Group 4: Communications

Use Case Specification

Revision History

Date	Revision	Description	Authors
9/19/2022	1.0	Initial Version	Jared Patterson

USER cases and MC cases.
Based on the Messaging Client Module in the SRS v1.0.

Use Case ID: *USER0*
Use Case Name: *Login*
Relevant Requirements: 3.1.1.1, 3.1.2.1
Primary Actor: *User*
Pre-conditions: *The user should not already be logged in.*
Post-conditions: *The user is logged in, and may take other actions.*
Basic Flow or Main Scenario: *1 The user launches the client. 2 The client asks for login info. 3 The user gives the info. 4 The client sends the info to the server. 5 The server validates the info, and sends a response to the client. 6 The client shows a GUI for control. 7 Future user actions will be serviced by the server without issue.*
Exceptions: *The login fails.*
Related Use Cases: COMS0

Use Case ID: *USER1*
Use Case Name: *View Messages*
Relevant Requirements: 3.1.2.7, 3.1.2.8
Primary Actor: *User*
Pre-conditions: *None.*
Post-conditions: *The user is viewing their message history.*
Basic Flow or Main Scenario: *1 The user navigates the GUI to a previously used messaging space. 2 The client sends a request to the server for the history of that messaging space. 3 The server sends the history. 4 The client displays the history to the user.*
Related Use Cases: COMS3

Use Case ID: *USER2*
Use Case Name: *Search Users*
Relevant Requirements: 3.1.2.1
Primary Actor: *User*
Pre-conditions: *None.*
Post-conditions: *The user sees a list of user accounts, which they may add to a chat group or directly message.*
Basic Flow or Main Scenario: *1 The user navigates the GUI to a list of user accounts. 2 The client sends a request to the server for a list of user accounts. 3 The server sends the list of user accounts. 4 The client displays the list to the user.*
Related Use Cases: USER-CG1, USER-CG2, USER-DM1

Use Case ID: *USER-CG1*
Use Case Name: *Form Chat Group*
Relevant Requirements: 3.1.2.3
Primary Actor: *User*

Pre-conditions: *The user must have selected* other users to add to the chat group.

Post-conditions: *A chat group messaging space is shown in the GUI, ready to send a message.*

Basic Flow or Main Scenario: *1 The user presses a button to create a group chat. 2 The client prepares to send a message to the group.*

Exceptions: *If no message is sent, the server does not save the existence of the chat group.*

Related Use Cases: USER2, USER-CG3, USER-CG2

Use Case ID: ***USER-CG2***
Use Case Name: *Add User(s) To Chat Group*
Relevant Requirements: 3.1.2.4
Primary Actor: *User*
Pre-conditions: *The user must have selected users to add to an existing chat group.*
Post-conditions: *The selected users are able to view past messages in the chat group space, and will receive new ones in that space.*
Basic Flow or Main Scenario: *1 The user presses a button to add users to a group chat. 2 The client sends the server a request to update the chat group. 3 The client prepares to send a message to the group.*
Exceptions: *A user may already be added to the group.*
Related Use Cases: USER-CG1, USER-CG2

Use Case ID: ***USER-CG3***
Use Case Name: *Send Chat Group Message*
Relevant Requirements: 3.1.2.6
Primary Actor: *User*
Pre-conditions: *The user must have navigated to the chat group messaging space.*
Post-conditions: *The user will have sent a message to the chat group.*
Basic Flow or Main Scenario: *1 The user types their message, and hits enter. 2 The client sends the message to the server.*
Related Use Cases: COMS1

Use Case ID: ***USER-DM1***
Use Case Name: *Start Direct Message*
Relevant Requirements: 3.1.2.5
Primary Actor: *User*
Pre-conditions: *The user must have selected* one other user to message.
Post-conditions: *A direct messaging space is shown in the GUI, ready to send a message.*
Basic Flow or Main Scenario: *1 The user presses a button to create a direct message. 2 The client prepares to send a message to the other user.*
Exceptions: *If no message is sent, the server does not save the existence of the direct message space.*
Related Use Cases: USER2, USER-DM2

Use Case ID: *USER-DM2*
Use Case Name: *Send Direct Message*
Relevant Requirements: 3.1.2.5
Primary Actor: *User*
Pre-conditions: *The user must have navigated to the direct messaging space.*
Post-conditions: *The user will have sent a message to the chat group.*
Basic Flow or Main Scenario: *1 The user types their message, and hits enter. 2 The client sends the message to the server.*
Related Use Cases: COMS1

Use Case ID: *MC0*
Use Case Name: *User Info For Client*
Relevant Requirements: 3.1.2.*
Primary Actor: *Client*
Pre-conditions: *A user logs in, or navigates to a new part of the GUI.*
Post-conditions: *The client will have received info from the server needed for GUI functionality.*
Basic Flow or Main Scenario: *1 The client sends a request to the server for the information it needs. 2 The server sends the information. 3 The client receives the information, and can show the GUI populated with user-specific information.*

Use Case ID: *MC1*
Use Case Name: *New Message Notification*
Relevant Requirements: 3.1.2.8
Primary Actor: *Client*
Pre-conditions: *The server should send a new message to the client of a logged in user.*
Post-conditions: *The user of the client will have been notified of the new message.*
Basic Flow or Main Scenario: 1 The client receives a new message from the server. 2 The client sends the user a notification for that message.
Extensions or Alternate Flows: *In the case that a user has been logged out for a while, and a backlog of messages has accrued: 1 The client receives many new messages from the server upon login. 2 The client sends the user one special notification indicating many new messages.*
Exceptions: *The user ignores the notification.*
Related Use Cases: COMS2, USER1

IT cases.
Based on the Privileged Client Module in the SRS v1.0.

Use Case ID: *IT0*
Use Case Name: *Enter Privileged Mode*
Relevant Requirements: 3.1.3.1, 3.1.3.2
Primary Actor: *Privileged user*
Pre-conditions: *The user account must be for an IT employee.*
Post-conditions: *The privileged user is able to navigate all messaging spaces.*
Basic Flow or Main Scenario: *1 The privileged user is given the choice in the GUI to switch to a privileged mode. 2 The client changes the GUI to meet this request.*

COMS cases.
Based on the Communications Server Module in the SRS v1.0.

Use Case ID: *COMS0*
Use Case Name: *Validate Login*
Relevant Requirements: 3.1.4.1, 3.1.4.2
Primary Actor: *Server*
Pre-conditions: *A client must send a login request.*
Post-conditions: *The client is sent the result of the request.*
Basic Flow or Main Scenario: *1 The server receives a login request. 2 The server checks the login information against all user accounts. 3 The server responds to the client with whether the login has been validated.*
Extensions or Alternate Flows: *3 If a user needs to be sent a message, see COMS2.*
Exceptions: *The login fails.*
Related Use Cases: USER0, MC0, COMS2

Use Case ID: *COMS1*
Use Case Name: *Receive Message*
Relevant Requirements: 3.1.4.3, 3.1.4.4
Primary Actor: *Server*
Pre-conditions: *The client sends the server a message.*
Post-conditions: *The server has stored the message, and has checked if there are logged in users it can send it to.*
Basic Flow or Main Scenario: *1 The server receives a message. 2 The server stores it.*
Extensions or Alternate Flows: *3 If any users need to be sent the message, see COMS2.*
Related Use Cases: USER-CG3, USER-DM1, COMS2

Use Case ID: *COMS2*
Use Case Name: *Send Message*
Relevant Requirements: 3.1.4.5
Primary Actor: *Server*
Pre-conditions: *A message needs to be sent to a user.*
Post-conditions: *The message has been sent to the user.*
Basic Flow or Main Scenario: *1 The server sends the message.*
Related Use Cases: COMS0, COMS1, MC1

Use Case ID: *COMS3*
Use Case Name: *Send User Message History*
Relevant Requirements: 3.1.4.6, 3.1.4.7
Primary Actor: *Server*
Pre-conditions: *A client requests history for a user.*
Post-conditions: *The server has sent the history to the client.*
Basic Flow or Main Scenario: *1 The server sends the history for a specific user.*
Extensions or Alternate Flows: *1 The server sends the history of all messages (privileged only).*

Related Use Cases: USER2, IT0

Case Template

Use Case ID: *{This should be coded to identify the level of the use case}*
Use Case Name: *{Short descriptive phrase}*
Relevant Requirements: *{Reference to relevant requirements document.}*
Primary Actor: *{Main sub-system/entity that initiates use}*
Pre-conditions: *{Requirements on the state of the system prior to this use being valid.}*
Post-conditions: *{This describes the state of the system following the successful completion of this use. Effects on other systems and actors may also be described.}*
Basic Flow or Main Scenario: *{Numbered flow of events: 1 The user initiates an action by... 2 The system responds by...}*
Extensions or Alternate Flows: *{This section presents variations on this use case. It presents those use cases that have an extends relation with the current use case.}*
Exceptions: *{This section describes all error conditions that can arise in the use case.}*
Related Use Cases: {use cases that are either usually performed just before or after the current use.}