

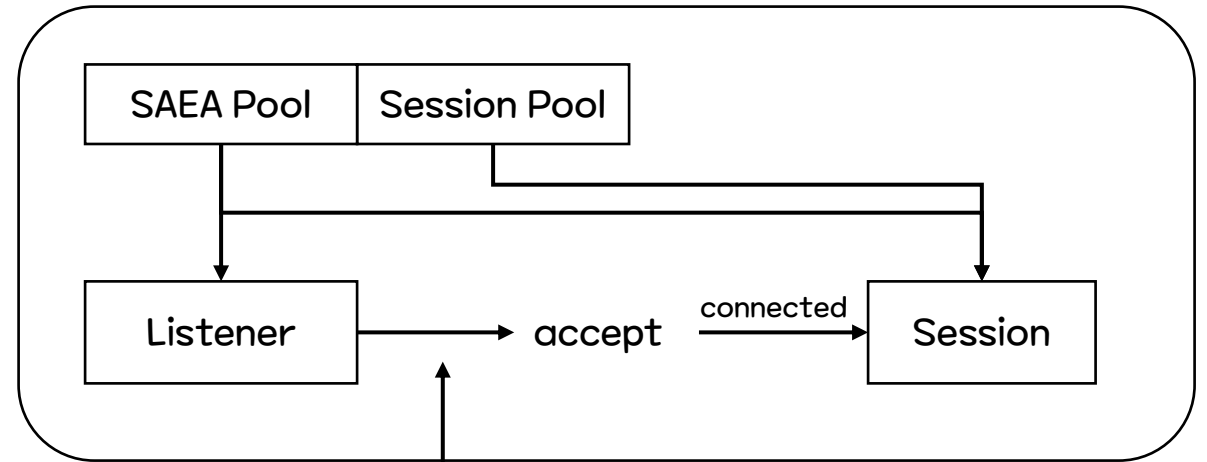
The background of the image is a complex, abstract network diagram. It consists of numerous small, semi-transparent circular nodes connected by thin, light-colored lines. The nodes are distributed across the entire frame, with some appearing more prominent than others. The lines connecting them form a web-like structure, with some areas being denser than others. The overall color palette is muted, featuring soft blues, greys, and off-whites, which gives it a technical and digital feel.

Server Core & Chat

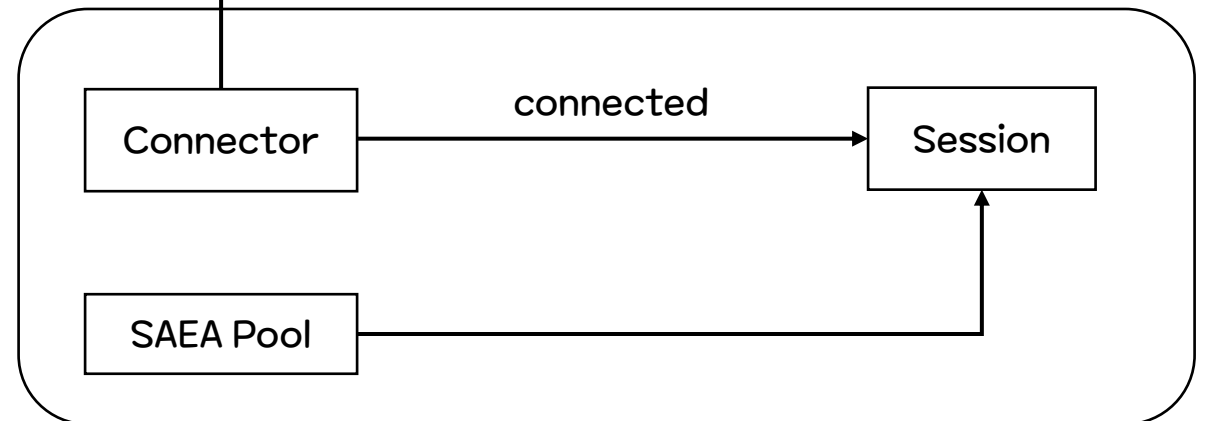
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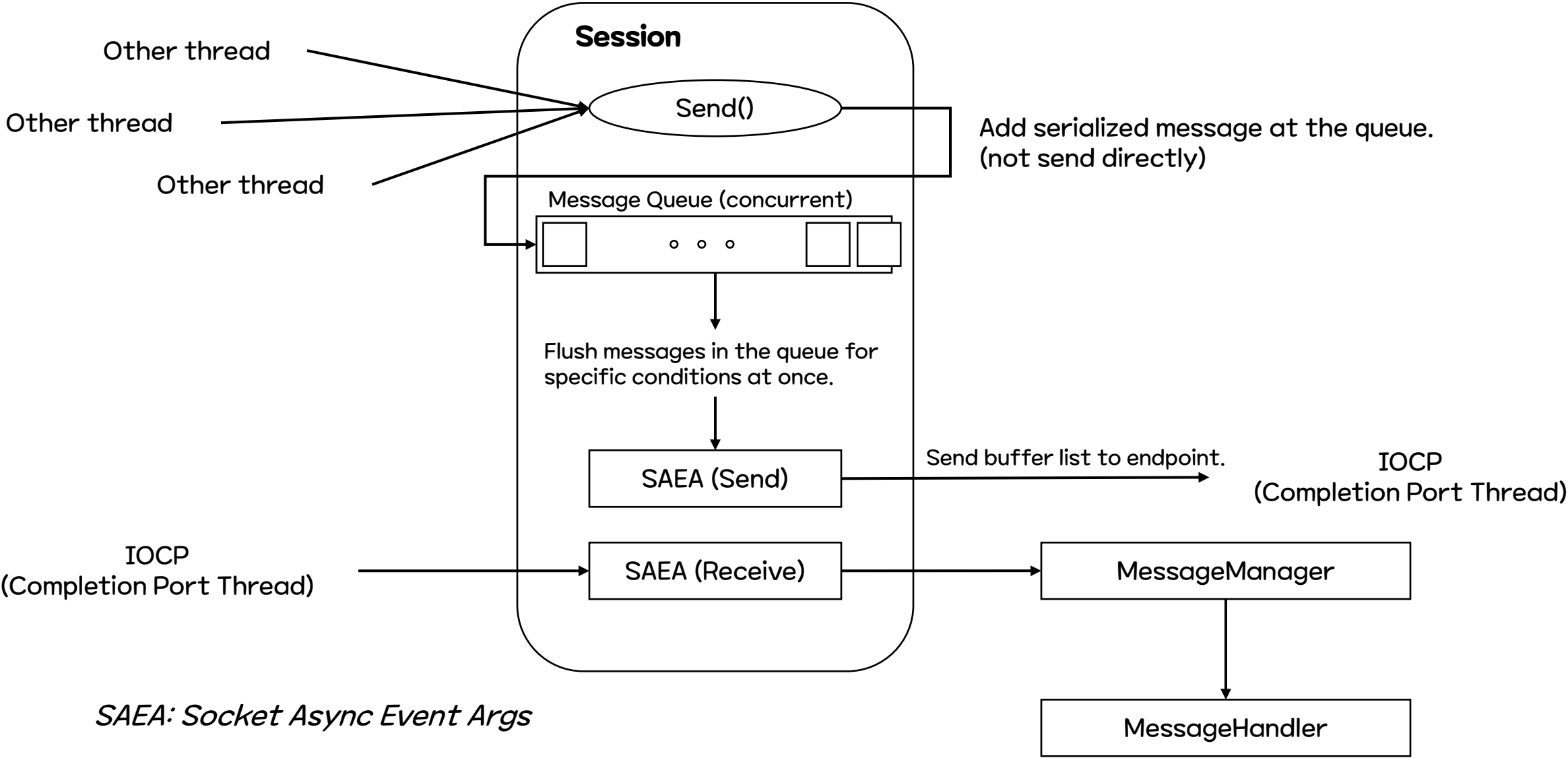
Service



SAEA: Socket Async Event Args



Session



Packet

구조

Processed in MessageWrapper

2 bytes	2 or 4 bytes	n bytes
size (ushort)	message type (uint or ushort)	serialized message (protobuf)

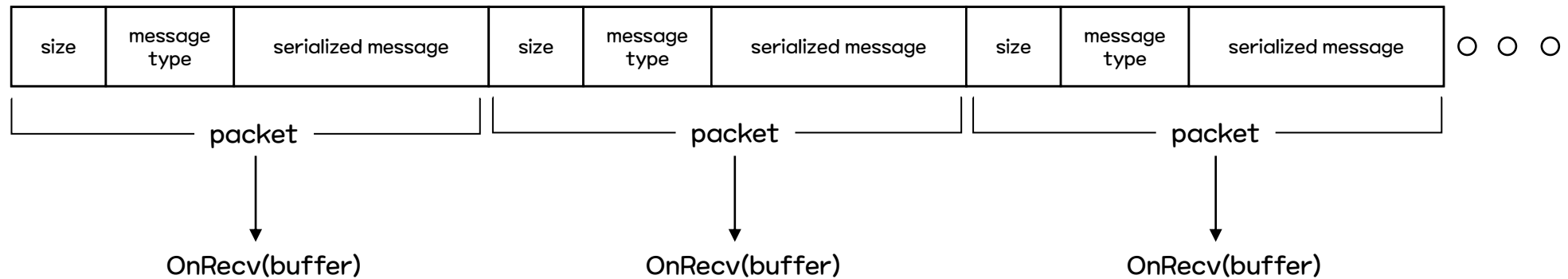
size = sizeof(message type) + sizeof(serialized message)

message type: defined **enum** value of messages at MessageTypes.cs

serialized message: serialized message by Message Parser of **Google.Protobuf**

Processing Packets in Buffer

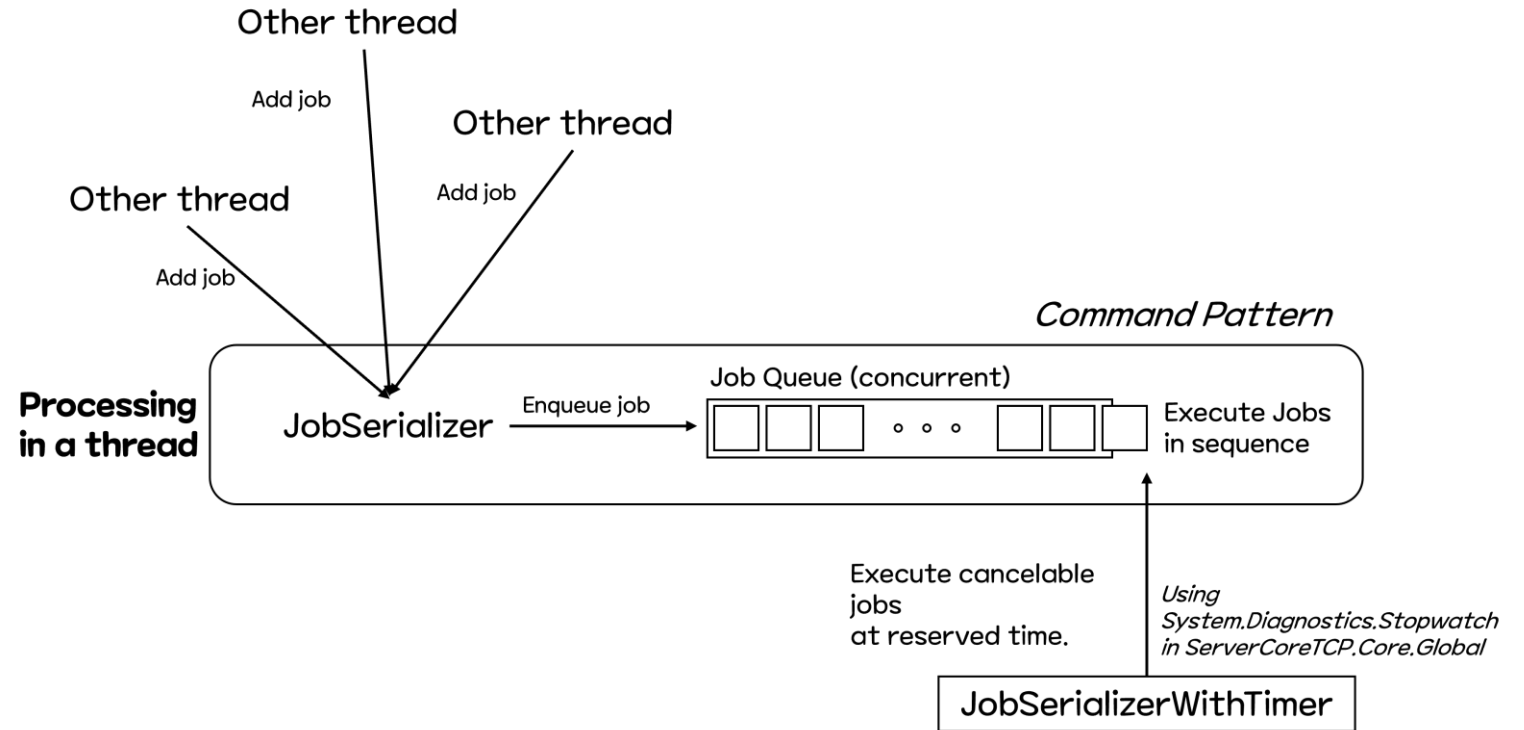
Received buffer:



Sliced into unit packets in PacketSession

Job Serializer

- 다수의 스레드에서 특정 자원들에 대해 매번 lock을 얻으려고 시도하여 퍼포먼스에 대한 이슈 발생 감소
- 단순히 Job을 추가시키고 이 Job을 실행시키는 스레드가 따로 존재할 수 있음
- Command Pattern 이용

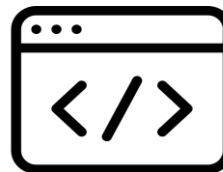
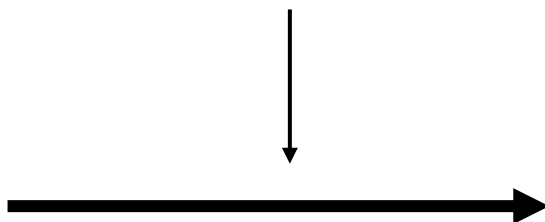


Message 업데이트 자동화

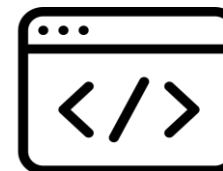


MessageWrapperFactory

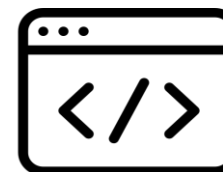
+ Proto files



MessageTypes.cs



MessageManager.cs

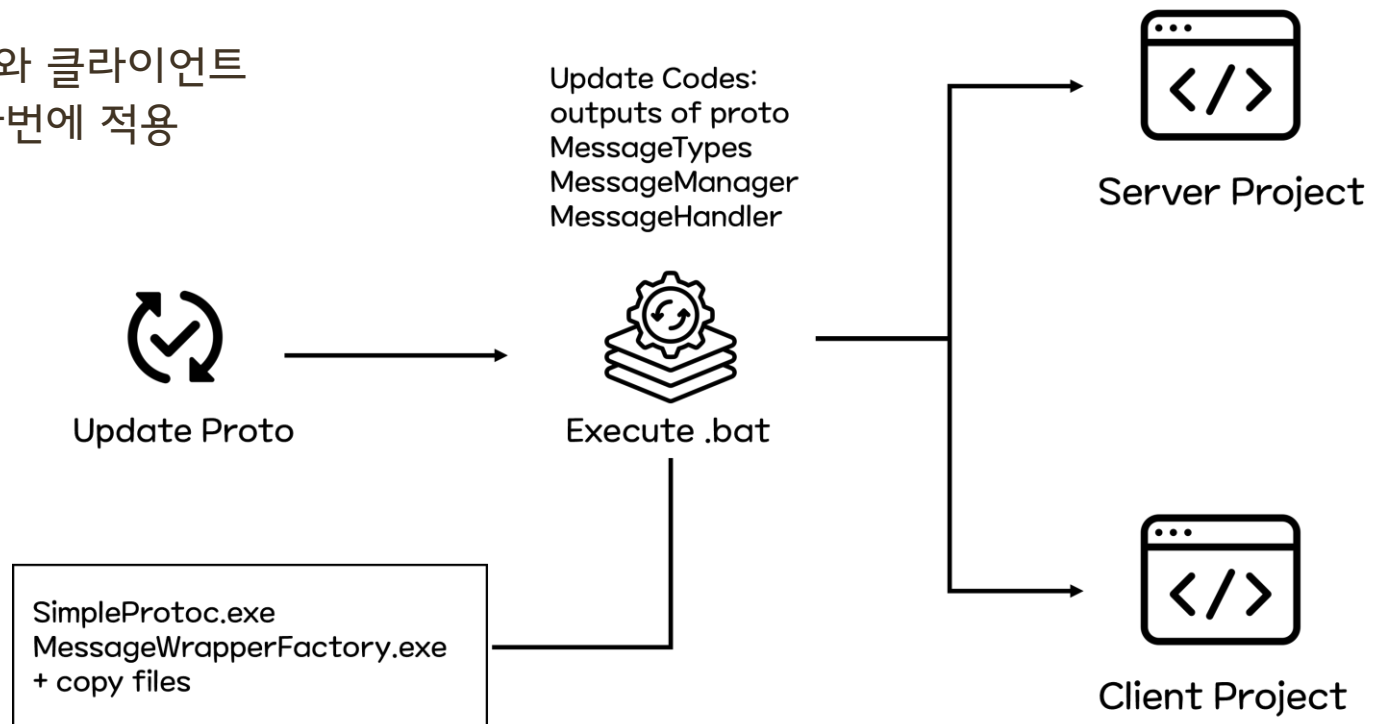


MessageHandler.cs

프로토 파일을 지정, 서버와 클라이언트에서 사용할 코드 생성

Message 업데이트 자동화

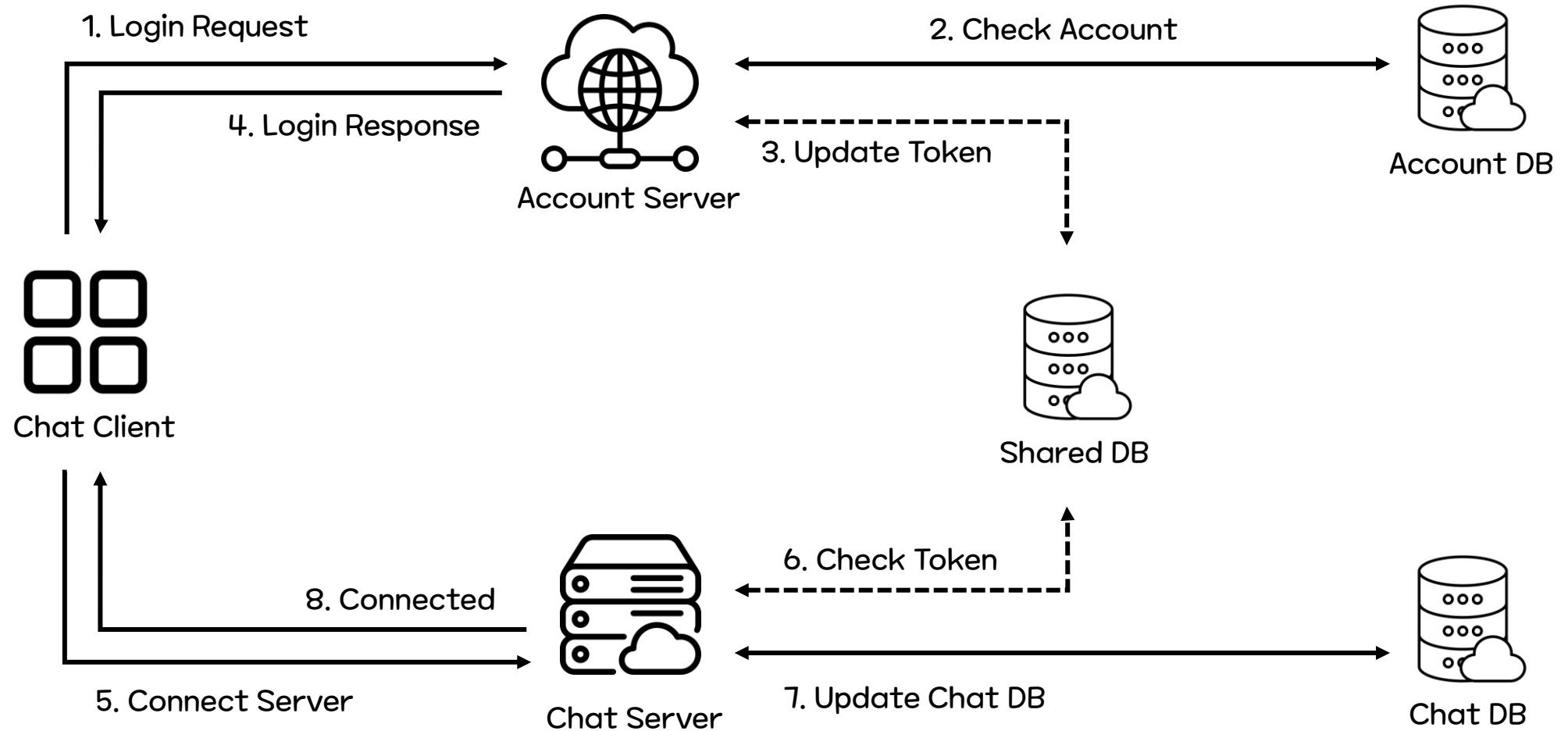
배치파일 실행으로 서버 프로젝트와 클라이언트
프로젝트에 업데이트 된 코드를 한번에 적용



The two projects use same codes about Network Codes by simplified execution.

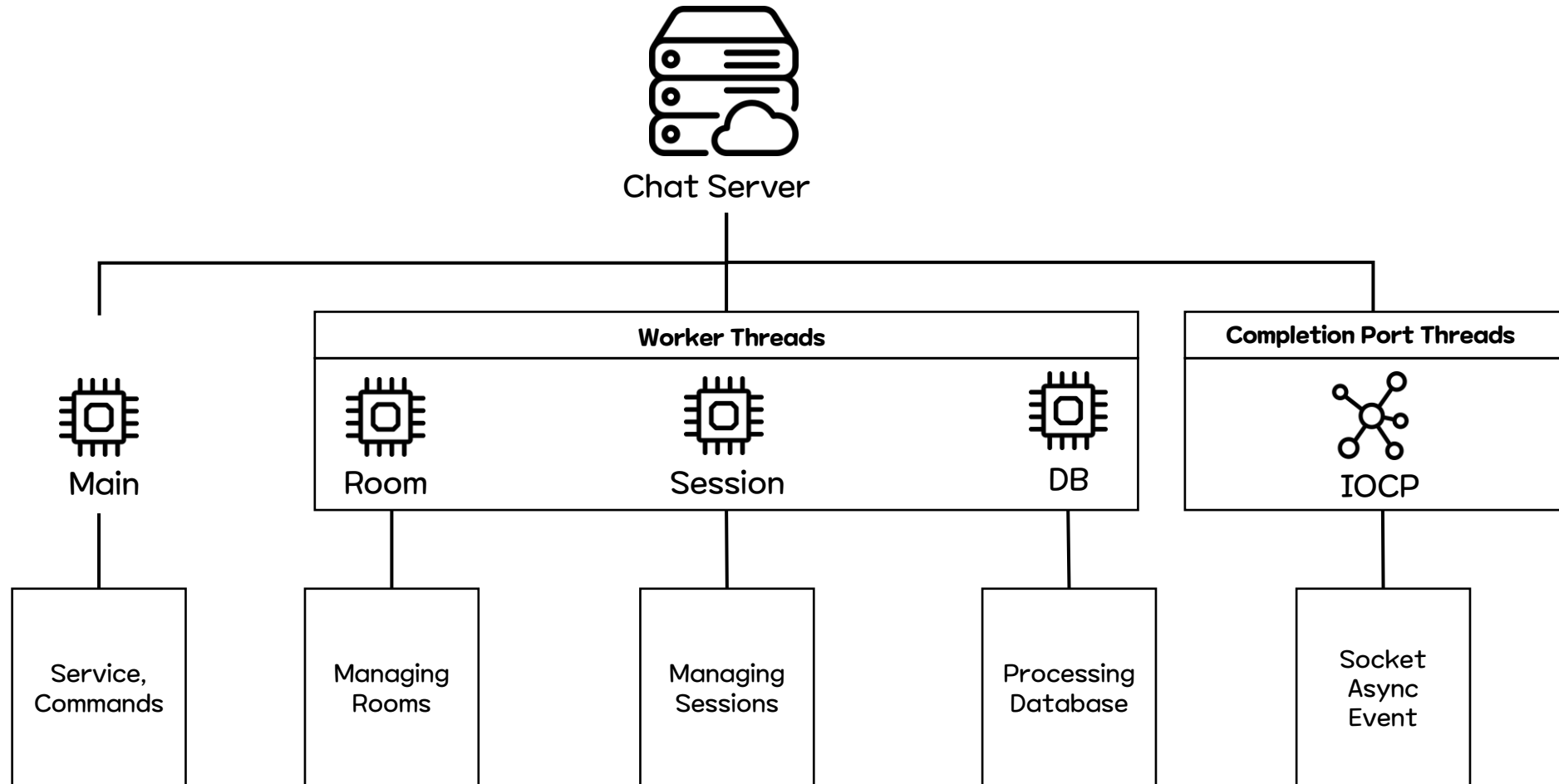
Chat Server

Login Process



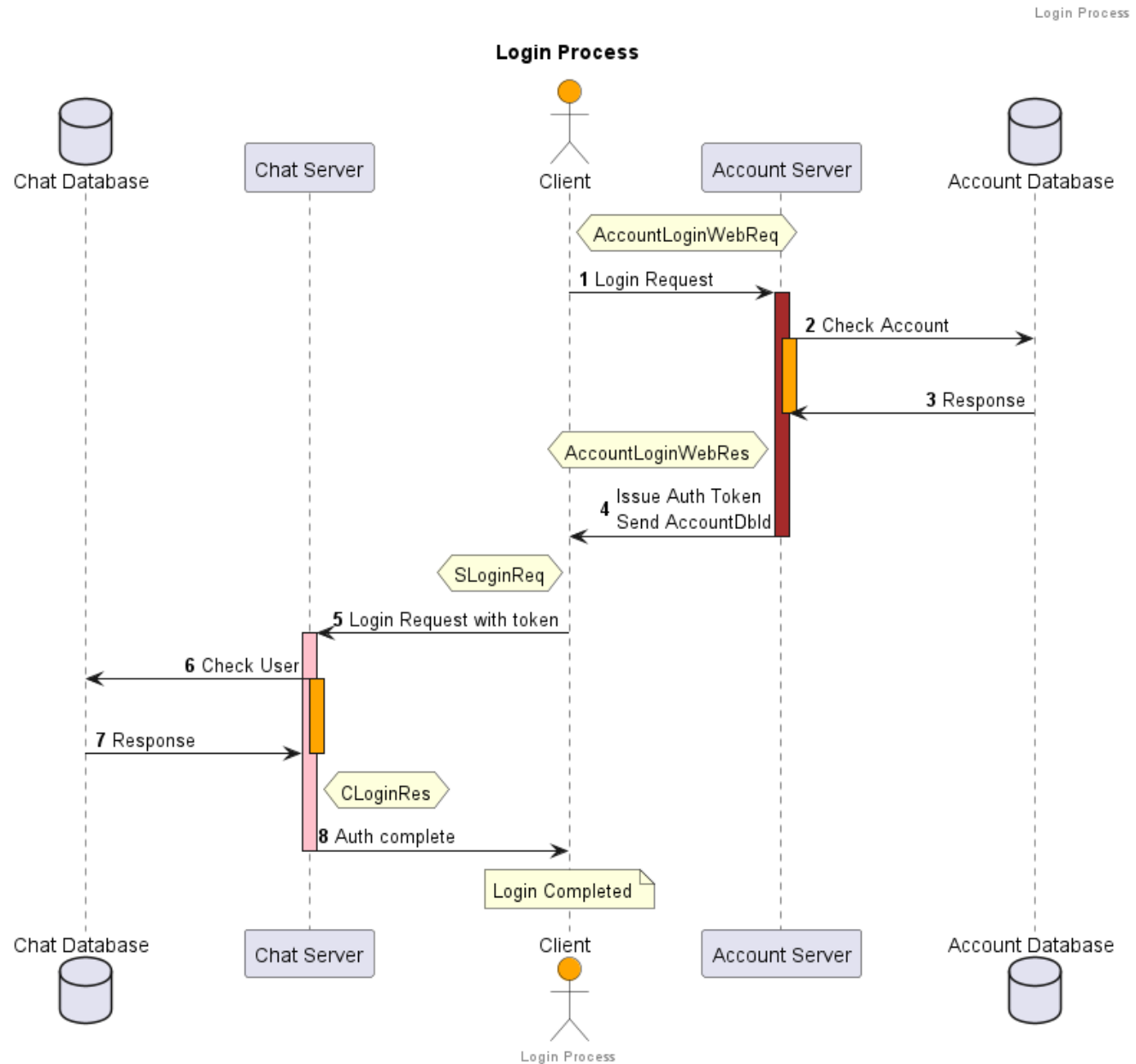
Chat Server

Threads



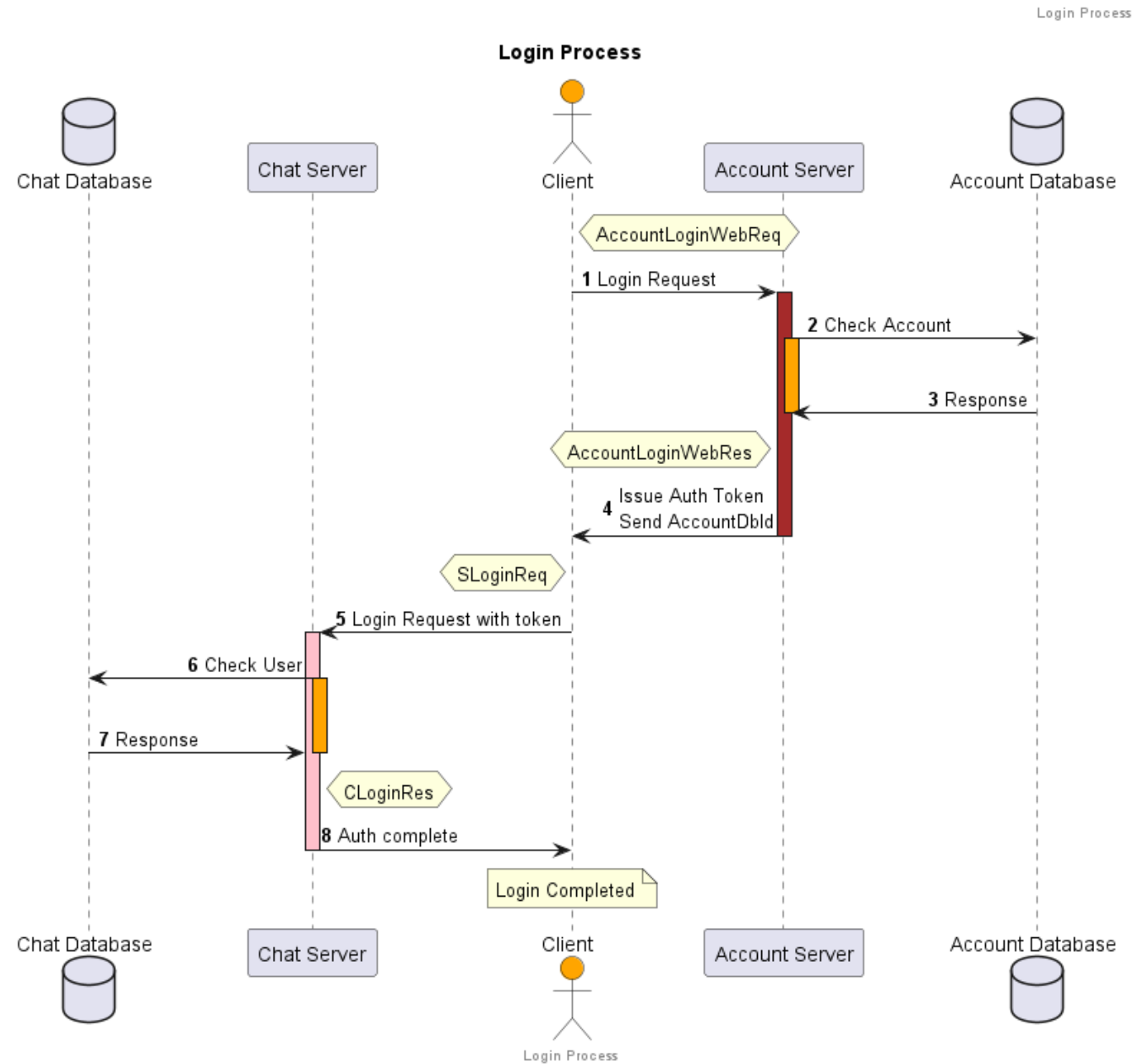
Sequence Diagrams

Login



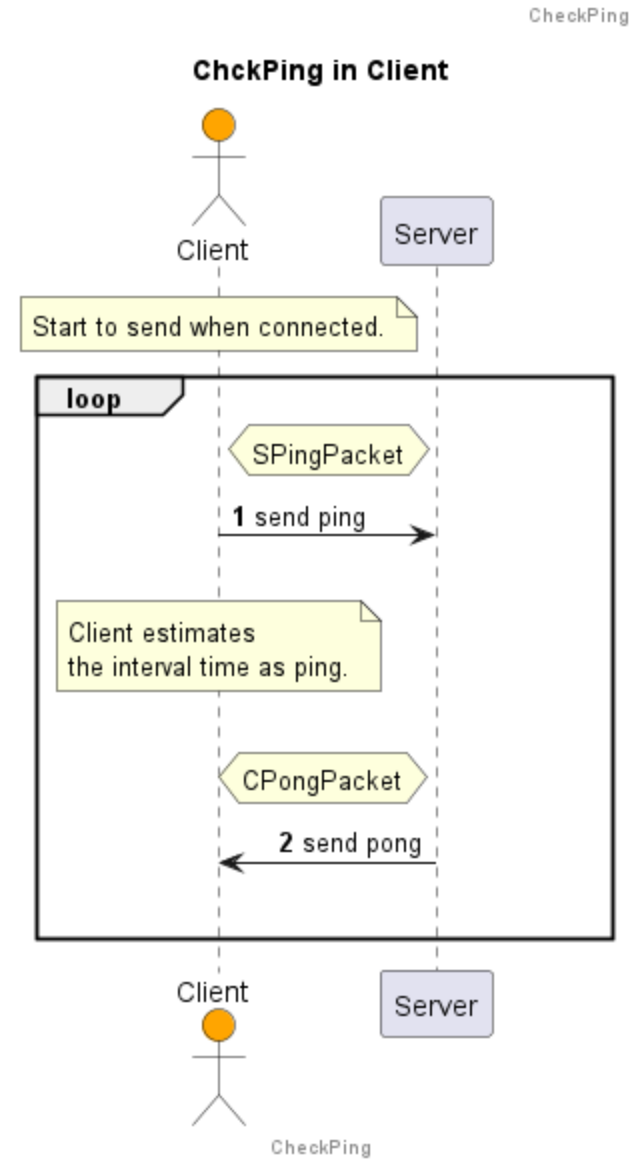
Sequence Diagrams

Register



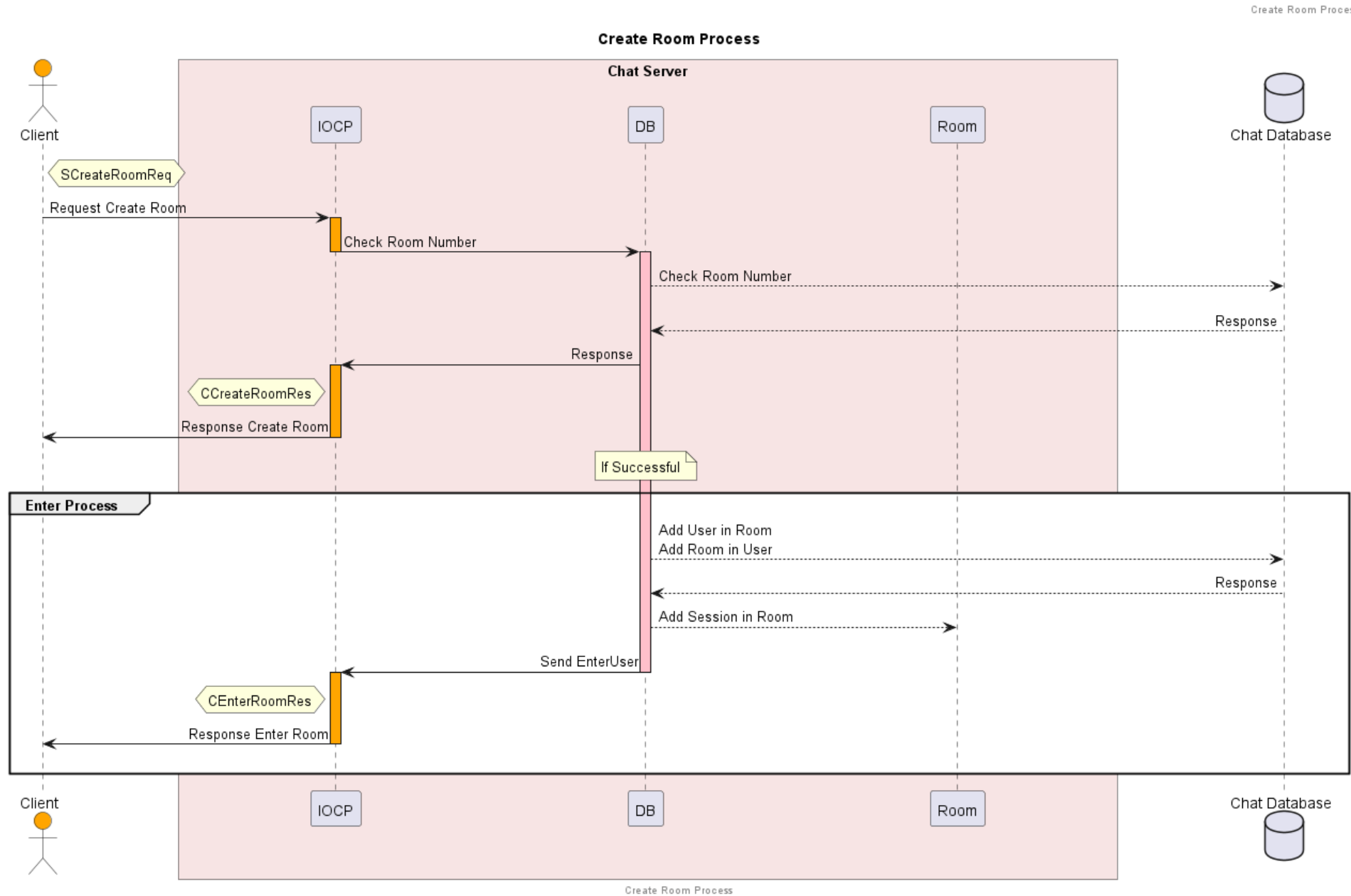
Sequence Diagrams

Check Ping



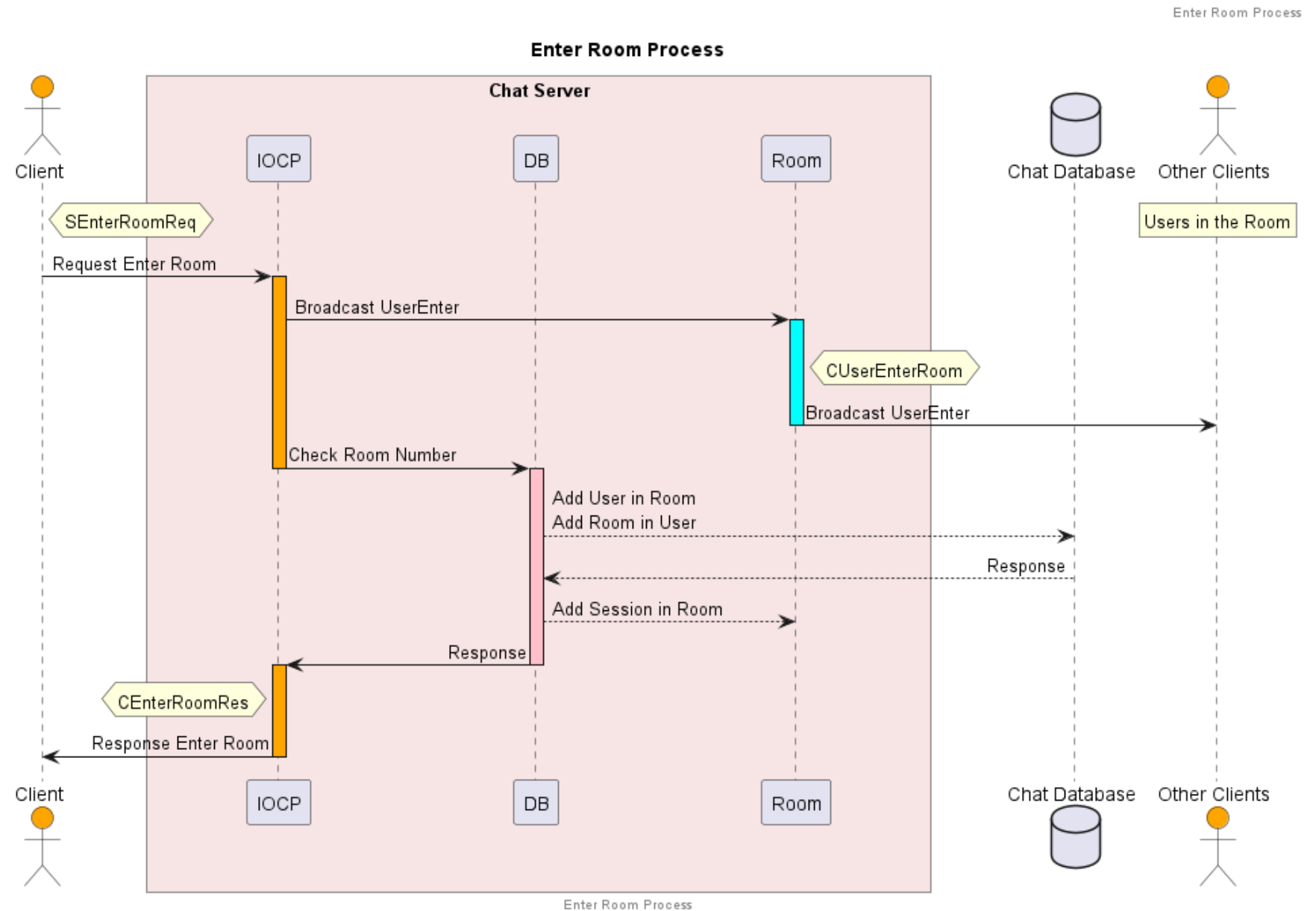
Sequence Diagrams

Create Room



Sequence Diagrams

Enter Room



Sequence Diagrams

Send Chats

