This sequence diagram shows an IMS user creating a conference by using a conference-factory URI. The conference is created at a MRFC-AS of the users home network. The steps involved in the conference scenario covered here are:

1. The conference initiator UE uses the conference factory URI to initiate a conference with the MRFC-AS (Multimedia Resource Function Control/Application Server).
2. The MRFC-AS assigns a conference URI to the conference and configures the MRFP (Multimedia Resource Function Processor).
3. The conference call is setup and the RTP data begins flowing between the conference initiating UE and the MRFP.
4. The conference initiator then uses the refer procedure to add more users to the conference. The new users establish a call to the conference URI passed in the refer message.
5. When the conference is in progress, RTP media streams are being mixed and propagated to all the participants.
6. The conference user drops out of the conference. All users are notified for this exit from the conference.

### Initiating an IMS conference using the Conference Factory URI

#### INVITE

Conference Initiator UE is aware of a conference-factory URI due to pre-configuration. When creating a conference, the Conference Caller generates an initial INVITE request with its request URI set to conference factory URI.

- **INVITE Request URI**: `conf-factory1@mrfc1.home1.net` SIP/2.0,
- **To**: `conf-factory1@mrfc1.home1.net` SIP/2.0,
- **From**: `<sip:user1_public1@home1.net>`,
- **P-Preferred-Identity**: `<caller@home1.net>`,
- **Via**: `<Calling UE IP> :Port`,
- **Route**: `<P-CSCF address>, <S-CSCF address>`,
- **Contact**: `<Calling UE IP> :Port`,
- **SDP**: `<Caller Supported Codec List>`

- **100 Trying**
- **183 Session Prog**

#### PRACK

The Conference Initiator UE determines which media flows should be used for this session, and which codecs should be used for each of those media flows. If there is any change, Conference Caller sends a new codec request in PRACK.

#### 200 OK (PRACK)

The MRFC-AS acknowledges the PRACK request with a 200 (OK) response.

#### UPDATE

When the resource reservation is completed, the Conference Initiator UE sends the UPDATE request towards the MRFC-AS

#### 200 OK (UPDATE)

The MRFC-AS acknowledges the UPDATE with a 200 (OK) response.

#### 200 OK (INVITE)

The MRFC-AS sends "200 OK" as a final response to INVITE request. MRFC creates a focus for the newly created conference, assigns it conference URI and returns it in Contact header. On receiving 200 (OK) with isfocus parameter, the Conference initiator stores the Contact header content as the conference URI.

The Conference Initiator starts the media flow for this session. The RTP data stream is started towards the MRFP.

The conference initiator responds to the "200 OK" with an ACK towards MRFC-AS.

#### RTP Stream

User inviting another user to a conference by sending a REFER request

- **ACK**
The terminating I-CSCF performs a location query to the HSS to find out the terminating S-CSCF and forwards the REFER request to that S-CSCF.

The Called Conference Participant accepts the REFER request by sending a 202 (Accepted) response.

The NOTIFY message is sent to inform that the REFER message is being processed.

The "200 OK" Acknowledges the NOTIFY message.
The MRFC-AS generates a NOTIFY request to indicate that Called Conference Participant has left the conference and automatically unsubscribes it from its subscription to the conference event package.

The conference initiator is also notified about a user dropping out of the conference.