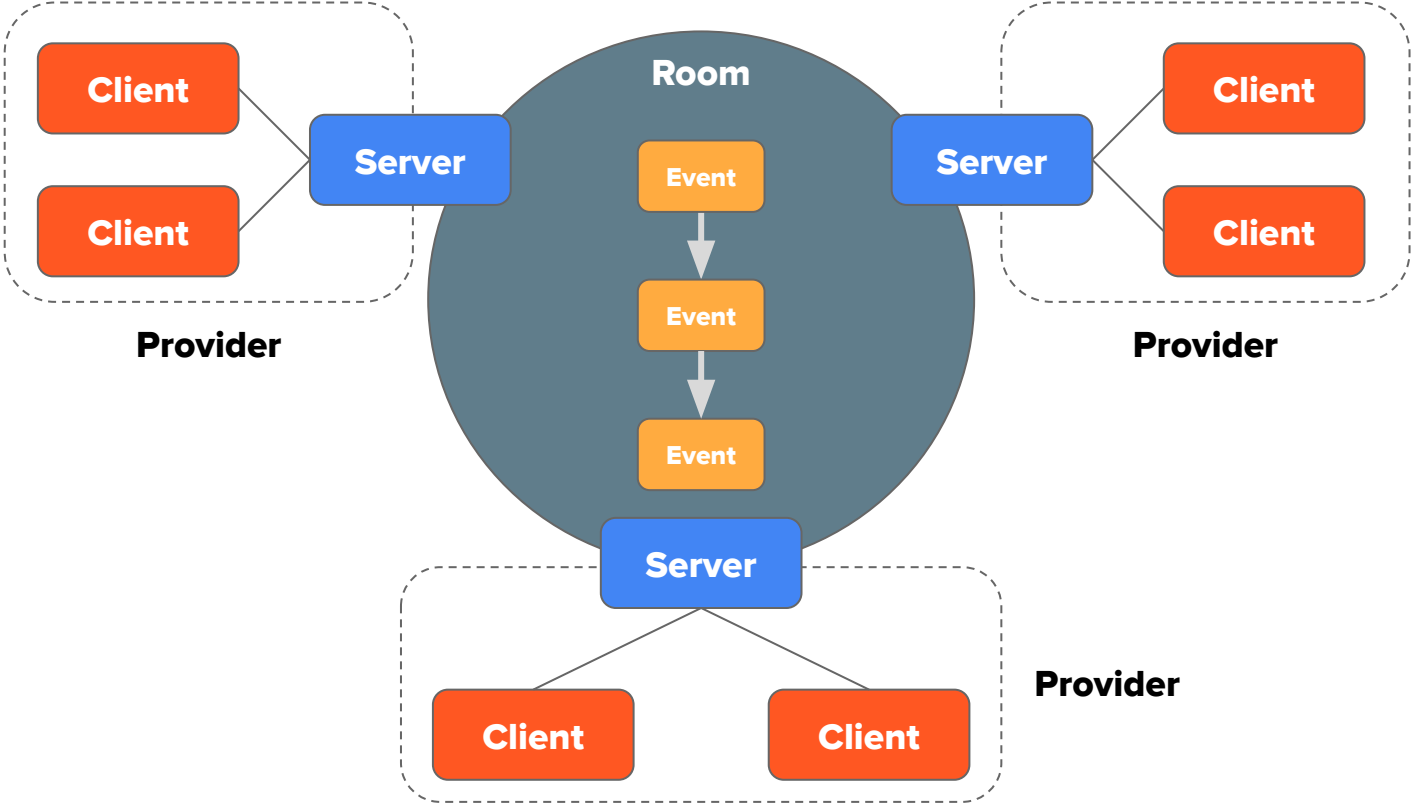




draft-ietf-mimi-arch

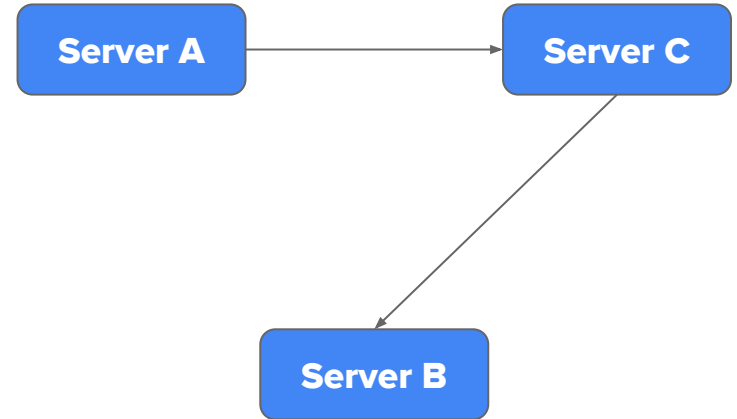


Richard Barnes
IETF 122, November 2024



CSSSC

- Each room is hosted at a hub server
- All communications go via the hub
 - Messages
 - State changes
 - Ancillary things like KeyPackage fetches
- Anticipate that not every server will be willing to talk to every other server
 - A and B might not be willing to talk directly
 - But if users from A and B are in a room hosted at C...
 - A needs to be able to talk to B via C



Terminology

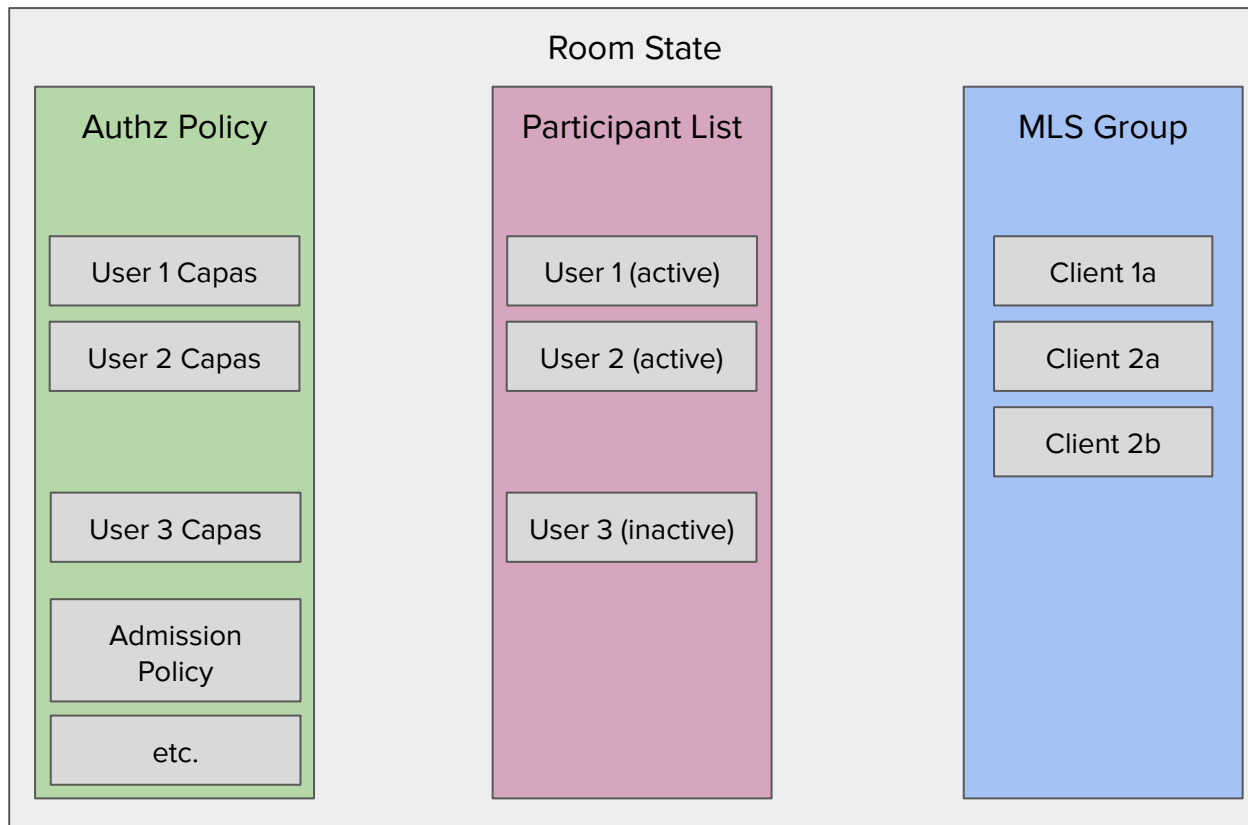
The unit of MIMI functionality is a **room**

A room has a **state**, which has a few components:

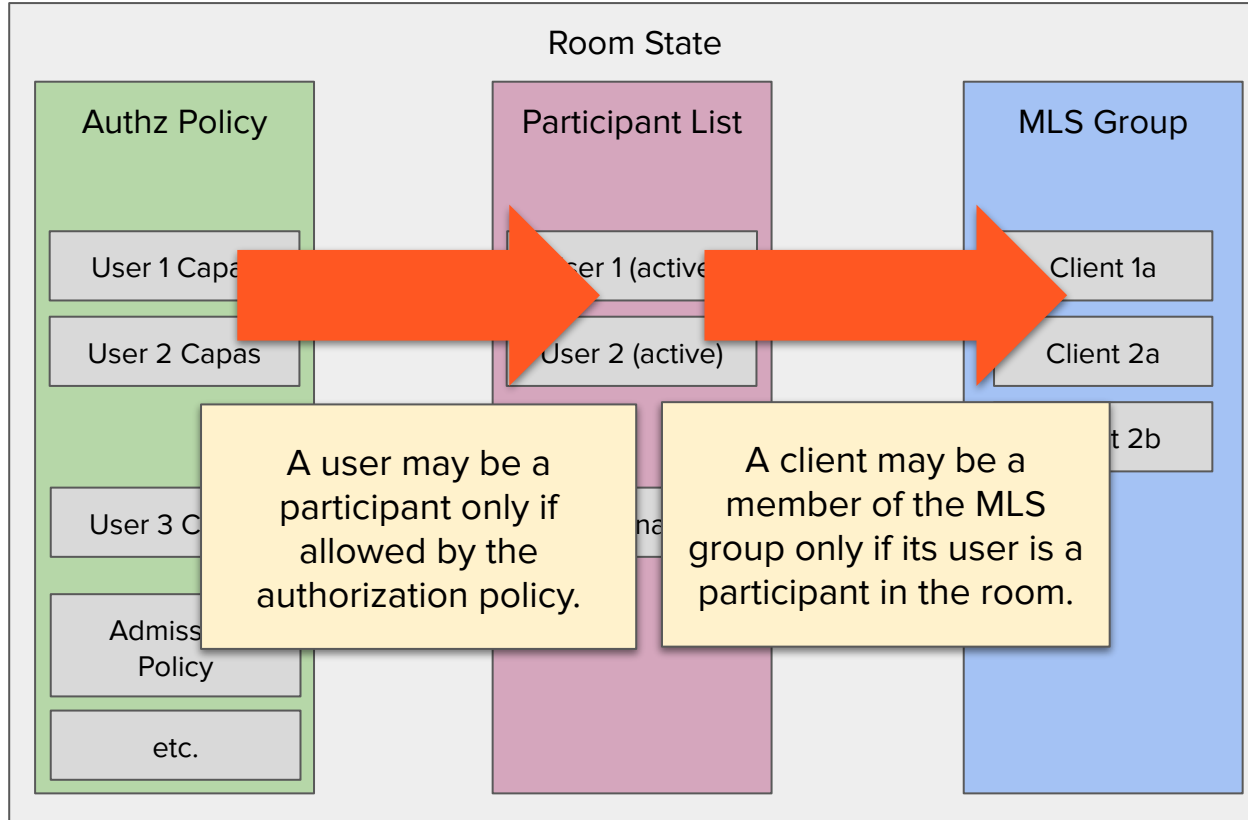
- An **authorization policy**
- A list of **users** who are **participants** in the room
- An MLS group, including a list of **clients** who are **members** of the group

Participants can either be **active** or **inactive**. Active participants have at least one client that is a member of the MLS group.

Terminology Illustrated



Preemption



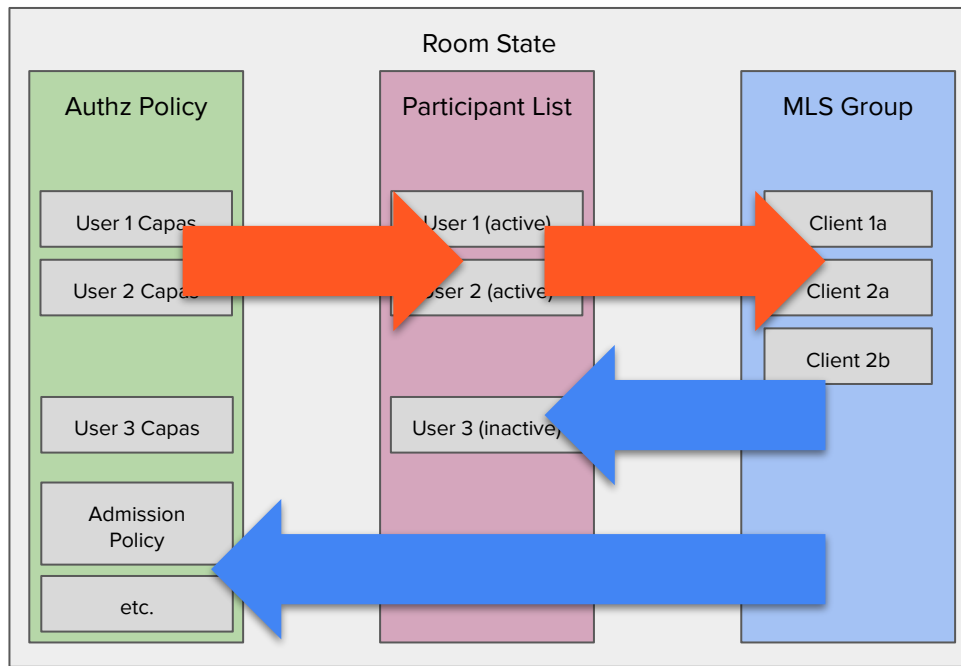
Confirmation

Different aspects of the state are managed via separate control mechanisms

To ensure everyone agrees on state, it is included in the MLS key schedule

- ... as a GroupContext extension
- If clients don't agree, they can't communicate

Each Commit must reflect the current room state.



Order of Operations

Preemption + Confirmation require some coupling between control mechanisms

- User must be on PList before clients added to MLS
- Clients must be removed from MLS before user leaves PList

Sending control messages together will help keep things organized.

