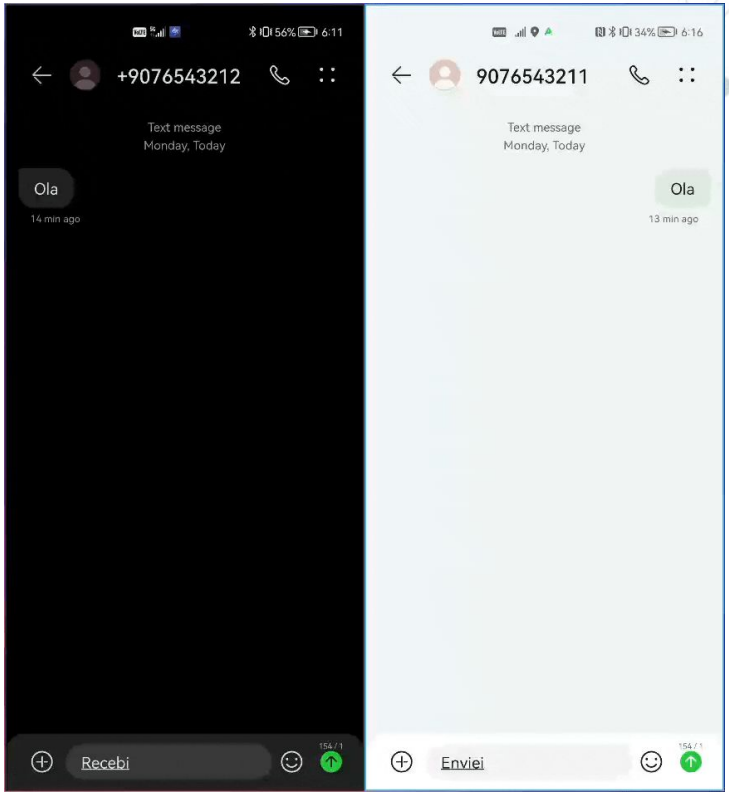
Architecture: now



Demos: SMS

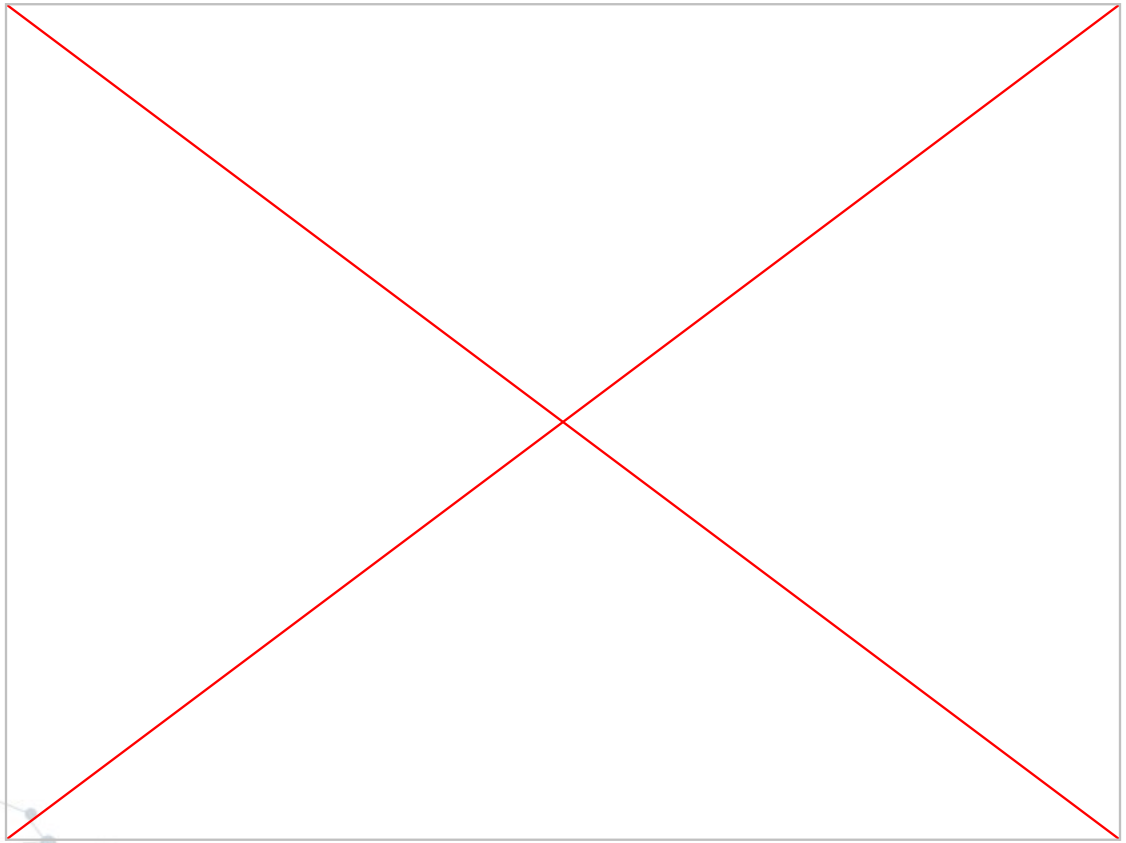


Antes do início do projeto

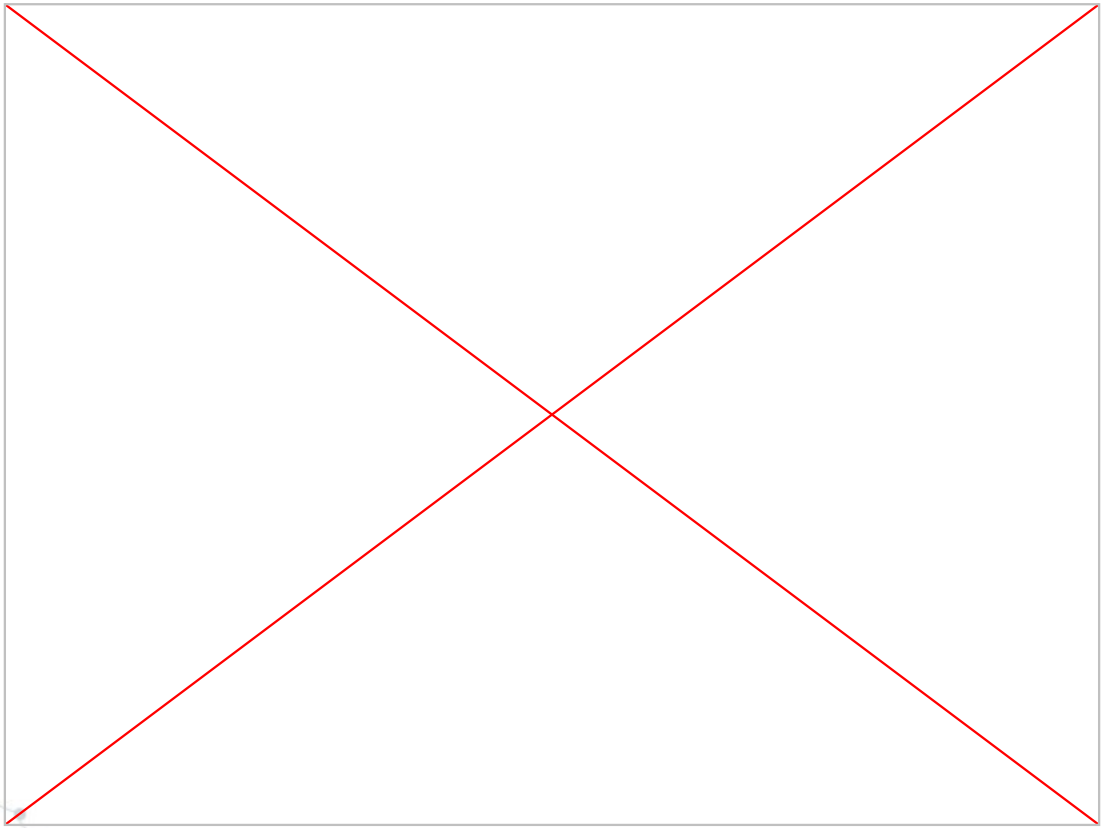


Após a implementação do IMS

Demos: SMS OTP



Demos: Location APIs



Related work

Functional Requirements

The APIs should:

- Allow subscription to location based notifications
- Allow the retrieval of the population density in a given area
- Allow developers to define Application Profiles for Quality of Service
- Allow retrieval of existing Quality of Service profiles on a network.
- Allow phone number verification and validation through SMS OTPs
- Allow checking whether a given device is available on the network
- Allow subscription to device state change notifications

Non-Functional Requirements

The APIs must:

- Maintain consistent 100ms response times as users/data volume increases
- Guarantee support for at least 10 requests per second
- Have a high reliability level, as in over 99.9999%
- Have a high availability, such as 99% uptime

Additionally Maintainability, Portability, and Usability concerns should be met