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del: Mobilnost SCF

Open Service Access (OSA); Application Programming Interface (API); Part 6: Mobility
SCF (Parlay 3)

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Open Service Access (OSA); Application Programming Interface (API); Part 6: Mobility SCF (Parlay 3)



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Contents

| | |
|---------------------------------------------------------------------|----|
| Intellectual Property Rights | 7 |
| Foreword..... | 7 |
| 1 Scope | 8 |
| 2 References | 8 |
| 3 Definitions and abbreviations..... | 8 |
| 3.1 Definitions | 8 |
| 3.2 Abbreviations | 8 |
| 4 Mobility SCF..... | 9 |
| 4.1 General requirements on support of methods..... | 9 |
| 5 Sequence Diagrams | 9 |
| 5.1 User Location Sequence Diagrams..... | 9 |
| 5.1.1 User Location Interrogation - Triggered Request | 9 |
| 5.1.2 User Location Interrogation - Periodic Request..... | 11 |
| 5.1.3 User Location Interrogation - Parameter Error | 12 |
| 5.1.4 User Location Interrogation - Network Error | 12 |
| 5.1.5 User Location Interrogation - Interactive Request..... | 13 |
| 5.2 User Location Camel Sequence Diagrams | 14 |
| 5.2.1 User Location Camel Interrogation - Triggered Request..... | 14 |
| 5.2.2 User Location Camel Interrogation - Periodic Request | 15 |
| 5.2.3 User Location Camel Interrogation - Parameter Error | 15 |
| 5.2.4 User Location Camel Interrogation - Network Error | 16 |
| 5.2.5 User Location Camel Interrogation - Interactive Request | 17 |
| 5.3 User Location Emergency Sequence Diagrams | 18 |
| 5.3.1 Subscription and Network Induced Location Reports | 18 |
| 5.3.2 Network Induced Location Reports | 19 |
| 5.3.3 Interactive Request Parameter Error | 19 |
| 5.3.4 Interactive Request Network Error | 20 |
| 5.3.5 Interactive Location Request | 20 |
| 5.4 User Status Sequence Diagrams | 21 |
| 5.4.1 Triggered Reporting..... | 21 |
| 5.4.2 Interactive Request Parameter Error | 22 |
| 5.4.3 Interactive Request Network Error | 22 |
| 5.4.4 Interactive Request | 23 |
| 6 Class Diagrams..... | 24 |
| 6.1 User Location Class Diagrams | 24 |
| 6.2 User Location Camel Class Diagrams..... | 25 |
| 6.3 User Location Emergency Class Diagrams | 26 |
| 6.4 User Status Class Diagrams..... | 27 |
| 7 The Service Interface Specifications | 27 |
| 7.1 Interface Specification Format | 27 |
| 7.1.1 Interface Class | 27 |
| 7.1.2 Method descriptions..... | 28 |
| 7.1.3 Parameter descriptions..... | 28 |
| 7.1.4 State Model..... | 28 |
| 7.2 Base Interface..... | 28 |
| 7.2.1 Interface Class IpInterface | 28 |
| 7.3 Service Interfaces | 28 |
| 7.3.1 Overview | 28 |
| 7.4 Generic Service Interface | 28 |
| 7.4.1 Interface Class IpService | 28 |
| 8 Mobility Interface Classes..... | 30 |

| | | |
|---------|--------------------------------------------------------|----|
| 8.1 | User Location Interface Classes | 30 |
| 8.1.1 | Interface Class IpUserLocation..... | 30 |
| 8.1.2 | Interface Class IpAppUserLocation..... | 33 |
| 8.1.3 | Interface Class IpTriggeredUserLocation..... | 36 |
| 8.1.4 | Interface Class IpAppTriggeredUserLocation..... | 37 |
| 8.2 | User Location Camel Interface Classes..... | 38 |
| 8.2.1 | Interface Class IpUserLocationCamel..... | 38 |
| 8.2.2 | Interface Class IpAppUserLocationCamel..... | 42 |
| 8.3 | User Location Emergency Interface Classes..... | 45 |
| 8.3.1 | Interface Class IpUserLocationEmergency..... | 45 |
| 8.3.2 | Interface Class IpAppUserLocationEmergency..... | 47 |
| 8.4 | User Status Interface Classes..... | 48 |
| 8.4.1 | Interface Class IpAppUserStatus..... | 48 |
| 8.4.2 | Interface Class IpUserStatus..... | 50 |
| 9 | State Transition Diagrams | 52 |
| 9.1 | User Location..... | 52 |
| 9.2 | User Location Camel..... | 52 |
| 9.2.1 | State Transition Diagrams for IpUserLocationCamel..... | 52 |
| 9.2.1.1 | Active State..... | 53 |
| 9.3 | User Location Emergency..... | 53 |
| 9.4 | User Status..... | 54 |
| 9.4.1 | State Transition Diagrams for IpUserStatus..... | 54 |
| 9.4.1.1 | Active State..... | 54 |
| 10 | Service Properties..... | 54 |
| 10.1 | Mobility Properties..... | 54 |
| 10.1.1 | Emergency Application Subtypes..... | 54 |
| 10.1.2 | Value Added Application Subtypes..... | 55 |
| 10.1.3 | PLMN Operator Application Subtypes..... | 55 |
| 10.1.4 | Lawful Intercept Application Subtypes..... | 55 |
| 10.1.5 | Altitude Obtainable..... | 55 |
| 10.1.6 | Location Methods..... | 55 |
| 10.1.7 | Priorities..... | 56 |
| 10.1.8 | Max Interactive Requests..... | 56 |
| 10.1.9 | Max Triggered Users..... | 56 |
| 10.1.10 | Max Periodic Users..... | 56 |
| 10.1.11 | Min Periodic Interval Duration..... | 56 |
| 10.2 | User Location Service Properties..... | 56 |
| 10.3 | User Location Camel Service Properties..... | 57 |
| 10.4 | User Location Emergency Service Properties..... | 57 |
| 10.5 | User Status Service Properties..... | 58 |
| 11 | Data Definitions | 58 |
| 11.1 | Common Mobility Data Definitions..... | 58 |
| 11.1.1 | TpGeographicalPosition..... | 58 |
| 11.1.2 | TpLocationPriority..... | 59 |
| 11.1.3 | TpLocationRequest..... | 60 |
| 11.1.4 | TpLocationResponseIndicator..... | 60 |
| 11.1.5 | TpLocationResponseTime..... | 60 |
| 11.1.6 | TpLocationType..... | 60 |
| 11.1.7 | TpLocationUncertaintyShape..... | 61 |
| 11.1.8 | TpMobilityDiagnostic..... | 61 |
| 11.1.9 | TpMobilityError..... | 61 |
| 11.1.10 | TpMobilityStopAssignmentData..... | 62 |
| 11.1.11 | TpMobilityStopScope..... | 62 |
| 11.1.12 | TpTerminalType..... | 62 |
| 11.2 | User Location Data Definitions..... | 62 |
| 11.2.1 | IpUserLocation..... | 62 |
| 11.2.2 | IpUserLocationRef..... | 62 |
| 11.2.3 | IpAppUserLocation..... | 62 |
| 11.2.4 | IpAppUserLocationRef..... | 62 |
| 11.2.5 | IpTriggeredUserLocation..... | 62 |

| | | |
|-------------------------------|--------------------------------------------------|-----------|
| 11.2.6 | IpTriggeredUserLocationRef | 63 |
| 11.2.7 | IpAppTriggeredUserLocation | 63 |
| 11.2.8 | IpAppTriggeredUserLocationRef | 63 |
| 11.2.9 | TpUIExtendedData | 63 |
| 11.2.10 | TpUIExtendedDataSet | 63 |
| 11.2.11 | TpUserLocationExtended | 63 |
| 11.2.12 | TpUserLocationExtendedSet | 63 |
| 11.2.13 | TpLocationTrigger | 64 |
| 11.2.14 | TpLocationTriggerSet | 64 |
| 11.2.15 | TpLocationTriggerCriteria | 64 |
| 11.2.16 | TpUserLocation | 64 |
| 11.2.17 | TpUserLocationSet | 64 |
| 11.3 | User Location Camel Data Definitions | 64 |
| 11.3.1 | IpUserLocationCamel | 64 |
| 11.3.2 | IpUserLocationCamelRef | 64 |
| 11.3.3 | IpAppUserLocationCamel | 64 |
| 11.3.4 | IpAppUserLocationCamelRef | 65 |
| 11.3.5 | TpLocationCellIDOrLAI | 65 |
| 11.3.6 | TpLocationTriggerCamel | 65 |
| 11.3.7 | TpUserLocationCamel | 65 |
| 11.3.8 | TpUserLocationCamelSet | 66 |
| 11.4 | User Location Emergency Data Definitions | 66 |
| 11.4.1 | IpUserLocationEmergency | 66 |
| 11.4.2 | IpUserLocationEmergencyRef | 66 |
| 11.4.3 | IpAppUserLocationEmergency | 66 |
| 11.4.4 | IpAppUserLocationEmergencyRef | 66 |
| 11.4.5 | TpIMEI | 66 |
| 11.4.6 | TpNaESRD | 66 |
| 11.4.7 | TpNaESRK | 66 |
| 11.4.8 | TpUserLocationEmergencyRequest | 67 |
| 11.4.9 | TpUserLocationEmergency | 67 |
| 11.4.10 | TpUserLocationEmergencyTrigger | 67 |
| 11.5 | User Status Data Definitions | 68 |
| 11.5.1 | IpUserStatus | 68 |
| 11.5.2 | IpUserStatusRef | 68 |
| 11.5.3 | IpAppUserStatus | 68 |
| 11.5.4 | IpAppUserStatusRef | 68 |
| 11.5.5 | TpUserStatus | 68 |
| 11.5.6 | TpUserStatusSet | 68 |
| 11.5.7 | TpUserStatusIndicator | 68 |
| 11.6 | Units and Validations of Parameters | 68 |
| 12 | Exception Classes | 69 |
| Annex A (normative): | OMG IDL Description of Mobility SCF | 70 |
| Annex B (informative): | Contents of 3GPP OSA R4 Mobility | 71 |
| Annex C (informative): | Record of changes | 72 |
| C.1 | Interfaces | 72 |
| C.1.1 | New | 72 |
| C.1.2 | Deprecated | 72 |
| C.1.3 | Removed | 72 |
| C.2 | Methods | 72 |
| C.2.1 | New | 72 |
| C.2.2 | Deprecated | 72 |
| C.2.3 | Modified | 73 |
| C.2.4 | Removed | 73 |
| C.3 | Data Definitions | 73 |
| C.3.1 | New | 73 |

| | | |
|---------|--------------------|----|
| C.3.2 | Modified | 73 |
| C.3.3 | Removed | 73 |
| C.4 | Service Properties | 73 |
| C.4.1 | New | 73 |
| C.4.2 | Deprecated | 74 |
| C.4.3 | Modified | 74 |
| C.4.4 | Removed | 74 |
| C.5 | Exceptions | 74 |
| C.5.1 | New | 74 |
| C.5.2 | Modified | 74 |
| C.5.3 | Removed | 74 |
| C.6 | Others | 74 |
| History | | 75 |

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Foreword

This ETSI Standard (ES) has been produced by ETSI Technical Committee Services and Protocols for Advanced Networks (SPAN).

The present document is part 6 of a multi-part deliverable covering Open Service Access (OSA); Application Programming Interface (API), as identified below. The API specification (ES 201 915) is structured in the following parts:

- Part 1: "Overview";
- Part 2: "Common Data Definitions";
- Part 3: "Framework";
- Part 4: "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".

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 3.3 set of specifications.

A subset of the present document is in 3GPP TS 29.198-6 V4.5.0 (Release 4).

1 Scope

The present document is part 6 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 Mobility Service Capability Feature (SCF) aspects of the interface. All aspects of the Mobility 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

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 **(standards.iteh.ai)**

The references listed in clause 2 of ES 201 915-1 contain provisions which, through reference in this text, constitute provisions of the present document.

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ETSI ES 201 915-1: "Open Service Access (OSA); Application Programming Interface (API); Part 1: Overview (Parlay 3)".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in ES 201 915-1 apply.

3.2 Abbreviations

For the purposes of the present document, the abbreviations defined in ES 201 915-1 apply.

4 Mobility SCF

The following clauses describe each aspect of the Mobility Service Capability Feature (SCF).

The order is as follows:

- The Sequence diagrams give the reader a practical idea of how each of the SCFs is implemented.
- The Class relationships clause show how each of the interfaces applicable to the SCF, relate to one another.
- The Interface specification clause describes in detail each of the interfaces shown within the Class diagram part.
- The State Transition Diagrams (STD) show the transition between states in the SCF. The states and transitions are well-defined; either methods specified in the Interface specification or events occurring in the underlying networks cause state transitions.
- The Data Definitions clause show a detailed expansion of each of the data types associated with the methods within the classes. Note that some data types are used in other methods and classes and are therefore defined within the Common Data types part of the present document.

4.1 General requirements on support of methods

An implementation of this API which supports or implements a method described in the present document, shall support or implement the functionality described for that method, for at least one valid set of values for the parameters of that method.

Where a method is not supported by an implementation of a Service interface, the exception P_METHOD_NOT_SUPPORTED shall be returned to any call of that method.

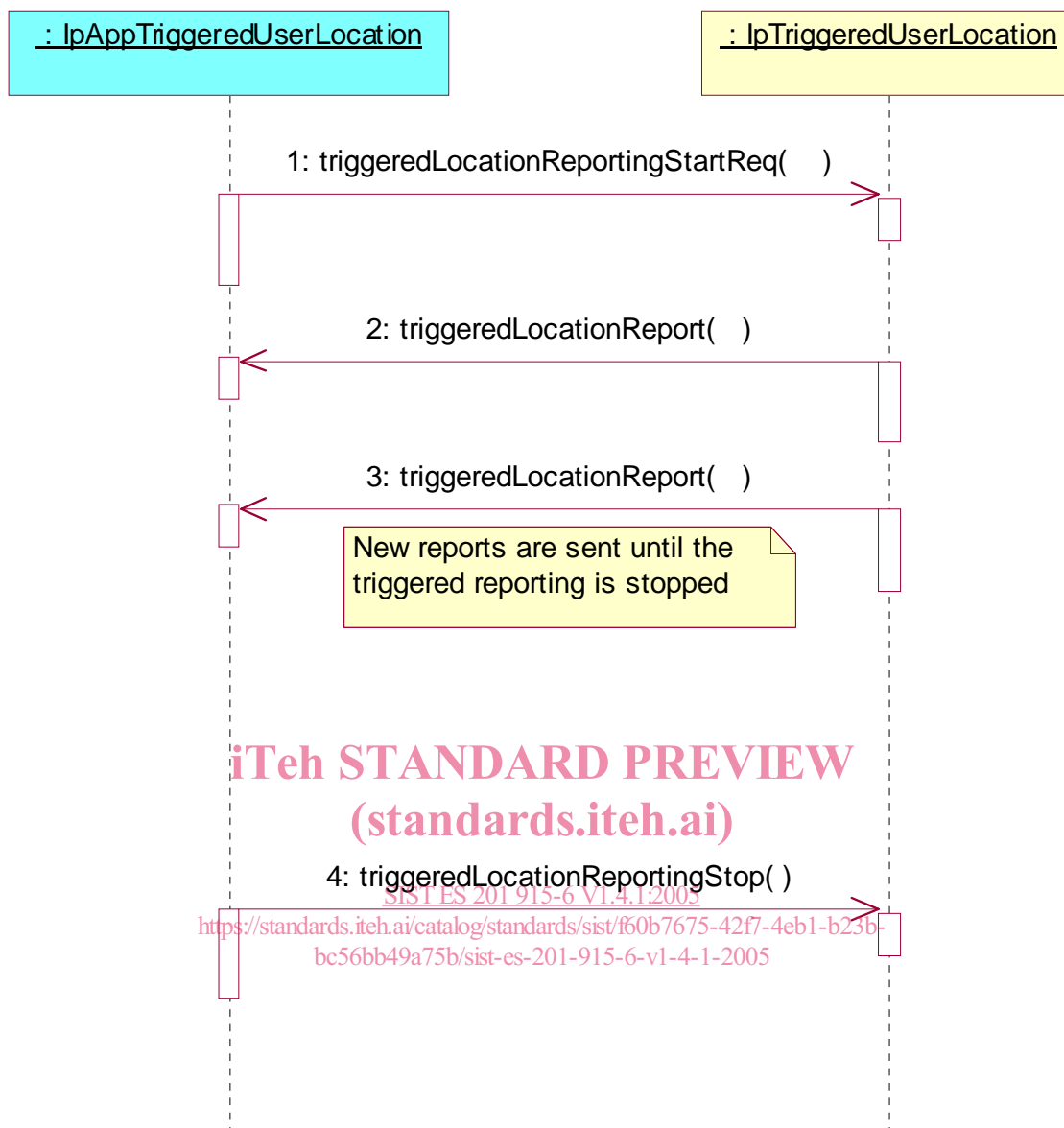
Where a method is not supported by an implementation of an Application interface, a call to that method shall be possible, and no exception shall be returned.

5 Sequence Diagrams

5.1 User Location Sequence Diagrams

5.1.1 User Location Interrogation - Triggered Request

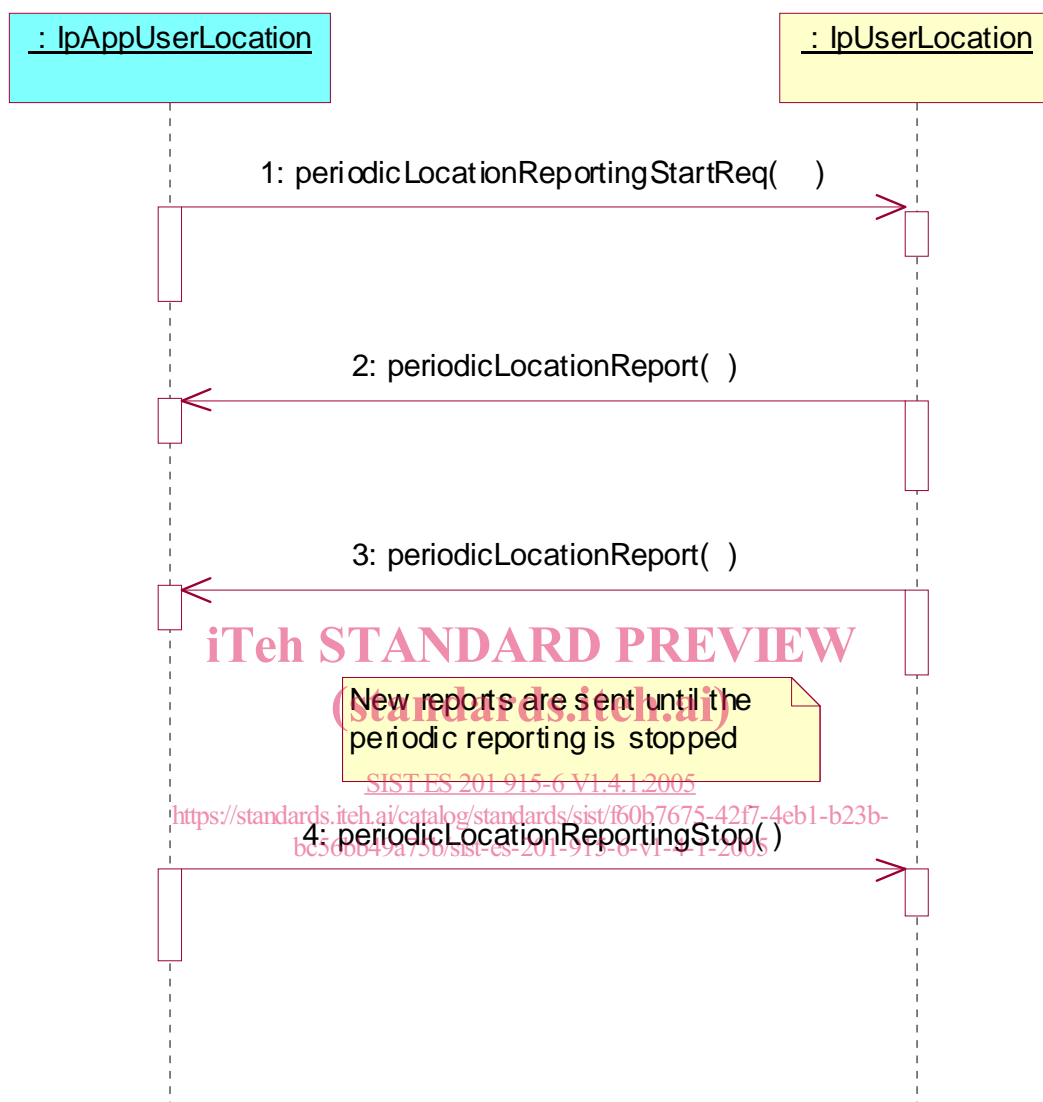
The following sequence diagram shows how an application requests triggered location reports from the User Location service. When users location changes, the service reports this to the application.



- 1: This message is used to start triggered location reporting for one or several users.
- 2: When the trigger condition is fulfilled then this message passes the location of the affected user to its callback object.
- 3: This is repeated until the application stops triggered location reporting (see next message).
- 4: This message is used to stop triggered location reporting.

5.1.2 User Location Interrogation - Periodic Request

The following sequence diagram shows how an application requests periodic location reports from the User Location service.



- 1: This message is used to start periodic location reporting for one or several users.
- 2: This message passes the location of one or several users to its callback object.
- 3: This message passes the location of one or several users to its callback object.

This is repeated at regular intervals until the application stops periodic location reporting (see next message).

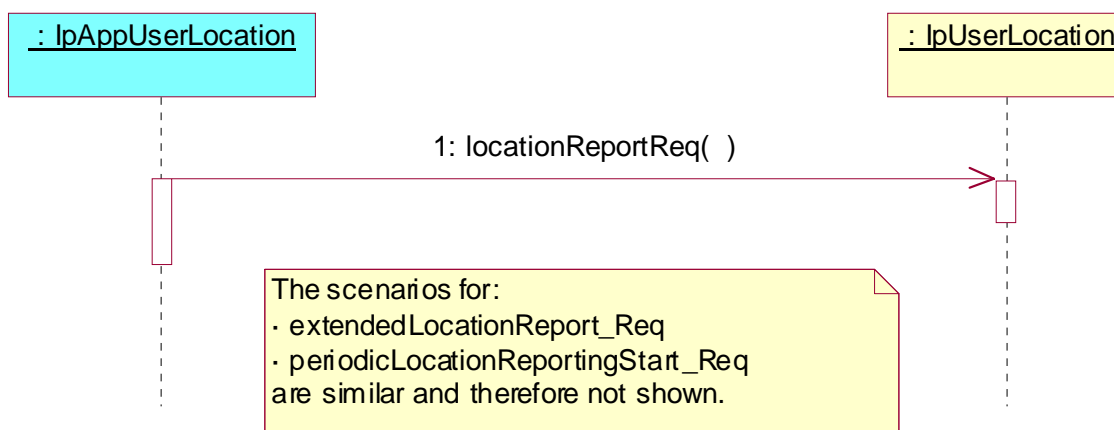
- 4: This message is used to stop periodic location reporting.

5.1.3 User Location Interrogation - Parameter Error

The following sequence diagram show a scenario where the application is requesting a location report from the User Location service but there is at least one error in the parameters that is detected by the service. The scenarios for:

- extendedLocationReportReq
- periodicLocationReportingStartReq

are similar and therefore not shown.



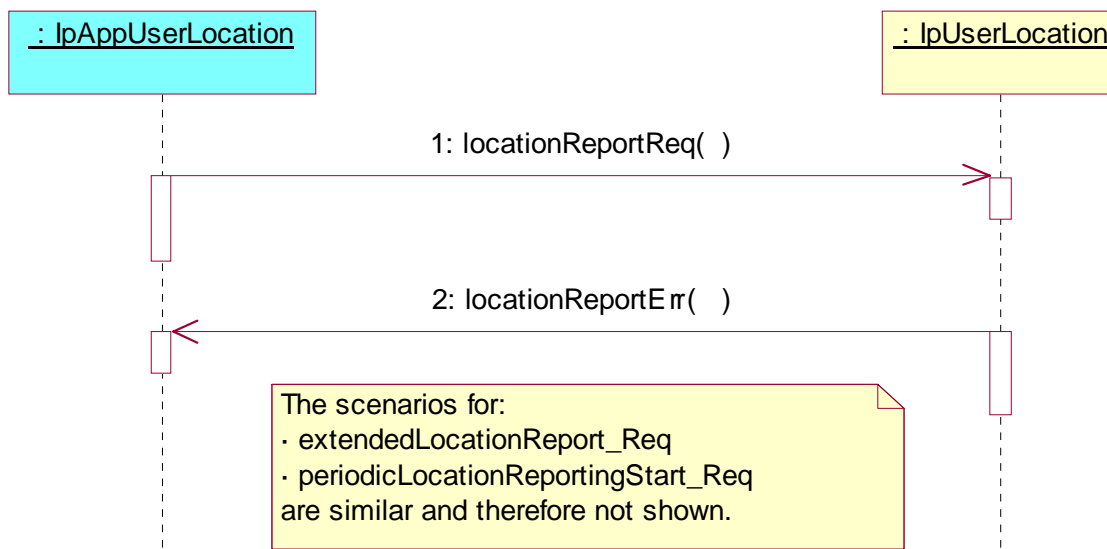
- 1: This message is used to request the location of one or several users, but the service returns an error and the execution of the request is aborted.

5.1.4 User Location Interrogation - Network Error

The following sequence diagram shows a scenario where the application is requesting a location report from the User Location service, but a network error occurs. The scenarios for:

- extendedLocationReportReq
- periodicLocationReportingStartReq

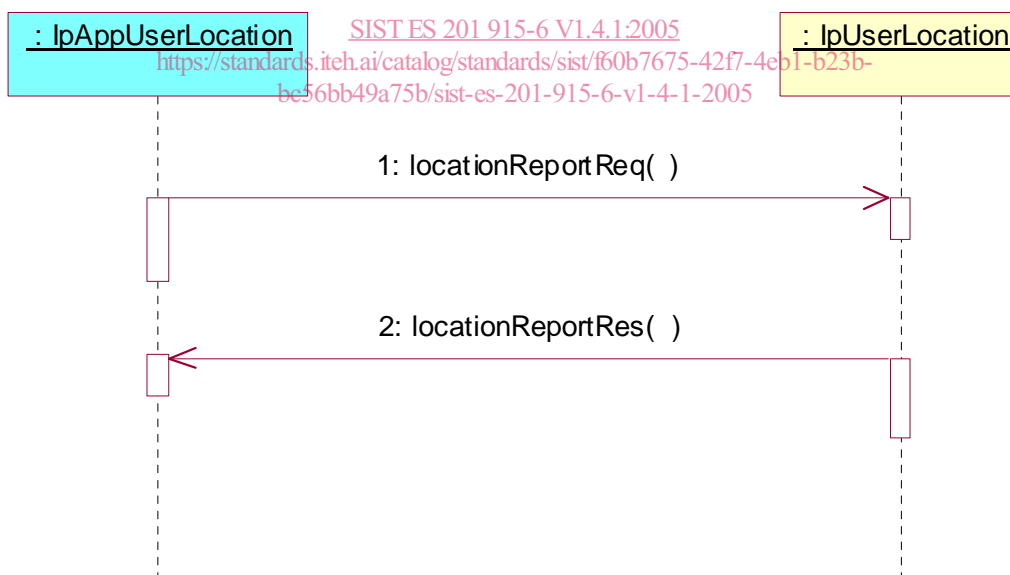
are similar and therefore not shown.



- 1: This message is used to request the location of one or several users.
- 2: This message passes information about the error in the location request from the network to the callback object.

5.1.5 User Location Interrogation - Interactive Request

The following sequence diagram shows how an application requests a location report from the User Location service.



- 1: This message is used to request the location of one or several users.
- 2: This message passes the result of the location request for one or several users to its callback object.