

# ETSI ES 204 915-4-5 V1.1.1 (2008-05)

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ETSI Standard

## Open Service Access (OSA); Application Programming Interface (API); Part 4: Call Control; Sub-part 5: Conference Call Control SCF (Parlay 6)



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# Contents

Intellectual Property Rights .....	5
Foreword.....	5
1 Scope .....	7
2 References .....	7
3 Definitions and abbreviations.....	7
3.1 Definitions .....	7
3.2 Abbreviations .....	7
4 Conference Call Control Service Sequence Diagrams .....	8
4.1 Meet-me conference without subconferencing.....	8
4.2 Non-add hoc add-on with subconferencing.....	10
4.3 Non-addhoc add-on multimedia .....	12
4.4 Resource Reservation .....	14
5 Class Diagrams.....	14
6 Conference Call Control Service Interface Classes.....	16
6.1 Interface Class IpConfCallControlManager .....	17
6.1.1 Method createConference() .....	17
6.1.2 Method checkResources().....	18
6.1.3 Method reserveResources() .....	19
6.1.4 Method freeResources().....	20
6.2 Interface Class IpAppConfCallControlManager .....	20
6.2.1 Method conferenceCreated() .....	20
6.3 Interface Class IpConfCall .....	21
6.3.1 Method getSubConferences() .....	22
6.3.2 Method createSubConference() .....	22
6.3.3 Method leaveMonitorReq() .....	22
6.3.4 Method getConferenceAddress() .....	23
6.4 Interface Class IpAppConfCall .....	23
6.4.1 Method partyJoined().....	23
6.4.2 Method leaveMonitorRes() .....	24
6.5 Interface Class IpSubConfCall.....	24
6.5.1 Method splitSubConference().....	25
6.5.2 Method mergeSubConference().....	26
6.5.3 Method moveCallLeg().....	26
6.5.4 Method inspectVideo() .....	26
6.5.5 Method inspectVideoCancel() .....	27
6.5.6 Method appointSpeaker() .....	27
6.5.7 Method chairSelection() .....	27
6.5.8 Method changeConferencePolicy().....	27
6.6 Interface Class IpAppSubConfCall .....	28
6.6.1 Method chairSelection() .....	28
6.6.2 Method floorRequest().....	28
7 Conference Call Control Service State Transition Diagrams .....	29
8 Conference Call Control Data Definitions .....	29
8.1 Event Notification Data Definitions .....	29
8.2 Conference Call Control Data Definitions .....	29
8.2.1 IpConfCall .....	29
8.2.2 IpConfCallRef.....	29
8.2.3 IpAppConfCall .....	29
8.2.4 IpAppConfCallRef.....	29
8.2.5 IpSubConfCall .....	30
8.2.6 IpSubConfCallRef .....	30

8.2.7	IpAppSubConfCall .....	30
8.2.8	IpAppSubConfCallRef.....	30
8.2.9	TpSubConfCallIdentifierSet .....	30
8.2.10	TpConfCallIdentifier .....	30
8.2.11	TpSubConfCallIdentifier .....	30
8.2.12	IpAppConfCallControlManager .....	30
8.2.13	IpAppConfCallControlManagerRef .....	30
8.2.14	TpConfPolicyType.....	30
8.2.15	TpConfPolicy.....	31
8.2.16	TpMonoMediaConfPolicy .....	31
8.2.17	TpJoinEventInfo .....	31
8.2.18	TpConfSearchCriteria.....	31
8.2.19	TpConfSearchResult.....	32
8.2.20	TpMultiMediaConfPolicy.....	32
8.2.21	TpResourceReservation .....	32
8.2.22	TpVideoHandlingType .....	32
<b>Annex A (normative):</b>	<b>OMG IDL Description of Conference Call Control SCF .....</b>	<b>33</b>
<b>Annex B (informative):</b>	<b>W3C WSDL Description of Conference Call Control SCF .....</b>	<b>34</b>
<b>Annex C (informative):</b>	<b>Java™ API Description of the Call Control SCFs.....</b>	<b>35</b>
<b>Annex D (informative):</b>	<b>Contents of 3GPP OSA Rel-7 Call Control .....</b>	<b>36</b>
<b>Annex E (informative):</b>	<b>Record of changes .....</b>	<b>37</b>
E.1	Interfaces .....	37
E.1.1	New .....	37
E.1.2	Deprecated.....	37
E.1.3	Removed.....	37
E.2	Methods .....	37
E.2.1	New .....	37
E.2.2	Deprecated.....	37
E.2.3	Modified.....	38
E.2.4	Removed.....	38
E.3	Data Definitions .....	38
E.3.1	New .....	38
E.3.2	Modified.....	38
E.3.3	Removed.....	38
E.4	Service Properties.....	38
E.4.1	New .....	38
E.4.2	Deprecated.....	38
E.4.3	Modified.....	39
E.4.4	Removed.....	39
E.5	Exceptions .....	39
E.5.1	New .....	39
E.5.2	Modified.....	39
E.5.3	Removed.....	39
E.6	Others .....	39
History	.....	40

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## Foreword

This ETSI Standard (ES) has been produced by ETSI Technical Committee Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN).

The present document is part 4, sub-part 5 of a multi-part deliverable covering Open Service Access (OSA); Application Programming Interface (API), as identified below. The API specification (ES 204 915) is structured in the following parts:

- Part 1: "Overview";
- Part 2: "Common Data Definitions";
- Part 3: "Framework";
- Part 4: "Call Control";**
  - Sub-part 1: "Call Control Common Definitions";
  - Sub-part 2: "Generic Call Control SCF";
  - Sub-part 3: "Multi-Party Call Control SCF";
  - Sub-part 4: "Multi-Media Call Control SCF";
  - Sub-part 5: "Conference Call Control SCF";**
- Part 5: "User Interaction SCF";
- Part 6: "Mobility SCF";
- Part 7: "Terminal Capabilities SCF";
- Part 8: "Data Session Control SCF";
- Part 9: "Generic Messaging SCF";
- Part 10: "Connectivity Manager SCF";
- Part 11: "Account Management SCF";
- Part 12: "Charging SCF";
- Part 13: "Policy Management SCF";
- Part 14: "Presence and Availability Management SCF";
- Part 15: "Multi-Media Messaging SCF";
- Part 16: "Service Broker SCF".

The present document has been defined jointly between ETSI, The Parlay Group (<http://www.parlay.org>) and the 3GPP, in co-operation with a number of JAIN™ Community (<http://www.java.sun.com/products/jain>) member companies.

**The present document forms part of the Parlay 6.0 set of specifications.**

**The present document is equivalent to 3GPP TS 29.198-4-5 V7.0.0 (Release 7).**

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# 1 Scope

The present document is part 4, sub-part 5 of the Stage 3 specification for an Application Programming Interface (API) for Open Service Access (OSA).

The OSA specifications define an architecture that enables application developers to make use of network functionality through an open standardised interface, i.e. the OSA APIs.

The present document specifies the Conference Call Control Service Capability Feature (SCF) aspects of the interface. All aspects of the Conference Call Control SCF are defined here, these being:

- Sequence Diagrams.
- Class Diagrams.
- Interface specification plus detailed method descriptions.
- State Transition diagrams.
- Data Definitions.
- IDL Description of the interfaces.
- WSDL Description of the interfaces.
- Reference to the Java™ API description of the interfaces.

The process by which this task is accomplished is through the use of object modelling techniques described by the Unified Modelling Language (UML).

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# 2 References

The references listed in clause 2 of ES 204 915-1 contain provisions which, through reference in this text, constitute provisions of the present document.

ETSI ES 204 915-1: "Open Service Access (OSA); Application Programming Interface (API); Part 1: Overview (Parlay 6)".

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# 3 Definitions and abbreviations

## 3.1 Definitions

For the purposes of the present document, the terms and definitions given in ES 204 915-1 apply.

## 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in ES 204 915-1 apply.

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## 4 Conference Call Control Service Sequence Diagrams

### 4.1 Meet-me conference without subconferencing

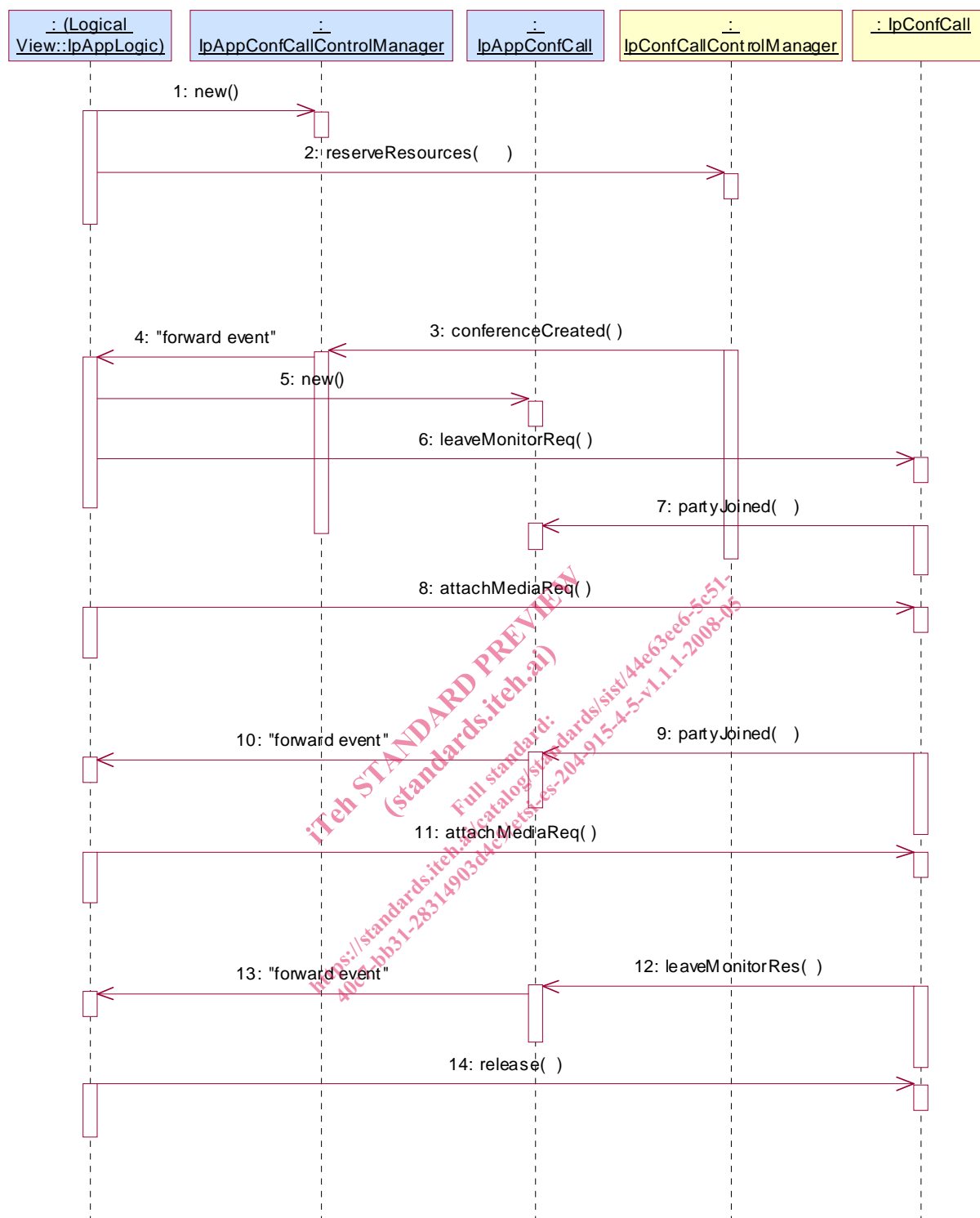
This sequence illustrates a pre-arranged meet-me conference for a specified time period. During this timeslot parties can 'call in to' the meet-me conference by dialling a special number.

For each participant joining the conference, the application can decide to accept the participant in to the conference.

The application can also be notified when parties are leaving the conference.

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- 1: The application creates a new object to receive the callbacks from the conference call control manager.
- 2: The application reserves resources for some time in the future.

With this same method the application registers interest in the creation of the conference (e.g. when the first party to joins the conference or at the specified start time, this is implementation dependant).

The reservation also includes the conference policy. One of the elements is whether joined parties must be explicitly attached. If so, this is treated as an implicit joinMonitorReq.

- 3: The conference is created.
- 4: The message is forwarded to the application.

- 5: The application creates an object to receive the call back messages from the conference call.
- 6: The application also requests to be notified when parties leave the conference.
- 7: The application is notified of the first party that joined the conference.
- 8: When the party is allowed to join the conference, the party is added.

Alternatively, the party could have been rejected with a `releaseCallLeg`.

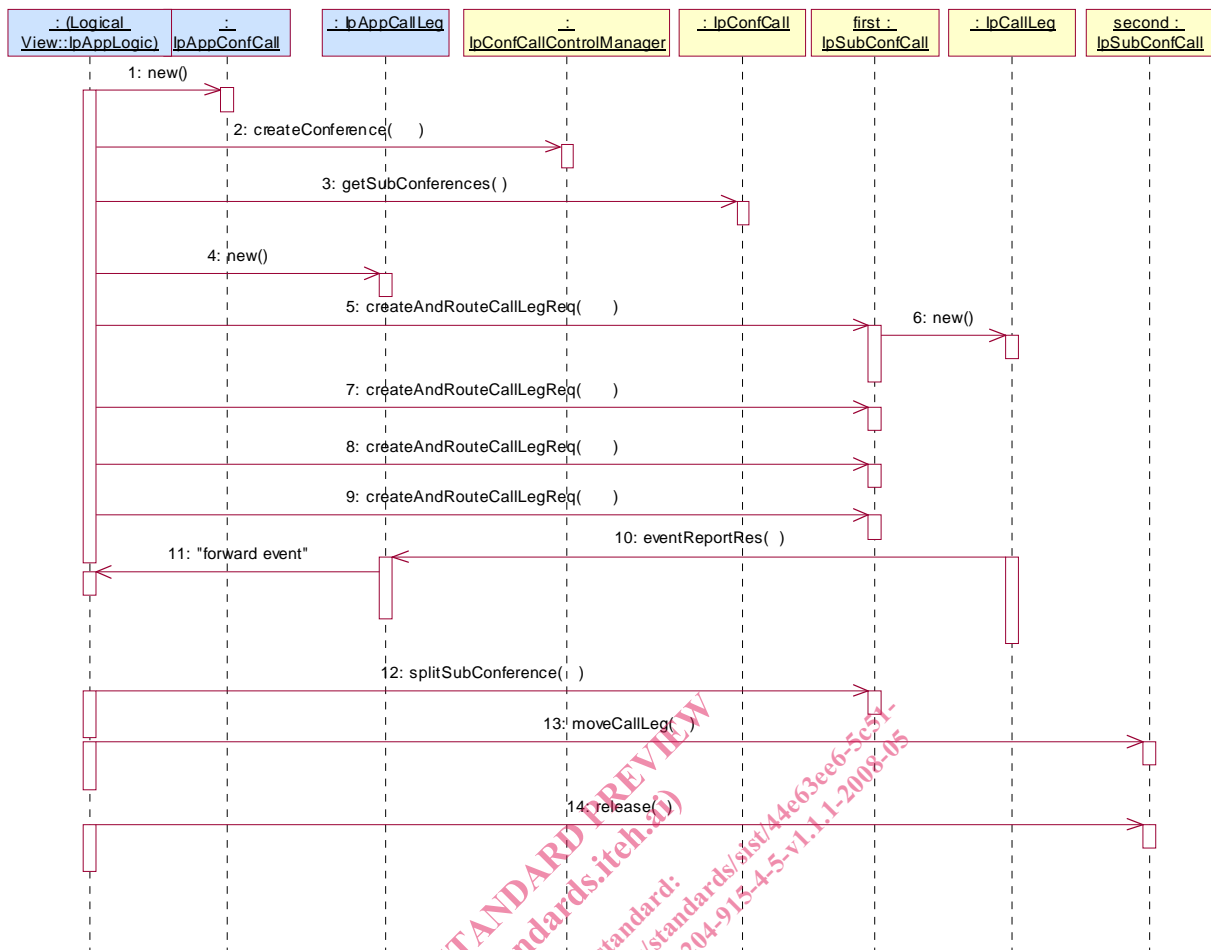
- 9: A new party joins the conference and the application is notified.
- 10: The message is forwarded to the application.
- 11: This party also is allowed into the conference by attaching the leg.
- 12: A party leaves the conference.
- 13: The message is forwarded to the application.
- 14: The application decides to release the entire conference.

## 4.2 Non-add hoc add-on with subconferencing

This sequence illustrates a prearranged add-on conference. The end user that initiates the call, communicates with the conference application via a web interface (not shown). By dragging and dropping names from the addressbook, the end-user adds parties to the conference.

Also via the web-interface, the end-user can group parties in subconferences. Only parties in the same subconference can talk to each other.

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- 1: The application creates a new interface to receive the callbacks from the conference call.
- 2: The application initiates the conference. There has been no prior resource reservation, so there is a chance that no resources are available when parties are added to the conference.

The conferenceCall interface object is returned.

- 3: Together with the conference a subconference is implicitly created.

However, the subconference is not returned as a result of the createConference, therefore the application uses this method to get the subconference.

- 4: The application creates a new IpAppCallLeg interface.
- 5: The application adds the first party to the subconference. This process is repeated for all 4 parties. Note that in the following not all steps are shown.
- 6: The gateway creates a new IpCallLeg interface.
- 7: The application adds parties to the subconference.
- 8: The application adds parties to the subconference.
- 9: The application adds parties to the subconference.
- 10: When a party A answers the application is notified.

We assume that all parties answer. This happens in the same way as for party A and is not shown in the following.

- 11: The message is forwarded to the application.

12: The application decides to split the conference. Party C and D are indicated in the message.

The gateway will create a new subconference and move party C and D to the new subconference.

The configuration is A and B are in speech, C & D are in speech. There is no bearer connection between the two subconferences.

13: The application moves one of the legs from the second subconference back to the first. The configuration now is A, B and C are in speech configuration. D is alone in its own subconference.

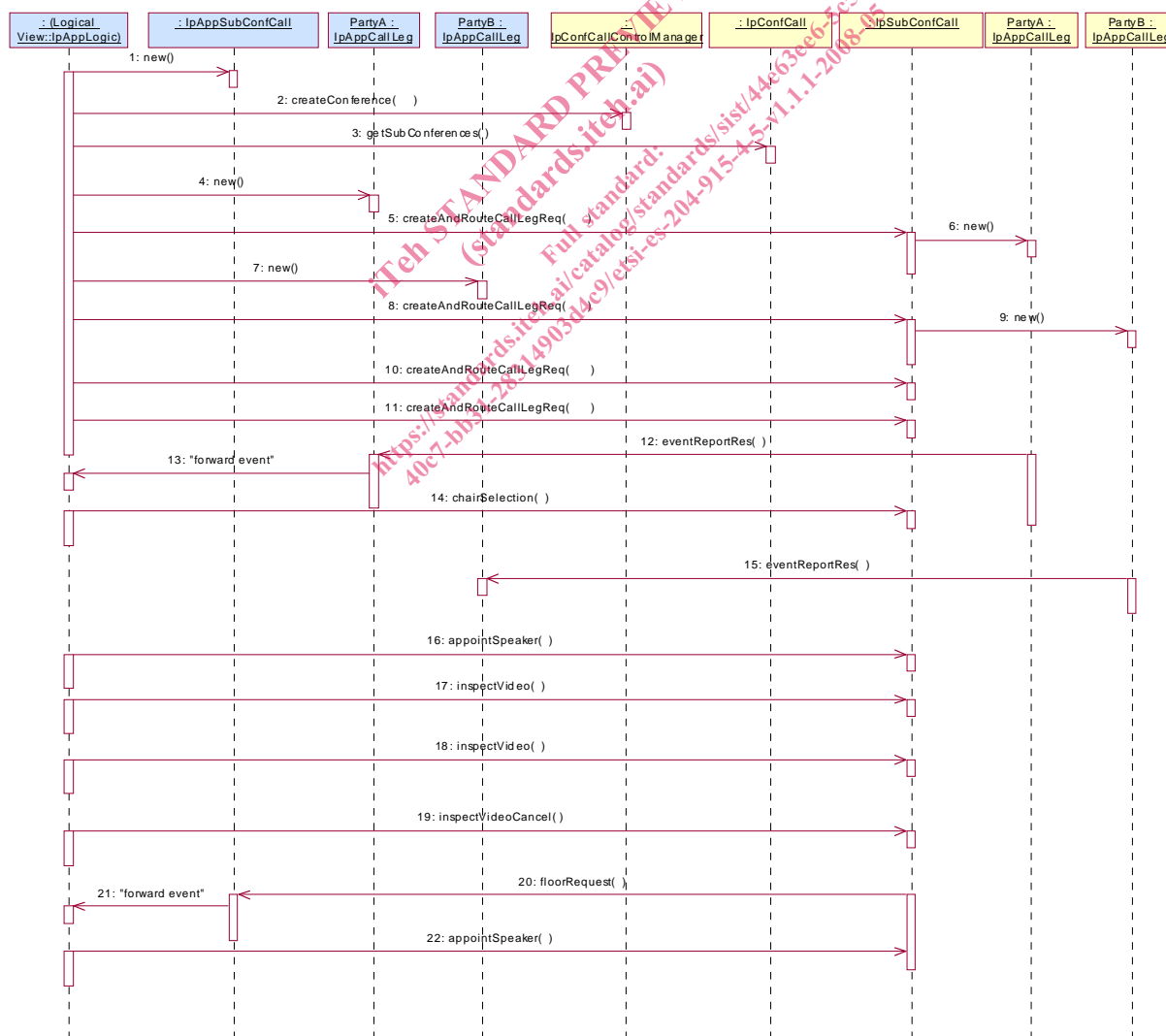
14: The second subconference is released. Since party D was in this subconference, this callleg is also released.

This leaves one subconference with A, B and C.

## 4.3 Non-addhoc add-on multimedia

This sequence illustrates a prearranged add-on multi-media conference. The end user that initiates the call, communicates with the conference application via a web interface (not shown). By dragging and dropping names from the addressbook, the end-user adds parties to the conference.

Also via the web-interface, the end-user can do things that normally the chair would be able to do, e.g. determine who has the floor (e.g. whose video is being broadcast to the other participants) or inspect the video of participants who do not have the floor (e.g. to see how they react to the current speaker).



1: The application creates a new object for receiving callbacks from the MMSubConference.