Deliverable B - Needs Identification and Problem Statement

GNG1103 (A00) – Engineering Design

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University of Ottawa

Group #17

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Part A : Client Needs Briefing

During the Client meeting on September 20th, 2024, our team took the following notes down regarding information shared by the client during their presentation :

- Should try to use 2 or more APIs at least
- User Experience: function has priority, emphasize harnessing the power of the network
- Do not want to see – just communications
- "Few people know how to use networks so let's make it easy"
- Interested in Enterprise, manufacturing, mining, travel and logistics, banking, sports, seaports, airports
- Functional UX
- Develop app which will detect a sim change or location change. Trigger API to shabodi platform and block device. Send alert to admin.
- Enterprise level of sim fraud, (enterprises use bell rogers, etc. but in a private setting).
- Solving real problems that are expandable and adaptable.
- Developing a 9-month application in a week, that the customers can use in 10 mins (practical)
- The application should show specific capability, it should have a value.
- Business to business (ex: creating an application that can be shared with Bell, which in turn, shares it with the customer)
- Thinking of the actions or the conditions that are going to make a better application.

Part B : Prioritized Need Statements

As a team we've agreed on these 6 needs as being most important, in this order:

1. The application should detect a SIM swap in company UE
2. The application should alert the admin of SIM swaps
3. The application should be able to take a snapshot of a UE's location
4. The application should be able to reduce QoS of UE
5. The application created needs to use 2 or more APIs.
6. The application's UX should prioritise functionality

The most important aspect of the application is the SIM Swap detection. This is the most basic function that the app will set out to accomplish. Needs #2,3,4 were hard to classify, as they are all things that were requested by the client on the Makerepo page. Ideally, once the app can detect SIM swaps, our focus should be on these next needs. Finally, needs 5 and 6 are more project related needs, where Shabodi has requested our team include at least 2 different APIs as well as the need to prioritize functionality in our design.

Part C : Benchmarking

We attempted to do some technical benchmarking, looking online for similar products on the market:

- Authentication apps like Microsoft authentication that do not use text based multifactor authentication.
    - Searching through the app store ,many people have problems with being logged out and being locked out of their things. We should ideally make the app run in the background and not require log ins after pairing SIM and UE.

- Many companies (ex. “Appdome”) offer SIM swap detect software through API’s like Shabodi that sends SIM swap notification to developer; Requires the purchase of a license from devs (ex.Appdome).
    - These services are like what Shabodi is trying to offer, the company provides APIs to include in your app. Cannot seem to find reviews.

Part D : Problem Statement:

We have come up with the following product statement to fulfill the needs of the client :

> “Shabodi would like an application developed that can quickly and accurately detect SIM swaps in User Equipment, after which an administrator will be able to cut Quality of Service (QoS). The application will provide the network administrator with the date & time, SIM info and UE info of the event.”