**System Sequence Diagrams:**

**Shared Alternative Path for all Use Cases:**

1. Server attempt to find and fix issues

1a. Server is offline

1. App informs the user that no server is detected

2. User restarts the serve

3. App reconnects to the server

1b. Server crash

1. Server auto restart

1a. Server fails to auto restart

1. Mobile app informs the user after 1 minute of no response from the server

2. User manually restarts server

1. Server requests information from the mobile application and resumes normal functionality

\*b At any time the mobile application fails:

1. Mobile app searches for issue

1a. Mobile app has no network connection

1. App attempts to connect to wifi to restore connection

1a. App fails to connect to wifi

1. The information is stored on the app and queue to send when connection is restored

2. The app informs the user that it has no network connection.

2a. Mobile application crashes

1. Mobile app sends information about the cause of the crash

2. App attempts to auto restart

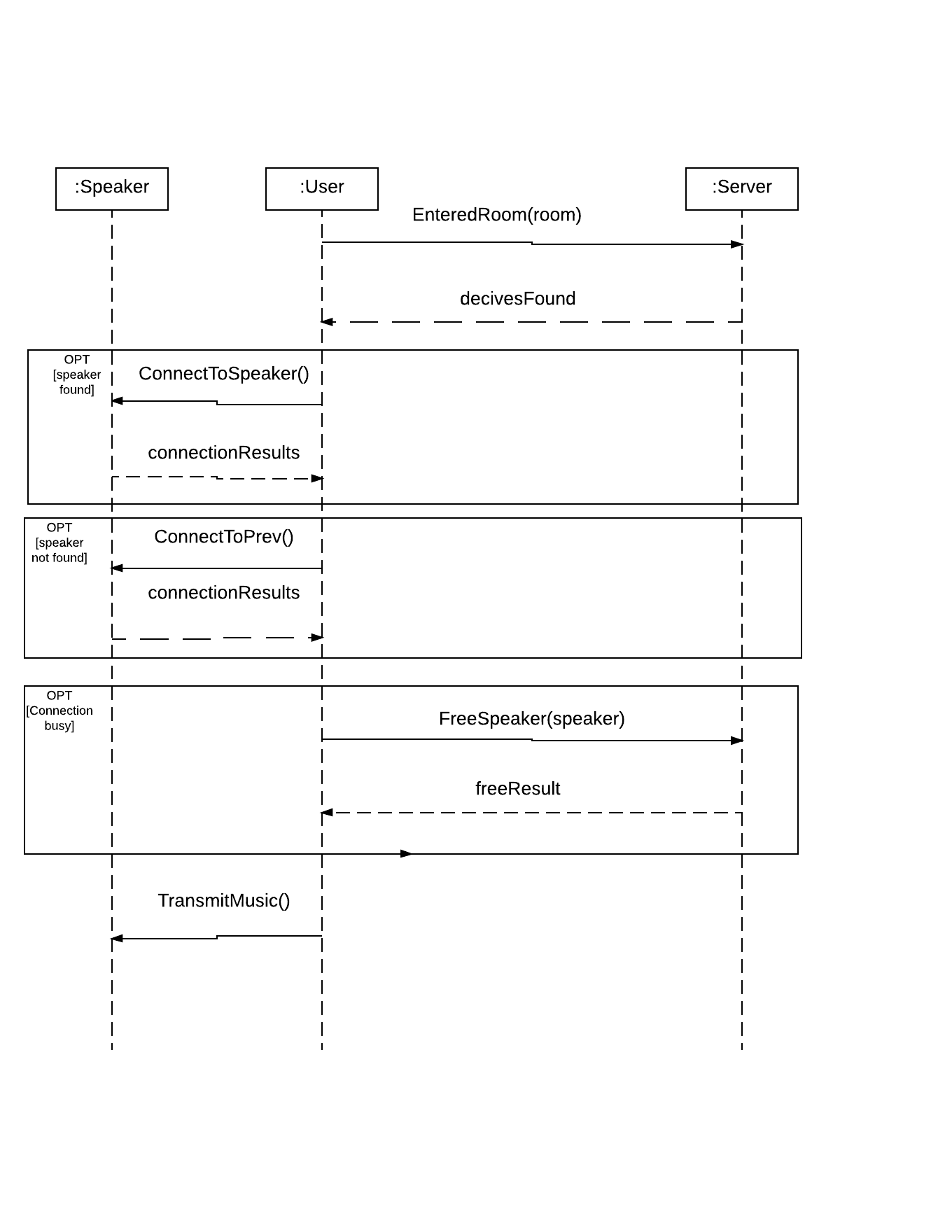
2a. Fails to auto restart

1. User manually restarts the app

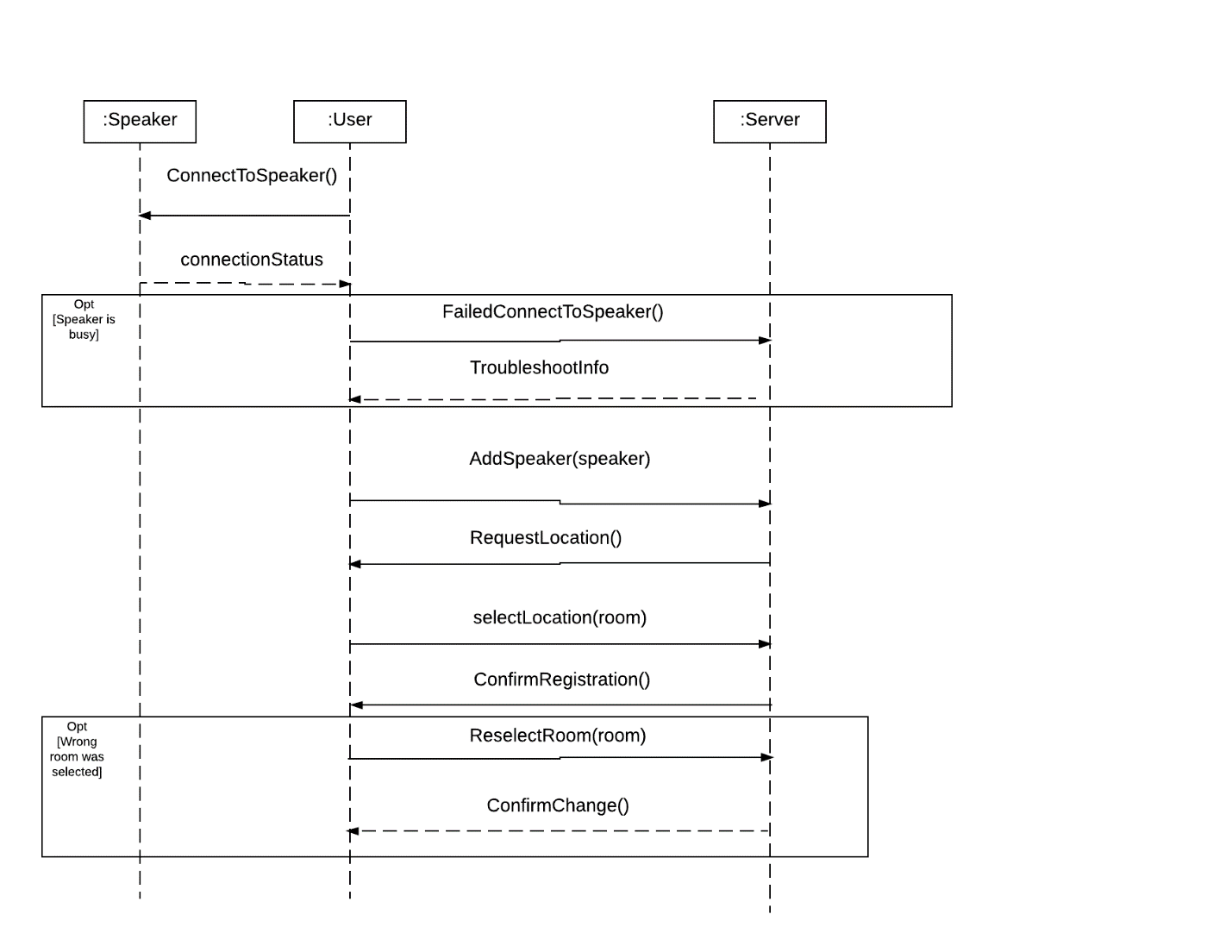
2. App sends information to the server

3. Mobile app sends its information to the server and reestablishes connections based on what the server sends back

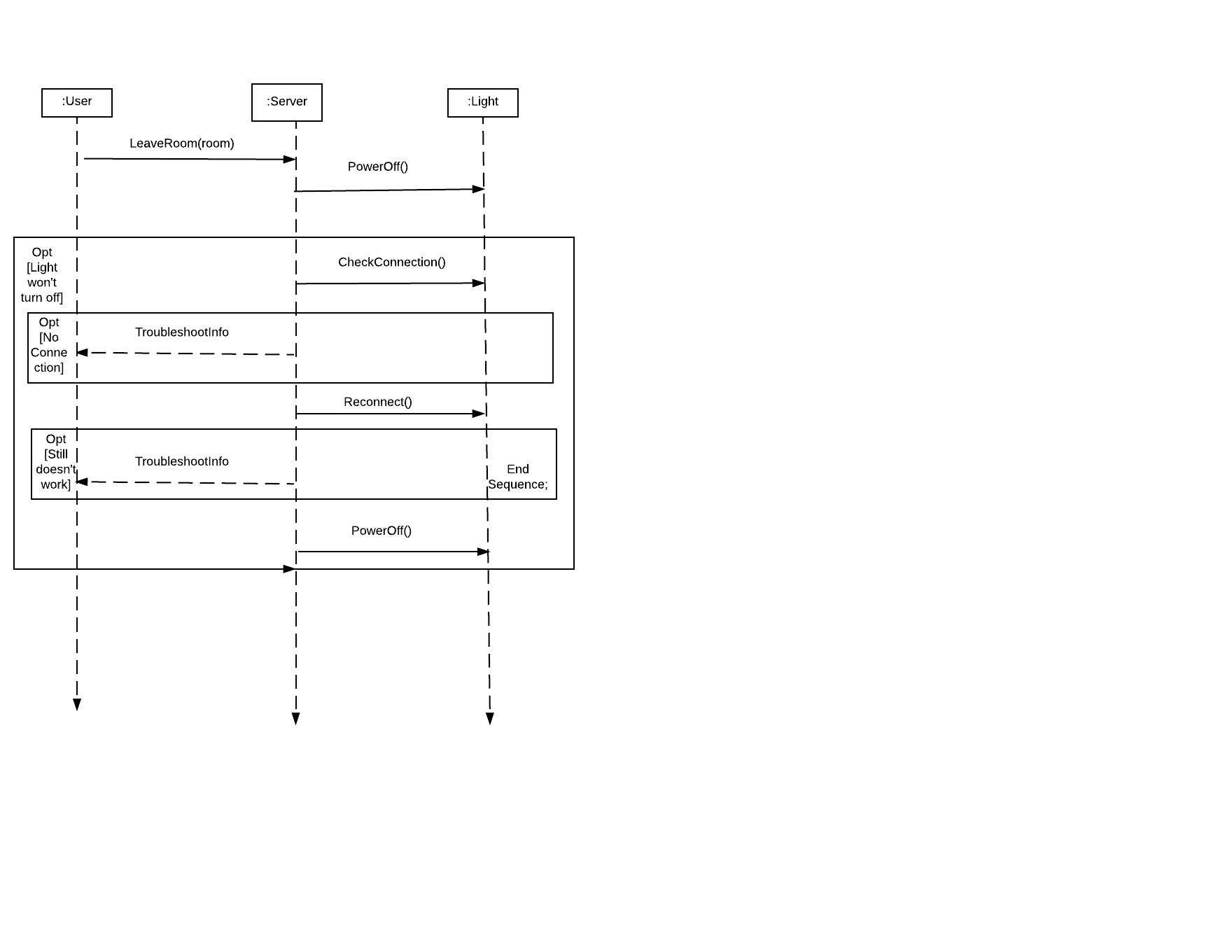
**System Sequence Diagram:** Turning on a speaker when entering a room



**System Sequence Diagram:** Adding a new speaker to the system



**System Sequence Diagram:** Turning off lights when leaving a room



**System Sequence Diagram:** Change Password

