

**Open Service Access (OSA);
Parlay X Web Services;
Part 14: Presence
(Parlay X 2)**



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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 14 of a multi-part deliverable covering Open Service Access (OSA); Parlay X 2 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".**

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 2.2 set of specifications.

The present document is equivalent to 3GPP TS 29.199-14 V6.7.0 (Release 6).

1 Scope

The present document is part 14 of the Stage 3 Parlay X 2 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 Presence 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:
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 - for informative references.

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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] ETSI TR 121 905: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Vocabulary for 3GPP Specifications (3GPP TR 21.905 version 7.2.0 Release 7)".

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

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

[3] ETSI ES 202 391-1: "Open Service Access (OSA); Parlay X Web Services; Part 1: Common (Parlay X 2)".

[4] ETSI ES 202 915-14: "Open Service Access (OSA); Application Programming Interface (API); Part 14: Presence and Availability Management SCF (Parlay 4)".

[5] IETF RFC 3856: "A Presence Event Package for the Session Initiation Protocol (SIP)".
<http://www.ietf.org/rfc/rfc3856.txt>.

[6] Void.

[7] ETSI ES 202 391-13: "Open Service Access (OSA); Parlay X Web Services; Part 13: Address List Management (Parlay X 2)".

[8] IETF RFC 3265: "Session Initiation Protocol (SIP)-Specific Event Notification".

[9] Void.

[10] ETSI ES 202 391-8: "Open Service Access (OSA); Parlay X Web Services; Part 8: Terminal Status (Parlay X 2)".

[11] ETSI ES 202 391-9: "Open Service Access (OSA); Parlay X Web Services; Part 9: Terminal Location (Parlay X 2)".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in ES 202 391-1 [3] and the following apply:

applications: for Instant Messaging, Push to Talk or call control and other purposes may become clients of the presence Web Service. We assume that these applications belong to a watcher and authenticate to the services in the name of the watcher

identity: represents a user in the real world

NOTE: See clause 4.4.1 in ES 202 915-14 [4].

presence attributes: contain information about a presentity. An attribute has a name and a value and can be supplied by any device, application or network module that can be associated to the presentity's identity. A watcher can obtain attributes only after he has successfully subscribed to them. Examples for attributes are activity, location type, communication means, etc.

presence information: set of attributes that characterize the presentity such as current activity, environment, communication means and contact addresses. Only the system and the presentity have direct access to this information, which may be collected and aggregated from **several** devices associated to the presentity

subscription: before a watcher can access presence data, he has to subscribe to it. One possibility the API provides is an end-to-end subscription concept, in which only identities that have accepted a subscription to their presence can be addressed. Subscriptions can be also automatically handled by server policies edited by the presentity or other authorized users. The service/protocol to manage those policies is out of the scope of the present document

NOTE: This definition is not related to the term "subscription" in TR 121 905 [1].

watcher and presentity: names used to denote the role of the client connected to the presence services. As in Parlay/OSA PAM [4] the watcher and the presentity have to be associated to identities registered to the system, i.e. users, groups of users or organizations

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in ES 202 391-1 [3] and the following apply:

IETF	Internet Engineering Task Force
IMS	IP Multimedia Subsystem
ISC	IP multimedia subsystem Service Control interface
MMS	Multimedia Message Service
PAM	Presence and Availability Management
SCF	Service Capability Feature
SIMPLE	SIP for Instant Messaging and Presence Leveraging Extensions
SIP	Session Initiation Protocol
SMS	Short Message Service
XCAP	XML Configuration Access Protocol
XML	eXtensible Markup Language
XMPP	eXtensible Messaging and Presence Protocol
XSD	XML Schema Definition

4 Detailed service description

The presence service allows for presence information to be obtained about one or more users and to register presence for the same. It is assumed that the typical client of these interfaces is either a supplier or a consumer of the presence information. An Instant Messaging application is a canonical example of such a client of this interface.

Figure 1 shows the architecture of the Presence Web Service and the underlying services. The Parlay/OSA PAM SCF is the straightforward option and implements the presence server with extended identity, device capability, and presence agent management. Parlay/OSA PAM allows aggregation of presence information from internet, mobile and enterprise users, etc. using a presence transport network of SIP or XMPP servers. The Presence Web Service can however communicate directly for example with IMS presence network elements (presence and resource list servers) using the ISC (SIP/SIMPLE) protocol interface.

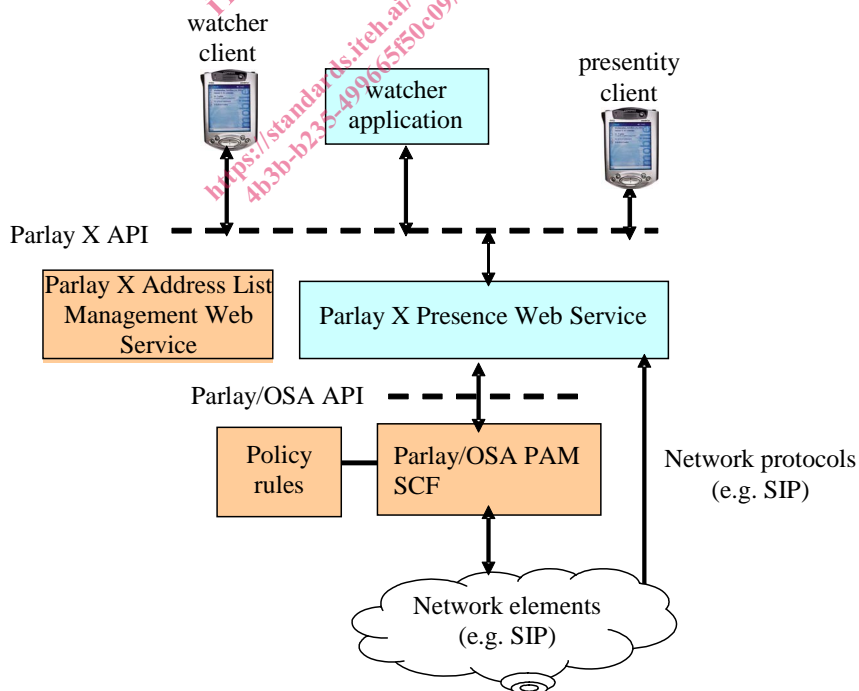


Figure 1: Presence web service environment

4.1 Relationship to Similar or Supplanted Specifications

The most important relations are to:

- Parlay X 2 Terminal Status Web Service [10] and Parlay X 2 Terminal Location Web Service [11]: Both services deal with information that could be considered part of the user's presence information. Communication abilities can be derived from terminal status information, and the user's placetype can be derived from his location.
- Parlay/OSA PAM [4]: The Parlay/OSA Presence and Availability specification can be considered the big brother of the present document. While Parlay X 2 Presence stays behind Parlay/OSA PAM in terms of flexibility and power - especially concerning attributes and management interfaces - it also extends PAM by introducing end-to-end authorization. The present document aims to be mappable to Parlay/OSA PAM.
- SIP SIMPLE [5]: The present document aims to be mappable to the SIP/SIMPLE architecture.
- XMPP (Jabber) (see Bibliography): Many principles of XMPP have been adopted, especially the end-to-end authorization.
- IETF Rich Presence (see Bibliography). The set of attributes the present document specifies is closely aligned with the IETF's Rich Presence ideas.
- Group Management [7]: Presence of groups is supported by the present document, however their creation and manipulation has to be done using the Parlay X 2 Address List Management Web Service. In the 3GPP presence context, contact lists and group manipulation is done with the XCAP protocol (see Bibliography).

5 Namespaces

The PresenceConsumer interface uses the namespace:

http://www.csapi.org/wsd/parlayx/presence/consumer/v2_5

The PresenceNotification interface uses the namespace:

http://www.csapi.org/wsd/parlayx/presence/notification/v2_4

The PresenceSupplier interface uses the namespace:

http://www.csapi.org/wsd/parlayx/presence/supplier/v2_5

The data types are defined in the namespace:

http://www.csapi.org/schema/parlayx/presence/v2_4

The "xsd" namespace is used in the present document to refer to the XML Schema data types defined in XML Schema [2]. The use of the name "xsd" is not semantically significant.

6 Sequence diagrams

6.1 Interface flow overview

The sequence diagram shows the interactions in case both watcher application and presentity are Web Service clients. Compared to the SIP interactions, the subscription notification is separated from the delivery of presence information itself. Based on the subscription result, the watcher can select the polling or notification mode for presence events. Changes in the authorization of presence attributes are propagated to the watchers via the **notifySubscription()** operation, the blocking of a subscription by the presentity is propagated via a **subscriptionEnded** operation.

The sequence diagram does not show the internal communication within the presence server. It is assumed that the Presence Consumer and Supplier interfaces are implemented by the same instance. If an implementer of the API find other solutions preferable, he has to take care of the internal communication himself.

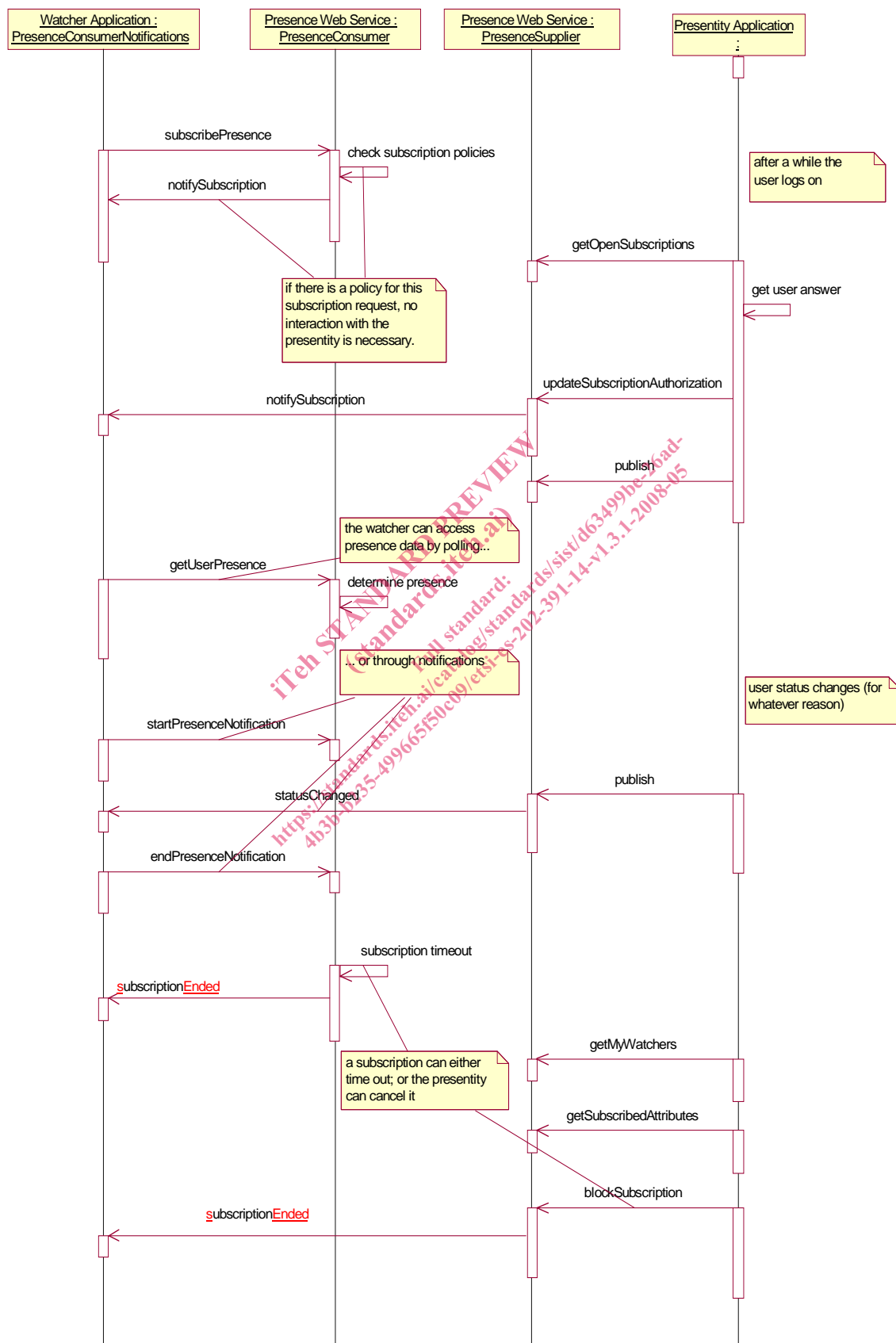


Figure 2: Message interaction overview