GtG Deliverable
D3.1 ICT Platform Recommendations

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Additional contributors: Civics
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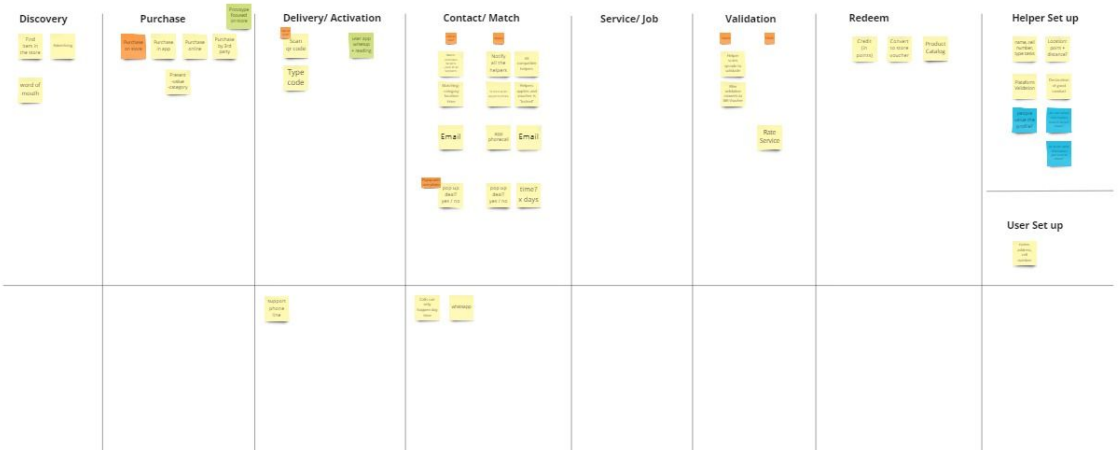
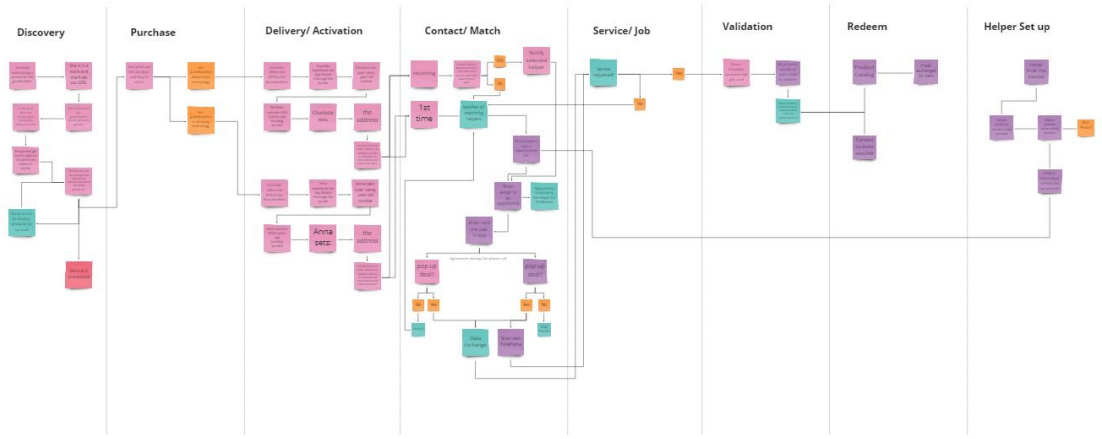
Table of Contents

Work Phases

Customer Journey map

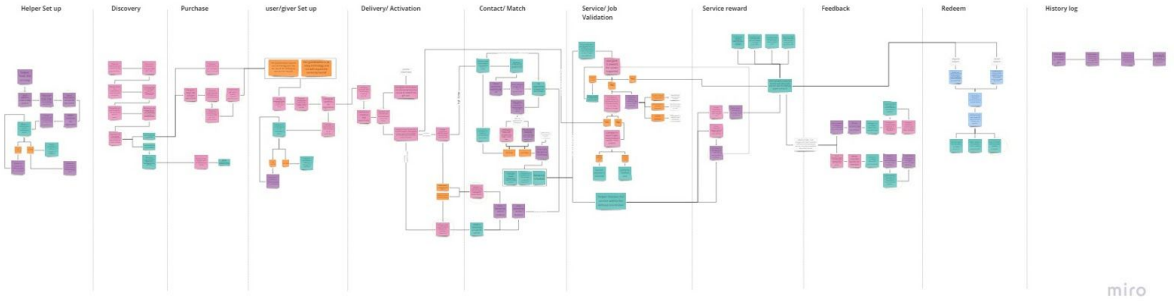
A customer journey map is the result of in-depth knowledge about the consumer and their behaviors. This tool is fundamental for innovation and design of differentiating experiences and wholly adjusted to the needs and motivations of the consumer.
Used as a representation of all the experiences that the consumer lives with a particular brand/company, from their first contact to their post-purchase relationship, the customer journey map allows clear identification of what motivates a consumer to start his journey.
Here we can identify the different phases that make up this journey, the channels, the preferred contact points, the most valued content, the positive and negative moments, and other relevant information.





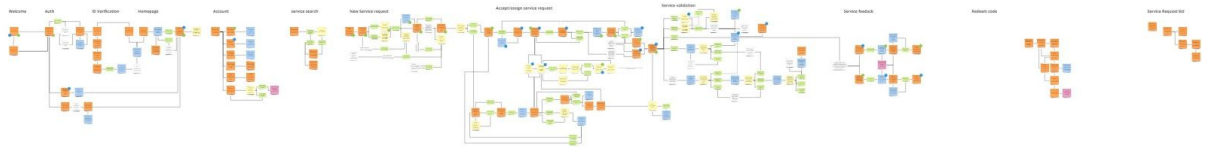
1st User Scenario

The 1st user scenario is a story created for a user to perform a particular action or reach a specific goal. The idea of this tool is to document the process that a user can follow in the design of a product to understand the interaction.
This step is helpful in usability tests because it allows us to find intuitive insights for the user and in a timely way to be able to correct or improve them.



Complete User-Flow

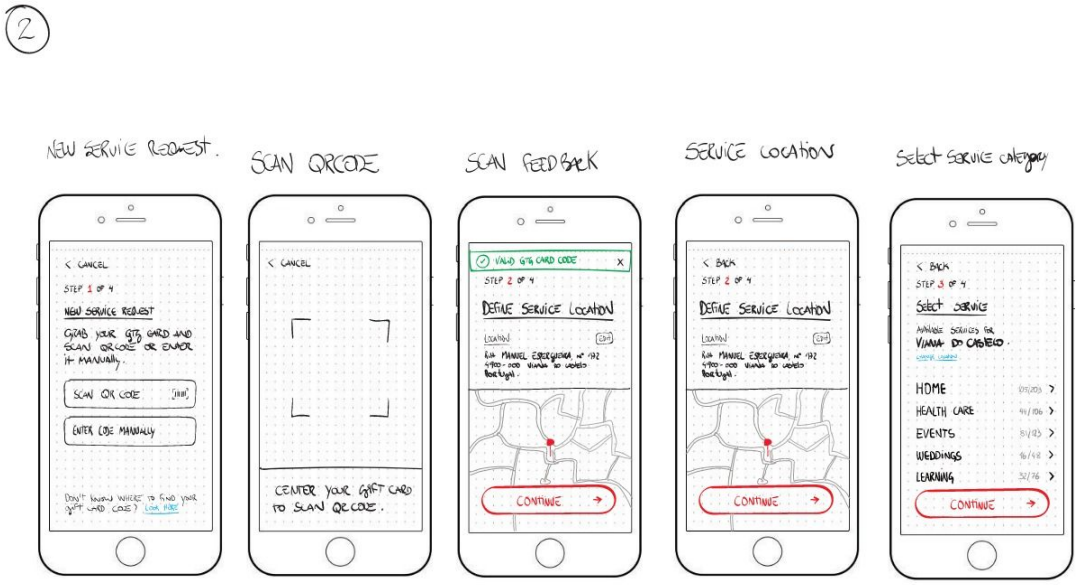
It’s a sequence of steps the user needs to take order to accomplish a task inside an application or a website.
The scope of this flow is generally small and not linear. It is presumed that the user has variability in the way they go about a task. We represented for each task a way to do it and what steps could have.



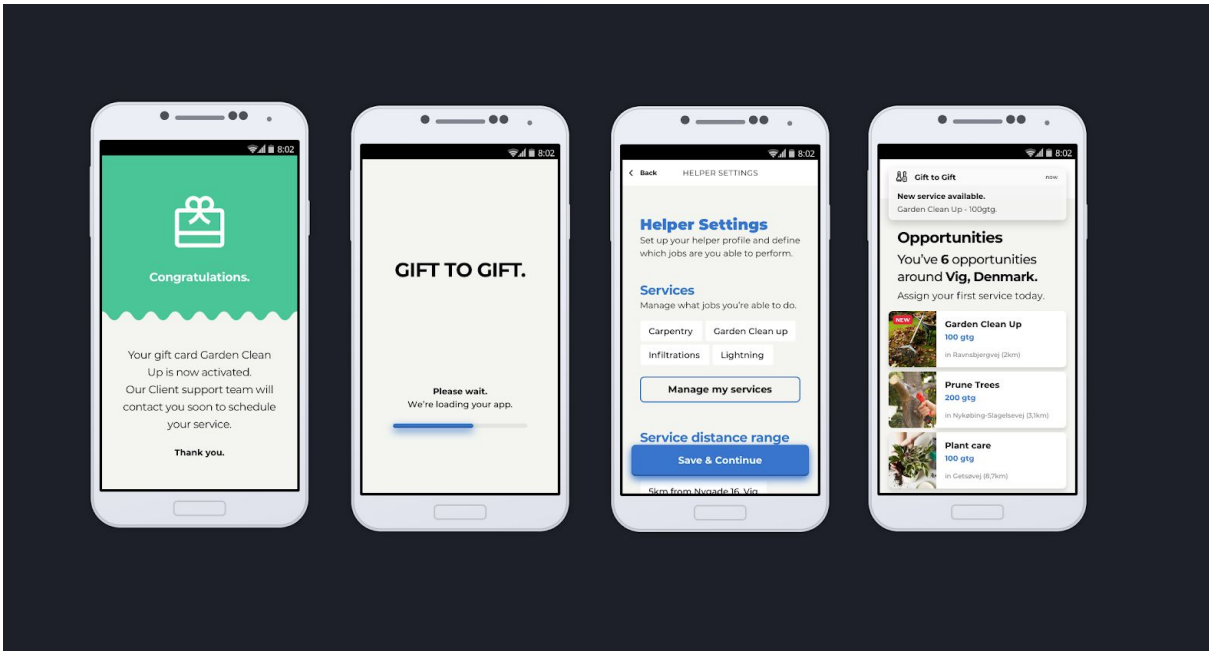
miro

prototype 1 Mar 2019

Wireframes Prototype



Visual Prototype



Conclusions

After finishing the Complete User Flow we came with the idea that we might remove the Users and Givers form the app. Givers can be comfortable with technology, but Users it's more likely they don't use technology. So for the ICT Prototype we decided to develop a App just to Helpers who are more likely to use technology since they might be younger than the Users.
This leads us to completely rebuild the Helper Flow in order to be as clear as possible and to fulfill all their needs.
We also conclude from de Co-creation Workshop:

- We will not be able to engage Users in IT-based co-creation in our workshop
- We will not have Givers in the workshops
- We need an alternative, more agile way to co-create gift cards
- No ICT User/Giver app, only Helper app;
- Issue simple gift cards;
- Helper App with simplifications

ICT Prototype

Techs

After analysis of you needs we understood that there is no benefit in developing the apps with native language. We did as a hybrid app using a common language that can be both used for Android and iOs. The ICT prototype was just built for Android devices, since this platform it's more open and easy to get test phone.

ICT Prototype was built only to the Helpers using ReactNative.
Libraries used:

- NativeBase
    - Main Library;
- React-native-camera;
    - Ability to use the camera;
- React-native-barcode-mask;
    - Library that allow us to place a mask over the Camera;
- i18n-js
    - Translation library that detects the language of the phone and changes the language of the app;

Design Recommendations

With the adoption of mobile devices, the degree of smartphone utilization among seniors has become very high. Today, senior citizens are no more amateurs in using mobile devices. They love to try new apps with new features and benefits. They are increasingly becoming aware of mobile technology and exploring new ways to use smartphones and tablets. The primary use of mobile apps in the elderly is to keep them in constant touch with their family members.
Technology should be an inclusive factor for elderly and not a sole factor. The devices and apps should be adapted to the unique abilities of older people.
App developers need to identify the critical issues faced by elderly people while developing an app. We all know that smartphones have many features, such as dual finger scrolling, swiping, pinching, etc. App developers must focus on the needs of older people while designing and developing a mobile app. When it comes to using mobile devices, senior people may have technology anxiety. They may also face some challenges due to vision problems, complex user interface, lack of support system, etc.

The following guidelines should be followed while developing apps for the elderly:

- Use minimal design to prevent cognitive issues in senior citizens
- Provide clear instructions on how to use the app
- Avoid irrelevant content on the screen
- Limited gesture control within the app
- Provide only those features that are required by the person

- Should have simple and easy navigation

Considerations for the app test

1) First Considerations
    a) The prototype is a Helper App;
    b) The Helpers learn from GtG in social media/ newspaper / community / etc;
    c) To become a Helper, they only need to download the app at Google/AppStore and register;
        i) At this stage, the app is only available by invitation;

2) Real-World Test
    a) Create Account
        i) The candidates to be a Helper must have a cell phone number;
        ii) When they Create Account they have to insert his/her cell phone number and a pin code which will be the login data after complete the registration;
    b) Personal Data
        i) They should fill out their data;
        ii) Fill out the personal data it's not mandatory to continue the test;
        iii) No information is stored;
    c) Helper Settings:
        i) Candidates must choose at least one service they can perform;
        ii) The service they can perform must be the same category of the service you sent to be in use of the app.
        iii) They must set their residence and a radius;
    d) Become a Helper
        i) At this stage, no validation/confirmation will be necessary to simplify this process and also because this is not what we intend to test;
    e) Service acceptance
        i) A Helper can, at this stage, only accept one job at the time;
    f) Match / Helper/User Call
        i) At this stage, no connection will be made;
        ii) The location displayed it's the user location;
    g) Complete a service
        i) To finish a job, a QR Code should be read
            (1) Any QR Code works

Different Country Approach

The different countries took slightly different approach to do the tests with the Helpers, more information is provided in D.2.2 Co-Creation Results II

Conclusions

During the Workshops 3 we find out some common misunderstandings in every country, this topics should be care about for further progress on this project.

1. Action buttons should be always visible, with no need to scroll;
    a. Many elders didn't know they had to scroll down;
2. Date of Birth should be change to Year of Birth;
    a. Some elders didn't like to share that info;
3. Placeholders must disappear when focus a field;
    a. Some elders tried to erase the placeholder;
4. Hidden Menus
    a. We found that second level menus were hard to find;
5. Copy and Micro-Copy
    a. Success screens should be kept however some elders complain about the texts, which were found childish;
    b. Also the copy should be as simple and short as possible;
6. Since the app its only for Helpers, Users photos should be removed because we will not have that information.

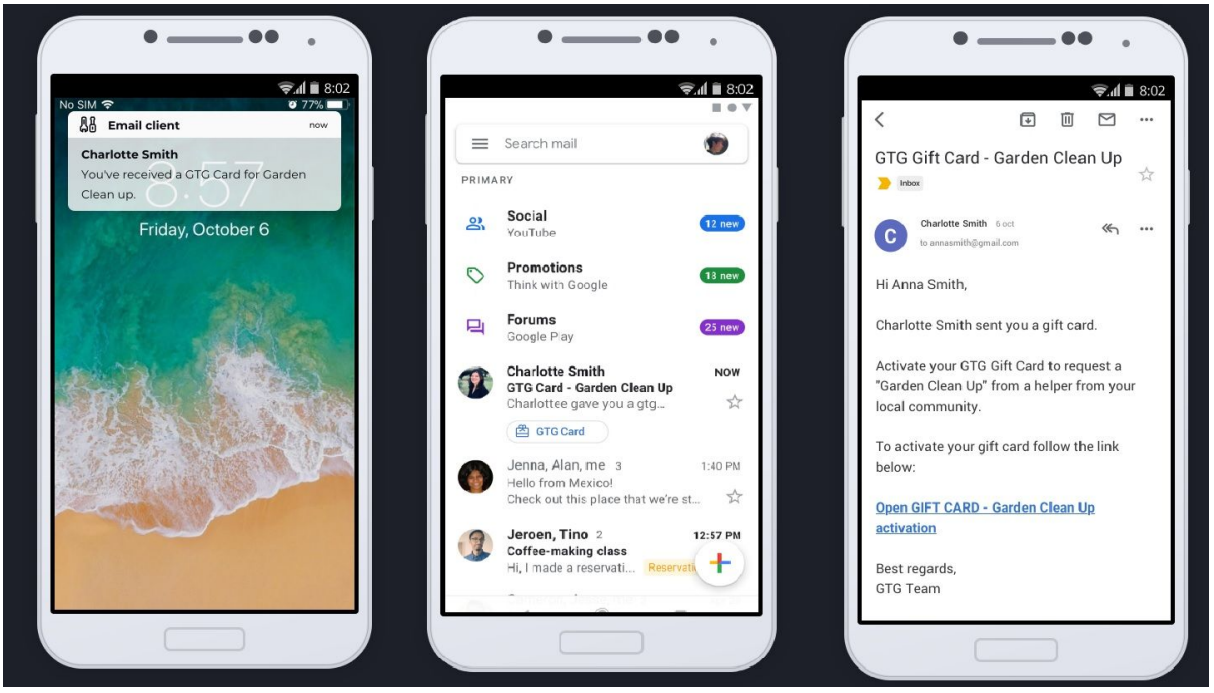
GtG Platform

Main Page and Online Store

The GtG Platform has two primary purposes, first to inform about the Service, secondly to sell GtG Vouchers.
The website should inform you about this service, how it works, how to be a user or a helper, and advantages of taking apart. Also helping pages like, check availability, returns, redeem the voucher and check service availability, users must be able to check online; however, the idea is the local stores only sell services that are available in the adjacent area.
Online Store is dedicated to selling vouchers, one for each service. Same services can have different prices based on difficult.

GtG Present (the gift card)

Everything starts with a voucher, and it can be printed or digital, the process to activate the voucher is by directly calling the Support Team to set up the voucher for the user, or using the App. After that, the job will be available to the helpers to perform the service.



https://projects.invisionapp.com/share/SYR9UCKF3BP#/screens/356467611

User, Giver / Helper App

The application should be available for download in Google Play Store and Apple Store, this will help us to reach as much persons as possible.

User:

- Set up Personal Info;
- Set up a job;
- View Helper Profile;
- Assign job;
- Review Helper;
- Receive Notifications;
- Do/receive in-app voIP calls;

Helper:

- Set up Personal Info;
- Set up Helper settings;
    - Import Files;
- View job offers;
- Accept/Decline Job offers;
- Do/receive in-app voIP calls;
- View User Profile;

- Review User;
- Receive Notifications
- Validate Service as done by reading the QR Code on Gift-to-Gift card;
- Redeem Vouchers;
- View Job History;

Note: a User can become a Helper, after administration approval;

Backend and Admin Tools

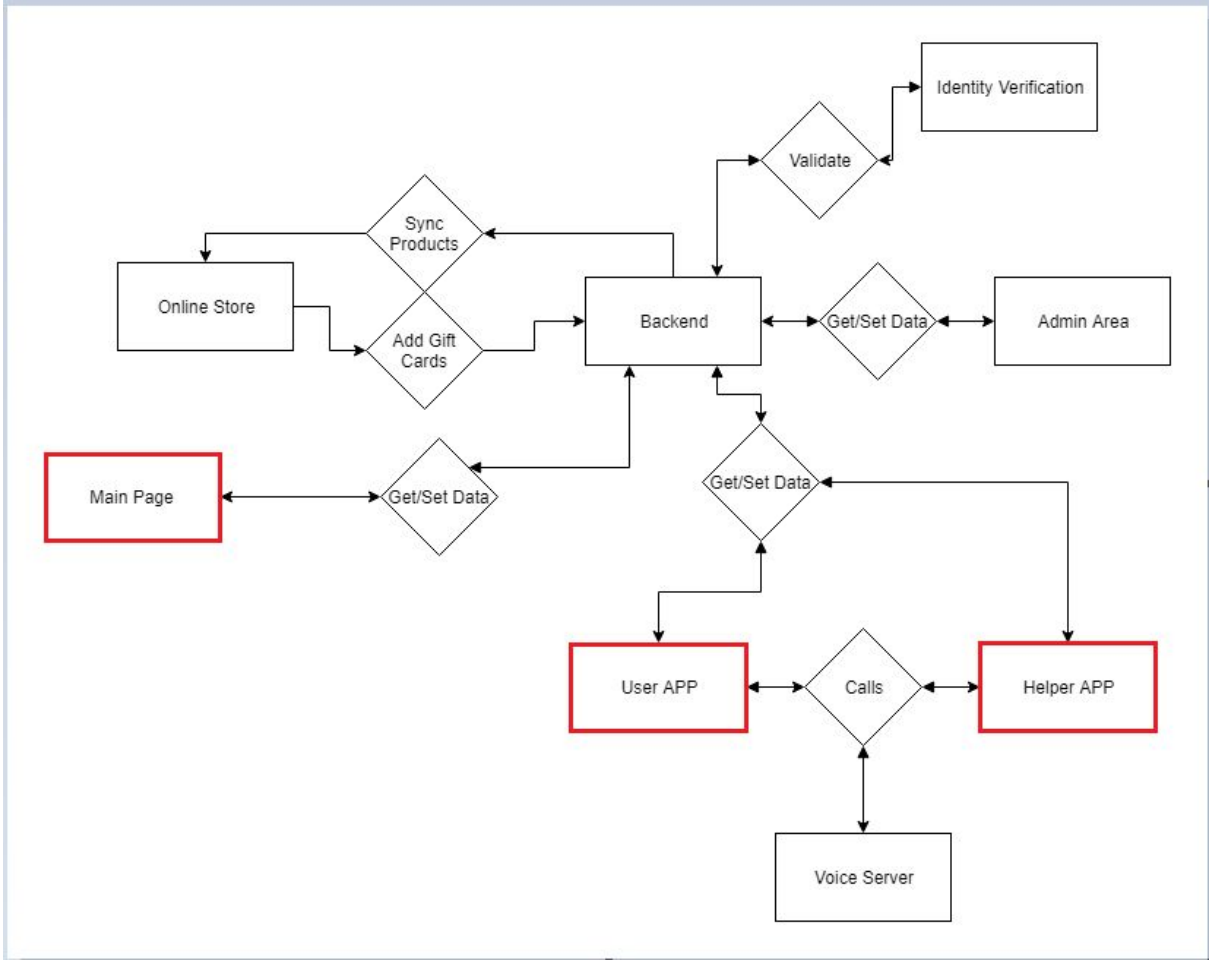
To keep services going, monitoring, and improvement of service, an admin platform should be created. This platform should have different features based on the role.

The Support Team must be able to set up a job, edit and delete. We believe for some the elderly it's comfortable to call than using the app, so it's essential the Support Team can help Users and Givers. Communications can be done traditional cell coverage or using in-app voIP system to avoid costs.

The admin must be able to set the type of services that can be done, area of service and access to analytic data about users, helpers, and jobs. They must be able to change prices, payment methods, and shipping carries and conditions.

Definition of the Future System Architecture

Structure



Techs

Voice / Video Server

Must be able to make a voice/video communication between a user and a helper app.
Recommendation:

- WebRTC

Identity Verification

The platform needs to validate the user's identity. It must be able to check ID from multiple countries and do that validation asynchronously from the user's input.

Backend

This is the central structure area and must be able to manage all application logic.
The communication with the other services must be done over a **REST API** and for longer jobs, (like resizing images, validating user's identity, ...) they must be done in a background job queue.
Unit Tests must be done to maintain the scalability of the developed source code.
Recommendation:

- Laravel or Lumen
- Redis
- MySQL

Admin Tools

A **SPA** (Single Page Application) that communicate with the backend REST API.
Recommendation:

- ReactJS

Main Page

A **SPA** (Single Page Application) that communicate with the backend REST API.
Recommendation:

- ReactJS

Online Store

For the online store we have two main options, however the most recommended its Shopify, because over the time is the solution which is more secure and requires less maintenance.
Recommendation:

- Shopify
- Wordpress & Woocommerce

User / Helper App

Mobile applications should be ready for Android and iOs, we understand there is no benefit developing this app in Native Language, so we recommend the app should be Hybrid and it must communicate with the **REST API** and the voice/video server. The app will need access to the camera and GPS.
Recommendation:

- ReactNative

Blockchain

Introduction

Blockchain enables distributed public ledgers that hold data in a secure and encrypted way and ensure that transactions can never be altered, according to IBM[1] here are the top 5 benefits:

1. Greater transparency
Transaction histories are becoming more transparent through the use of blockchain technology. Because blockchain is a type of distributed ledger, all network participants share the same documentation as opposed to individual copies. That shared version can only be updated through consensus, which means everyone must agree on it. To change a single transaction record would require the alteration of all subsequent records and the collusion of the entire network. Thus, data on a blockchain is more accurate, consistent and transparent than when it is pushed through paper-heavy processes. It is also available to all participants who have permissioned access. To change a single transaction record would require the alteration of all subsequent records and the collusion of the entire network. Which can be, you know, a headache.

2. Enhanced security
There are several ways blockchain is more secure than other record-keeping systems. Transactions must be agreed upon before they are recorded. After a transaction is approved, it is encrypted and linked to the previous transaction. This, along with the fact that information is stored across a network of computers instead of on a single server, makes it very difficult for hackers to compromise the transaction data. In any industry where protecting sensitive data is crucial — financial services, government, healthcare — blockchain has an opportunity to really change how critical information is shared by helping to prevent fraud and unauthorized activity.

3. Improved traceability
If your company deals with products that are traded through a complex supply chain, you're familiar with how hard it can be to trace an item back to its origin. When exchanges of goods are recorded on a blockchain, you end up with an audit trail that shows where an asset came from and every stop it made on its journey. This historical transaction data can help to verify the authenticity of assets and prevent fraud.

4. Increased efficiency and speed
When you use traditional, paper-heavy processes, trading anything is a time-consuming process that is prone to human error and often requires third-party mediation. By streamlining and automating these processes with blockchain, transactions can be completed faster and more efficiently. Since record-keeping is performed using a single

[1] https://www.ibm.com/blogs/blockchain/2018/02/top-five-blockchain-benefits-transforming-your-industry/

digital ledger that is shared among participants, you don't have to reconcile multiple ledgers and you end up with less clutter. And when everyone has access to the same information, it becomes easier to trust each other without the need for numerous intermediaries. Thus, clearing and settlement can occur much quicker.

5. Reduced costs

For most businesses, reducing costs is a priority. With blockchain, you don't need as many third parties or middlemen to make guarantees because it doesn't matter if you can trust your trading partner. Instead, you just have to trust the data on the blockchain. You also won't have to review so much documentation to complete a trade because everyone will have permissioned access to a single, immutable version.

Blockchain in GtG

Using distributed ledgers to track transactions, cryptocurrencies to transfer funds and smart contracts to ensure GtG coins are collected and spent correctly, we are determined to make the project more transparent and inclusive. GtG Project can become a stronger ecosystem of services through an easy-to-use interface, connecting elderly people while allowing full transparency and traceability of donations. Users, Givers, and Helpers will benefit from the borderless services provided through blockchain technology.