

CLUE protocol

CLUE design team meeting

28/10/2014

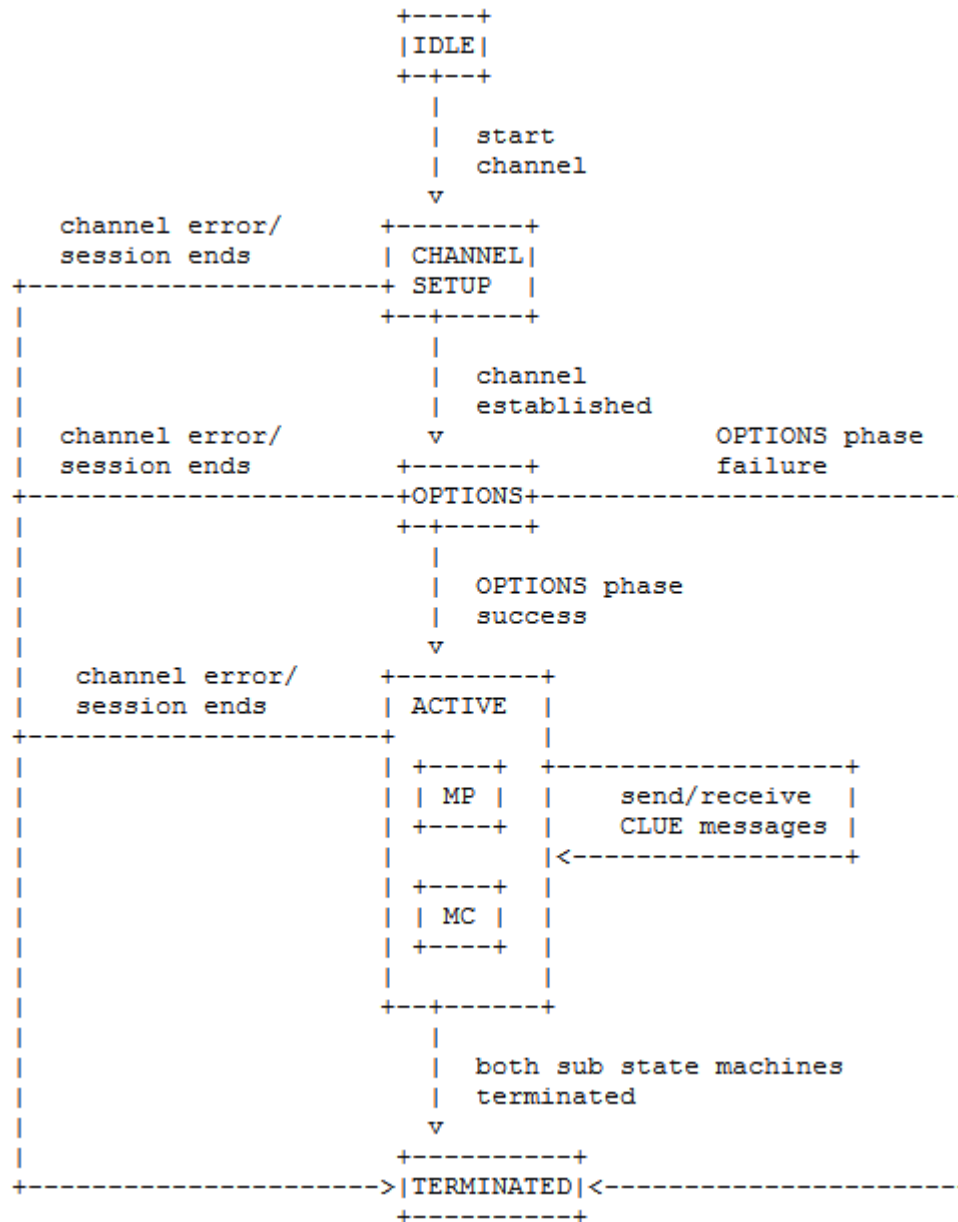
Outline

- News in version 2
- State machines
- READV
- ADV diff mechanism
- Open issues

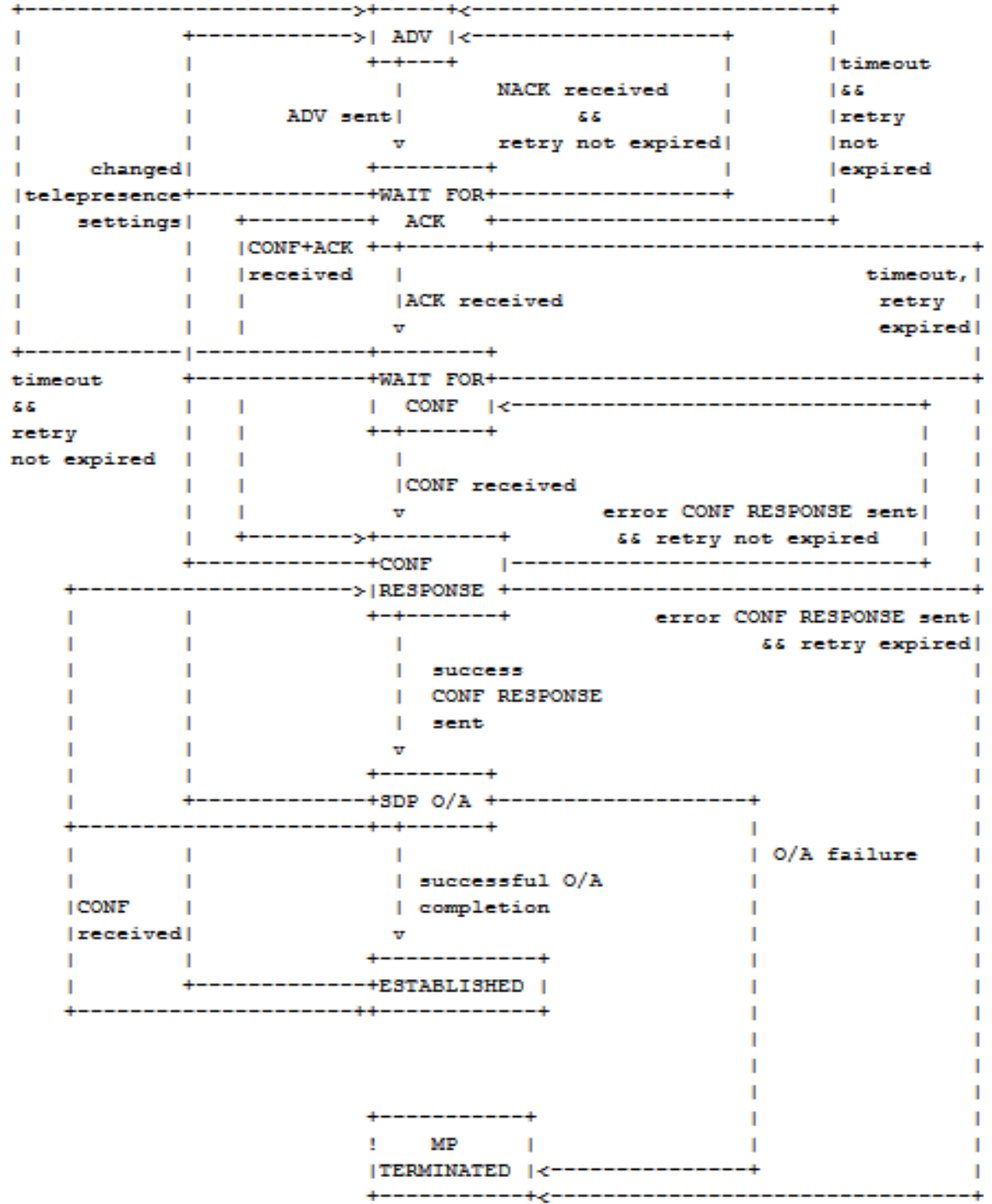
Diff with version 1

- Main changes:
 - Major review of state machines
 - Diff mechanism for the ADV
 - READV and READV RESPONSE messages removed
- Minor changes:
 - Schema and examples updated according to the changes in the data model document
 - IANA section
 - References updated and split into Informative references and Normative references as in framework v17.
 - Terminology: many definitions added.
 - Response codes updated

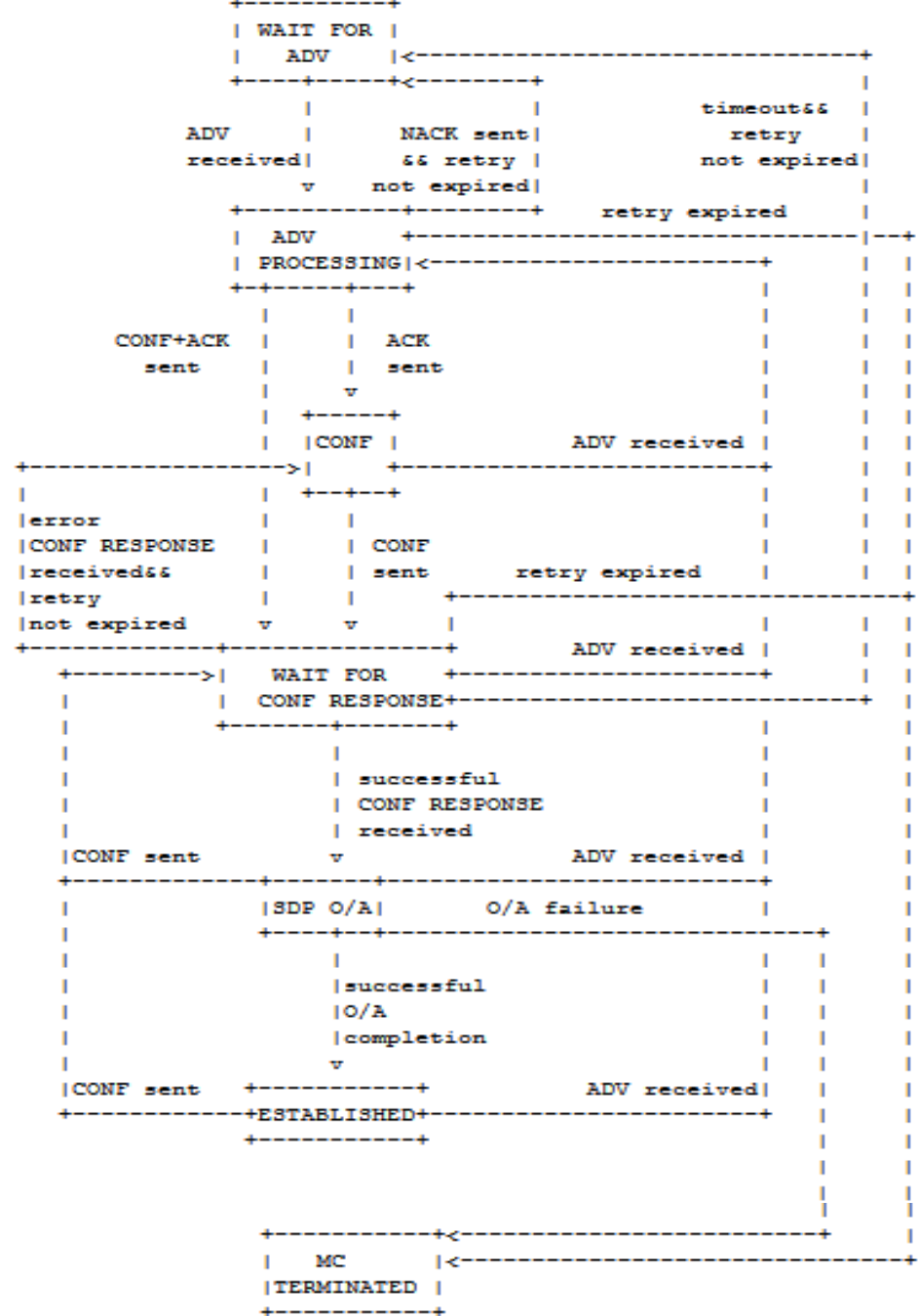
CLUE Participant's state machine



MP's state machine



MC's state machine



READV

- Conceived to allow a MC to request a new ADV from the MP, but...
- Case 1
 - When the MP issues an ADV, it goes to the WAIT FOR ACK state;
 - If no ACK arrives, it moves back to the ADV state and issues a new ADV
 - .. For a limited number of times; after that, the MP goes to TERMINATED

READV

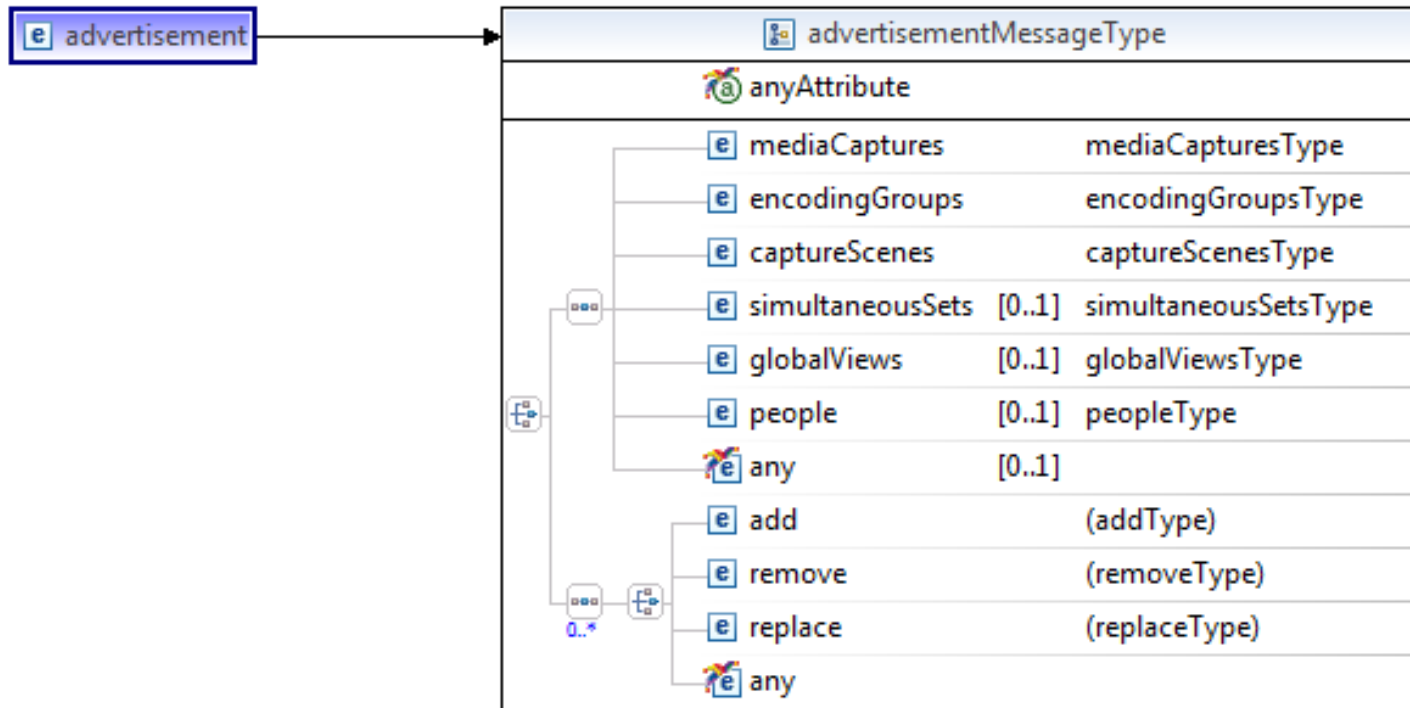
- Case 2:
 - When the MC is in the ADV PROCESSING state and something goes wrong with the received ADV, the MC sends a NACK message and goes back to wait for a new ADV
 - The MP, on the basis of the response code of the ACK,
 - Understands that a new copy of the ADV is needed
 - Goes back to the ADV state and sends a new ADV to the MC

READV

- Case 3:
 - In case of channel errors or end of session events, the state machine of the CLUE Participant goes to the TERMINATED state
 - All the resources allocated for the sub-state machines are released
 - A new channel setup phase is needed
 - When everything is up again, the MC goes in the WAIT FOR ADV state and the MP in the ADV state, so sooner or later a new (full) ADV will arrive to the MC

Diff mechanism for the ADV

- New schema for the ADV message



```

<advertisement xmlns="urn:ietf:params:xml:ns:clue-message"... protocol="CLUE" v="0.2">
  <clueId>Ciccio</clueId>
  <sequenceNr>11</sequenceNr>
  <mediaCaptures>
    <ns2:mediaCapture ...xsi:type="ns2:audioCaptureType" captureID="AC0" mediaType="audio">
      ...
      <ns2:description lang="en">main audio from the room</ns2:description>
      ...
      <ns2:capturedPeople>
        <ns2:personIDREF>ciccio</ns2:personIDREF>
      </ns2:capturedPeople>
    </ns2:mediaCapture>
    <ns2:mediaCapture ... xsi:type="ns2:videoCaptureType" captureID="VC0" mediaType="video">
      ...
      <ns2:description lang="en">left camera video capture</ns2:description>
      ...
      <ns2:capturedPeople>
        <ns2:personIDREF>ciccio</ns2:personIDREF>
      </ns2:capturedPeople>
    </ns2:mediaCapture>
    ...
  </people>
  <ns2:person personID="ciccio">
    <ns2:personInfo>
      <ns3:fn>
        <ns3:text>Ciccio Esposito</ns3:text>
      </ns3:fn>
    </ns2:personInfo>
    <ns2:personType>chairman</ns2:personType>
    <ns2:personType>timekeeper</ns2:personType>
  </ns2:person>
</advertisement>

```

Diff mechanism example: full ADV

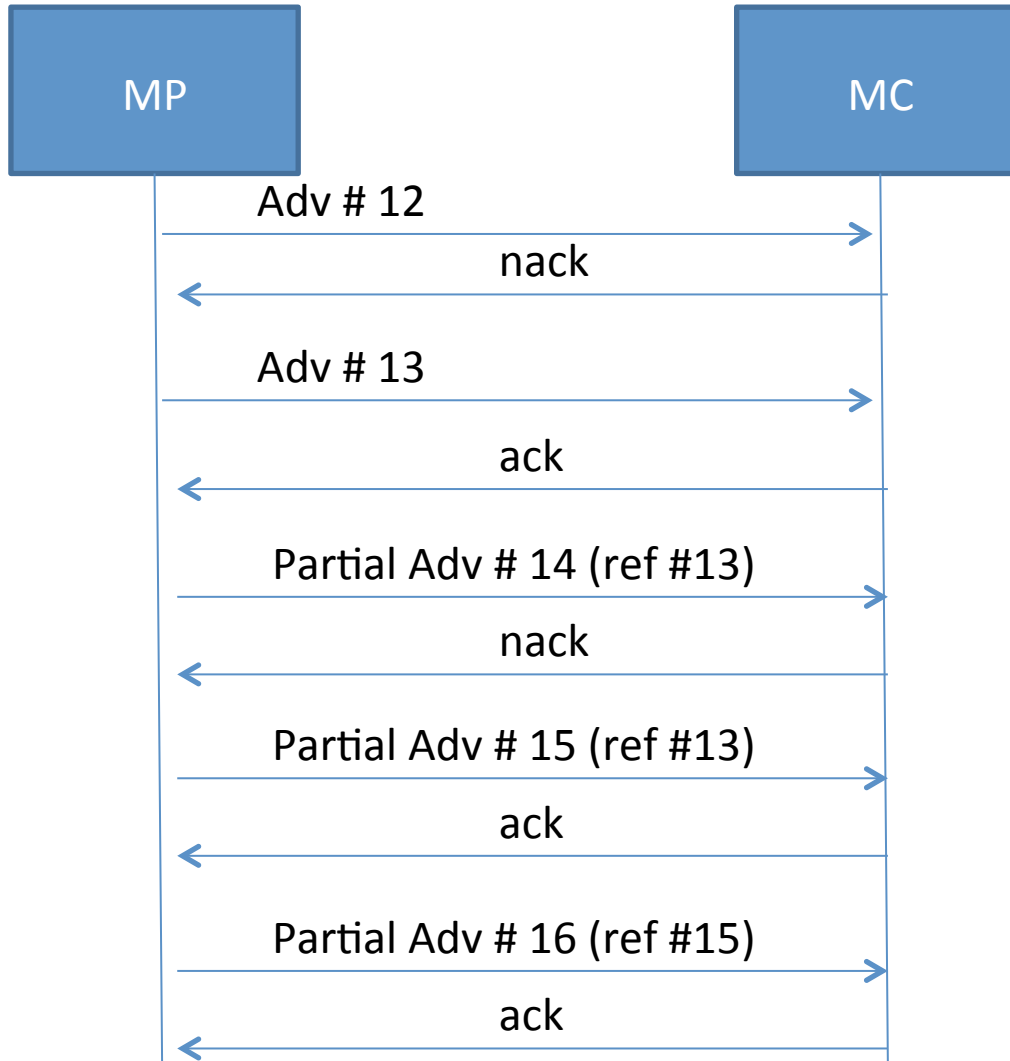
```
<advertisement xmlns="urn:ietf:params:xml:ns:clue-message" ... protocol="CLUE" v="0.2">
  <clueId>Ciccio</clueId>
  <sequenceNr>12</sequenceNr>
  <add sel="/advertisement/people">
    <ns2:person personID="alice_ID">
      <ns2:personInfo>
        <ns3:fn>
          <ns3:text>Alice Romano</ns3:text>
        </ns3:fn>
      </ns2:personInfo>
      <ns2:personType>attendee</ns2:personType>
    </ns2:person>
  </add>
  <add sel="/advertisement/mediaCaptures/mediaCapture/capturedPeople">
    <ns2:personIDREF>alice_ID</ns2:personIDREF>
  </add>
</advertisement>
```

Diff mechanism example: partial ADV

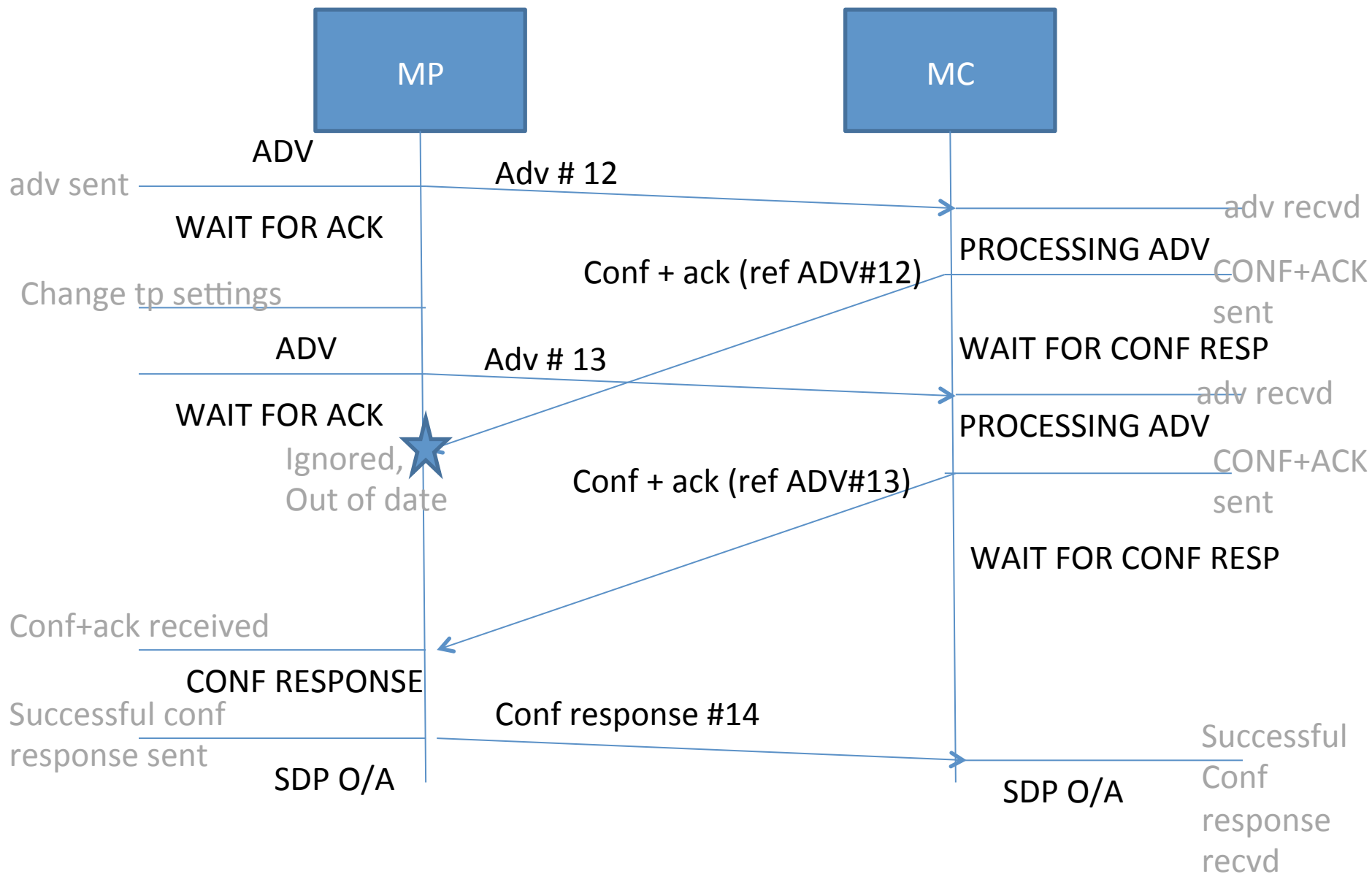
Open issues

- Review of the state machines (and response codes) by the community
- Diff mechanism: mandatory or not
- IANA section to be completed
- Security section to be added

Partial ADV



Call flow example



CLUE data model: tickets

- ✓ #48 - Linking participant Information with Participant Type
- ✓ #54 – Data model: Security Considerations
- ✓ #62 – Data model: Audio captures
- ✓ #63 - Action: Data model - Remove audio channel format
- ✓ #59 - Action: Change "Capture Scene Entry (CSE)" to "Capture Scene View (CSV)"
- ✓ #60 - Action: Change "Global CSE List" to "Global View List"
- #61 - Action: Proposal for describing the coordinate system
 - ToDo
- #55 – Data model: IANA considerations
 - ToDo
- #35 - Ensure Framework and Data model terminology is consistent
 - Framework v 18

Updates to appear

- `<mccContent>` instead of `<content>`,
`<mccConfiguredContent>` instead of
`<configuredContent>`
- `<captureView>` instead of `<view>`
- IANA registration for values of enumerated
types
 - Ongoing discussion
- Extensions