

Real-time Chat Application

User Story 1: User joins chat room

As a user,

I want to join a chat room and establish a live connection,
so that I can start sending and receiving messages instantly without refreshing the page.

Acceptance Criteria

- User can successfully join a chat room
 - A real-time connection is established on entry
 - Chat screen loads existing messages
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User Story 2: User sends a message

As a user,

I want to send a message that is delivered immediately,
so that my communication feels instant and uninterrupted.

Acceptance Criteria

- Message is sent without page reload
 - Message appears instantly for all participants
 - Message is saved with timestamp and sender details
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User Story 3: User receives messages in real time

As a user,

I want to receive messages instantly from others,
so that conversations feel natural and live.

Acceptance Criteria

- New messages appear automatically
 - No manual refresh is required
 - Message order is preserved correctly
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User Story 4: Moderator monitors chat in real time

As a chat room moderator,

I want to see new messages appear in real time,
so that I can monitor conversations continuously and take action if needed.

Acceptance Criteria

- Moderator receives all messages instantly
 - Messages appear without page refresh
 - Moderator view stays in sync with users
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User Story 5: System broadcasts messages

As the system,

I want to broadcast validated messages to all active participants,
so that users and moderators stay synchronized in real time.

Acceptance Criteria

- Message is validated before broadcast
 - Message is delivered to all connected clients
 - Failed deliveries are handled gracefully
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User Story 6: Maintain real-time session

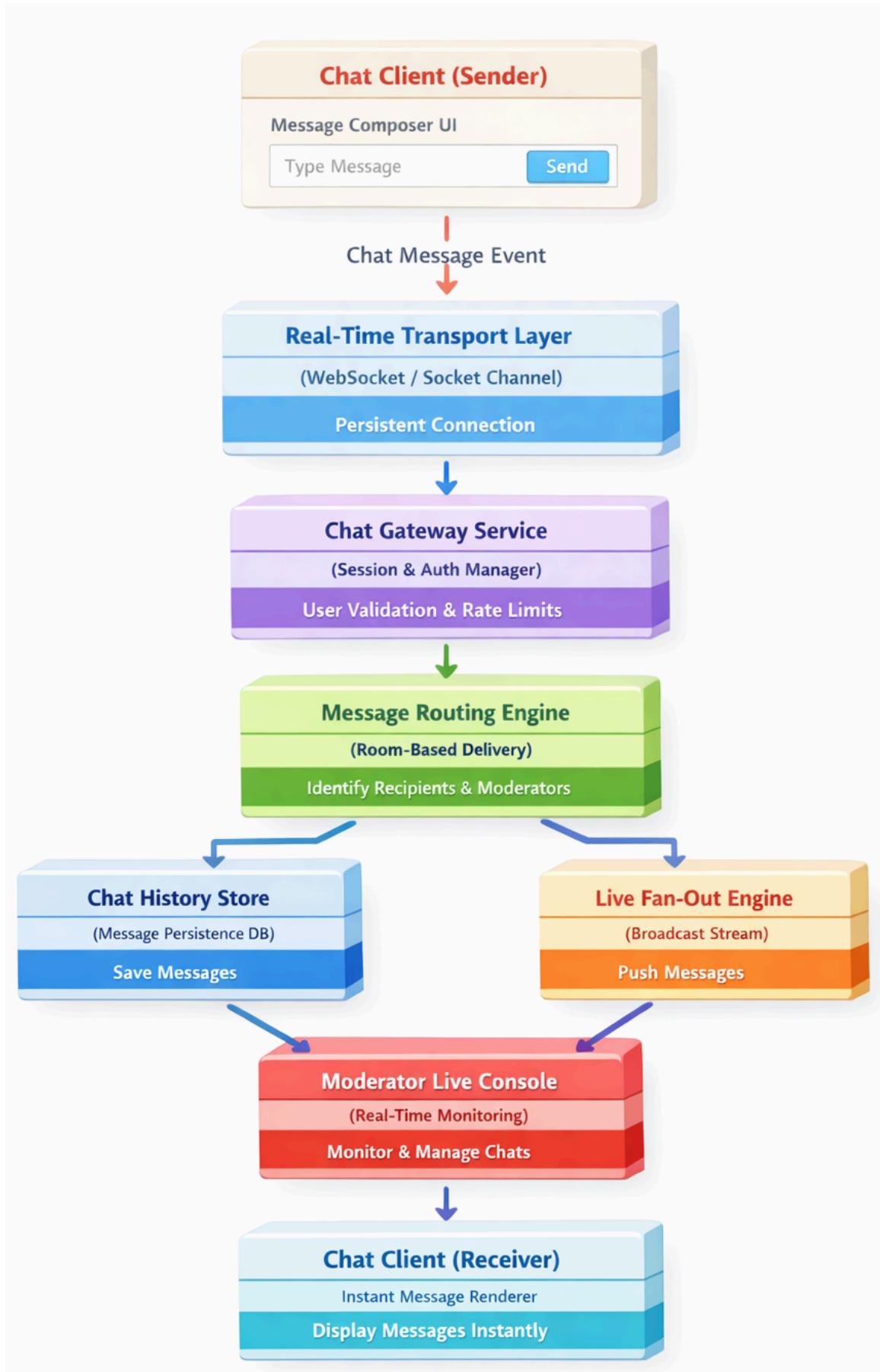
As the system,

I want to maintain an active real-time connection for each user,
so that continuous communication is possible until the user leaves.

Acceptance Criteria

- Connection remains open during chat session
 - Connection closes on logout or exit
 - System handles reconnect scenarios
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Process Flow:



Real-Time Chat Application Process Flow

