

Elicitation

Ryan Chen (chen.ryan.syd@hotmail.com)

1. Do standups cover your live communication needs?

A standup is not enough for my live communication needs. I would like to be able to hear other people's voices, especially if they are working remotely. Tone and emphasis are important for proper communication.

2. Does the current implementation of standups create a collaborative atmosphere?

The current implementation is not enough for a collaborative atmosphere as text is not engaging enough for people to pay attention. A camera should be added to make sure that others are paying attention.

3. Have you found the need to send file types unsupported by Beans? If so, what file types?

Yes. I have tried to send links to documentation and formatted code to no avail.

4. How often do you use Beans? What features would convince you to use it more often?

I do not use Beans often. I would use it more often if I could send links and formatted code in text chats, and if standups had live voice and video. I would also like to have threads, rather than just standups sending all the messages at once.

5. What features would you want to see popular messaging apps, such as Discord or Microsoft Teams, introduce?

I'd like to be able to add and send custom emojis that are not locked behind a paywall like with Discord, and Teams doesn't even support it. Also, I really like Discord bots but I want one that's able to do different actions based on the account currently logged in. For example, its profile picture would appear different to different users so that it could pretend to be multiple npcs in a video game and do some roleplaying.

Solution:

- Add voice calls with the option of turning on your camera
- Add the options for threads which are practically a dm inside the channel which only includes the users which choose to partake in the thread. This would be effective for tasks which only include a portion of the people in the channel.
- Add the option for urls sent to redirect you to the link if pressed.
- Allow the formatting of messages including customisable font/colours/font size

Rene Sun (rsun21sun@gmail.com)

1. Do standups cover your live communication needs?

Not really, it doesn't really feel live since it's kinda the same as normal dms. Ngl, I didn't even know what it was for at first. I googled it and the definition didn't really make sense in the context. Anyways, I'd really like to see support for voice calls and maybe video/streams. Since I do architecture, it'd be cool to screenshare the models I'm working on to others.

2. Does the current implementation of standups create a collaborative atmosphere?

Well, following from my previous response, no it doesn't since I can't really show other people what I'm working on right now. Standups don't really allow collaboration to be feasible when all you can do is text each other.

3. Have you found the need to send file types unsupported by Beans? If so, what file types?

Yea, I wanted to send .3dm files but it didn't let me.

4. How often do you use Beans? What features would convince you to use it more often?

I don't use Bean at all anymore. I found there was no point if, to send .3dm files, I had to attach it to an email or use something else like discord. And if I did send it through those methods, I could just attach the message I wanted to send with it anyways. So there was no need for me to use Beans at all when those platforms had all the features I needed. So yea, I'd like more supported file types. Oh and also, as I said before, video calls would be nice.

5. What features would you want to see popular messaging apps, such as Discord or Microsoft Teams, introduce?

I want Discord to have the option to send voice messages rather than just typing the message, basically like WeChat's voice recorder messaging. Also, the file size limit on gifs should be removed.

Solution:

- Add voice/video calls that allow you to share your screen
- Allow support for any file type shared.

Analysis & Specification

User Stories

As a Beans user, I want a voice chat function so that I can talk to my other team mates.

Acceptance criteria:

- User can join an existing call
- User can create a new call in a channel
- User can invite other bean users to a call
- User can use microphone hardware as voice input

As a Beans user, I want to have customisable channels so that chats can be more entertaining and organised.

Acceptance criteria:

- User can create a new thread in a channel
- User can type in thread
- Users can view the thread topics
- Users can join channel and view threads
- Users can create custom bots for entertainment and utility purposes

As a Beans user, I want to be able to be able to send different types of messages so that I can effectively communicate to my teammates.

Acceptance criteria:

- User can send file types including pdf, jpg, png, docx, 3dm up to a file size of 500MB
- Users can download files from messages
- User can send URL links
- User can format message including bold, italics, font, colour, font size
- User can send formatted code blocks and code strings

Use Case: Sending a File

Goal in Context: User attempts to send a file in a dm or channel

Scope: Dms and channels can accept messages with files attached

Preconditions: User is already in the dm/channel they are sending the file in

Success End Condition: Channel/Dm has a new message with a file attached

Fail End Condition: An error is returned

Primary Actor: User sending the file

Trigger: A user attempts to send a message with a file attached

Step 1: User attempts to send a message in a channel/dm

Step 2: Beans requests server to send a message with a file

Step 3: Server verifies user is valid

Step 4: User inputs the channel/dm for the message to be sent in, and the file

Step 5: Server verifies the user is in the channel/dm specified and the file size is less than 500 MB

Step 6: Server adds the message with the file to the channel/dm

Step 7: Beans displays the new message to the User

Validation

Ryan Chen:

I am very satisfied with the thread feature as it matches my requirement for a more organised, collaborative discussion. Moreover, the voice call feature creates an easily accessible channel for live discussion that I will be using often. However, it would be nice to consider the possibility of introducing a program to recognize and prevent restricted contents from being sent.

Rene Sun:

As a Beans user, the proposed features satisfy the need to create a collaborative online environment. The environment enables file transfer up to a decent size (500MB), sufficient for most scenarios, and it supports multiple file types which provides a steep advantage over similar applications that can transfer files from user to user. It would be recommended for Beans to develop software for different operating systems in parallel to the website version for quicker and easier access.

Interface

Name & Description	HTTP Method	Data Types	Exceptions
<p>/channel/callstart/v1</p> <p>Creates a new call within a channel that the authorised user is a part of</p>	POST	<p>Body Parameters: { name, channelId }</p> <p>Return type if no error: { callId }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> channelId does not refer to a valid channel length of name is less than 1 or more than 20 characters A call already exists with the same name <p>403 Error when:</p> <ul style="list-style-type: none"> channelId refers to a channel that the authorised user is not a channel member and is not a global owner
<p>/dm/callstart/v1</p> <p>Creates a new call within a dm that the authorised user is a part of</p>	POST	<p>Body Parameters: { dmId }</p> <p>Return type if no error: { callId }</p>	<p>400 Error when:</p> <ul style="list-style-type: none"> dmId does not refer to a valid DM <p>403 Error when any of:</p> <ul style="list-style-type: none"> dmId is valid and the authorised user is not a member of the DM dmId is valid and the authorised user is no longer in the DM
<p>/channel/callend/v1</p> <p>Given a callId, removes the call from the channel.</p>	DELETE	<p>Query Parameters: (channelId, callId)</p> <p>Return type if no error: { }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> channelId does not refer to a valid channel callId does not refer

			<p>to a valid user</p> <ul style="list-style-type: none"> • If there are still people in the call • callid does not exist in the channel
<p>/dm/callend/v1</p> <p>Given a callid, removes the call from the dm.</p> <p>If 2 minutes have passed while there were no users in the call, the server will automatically delete the call.</p>	DELETE	<p>Query Parameters: (dmlid, callid)</p> <p>Return type if no error: { }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> • channelid does not refer to a valid channel • callid does not refer to a valid user • If there are still people in the call <p>403 Error when any of:</p> <ul style="list-style-type: none"> • User is not in the call
<p>/channel/calljoin/v1</p> <p>Given a callid of a call that the authorised user can join, adds them to that call.</p>	POST	<p>Body Parameters: { channelid, callid }</p> <p>Return type if no error: { }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> • channelid does not refer to a valid channel • the authorised user is already in the call <p>403 Error when:</p> <ul style="list-style-type: none"> • channelid refers to a channel that the authorised user is not a member of
<p>/dm/calljoin/v1</p> <p>Given a callid of a call that the authorised user can join, adds them to that call.</p>	POST	<p>Body Parameters: { dmlid, callid }</p> <p>Return type if no error: { }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> • dmlid does not refer to a valid channel • the authorised user is already in the call <p>403 Error when:</p>

			<ul style="list-style-type: none"> • dmId refers to a dm that the authorised user is not a member of
<p>/channel/calleave/v1</p> <p>Given a call with ID 'callId' that the user is a member of, removes them from the call</p> <p>.</p>	POST	<p>Body Parameters: { channelId, callId }</p> <p>Return type if no error: { }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> • channelId does not refer to a valid channel • the authorised user is not in the call <p>403 Error when:</p> <ul style="list-style-type: none"> • channelId refers to a channel that the authorised user is not a member of
<p>dml/calleave/v1</p> <p>Given a call with ID 'callId' that the user is a member of, removes them from the call.</p> <p>If there are no members left in the call, the call should be removed.</p>	POST	<p>Body Parameters: { dmId, callId }</p> <p>Return type if no error: { }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> • dmId does not refer to a valid channel • the authorised user is not in the call <p>403 Error when:</p> <ul style="list-style-type: none"> • dmId refers to a dm that the authorised user is not a member of
<p>/channel/createthread/v1</p> <p>Given a channelId, create a new thread inside the channel and return the threadId.</p>	POST	<p>Body Parameters: { name, channelId }</p> <p>Return type if no error: { threadId }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> • channelId does not refer to a valid channel • length of name is less than 1 or more than 20 characters • A thread already exists with the same name

			403 Error when: <ul style="list-style-type: none"> channelId refers to a channel that the authorised user is not a member and is not a global owner
/channel/jointhread/v1 Given a threadId, add the user to the thread if the user is a member of the channel the thread is in.	POST	Body Parameters: { channelId, threadId } Return type if no error: {}	400 Error when any of: <ul style="list-style-type: none"> channelId does not refer to a valid channel threadId does not refer to a valid thread threadId is not open 403 Error when: <ul style="list-style-type: none"> channelId refers to a channel that the authorised user is not a member
/channel/leavethread/v1 Given a threadId, remove the user from the members of the thread.	POST	Body Parameters: { channelId, threadId } Return type if no error: {}	400 Error when any of: <ul style="list-style-type: none"> channelId does not refer to a valid channel threadId does not refer to a valid thread 403 Error when: <ul style="list-style-type: none"> channelId refers to a channel that the authorised user is not a member
/channel/closethread/v1 Given a threadId, close the thread if the user is a member of the thread.	DELETE	Query Parameters: (channelId, threadId) Return type if no error: {}	400 Error when any of: <ul style="list-style-type: none"> channelId does not refer to a valid channel threadId does not

			<p>refer to a valid thread</p> <p>403 Error when:</p> <ul style="list-style-type: none"> channelId refers to a channel that the authorised user is not a member of
<p>/channel/openthread/v1</p> <p>Given a threadId, open the thread if the user is a member of the thread.</p>	POST	<p>Body Parameters: { channelId, threadId }</p> <p>Return type if no error: { }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> channelId does not refer to a valid channel threadId does not refer to a valid thread <p>403 Error when:</p> <ul style="list-style-type: none"> channelId refers to a channel that the authorised user is not a member of
<p>/channel/threadList/v1</p> <p>Lists all threads in a channel the user is a member of.</p>	GET	<p>Query Parameters: (channelId)</p> <p>Return type if no error: { }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> channelId does not refer to a valid channel <p>403 Error when:</p> <ul style="list-style-type: none"> channelId refers to a channel that the authorised user is not a member of
<p>/channel/threadListAll/v1</p> <p>Lists all threads that exist in a channel.</p>	GET	<p>Query Parameters: (channelId)</p> <p>Return type if no error: { }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> channelId does not refer to a valid channel <p>403 Error when:</p>

			<ul style="list-style-type: none"> channelId refers to a channel that the authorised user is not a member of
<p>/message/sendthread/v1</p> <p>Given a threadId and message, add the message to the thread.</p>	POST	<p>Body Parameters: { threadId, message }</p> <p>Return type if no error: { messageId }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> threadId does not refer to a valid thread length of message is less than 1 or over 1000 characters <p>403 Error when any of:</p> <ul style="list-style-type: none"> threadId is valid and the authorised user is not a member of the thread
<p>/channel/threadmessages/v1</p> <p>Given a thread with ID threadId that the authorised user is a member of, returns up to 50 messages between index start and "start + 50". Message with index 0 (i.e. the first element in the returned array of messages) is the most recent message in the thread. This function returns a new index end. If there are more messages to return after this function call, end equals "start + 50". If this function has returned the least recent messages in the thread, end equals -1 to indicate that there are no more messages to load after this return.</p>	GET	<p>Query Parameters: (threadId, start)</p> <p>Return type if no error: { messages, start, end }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> threadId does not refer to a valid thread start is greater than the total number of messages in the channel <p>403 Error when any of:</p> <ul style="list-style-type: none"> threadId is valid and the authorised user is not a member of the thread
<p>/message/sendfileChannel/v1</p> <p>Given a channel and a file, send the file as a message in the channel.</p>	POST	<p>Body Parameters: { channelId, file }</p> <p>Return type if no error:</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> channelId does not refer to a valid channel

		{ messageId }	<ul style="list-style-type: none"> The file size is greater than 500MB 403 Error when any of: <ul style="list-style-type: none"> channelId is valid and the authorised user is not a member of the channel
/message/sendfileDM/v1 Given a dm and a file, send the file as a message in the dm.	POST	Body Parameters: { dmId, file } Return type if no error: { messageId }	400 Error when any of: <ul style="list-style-type: none"> dmId does not refer to a valid dm The file size is greater than 500MB 403 Error when any of: <ul style="list-style-type: none"> dmId is valid and the authorised user is not a member of the dm
/message/deletefile/v1 Given a message with a file, remove it from the channel or dm.	DELETE	Query Parameters: (messageId) Return type if no error: { }	400 Error when any of: <ul style="list-style-type: none"> messageId does not refer to a valid message 403 Error when any of: <ul style="list-style-type: none"> If the authorised user does not have owner permissions, and the message was not sent by them
/message/downloadfile/v1 Given a message with a file that the authorised user can access, downloads the file.	GET	Query Parameters: (messageId) Return type if no error: { }	400 Error when any of: <ul style="list-style-type: none"> messageId does not refer to a valid message message does not have a file attached

			<p>to it</p> <p>403 Error when any of:</p> <ul style="list-style-type: none"> • messageId is valid and the authorised user is not a member of the channel or dm in which it was sent
<p>/message/send/v3</p> <p>Sends a message from the authorised user to the channel specified by channelId. Note: Each message should have its own unique ID, i.e. no messages should share an ID with another message, even if that other message is in a different channel or DM</p> <p>If the message contains a pair of double asterisks (**), bold any text between them. If the message contains a pair of asterisks (*), italicise any text between them. If the message contains a pair of tildes (~), strikethrough any text between them. If the message contains a pair of underscores (_), underline any text between them. If the message contains a pair of (` `), format any text between them as code. Pressing Shift + Cmd + > should increase the font size by 1. Pressing Shift + Cmd + < should decrease the font size by 1.</p>	POST	<p>Body Parameters: { channelId, message }</p> <p>Return type if no error: { messageId }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> • channelId does not refer to a valid channel • length of message is less than 1 or over 1000 characters • font size is over 30 • font size is under 1 <p>403 Error when any of:</p> <ul style="list-style-type: none"> • channelId is valid and the authorised user is not a member of the channel
<p>/dm/send/v3</p> <p>Sends a message from the authorised user to the dm specified by dmId. Note: Each message</p>		<p>Body Parameters: { dmId, message }</p> <p>Return type if no error:</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> • channelId does not refer to a valid channel

<p>should have its own unique ID, i.e. no messages should share an ID with another message, even if that other message is in a different channel or DM</p> <p>If the message contains a pair of double asterisks (**), bold any text between them.</p> <p>If the message contains a pair of asterisks (*), italicise any text between them.</p> <p>If the message contains a pair of tildes (~), strikethrough any text between them.</p> <p>If the message contains a pair of underscores (_), underline any text between them.</p> <p>If the message contains a pair of (``), format any text between them as code.</p> <p>Pressing Shift + Cmd + > should increase the font size by 1.</p> <p>Pressing Shift + Cmd + < should decrease the font size by 1.</p>		{ messageId }	<ul style="list-style-type: none"> length of message is less than 1 or over 1000 characters font size is over 30 font size is under 1 <p>403 Error when any of:</p> <ul style="list-style-type: none"> channelId is valid and the authorised user is not a member of the channel
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State Diagram - sending a file

