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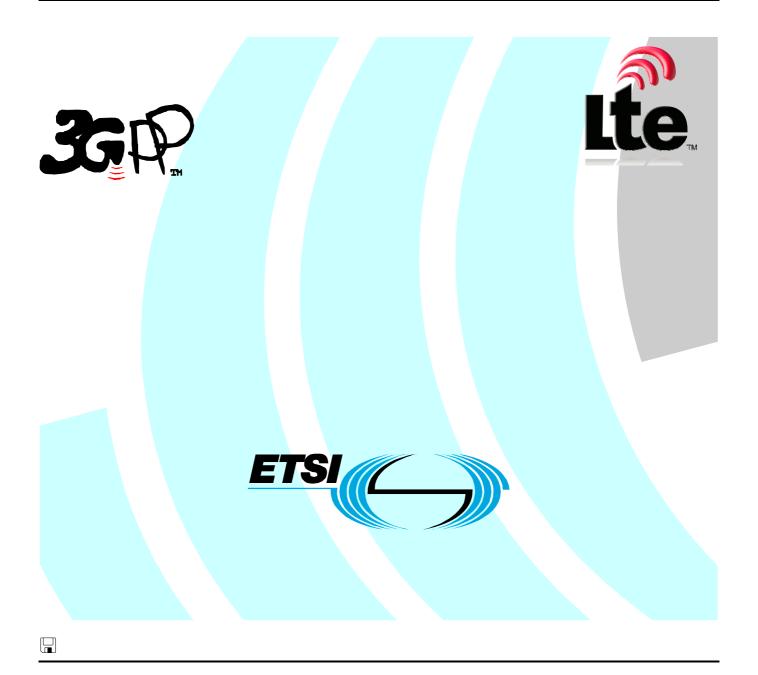
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Part 12: Multimedia conference

(3GPP TS 29.199-12 version 8.1.0 Release 8)



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ETSI

650 Route des Lucioles F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

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Foreword

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Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

3GPP acknowledges the contribution of the Parlay X Web Services specifications from The Parlay Group. The Parlay Group is pleased to see 3GPP acknowledge and publish the present document, and the Parlay Group looks forward to working with the 3GPP community to improve future versions of the present document.

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

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- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

Introduction

The present document is part 12 of a multi-part deliverable covering the 3rd Generation Partnership Project; Technical Specification Group Core Network and Terminals; Open Service Access (OSA); Parlay X Web Services, as identified below:

| Part 1: | "Common" |
|--|---|
| Part 2: | "Third party call" |
| Part 3: | "Call Notification" |
| Part 4: | "Short Messaging" |
| Part 5: | "Multimedia Messaging" |
| Part 6: | "Payment" |
| Part 7: | "Account management" |
| Part 8: | "Terminal Status" |
| Part 9: | "Terminal location" |
| Part 10: | "Call handling" |
| Part 11: | "Audio call" |
| D 4 10 | 11D # 142 |
| Part 12: | ''Multimedia conference'' |
| Part 12: Part 13: | "Address list management" |
| | |
| Part 13: | "Address list management" |
| Part 13: Part 14: | "Address list management" "Presence" |
| Part 13: Part 14: Part 15: | "Address list management" "Presence" "Message Broadcast" |
| Part 13: Part 14: Part 15: Part 16: | "Address list management" "Presence" "Message Broadcast" "Geocoding" |
| Part 13: Part 14: Part 15: Part 16: Part 17: | "Address list management" "Presence" "Message Broadcast" "Geocoding" "Application driven Quality of Service (QoS)" |
| Part 13: Part 14: Part 15: Part 16: Part 17: Part 18: | "Address list management" "Presence" "Message Broadcast" "Geocoding" "Application driven Quality of Service (QoS)" "Device Capabilities and Configuration" |
| Part 13: Part 14: Part 15: Part 16: Part 17: Part 18: Part 19: | "Address list management" "Presence" "Message Broadcast" "Geocoding" "Application driven Quality of Service (QoS)" "Device Capabilities and Configuration" "Multimedia streaming control" |
| Part 13: Part 14: Part 15: Part 16: Part 17: Part 18: Part 19: Part 20: | "Address list management" "Presence" "Message Broadcast" "Geocoding" "Application driven Quality of Service (QoS)" "Device Capabilities and Configuration" "Multimedia streaming control" "Multimedia multicast session management" |

1 Scope

The present document is Part 12 of the Stage 3 Parlay X Web Services specification for Open Service Access (OSA).

The OSA specifications define an architecture that enables application developers to make use of network functionality through an open standardized interface, i.e. the OSA APIs. The concepts and the functional architecture for the OSA are contained in 3GPP TS 23.198 [3]. The requirements for OSA are contained in 3GPP TS 22.127 [2].

The present document specifies the Multimedia Conference Web Service aspects of the interface. All aspects of the Multimedia Conference Web Service are defined here, these being:

- Name spaces.
- Sequence diagrams.
- Data definitions.
- Interface specification plus detailed method descriptions.
- Fault definitions.
- Service policies.
- WSDL Description of the interfaces.

The present document has been defined jointly between 3GPP TSG CT WG5, ETSI TISPAN and The Parlay Group.

Maintenance of up to 3GPP Rel-8 and new OSA Stage 1, 2 and 3 work beyond Rel-9 was moved to OMA in June 2008.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.
- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 22.127: "Service Requirement for the Open Services Access (OSA); Stage 1".
- [3] 3GPP TS 23.198: "Open Service Access (OSA); Stage 2".
- [4] 3GPP TS 22.101: "Service aspects; Service principles".
- [5] W3C Recommendation (2 May 2001): "XML Schema Part 2: Datatypes".

NOTE: Available at http://www.w3.org/TR/2001/REC-xmlschema-2-20010502/.

[6] 3GPP TS 29.199-1: "Open Service Access (OSA); Parlay X Web Services; Part 1: Common".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TS 29.199-1 [6] apply.

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TS 29.199-1 [6] apply.

4 Detailed service description

The Multimedia Conferencing is a simple Web Service that allows the creation of a multimedia conference and the dynamic management of the participants involved.

The underlying model of the service is based on the following entities:

- Conference: a "context" (uniquely identified) to which participants can be added/removed.
- **Participant:** each of the parties involved in the conference. There may exist a participant that is also the "owner" of the conference, i.e. the user who can end the call and/or be the reference user for billing purposes.
- **Media:** the conference can utilize multiple media streams to support the participants' communication. In particular both audio and video streams are available, including the specific stream direction (i.e. in, out, bidirectional).

NOTE: A call session allows the application to avail of other web service features that can add value to the created call session. For example the Audio Call web service can provide multimedia message delivery to call participants in the call session (playXXXMessage operation) and furthermore control of the media streams for the call participants thus enabling conversational multimedia communication including voice, video, chat, and data. Media can be added/removed for participants using the operations addMediaForParticipants and deleteMediaForParticipants in Audio Call

An application setting up a multimedia conference must initially invoke the **createConference** operation. The result of such invocation is the creation of a "context" that represents a "virtual" room where users can "meet". A unique identifier, a callSessionIdentifier is assigned to the just-created conference. At this stage no participant is connected yet.

Subsequently the application may wish to add participants to the conference. In order to do so the operation **inviteParticipant** can be used. The result of such operation is to alert the user of the incoming connection request (e.g. the user's terminal rings).

If the application wishes to check whether the user has accepted the invitation (i.e. is connected) it can invoke (at a later time) the **getParticipantInfo** operation.

Note that:

- As soon as the first participant connects, the conference becomes "active". The duration of the conference is then
 measured starting from the moment the conference has became active.
- The initial media set utilized by the participant will depend on the conference type and the media actually supported by the participant's terminal.

During the conference session the application is able to:

- Add (or remove) a specific media stream to a single participant: e.g. adding a video bidirectional stream to a
 participant that has an audio connection to the conference. This can be obtained by invoking the media control
 (addMediaForParticipants and the deleteMediaForParticipants) operations of the Audio Call web service.
- Disconnect a participant from the conference, by invoking the **disconnectParticipant** operation.
- Retrieve information related to the conference and its status, by invoking **getConferenceInfo** and **getParticipants.**

There are different conditions that can determine the end of the conference:

- 1) The application may invoke the operation **endConference**, that "forces" the termination of the conference and the disconnection of all participants.
- 2) The owner of the conference (if defined) leaves the conference. If the owner is not defined this condition will apply when all the participants have left the conference (disconnected).
- 3) The conference duration exceeds a maximum value (specified during the conference creation step).

5 Namespaces

The Multimedia Conference interface uses the namespace:

http://www.csapi.org/wsdl/parlayx/multimedia_conference/v4_0

The data types are defined in the namespace:

http://www.csapi.org/schema/parlayx/multimedia_conference/v4_0

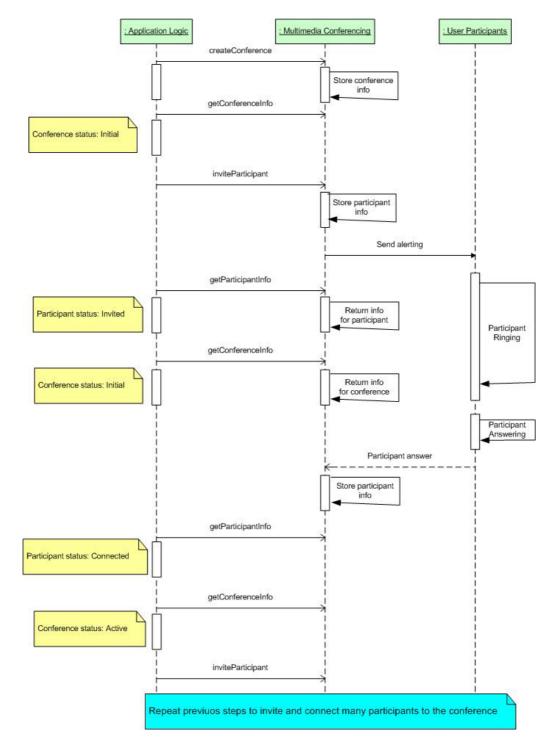
The 'xsd' namespace is used in the present document to refer to the XML Schema data types defined in XML Schema [5]. The use of the name 'xsd' is not semantically significant.

6 Sequence diagrams

The following sequence diagrams illustrate typical scenarios of interaction between an application and the Multimedia Conferencing Web Service.

6.1 Setting up a conference

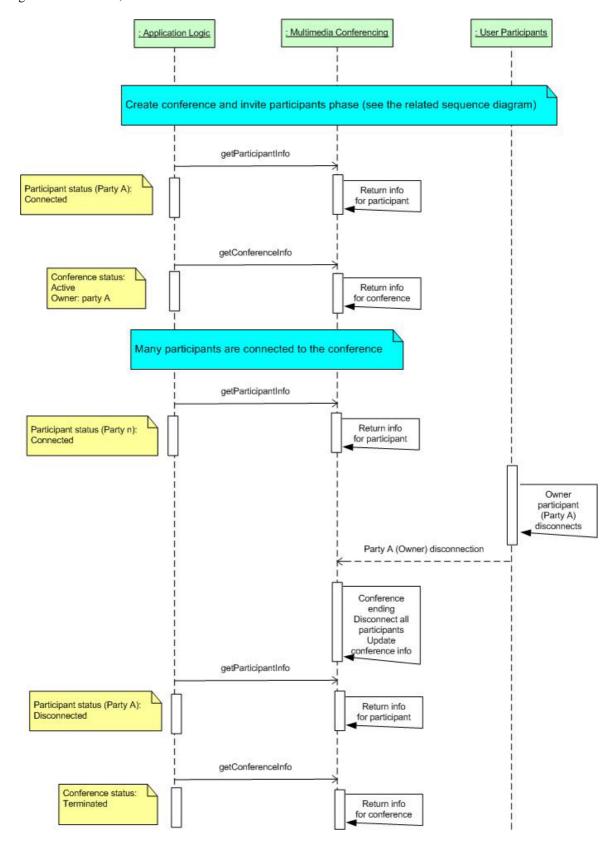
Set up a multimedia conference call.



6.2 Void

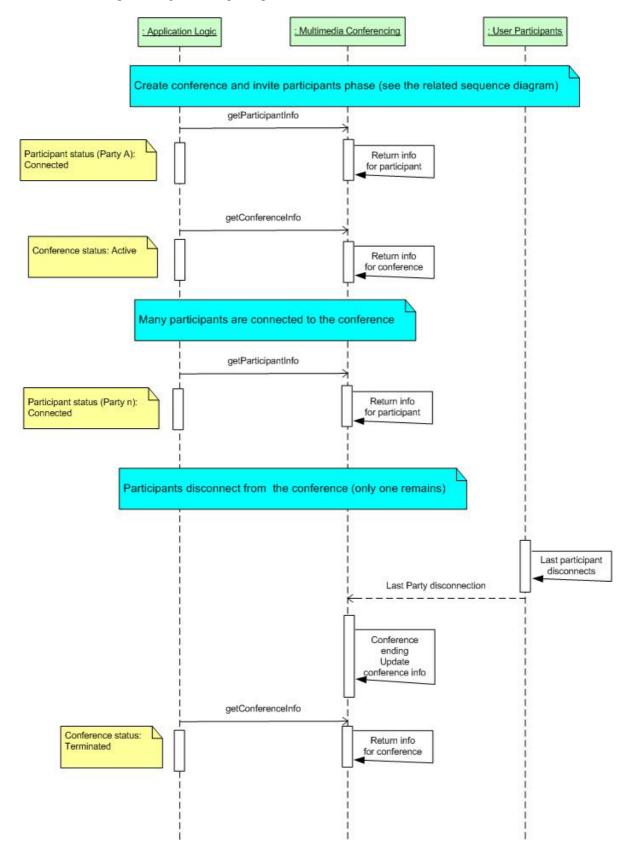
6.3 Conference owner disconnects

During a conference call, the conference owner disconnects.



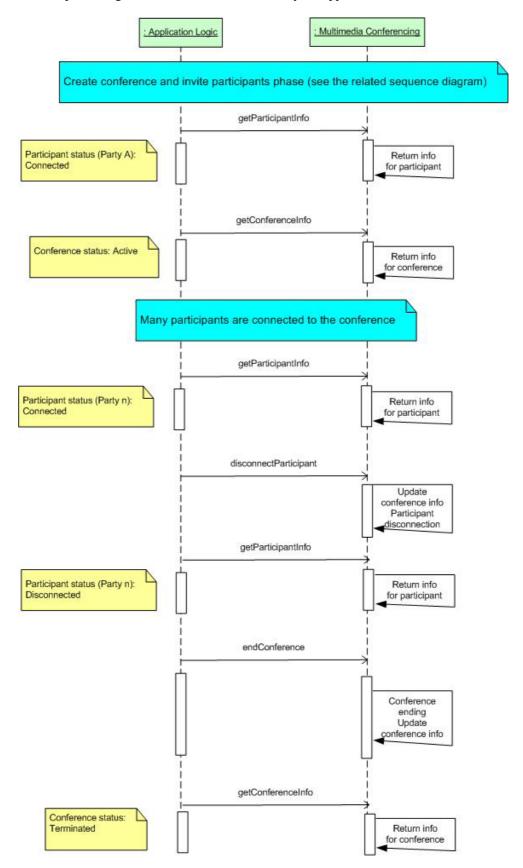
6.4 All participants disconnect

End of conference call processing when all participants disconnect.



6.5 Conference ended by application

End of conference call processing when the conference is ended by the application.



7 XML Schema data type definition

7.1 ConferenceStatus enumeration

| Element name | Description | | | | |
|--------------|---|--|--|--|--|
| Initial | The conference has been created but no participant is connected yet | | | | |
| Active | The conference is active, i.e. at least one user has connected | | | | |
| Terminated | The conference was terminated | | | | |

7.2 ConferenceInfo structure

| Name | Туре | Optional | Description |
|-----------------------------|------------------|----------|--|
| Status | ConferenceStatus | No | Status of the conference |
| StartTime | xsd:dateTime | No | The time at which the conference was created |
| ActiveTime | Xsd:dateTime | No | The time at which the conference was actived |
| Duration | xsd:int | No | The duration of the conference so far (in seconds) |
| Owner | xsd:anyURI | No | Conference owner |
| NumberOfParticipants | xsd:int | No | Current number of connected participants |
| MaximumNumberOfParticipants | xsd:int | No | Maximum number of participants |
| CallSessionIdentifier | xsd:string | No | CallSessionIdentifier for the conference |
| ConferenceDescription | xsd:string | No | Conference description |

7.3 ParticipantInfo structure

| Name | Туре | Optional | Description |
|-------------|-------------------------------|----------|---|
| Participant | xsd:anyURI | No | Participant identifier |
| MediaInfo | common: MediaInfo[1unbounded] | No | Media information currently used |
| StartTime | xsd:dateTime | No | Time this participant joined the conference |
| Status | ParticipantStatus | No | Status of participant |

7.4 ParticipantStatus enumeration

| Description |
|---|
| Participant invited but not connected yet |
| Participant connected |
| Participant disconnected |
| |

- 7.5 Void
- 7.6 Void
- 7.7 Void

8 Web Service interface definition

8.1 Interface: MultimediaConference

The Multimedia Conference interface can be used by an application for creating a multimedia conference call and for dynamically managing the participants involved in the call.

8.1.1 Operation: createConference

The invocation of **createConference** requests to create a multi-media conference with initially no participants connected. The reference to the new multimedia conference is returned in the output parameter.

The conference termination can be driven either by a user action or by the expiring of a maximum duration. In particular, three possible situations are considered. In the first scenario, the concept of the "conference owner" is used. This user that has the control of the call and when the conference owner leaves the conference, all users are disconnected (such a user could be for instance the reference for the conference billing). In this scenario, the optional parameter **conferenceOwner** is present in the method call.

In the second scenario, the conference is terminated when the last participant abandons (in this case the parameter **conferenceOwner** is not present).

A third case is when the optional parameter **maximumDuration** is present: in this situation, when the maximum duration is reached, the conference is terminated.

The selection of the scenario depends on the presence of the optional parameters; if no optional parameter is present, the conference end condition is the disconnection of the last user in conference, if both are present, the conference is terminated when the duration expires (this case could happen if the information concerning the conference owner is needed for billing purposes).

The values **maximumDuration** and **maximumNumberOfParticipants** must not exceed the corresponding service policies otherwise a policy exception is raised.

8.1.1.1 Input message: createConferenceRequest

| Part name | Part type | Optional | Description |
|-----------------------------|----------------------------|----------|--|
| ConferenceType | xsd:string | Yes | Conference type, i.e. one of a list of operator- specific identifiers that indicates how the conference is rendered on the terminals |
| ConferenceDescription | xsd:string | No | A text describing the conference |
| Charging | common:ChargingInformation | Yes | If present, defines the charge per unit of time consumed on the conference call. If the service does not support charging, a PolicyException (POL0008) will be returned. |
| MaximumDuration | xsd:int | Yes | If present it represents the maximum duration of the multimedia conference in seconds. If this parameter is present, it represents the end condition of the conference. |
| MaximumNumberOfParticipants | xsd:int | No | Maximum number of participants allowed |
| ConferenceOwner | xsd:anyURI | Yes | It is the address of the multimedia conference owner. If this parameter is present, and the maximumDuration is not present, the conference is terminated when this user disconnects, else this information can be used for billing or other purpose |

8.1.1.2 Output message: createConferenceResponse

| Part name Part type Optional | | Description |
|------------------------------|--------------|--|
| result | xsd:stringNo | Call session identifier, the identifier for the created Conference |

8.1.1.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001: Service error.
- SVC0002: Invalid input value.

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001: Policy error.
- POL0008: Charging not supported.
- POL0012 Too many description entries specified.
- POL0240: Too many participants.
- POL0242: Maximum duration exceeded.

8.1.2 Operation: getConferenceInfo

The invocation of **getConferenceInfo** requests the information concerning the current status of the multi-media conference call identified by **callSessionIdentifier**.

8.1.2.1 Input message: getConferenceInfoRequest

| Part name | Part type | Optional | Description |
|-----------------------|------------|----------|--|
| CallSessionIdentifier | xsd:string | No | Call session identifier; the Conference identifier |

8.1.2.2 Output message: getConferenceInfoResponse

| Part name | Part type | Optional | Description |
|-----------|----------------|----------|--------------------------|
| result | ConferenceInfo | No | Status of the conference |

8.1.2.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

• SVC0001: Service error.

• SVC0002: Invalid input value.

PolicyException from 3GPP TS 29.199-1 [6]:

• POL0001: Policy error.

8.1.3 Operation: endConference

The invocation of **endConference** requests to terminate the multi-media conference call identified by **callSessionIdentifier**.

8.1.3.1 Input message: endConferenceRequest

| Part name | Part type Opti | ional | Description |
|-----------------------|----------------|-------|--|
| CallSessionIdentifier | xsd:stringNo | C | Call session identifier; the Conference identifier |

8.1.3.2 Output message: endConferenceResponse

| Part name | Part type | Optional | Description |
|-----------|-----------|----------|-------------|
| None | | | |

8.1.3.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

• SVC0001: Service error.

• SVC0002: Invalid input value.

PolicyException from 3GPP TS 29.199-1 [6]:

• POL0001: Policy error.

8.1.4 Operation: inviteParticipant

The invocation of **inviteParticipant** requests to add a new participant specified by **participant** to the multi-media conference call identified by **callSessionIdentifier**. The media used for the initial connection of the new participant depends on the conference type and the participant's supported media.

The operation will fail if the conference has already reached the maximum number of participants (as specified in the creation operation).

8.1.4.1 Input message: inviteParticipantRequest

| Part name | Part type | Optional | Description |
|-----------------------|------------|----------|--|
| CallSessionIdentifier | xsd:string | No | Call session identifier; the Conference identifier |
| Participant | xsd:anyURI | No | New participant invited |

8.1.4.2 Output message: inviteParticipantResponse

| Part name | Part type | Optional | Description |
|-----------|-----------|----------|-------------|
| None | | | |

8.1.4.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

• SVC0001: Service error.

• SVC0002: Invalid input value.

PolicyException from 3GPP TS 29.199-1 [6]:

• POL0001: Policy error.

• POL0240: Too many participants.

8.1.5 Operation: disconnectParticipant

The invocation of **disconnectParticipant** requests to disconnect the participant specified by **participant** from the multi-media conference call identified by **callSessionIdentifier**.

8.1.5.1 Input message: disconnectParticipantRequest

| Part name | Part type | Optional | Description |
|-----------------------|------------|-----------------|--|
| CallSessionIdentifier | xsd:string | No | Call session identifier; the Conference identifier |
| Participant | xsd:anyURI | No | Participant |

8.1.5.2 Output message: disconnectParticipantResponse

| Part name | Part type | Optional | Description |
|-----------|-----------|----------|-------------|
| None | | | |

8.1.5.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

• SVC0001: Service error.

• SVC0002: Invalid input value.

PolicyException from 3GPP TS 29.199-1 [6]:

• POL0001: Policy error.

8.1.6 Operation: getParticipantInfo

The invocation of **getParticipantInfo** requests information concerning the current status of the participant specified by **participant**, in the multi-media conference call identified by **callSessionIdentifier**.

8.1.6.1 Input message: getParticipantInfoRequest

| Part name | Part type | Optional | Description |
|----------------------|------------|----------|--|
| CalSessionIdentifier | xsd:string | No | Call session identifier; the Conference identifier |
| Participant | xsd:anyURI | No | Participant |

8.1.6.2 Output message: getParticipantInfoResponse

| Part name | Part type | Optional | Description |
|-----------|-----------------|----------|---------------------------|
| result | ParticipantInfo | No | Status of the participant |

8.1.6.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

• SVC0001: Service error.

• SVC0002: Invalid input value.

PolicyException from 3GPP TS 29.199-1 [6]:

• POL0001: Policy error.

8.1.7 Operation: getParticipants

The invocation of **getParticipants** requests information concerning the current status of each participant of the multi-media conference call identified by **callSessionIdentifier**. The output includes participants already disconnected from the conference (if any).

8.1.7.1 Input message: getParticipantsRequest

| Part name | Part type | Optional | Description |
|-----------------------|------------|----------|--|
| CallSessionIdentifier | xsd:string | No | Call session identifier; the Conference identifier |

8.1.7.2 Output message: getParticipantsResponse

| Part name | Part type | Optional | Description |
|-----------|------------------------------|----------|--|
| result | ParticipantInfo [0unbounded] | Yes | Array containing status information for each participant |

8.1.7.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

• SVC0001: Service error.

• SVC0002: Invalid input value.

PolicyException from 3GPP TS 29.199-1 [6]:

• POL0001: Policy error.

8.1.8 Void

8.1.9 Void

9 Fault definitions

9.1 PolicyException

9.1.1 POL0240: Too many participants

Too many participants.

| Name | Description |
|------------|-----------------------|
| Message Id | POL0240 |
| Text | Too many participants |
| Variables | None |

9.1.2 Void

The fault code (POL0241) is reserved and shall not be used.

9.1.3 POL0242: Maximum duration exceeded

| Name | Description |
|------------|---|
| Message Id | POL0242 |
| Text | Maximum duration exceeded. Maximum allowed is %1 seconds. |
| Variables | %1 – maximum duration set by service policy |

9.2 ServiceException

9.2.1 Void

The fault code (SVC0210) is reserved and shall not be used.

9.2.2 Void

The fault code (SVC0211) is reserved and shall not be used.

10 Service policies

| Name | Туре | Description |
|---------------------|-------------------|--|
| MaximumDuration | common:TimeMetric | Maximum duration for which a conference may be set up. |
| MaximumParticipants | xsd:int | Maximum number of participants for which a conference may be set up. |
| ChargingSupported | xsd:boolean | Indicates whether charging is supported for the createConference operation |
| <u> </u> | | Maximum number of Descriptions that can be charged simultaneously |

Annex A (normative): WSDL for Multimedia conference

The document/literal WSDL representation of this interface specification is compliant to 3GPP TS 29.199-1 [6] and is contained in text files

- parlayx_multimedia_conference_interface_4_0.wsdl
- parlayx_multimedia_conference_service_4_0.wsdl
- parlayx_multimedia_conference_types_4_0.xsd which accompanies the present document.

The WSDL files have been verified using the following files:

- 12_wsdl2Java_axis-1_4.bat
- 12_wsdl2Java_axis2-1_4_1.bat which accompany the present document.

Annex B (informative):

Description of Parlay X Web Services Part 12: Multimedia conference for 3GPP2 cdma2000 networks

This annex is intended to define the OSA Parlay X Web Services Stage 3 interface definitions and it provides the complete OSA specifications. It is an extension of OSA Parlay X Web Services specifications capabilities to enable operation in cdma2000 systems environment. They are in alignment with 3GPP2 Stage 1 requirements and Stage 2 architecture defined in:

[1] 3GPP2 X.S0011-D: 'cdma2000 Wireless IP Network Standard ", Version 1.1

[2] 3GPP2 S.R0037-0: "IP Network Architecture Model for cdma2000 Spread Spectrum Systems",

Version 3.0

[3] 3GPP2 X.S0013-A: "All-IP Core Network Multimedia Domain"

These requirements are expressed as additions to and/or exclusions from the 3GPP specification. The information given here is to be used by developers in 3GPP2 cdma2000 network architecture to interpret the 3GPP OSA specifications.

B.1 General Exceptions

The terms 3GPP and UMTS are not applicable for the cdma2000 family of standards. Nevertheless these terms are used (3GPP TR 21.905) mostly in the broader sense of "3G Wireless System". If not stated otherwise there are no additions or exclusions required.

CAMEL mappings are not applicable for cdma2000 systems.

B.2 Specific Exceptions

B.2.1 Clause 1: Scope

There are no additions or exclusions.

B.2.2 Clause 2: References

There are no additions or exclusions.

B.2.3 Clause 3: Definitions and abbreviations

There are no additions or exclusions.

B.2.4 Clause 4: Detailed service description

There are no additions or exclusions.

B.2.5 Clause 5: Namespaces

There are no additions or exclusions.

B.2.6 Clause 6: Sequence diagrams

There are no additions or exclusions.

B.2.7 Clause 7: XML Schema data type definition

There are no additions or exclusions.

B.2.8 Clause 8: Web Service interface definition

There are no additions or exclusions.

B.2.9 Clause 9: Fault definitions

There are no additions or exclusions.

B.2.10 Clause 10: Service policies

There are no additions or exclusions.

B.2.11 Annex A (normative): WSDL for Multimedia conference

There are no additions or exclusions.

Annex C (informative): Change history

| Change history | | | | | | | | | |
|----------------|-------|-----------|------|-----|--|-----|-------|-------|--|
| Date | TSG# | TSG Doc. | CR | Rev | Subject/Comment | Cat | Old | New | |
| Sep 2004 | CN_25 | NP-040360 | | | Draft v100 submitted to TSG CN#25 for Approval. | | 1.0.0 | 6.0.0 | |
| Jun 2005 | CT_28 | CP-050221 | 0001 | | Optionals for Part 12 | F | 6.0.0 | 6.1.0 | |
| Dec 2005 | CT_30 | CP-050577 | 0002 | | Inconsistent part naming in PX response messages | F | 6.1.0 | 6.2.0 | |
| Jun 2006 | CT_32 | CP-060195 | 0003 | | Change reference to OSA Stage 2 from 23.127 to 23.198 | F | 6.2.0 | 6.3.0 | |
| Dec 2006 | CT_34 | CP-060593 | 0004 | | Add missing ServiceExceptions to Multimedia Conference Web Service | F | 6.3.0 | 6.4.0 | |
| Dec 2006 | CT_34 | CP-060593 | 0005 | | Correct the ParticipantInfo structure of Multimedia Conference Web Service | F | 6.3.0 | 6.4.0 | |
| Mar 2007 | CT_35 | CP-070045 | 0006 | | Add OSA Parlay Web Services support for 3GPP2 networks | F | 6.4.0 | 6.5.0 | |
| Mar 2007 | CT_35 | CP-070045 | 0007 | | Corrections to namespace version numbers | F | 6.4.0 | 6.5.0 | |
| Mar 2007 | CT_35 | CP-070048 | 8000 | | Move support for add/delete media out of Multimedia conference | С | 6.5.0 | 7.0.0 | |
| Mar 2007 | | - | | | Editorial: Aligned 5 Namespaces | | 7.0.0 | 7.0.1 | |
| Jun 2007 | - | | | | Renamed in Introduction Part 18:"Device management" to "Device | | 7.0.1 | 7.0.2 | |
| | | | | | Capabilities and Configuration" | | | | |
| Sep 2007 | CT_37 | CP-070640 | 0010 | | Replace ConferenceIdentifier with CallSessionIdentifier | F | 7.0.2 | 7.1.0 | |
| Dec 2007 | | | | | Word file and code attachment provided by PTCC. The code change | | 7.1.0 | 7.1.1 | |
| | | | | | required a change to the namespace in the Word TS. | | | | |
| Dec 2008 | | | | | Upgraded unchanged from Rel-7 | | | 8.0.0 | |
| Sep 2009 | CT_45 | CP-090600 | 0011 | | Completion of Parlay X Part 12 (Multimedia conference) for | F | 8.0.0 | 8.1.0 | |
| | | | | | Release 8 | | | | |

History

| Document history | | | | | | | |
|------------------|--------------|-------------|--|--|--|--|--|
| V8.0.0 | January 2009 | Publication | | | | | |
| V8.1.0 | October 2009 | Publication | | | | | |
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