ETSI ES 202 504-12 V1.1.1 (2008-05)

ETSI Standard

Open Service Access (OSA); Parlay X Web Services; Part 12: Multimedia Conference (Parlay X 3)

Reference
DES/TISPAN-01034-12-OSA

Keywords
API, OSA, service

ETSI

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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 12 of a multi-part deliverable covering 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";

Part 12: "Multimedia Conference";

Part 13: "Address List Management";

Part 14: "Presence";

Part 15: "Message Broadcast";

Part 16: "Geocoding";

Part 17: "Application-driven Quality of Service (QoS)";

Part 18: "Device Capabilities and Configuration";

Part 19: "Multimedia Streaming Control";

Part 20: "Multimedia Multicast Session Management".

The present document has been defined jointly between ETSI, The Parlay Group (http://www.parlay.org) and the 3GPP.

The present document forms part of the Parlay X 3.0 set of specifications.

The present document is equivalent to 3GPP TS 29.199-12 V7.1.0 (Release 7).

1 Scope

The present document is part 12 of the Stage 3 Parlay X 3 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 present document specifies the Multimedia Conference Web Service. The following are defined here:

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

2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific.

- For a specific reference, subsequent revisions do not apply.
- Non-specific reference may be made only to a complete document or a part thereof and only in the following cases:
  - if it is accepted that it will be possible to use all future changes of the referenced document for the purposes of the referring document;
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NOTE: While any hyperlinks included in this clause were valid at the time of publication ETSI cannot guarantee their long term validity.

2.1 Normative references

The following referenced documents are indispensable for the application of the present document. For dated references, only the edition cited applies. For non-specific references, the latest edition of the referenced document (including any amendments) applies.

[1] W3C Recommendation (2 May 2001): "XML Schema Part 2: Datatypes".

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

[2] ETSI ES 202 504-1: "Open Service Access (OSA); Parlay X Web Services; Part 1: Common (Parlay X 3)".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in ES 202 504-1 [2] apply.

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in ES 202 504-1 [2] 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.

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 an 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/v3_1

The data types are defined in the namespace:

http://www.csapi.org/schema/parlayx/multimedia_conference/v3_1

The "xsd" namespace is used in the present document to refer to the XML Schema data types defined in XML Schema [1]. 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.

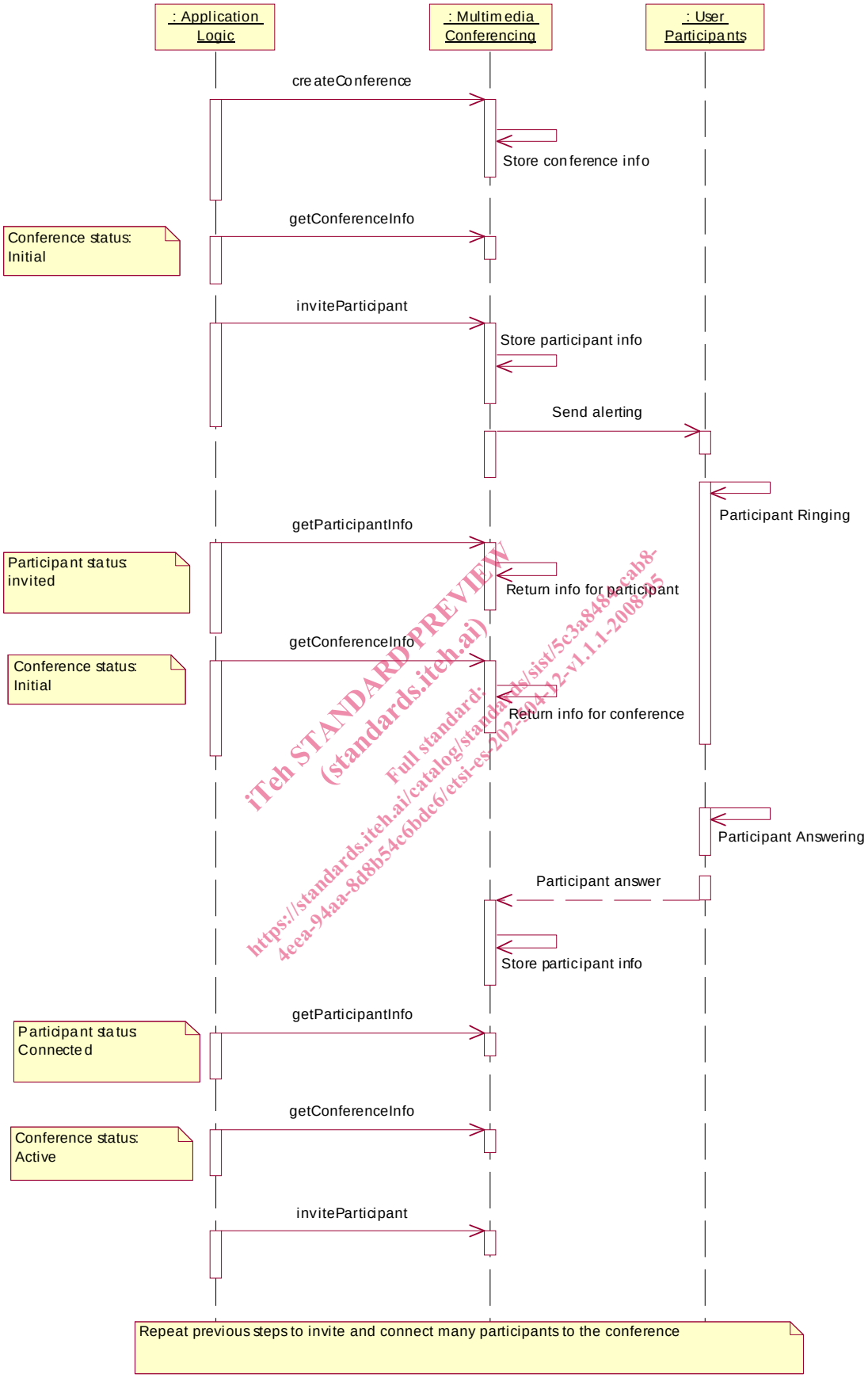

Figure 1