### **Team Deliverable B**

**Problem Statement:** Shabodi requires a way to help enterprises detect and control SIM swaps/fraud in their network with a private application that notifies them of a swap/fraud and gives them the ability to locate and control it on an administrative level.

**Form:** Application

**Purpose:** Sim Card location, sim swap, bandwidth, insights APIs detect sim fraud.

**Tools and Resources:**

* Minimum 2 APIs (aiming to use as many as possible as per client request)
* Sandbox
* Shabodi’s NetAware system

**What they do want:**

* Unique outcome or experience
* Machine-to-machine (no human interaction)
* Direct connection to and control over programmable network elements
* Full visibility of network conditions and potential performance issues
* Solves real problems
* Expandible and adaptive
* Enterprise level fraud (financial fraud)
* Functionality over aesthetic
* Efficient
* Wants this to be able to replace two-step authenticator and OTP
* Self contained app with connectivity to network
* International usage
* Implemented use of microservices (monolithic architecture)

**What they don’t want:**

* UX because it will take too much time to perfect
* Application with no communication to any devices or networks
* the only API that you use is location
* Something difficult to maintain
* Something focused on the consumer side of technology
* An application that does not make changes in real-time
* Don’t want to have to interact with the program

**Prioritization of needs:**

| Need | Priority Ranking |
| --- | --- |
| Detect SIM swap (if UEID and SIM do not match) | 1 |
| Implement an alert mechanism to notify the enterprise of a detected swap | 2 |
| Have administrative access to accept SIM swap(s) | 3 |
| Locate UE and SIM swap | 4 |
| Have the ability to reduce network/device bandwidth | 5 |

**Justification of the prioritization of needs :**

1. This is the main problem identified, an application which can detect SIM swap is primarily what Shadobi wants.
2. Once the application has detected the SIM swap it has to notify enterprises of the swap. It is possible for the application to detect it but not alert the enterprises which makes it useless for the companies. This is very important too.
3. The product is geared towards administrations, they must be able to do something after the SIM swap has been detected.
4. The application must locate the SIM swap location to help enterprises further.
5. When they detect a sim swap/fraud they don't want new devices to be added on the network and it limits data loss.

**Benchmarking User Perceptions:**

* A similar feature is two-factor authentication on pre-existing apps like Gmail or Outlook; we can read reviews on user experiences in preventing identity fraud using these apps.

**Technical Benchmarking:**

* Microsoft Authenticator
* Gmail authenticator
* Amber Alert/emergency alert system in Ontario

**Unknown information which needs to be clarified:**

* What does Shabodi look for in an app?
* Is the ultimate structural goal of the app in the long-term to eliminate two-factor authentication/OTP?
* Is the application meant to operate on a 5G network?
* Should the design of the application be oriented towards a specific type of enterprise? (ex. Small business, technology company, etc.)