

# Streams Project Planning

## Interviewees:

**Person 1:** Darren Wang, darren.the.dragon55@gmail.com

**Person 2:** Timmy Nguyen, timmythewonderingtimetravelingkid@outlook.com

**Person 3:** Justin Doe, legodude118@gmail.com

## Requirements: Elicitations

### Questions:

- How would you rate the current communication tools we have? Is there anything you would like added to improve your communication experience?

Person 1: I feel like the current tools I have are very limited, it's only messaging, so I would like to see more than that, maybe a video call perhaps?

Person 2: Apart from the dm and channel features, it's a hassle to type all the time when communicating with someone, so I would suggest a call feature be added.

Person 3: I like talking to people, so having only messages is not ideal, so I would want a video call.

- Problem: Not enough variety->only messaging
- Solution: Add video call feature

- How do you feel about our current messaging tool?

Person 1: It is pretty plain, as in its only texts, so I would want something more than just posting texts in my channel or dms.

Person 2: It's alright, but I like memes, so I would like to be able to send memes to my friends.

Person 3: Having only text is fine, but it would be much better if I could also share images with my team.

- Problem: Want fun features like posting gif and images in the chat.
- Solution: Add image/gif sharing feature for messages

- In terms of the teamwork related tools offered, how would you feel if we added more features to that?

Person 1: In terms of the teamwork related tools, I think that's a good idea, because currently you can't really send documents to your group.

Person 2: Yeah, that sounds great, I want to be able to share files with my friends so we can work on them.

Person 3: Given some project scopes, having more teamwork related tools are very much needed, given that sharing documents are a must.

- Problem: Want the ability to share documents and files.
- Solution: Add a feature that allows users to post documents and file

- What are some things that you believe makes it difficult for you to communicate on the current platform?

Person 1: I would really like a way to be able to change the messages into a language other than English so I can understand them better.

Person 2 I also think being able to communicate in a different language would allow me to make more use of the service

Person 3: Some of the people in my tutorial speak a language other than English having a translation feature would really improve our ability to communicate

- Problem: People using the service all speak different languages.
- Solution: Add a feature that allows users to change messages to a preferred language

## Requirements: Analysis and Specification – Use Cases

**User story and Acceptance Criteria 1:** As a user, I want to be able to pass information to my team via video call, so that I will be able to communicate without the need to write it all out as messages.

Scenario: Wants to call team

Given: The user has navigated to the channel or dm

When: The user selected the video call option

Then: The system enables the user to start a video call

### Use-case 1:

#### MAIN SUCCESS SCENARIO

Step 1. User navigates to the channel or dm

Step 2: User selects the video call option

Step 3: System verifies whether user is valid and is a member of the chat room

Step 4: System starts a video call between user and all members of the chat room

Step 5: System alerts all members that a video call has started

### Use-case (Background) 1:

- **Use case: Start call**
- **Goal in Context: Stream users want to communicate with their team without messaging them**
- **Scope: System, backend infrastructure**
- **Level: Primary Task**
- **Preconditions: User is registered and is a member of the chat room**
- **Success End Condition: The user can start a video call with other members**
- **Failed End Condition: User does not have access to start a video call**
- **Primary Actor: Streams User**
- **Trigger: User selects video call option**

**User story and Acceptance Criteria 2:** As a user, I want to be able to send images via messages, because I want to share them with my team.

Scenario: Wants to share images

Given: The user has navigated to the channel or dm

When: The user selected the upload option

Then: The system uploads the image to the chat.

#### **Use-case 2:**

##### **MAIN SUCCESS SCENARIO**

Step 1. User navigates to the channel or dm

Step 2: User clicks on the upload option

Step 3: System verifies whether user is valid and is a member of the chat room

Step 4: System check the image url is valid

Step 5: System uploads the image onto the chat

#### **Use-case (Background) 2:**

- **Use case: Upload image**
- **Goal in Context: Stream users want to share and upload images as another form of passing information.**
- **Scope: System, backend infrastructure**
- **Level: Primary Task**
- **Preconditions: User is registered and is a member of the chat room**
- **Success End Condition: The user can upload the image to the chat**
- **Failed End Condition: User does not have access to upload the image**
- **Primary Actor: Streams User**
- **Trigger: User selects upload option**

**User story and Acceptance Criteria 3:** As a user, I want to attach files and documents to my messages, so that I can share them with my team.

Scenario: Attach document to message

Given: The user has navigated to the channel or dm

When: The user has selected the file attach option

Then: The system attaches the file to the message the user wants to send

#### **Use-case 3:**

##### **MAIN SUCCESS SCENARIO**

Step 1. User navigates to the channel or dm

Step 2: User types in a message, then clicks the attach option

Step 3: System verifies whether user is valid and is a member of the chat room

Step 4: System verifies the file path that is being attach

Step 5: System attaches the file to the message

**Use-case (Background) 3:**

- **Use case: Attach message**
- **Goal in Context: Stream users want to attach files to their message so that they can share documents for team collaboration**
- **Scope: System, backend infrastructure**
- **Level: Primary Task**
- **Preconditions: User is registered and is a member of the chat room**
- **Success End Condition: The user can attach the file to the message**
- **Failed End Condition: User does not have access to attach the file**
- **Primary Actor: Streams User**
- **Trigger: User selects the attach option**

**User story and Acceptance Criteria 4:** As a user, I want to be able to change the language of the messages, so that I can read them in my preferred language.

Scenario: Want to change language

Given: The user has navigated to the home page

When: The user selected to change their language to a preferred language

Then: The system changes to the messages to the different language

**Use-case 4:**

**MAIN SUCCESS SCENARIO**

Step 1. User navigates to the home page

Step 2: User Tries to change the language

Step 3: System verifies whether user is valid

Step 4: System verifies that the language is valid

Step 5: System changes the language to the chosen language

**Use-case (Background) 3:**

- **Use case: Change language**
- **Goal in Context: Stream users want to change the language so that they can read messages in their preferred language**
- **Scope: System, backend infrastructure**
- **Level: Primary Task**
- **Preconditions: User is registered**
- **Success End Condition: The text has changes to the requested language**
- **Failed End Condition: User tries to change to unknown language**
- **Primary Actor: Streams User**
- **Trigger: User selects the language option**

## Requirements: Validation

### User case 1:

Person 1: Yeah, that looks great, it is exactly what I was hoping for in terms of adding more communication features.

Person 2: Exactly what I asked for, makes it so much easier to talk to my team without having to type.

Person 3: Nice, this will definitely improve the communication experience.

### User case 2:

Person 1: Yep, this is much better than just sending plain old text, and makes the communication aspect much better.

Person 2: Definitely a good feature to add, now I can send messages and memes.

Person 3: Looks good, now I can be more creative in the way I send things to my team.

### User case 3:

Person 1: Much better, now it actually lets you do teamwork things like sending files.

Person 2: Good addition, this feature will greatly expand ways I can interact with my team.

Person 3: Exactly what I wanted, now I don't have to go through the hassle of going to other team communication apps to send files and documents over.

### User case 4:

Person 1: Yep, this is much better now I can read the text in my native language

Person 2: Definitely an improvement I can now uses the message feature of the streams service

Person 3: This addition is a real improvement. Now I can talk to other people in my tutorial who speak a different language.

## Design: Interface Design

<b>channel/video/call/v1:</b>  Given a channel with ID channel_id that the authorised user is a member of, allow that user to start a video call with all members in that channel.	POST	<b>Parameters:</b> { token, channel_id }  <b>Return Type:</b> { video_id }	<b>InputError when:</b> <ul style="list-style-type: none"><li>channel_id does not refer to a valid channel</li></ul> <b>AccessError when:</b> <ul style="list-style-type: none"><li>channel_id is valid and the authorised user is not a member of the channel</li></ul>
<b>dm/video/call/v1:</b>  Given a DM with ID dm_id that the authorised user is a member of, allow that user to	POST	<b>Parameters:</b> { token, dm_id }  <b>Return Type:</b>	<b>InputError when:</b> <ul style="list-style-type: none"><li>dm_id does not</li></ul>

start a video call with all members in that DM.		{ video_id }	<p>refer to a valid DM</p> <p><b>AccessError when:</b></p> <ul style="list-style-type: none"> <li>dm_id is valid and the authorised user is not a member of the DM</li> </ul>
<p><b>video/join/v1:</b></p> <p>Given a video_id that the authorised user can join, adds them to that video call</p>	POST	<p><b>Parameters:</b> { token, video_id }</p> <p><b>Return Type:</b> { }</p>	<p><b>InputError when:</b></p> <ul style="list-style-type: none"> <li>video_id does not refer to a valid video call</li> </ul> <p><b>AccessError when:</b></p> <ul style="list-style-type: none"> <li>video_id is valid and the authorised user is not a member of the DM or channel</li> </ul>
<p><b>image/send/v1:</b></p> <p>Given a URL of an image on the internet, send the image from the authorised user to the channel specified by channel_id. Note: Each image should have its own unique ID.</p>	POST	<p><b>Parameters:</b> { token, channel_id, img_url }</p> <p><b>Return Type:</b> { image_id }</p>	<p><b>InputError when:</b></p> <ul style="list-style-type: none"> <li>channel_id does not refer to a valid channel</li> <li>img_url returns an HTTP status other than 200</li> </ul> <p><b>AccessError when:</b></p> <ul style="list-style-type: none"> <li>channel_id is valid and the authorised user is not a member of the channel</li> </ul>
<p><b>image/senddm/v1:</b></p> <p>Given a URL of an image on the internet, send the image from the authorised user to the DM specified by dm_id. Note: Each image should have its own unique ID.</p>	POST	<p><b>Parameters:</b> { token, dm_id, img_url }</p> <p><b>Return Type:</b> { image_id }</p>	<p><b>InputError when:</b></p> <ul style="list-style-type: none"> <li>dm_id does not refer to a valid DM</li> <li>img_url returns an HTTP status other than 200</li> </ul> <p><b>AccessError when:</b></p> <ul style="list-style-type: none"> <li>dm_id is valid and the authorised user is not a member of the DM</li> </ul>
<b>file/attach/v1:</b>	POST	<p><b>Parameters:</b> { token, message_id,</p>	<p><b>InputError when:</b></p>

<p>Given a file path, attach the file from the authorised user to a message specified by message_id.</p>		<p><b>message, file_path</b> }</p> <p><b>Return Type:</b> { }</p>	<ul style="list-style-type: none"> <li>length of message is over 1000 characters</li> <li>message_id does not refer to a valid message within a channel/DM that the authorised user has joined</li> <li>File_path does not exist</li> </ul> <p><b>AccessError</b> when message_id refers to a valid message in a joined channel/DM and none of the following are true:</p> <ul style="list-style-type: none"> <li>the message was sent by the authorised user making this request</li> <li>the authorised user has owner permissions in the channel/DM</li> </ul>
<p><b>language/change/v1:</b></p> <p>Given a language changes the users frontend to the provided language</p>	POST	<p><b>Parameters:</b> { token, language }</p> <p><b>Return Type:</b> { }</p>	<p><b>InputError</b> when:</p> <ul style="list-style-type: none"> <li>The language provided is not a valid language</li> </ul> <p><b>AccessError</b> when:</p> <ul style="list-style-type: none"> <li>The token is not a valid token</li> </ul>

## Design: Conceptual Modelling (State)

