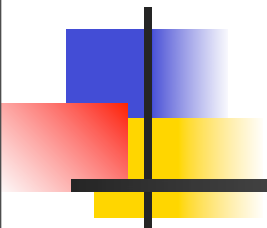# SIMPLE MSRP Chat

draft-ietf-simple-chat-00.txt

69th IETF
SIMPLE WG
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Status

- Version-00 published as WG item
- Result of discussions in the mailing list and conference calls
- One big change:
  - Nickname concept (see next slide)
  - Consequence: Nickname section is re-written

Nicknames

- Definitions:
  - **Nickname:** a pseudonym or descriptive name associated to a participant.
  - **Nickname URI:** A SIP URI issued by an administrative domain, whose userpart is effectively a nickname.
    - Note that the Nickname URI is not necessarily issued by the chat room domain.
- Format of a nickname URI:
  - sip:nickname@domain
  - Example: sip:Alice%20in%Wonderland@example.com
- Properties:
  - The nickname URI is bound to the SIP AOR
    - Participants can learn the mapping via the conference event package
  - The nickname URI resolves to a domain name (the issuer's)
  - The URI is globally unique

Nicknames

- Operations on nicknames:
  - **Reservation of a nickname:** granting exclusive usage rights of a nickname to a given SIP AoR. Effectively, the reservation of a nickname implies mapping a nickname to a SIP AoR. Reservations can be temporarily or permanent.
  - **Validation** of a nickname by the domain that reserved it and issued it. Validation is an official confirmation from the domain that the issued the nickname, that the nickname is associated with the claimed SIP AoR.
  - **Putting a nickname into operation** within a conversation or chat. Effectively, it requires the MSRP mixer to be able to receive MSRP SEND requests addressed to a nickname and route them to the holder of the nickname.
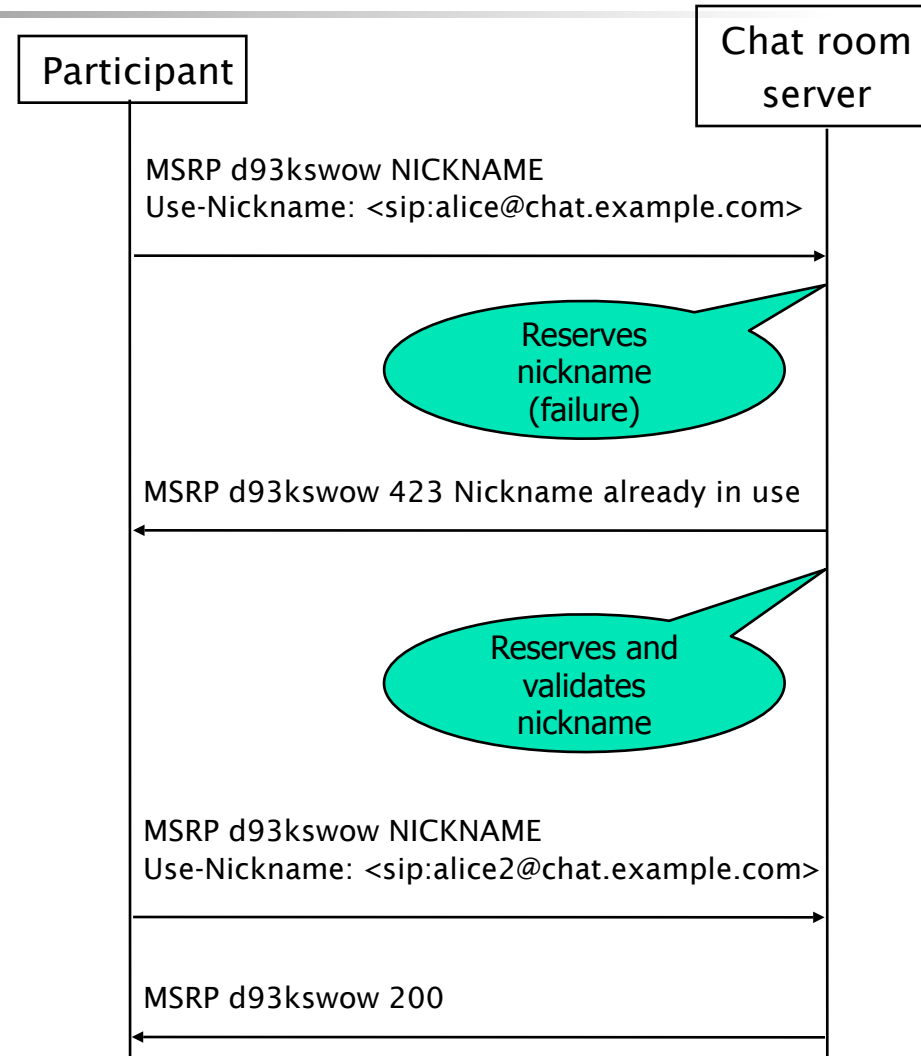
Nicknames

- The draft provides:
  - A simple mechanism for temporarily reservation of a nickname with the domain of the conference.
  - Validation: no mechanism, nicknames are issued by the chat room server and internally validated.
  - A mechanism for putting a nickname into operation.

- The draft does not provide:
  - A general mechanism for reserving nicknames
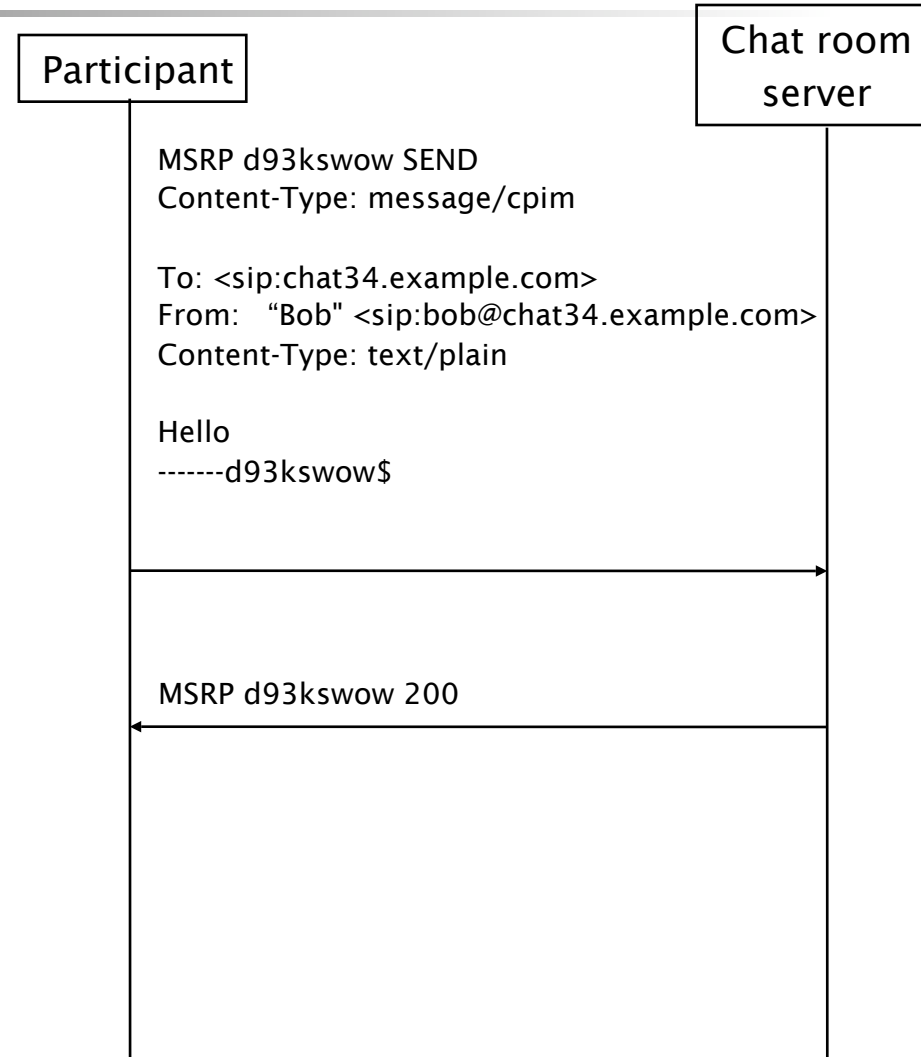 - A general validation mechanism for any domain issuing nicknames.

Reserving and validating a nickname

- New MSRP method: NICKNAME
- New MSRP header: Use-Nickname
- Reuse of the existing 423 response code
- Nicknames are valid for the duration of the session
  - Temporary reservation
  - Table mapping nicknames with MSRP sessions

- Nicknames are advertised through the conference event package
  - Extension not yet defined, but could be a new <nickname> element child of <user>

Participant

Chat room server

MSRP d93kswow NICKNAME
Use-Nickname: <sip:alice@chat.example.com>

Reserves nickname (failure)

MSRP d93kswow 423 Nickname already in use

Reserves and validates nickname

MSRP d93kswow NICKNAME
Use-Nickname: <sip:alice2@chat.example.com>
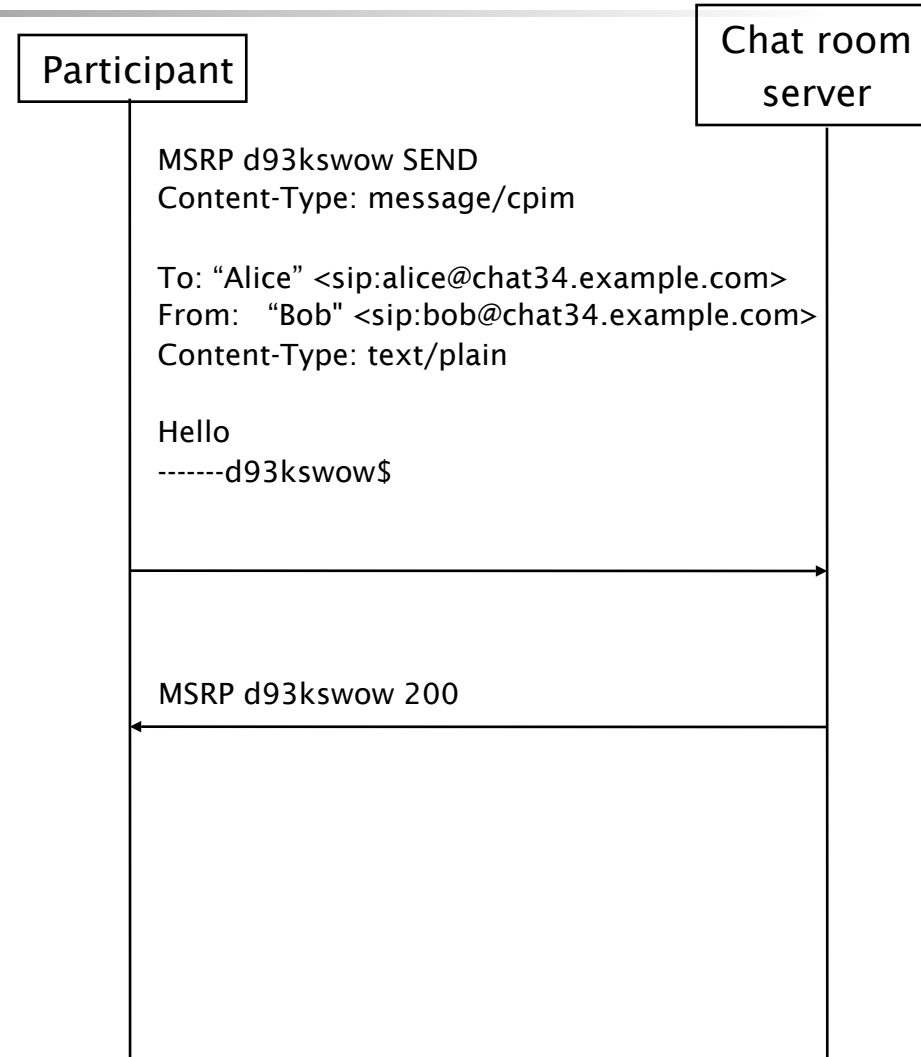
MSRP d93kswow 200

Sending instant messages

- Sender MUST wrap message in CPIM
    - CPIM To header set to chatroom URI
    - CPIM From header set to any sender's URI
        - SIP URI
        - TEL URL
        - IM URI
        - Nickname URI
- ... and send it in a SEND request

- MSRP mixer does not alter bodies when forwarding to other participants
    - Routing based on nickname table
- No reports of errors on the other side of the mixer

Participant	Chat room server

```
MSRP d93kswow SEND
Content-Type: message/cpim

To: <sip:chat34.example.com>
From:   "Bob" <sip:bob@chat34.example.com>
Content-Type: text/plain

Hello
-------d93kswow$
```

MSRP d93kswow 200

Sending private instant messages

- Sender MUST wrap message in CPIM
  - CPIM To header set to any recipient(s) URI
    - SIP URI
    - TEL URL
    - IM URI
    - Nickname URI
  - CPIM From header set to any sender's URI
    - SIP URI
    - TEL URL
    - IM URI
    - Nickname URI
- ... and send it in a SEND request
- MSRP mixer does not alter bodies when forwarding to other participants
  - Routing based on nickname table
- No reports of errors on the other side of the mixer

Participant

Chat room server

MSRP d93kswow SEND
Content-Type: message/cpim

To: "Alice" <sip:alice@chat34.example.com>
From: "Bob" <sip:bob@chat34.example.com>
Content-Type: text/plain

Hello
-------d93kswow$

MSRP d93kswow 200

Issue: nickname reservation mechanism

- Authors requested feedback for using a nickname reservation mechanism based on SIP
    - Not clear consensus in the list

- If we have the nickname reservation in SIP:
    - New method? Sounds heavy solution
    - New header in INVITE?
        - If nickname can't be reserved, then the session will fail.
        - XCON can't presumably re-use: still bound to SIP
        - Heavy mechanism for changing nicknames
- If we leave the NICKNAME method in MSRP:
    - Works for MSRP
    - Comment in the list -> generalize it

- Proposal:
    - Keep the NICKNAME method in MSRP as is in the draft now.