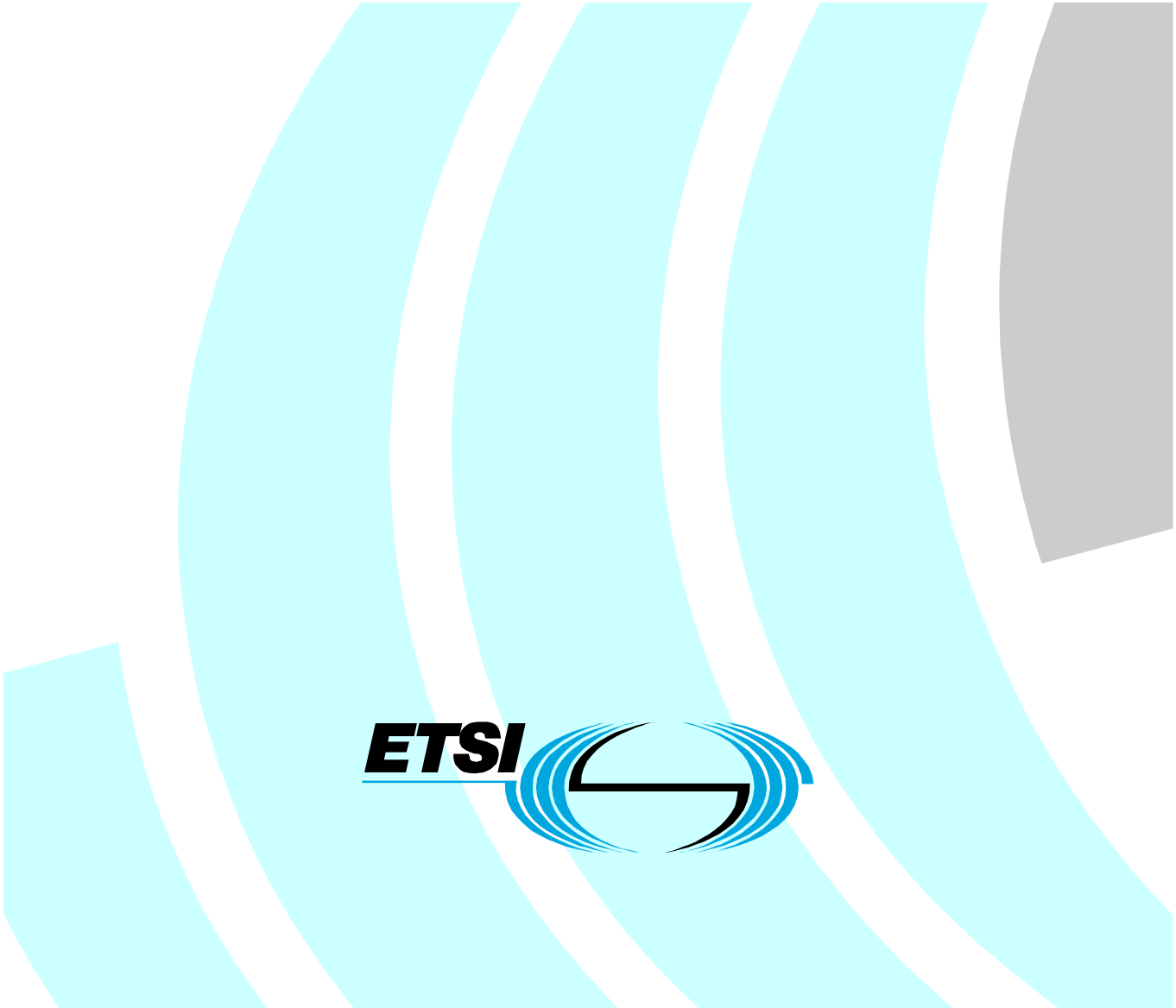
ETSI ES 202 196-6 V1.1.1 (2003-08)

ETSI Standard

Open Service Access (OSA); Application Programming Interface (API); Test Suite Structure and Test Purposes (TSS&TP); Part 6: Mobility SCF



Reference
DES/SPAN-120088-6

Keywords
API, OSA, TSS&TP

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

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Contents

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (http://webapp.etsi.org/IPR/home.asp).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

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. Full details of the entire series can be found in part 1 [6].

To evaluate conformance of a particular implementation, it is necessary to have a set of test purposes to evaluate the dynamic behaviour of the Implementation Under Test (IUT). The specification containing those test purposes is called a Test Suite Structure and Test Purposes (TSS&TP) specification.

1 Scope

The present document provides the Test Suite Structure and Test Purposes (TSS&TP) specification for the Mobility SCF of the Application Programming Interface (API) for Open Service Access (OSA) defined in ES 201 915-6 [1] in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-2 [4] and ETS 300 406 [5].

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 and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at http://docbox.etsi.org/Reference.

[1] ETSI ES 201 915-6: "Open Service Access (OSA); Application Programming Interface (API); Part 6: Mobility SCF (Parlay 3)".

[2] ETSI ES 202 170: "Open Service Access (OSA); Application Programming Interface (API); Implementation Conformance Statement (ICS) proforma specification for Framework and SCFs".

[3] ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".

[4] ISO/IEC 9646-2: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract Test Suite specification".

[5] ETSI ETS 300 406: "Methods for testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

[6] ETSI ES 202 196-1: "Open Service Access (OSA); Application Programming Interface (API); Test Suite Structure and Test Purposes (TSS&TP); Part 1: Overview".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in ES 201 915-6 [1], ISO/IEC 9646-1 [3] and ISO/IEC 9646-2 [4] and the following apply:

abstract test case: Refer to ISO/IEC 9646-1 [3].

Abstract Test Method (ATM): Refer to ISO/IEC 9646-1 [3].

Abstract Test Suite (ATS): Refer to ISO/IEC 9646-1 [3].

Implementation Under Test (IUT): Refer to ISO/IEC 9646-1 [3].

Lower Tester (LT): Refer to ISO/IEC 9646-1 [3].

Implementation Conformance Statement (ICS): Refer to ISO/IEC 9646-1 [3].

ICS proforma: Refer to ISO/IEC 9646-1 [3].

Implementation eXtra Information for Testing (IXIT): Refer to ISO/IEC 9646-1 [3].

IXIT proforma: Refer to ISO/IEC 9646-1 [3].

Test Purpose (TP): Refer to ISO/IEC 9646-1 [3].

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

API	Application Programming Interface
ATM	Abstract Test Method
ATS	Abstract Test Suite
ICS	Implementation Conformance Statement
IUT	Implementation Under Test
IXIT	Implementation eXtra Information for Testing
LT	Lower Tester
M	Mobility
OSA	Open Service Access
SUT	System Under Test
TP	Test Purpose
TSS	Test Suite Structure
ULC	User Location Camel
ULE	User Location Emergency
US	User Status

4 Test Suite Structure (TSS)

Mobility (M)

- User Location
  - IpUserLocation interface (UL) (01)
  - IpTrigerredUserLocation interface (TUL) (02)
- User Location Camel (ULC) (03)
- User Location Emergency (ULE) (04)
- User Status (US) (05)

5 Test Purposes (TP)

5.1 Introduction

For each test requirement a TP is defined.

5.1.1 TP naming convention

TPs are numbered, starting at 01, within each group. Groups are organized according to the TSS. Additional references are added to identify the actual test suite (see table 1).

Table 1: TP identifier naming convention scheme

Identifier: <suite_id>_<group>_<nnn>		
<suite_id>	= SCG name:	"M" for **M**obility part of Mobility SCF
<group>	= group number:	two character field representing the group reference according to TSS
<nn>	= sequential number:	(01-99)

5.1.2 Source of TP definition

The TPs are based on ES 201 915-6 [1].

5.1.3 Test strategy

As the base standard ES 201 915-6 [1] contains no explicit requirements for testing, the TPs were generated as a result of an analysis of the base standard and the PICS specification ES 202 170 [2].

The TPs are only based on conformance requirements related to the externally observable behaviour of the IUT and are limited to conceivable situations to which a real implementation is likely to be faced (see ETS 300 406 [5]).

5.2 TPs for the Mobility SCF

All PICS items referred to in this clause are as specified in ES 202 170 [2] unless indicated otherwise by another numbered reference.

All parameters specified in method calls are valid unless specified.

The procedures to trigger the SCF to call methods in the application are dependant on the underlying network architecture and are out of the scope of this test specification. Those method calls are preceded by the words "Triggered action".

5.2.1 User Location

5.2.1.1 IpUserLocation interface

Test M_UL_01

Summary: all methods, successful

Reference: ES 201 915-6 [1], clause 8.1

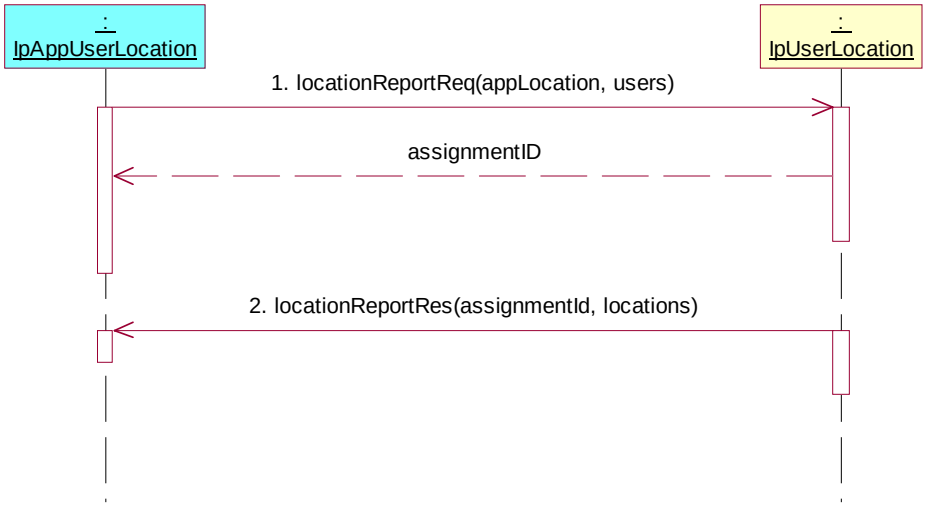
Selection: locationReportReq method supported - PICS item: [2] UL1

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **locationReportReq()**
   Parameters: appLocation, users
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **locationReportRes()** method on the tester's (Application) **IpAppUserLocation** interface.
   Parameters: assignmentId, locations



Test M_UL_02

Summary: locationReportReq, locationReportErr

Reference: ES 201 915-6 [1], clause 8.1

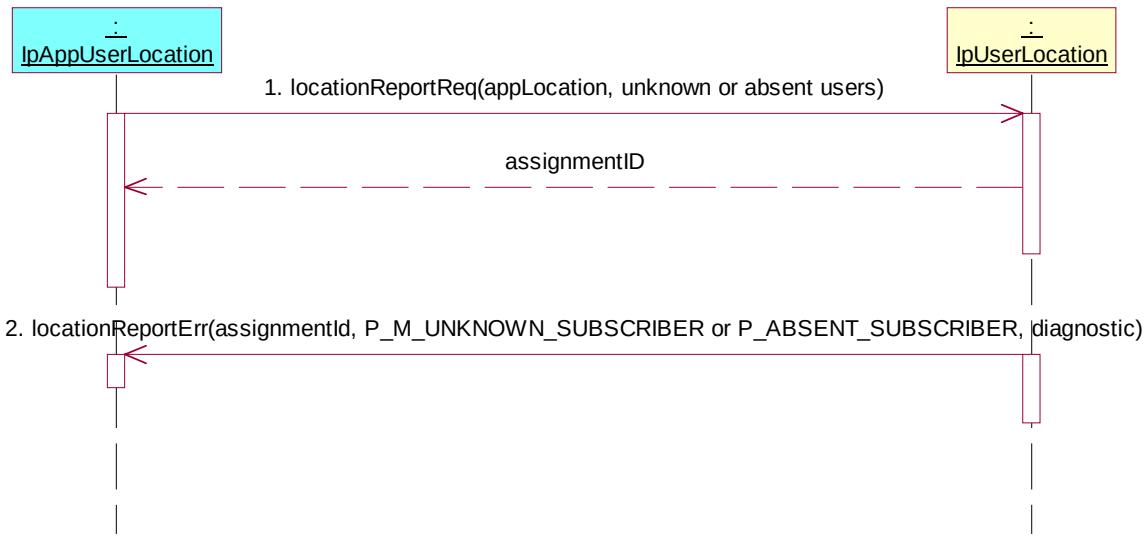
Selection: locationReportReq method supported - PICS item: [2] UL1

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **locationReportReq()**
   Parameters: appLocation, users with unknown or absent subscriber
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **locationReportErr()** method on the tester's (Application) **IpAppUserLocation** interface.
   Parameters: assignmentId, cause indicating P_M_UNKNOWN_SUBSCRIBER or P_ABSENT_SUBSCRIBER, diagnostic



Test M_UL_03

Summary: all methods, successful

Reference: ES 201 915-6 [1], clause 8.1

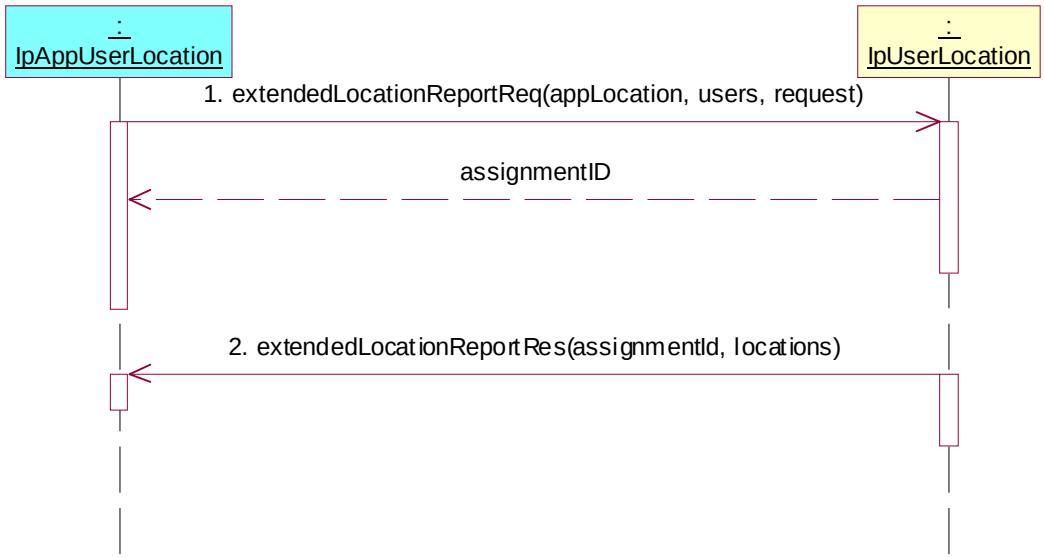
Selection: extendedLocationReportReq method supported - PICS item: [2] UL2

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **extendedLocationReportReq()**
   Parameters: appLocation, users, request
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **extendedLocationReportRes()** method on the tester's (Application) **IpAppUserLocation** interface.
   Parameters: assignmentId, locations



Test M_UL_04

Summary: extendedLocationReportReq, extendedLocationReportErr

Reference: ES 201 915-6 [1], clause 8.1

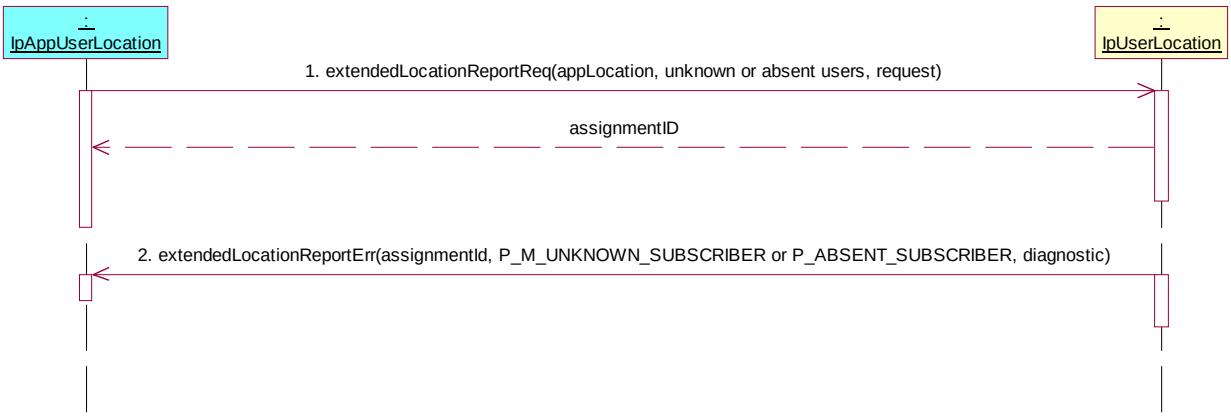
Selection: extendedLocationReportReq method supported - PICS item: [2] UL2

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **extendedLocationReportReq()**
   Parameters: appLocation, users with unknown or absent subscriber, request
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **extendedLocationReportErr()** method on the tester's (Application) **IpAppUserLocation** interface.
   Parameters: assignmentId, cause indicating P_M_UNKNOWN_SUBSCRIBER or P_ABSENT_SUBSCRIBER, diagnostic



Test M_UL_05

Summary: extendedLocationReportReq, P_REQUESTED_ACCURACY_CANNOT_BE_DELIVERED

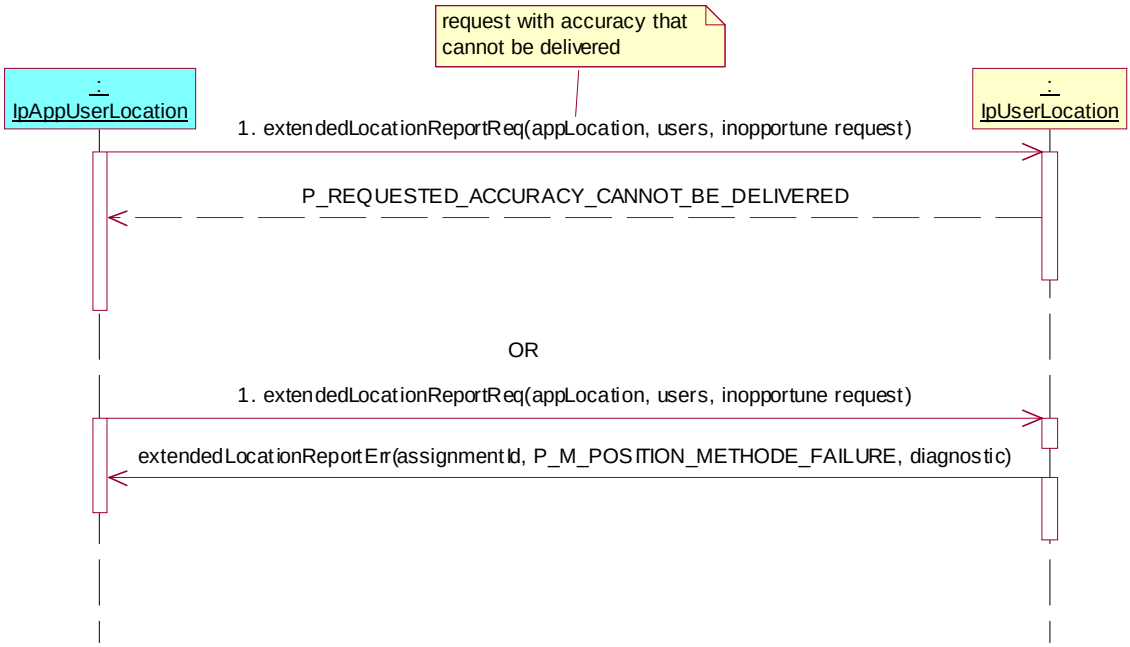
Reference: ES 201 915-6 [1], clause 8.1

Selection: extendedLocationReportReq method supported - PICS item: [2] UL2

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **extendedLocationReportReq()**
   Parameters: appLocation, users, request with accuracy that cannot be delivered
   Check: P_REQUESTED_ACCURACY_CANNOT_BE_DELIVERED is returned, or extendedLocationReportErr() with P_M_POSITION_METHOD_FAILURE value of TpMobilityError, or another suitable exception.



Test M_UL_06

Summary: extendedLocationReportReq, P_REQUESTED_RESPONSE_TIME_CANNOT_BE_DELIVERED

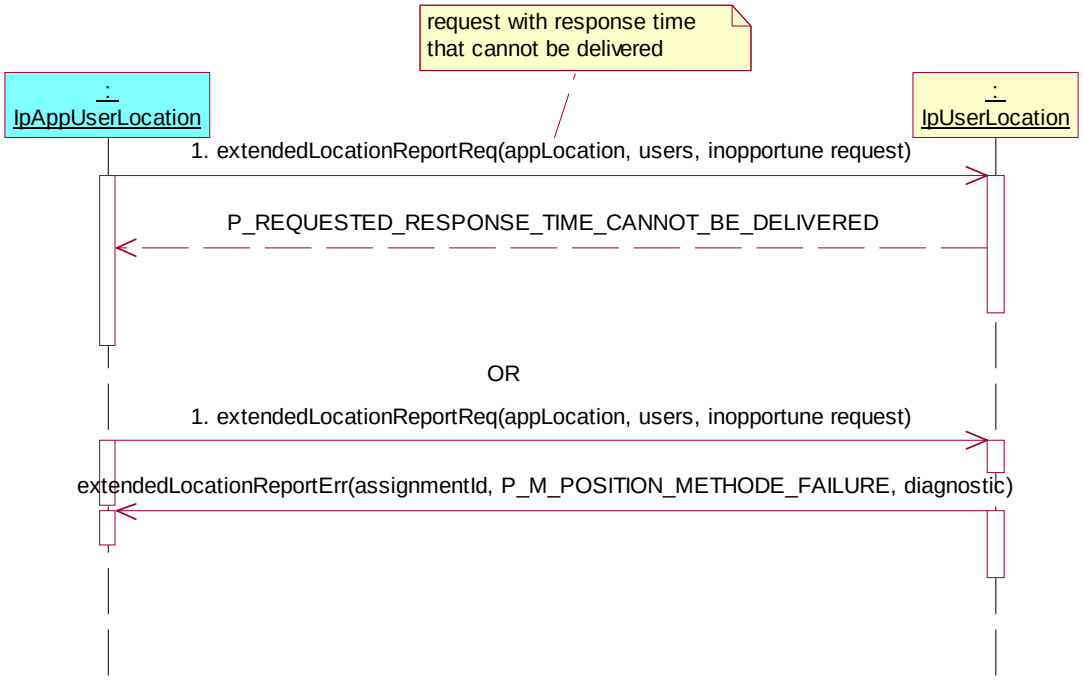
Reference: ES 201 915-6 [1], clause 8.1

Selection: extendedLocationReportReq method supported - PICS item: [2] UL2

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **extendedLocationReportReq()**
   Parameters: appLocation, users, request with response time that cannot be delivered
   Check: P_REQUESTED_RESPONSE_TIME_CANNOT_BE_DELIVERED is returned, or extendedLocationReportErr() with P_M_POSITION_METHOD_FAILURE value of TpMobilityError, or another suitable exception.



Test M_UL_07

Summary: all methods, successful

Reference: ES 201 915-6 [1], clause 8.1

Selection: periodicLocationReportingStartReq method supported - PICS item: [2] UL3

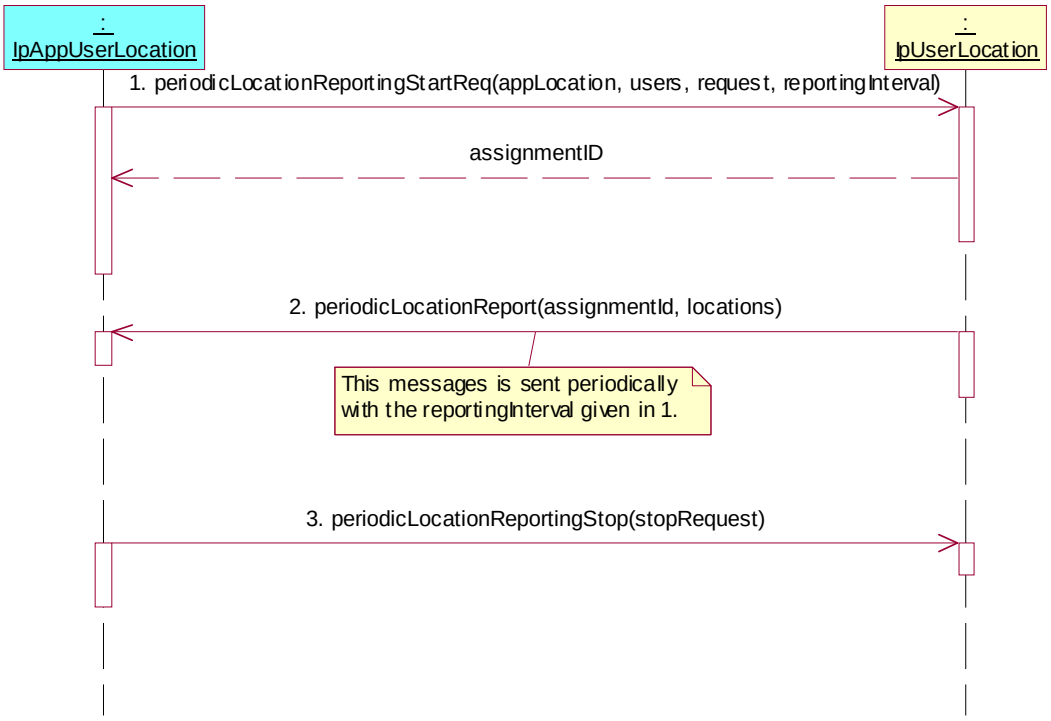
Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **periodicLocationReportingStartReq()**
   Parameters: appLocation, users, request, reportingInterval
   Check: valid value of TpSessionID is returned

2. Triggered action: periodically cause IUT to call **periodicLocationReport()** method on the tester's (Application) **IpAppUserLocation** interface.
   Parameters: assignmentId, locations
   Check: These messages are sent with correct reporting Interval given in 1.

3. Method call **periodicLocationReportingStop()**
   Parameters: stopRequest
   Check: No further periodicLocationReport is sent.



Test M_UL_08

Summary: all methods, unknown or absent subscriber

Reference: ES 201 915-6 [1], clause 8.1

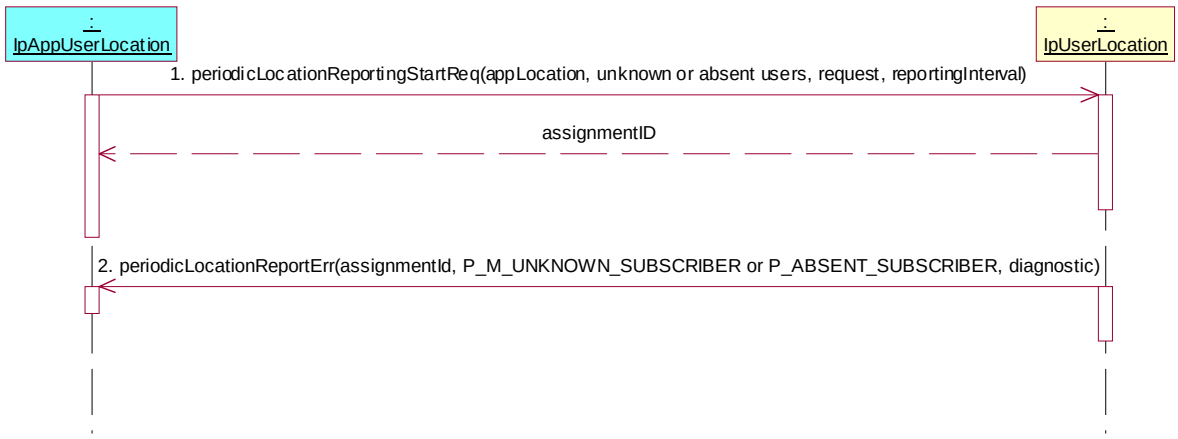
Selection: periodocLocationReportingStartReq method supported - PICS item: [2] UL3

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **periodicLocationReportingStartReq()**
   Parameters: appLocation, users with unknown or absent subscriber, request, reportingInterval
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **periodicLocationReportErr ()** method on the tester's (Application) **IpAppUserLocation** interface.
   Parameters: assignmentId, cause indicating P_M_UNKNOWN_SUBSCRIBER or P_ABSENT_SUBSCRIBER, diagnostic



Test M_UL_09

Summary: periodicLocationReportingStartReq, P_REQUESTED_ACCURACY_CANNOT_BE_DELIVERED

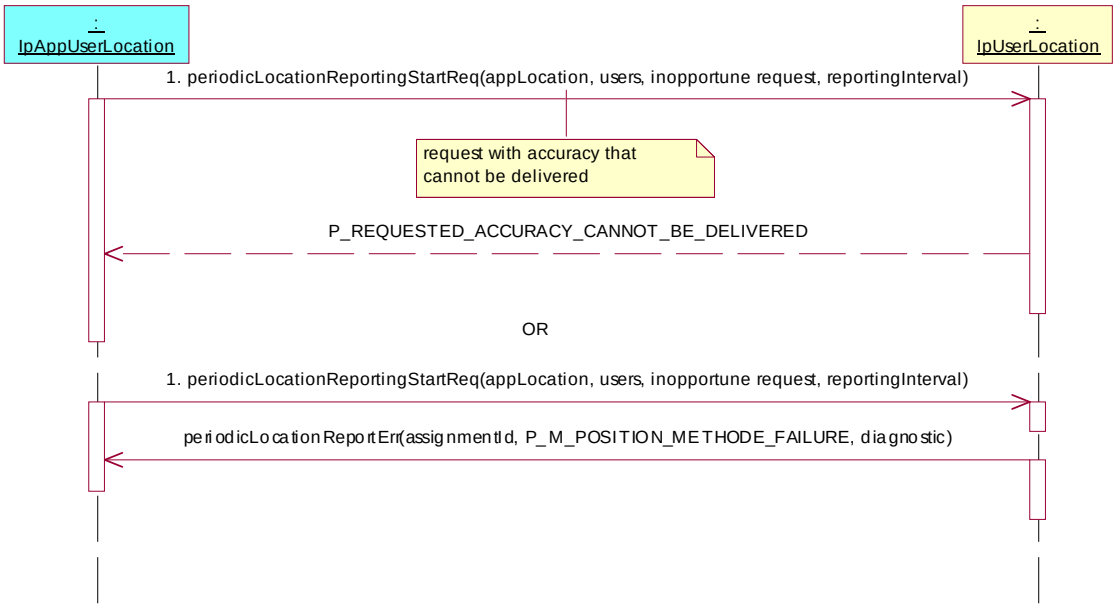
Reference: ES 201 915-6 [1], clause 8.1

Selection: periodocLocationReportingStartReq method supported - PICS item: [2] UL3

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **periodicLocationReportingStartReq ()**
   Parameters: appLocation, users, request with accuracy that cannot be delivered, reportingInterval
   Check: P_REQUESTED_ACCURACY_CANNOT_BE_DELIVERED is returned, or periodicLocationReportErr() with P_M_POSITION_METHOD_FAILURE value of TpMobilityError, or another suitable exception.



Test M_UL_10

Summary: periodicLocationReportingStartReq, P_REQUESTED_RESPONSE_TIME_CANNOT_BE_DELIVERED

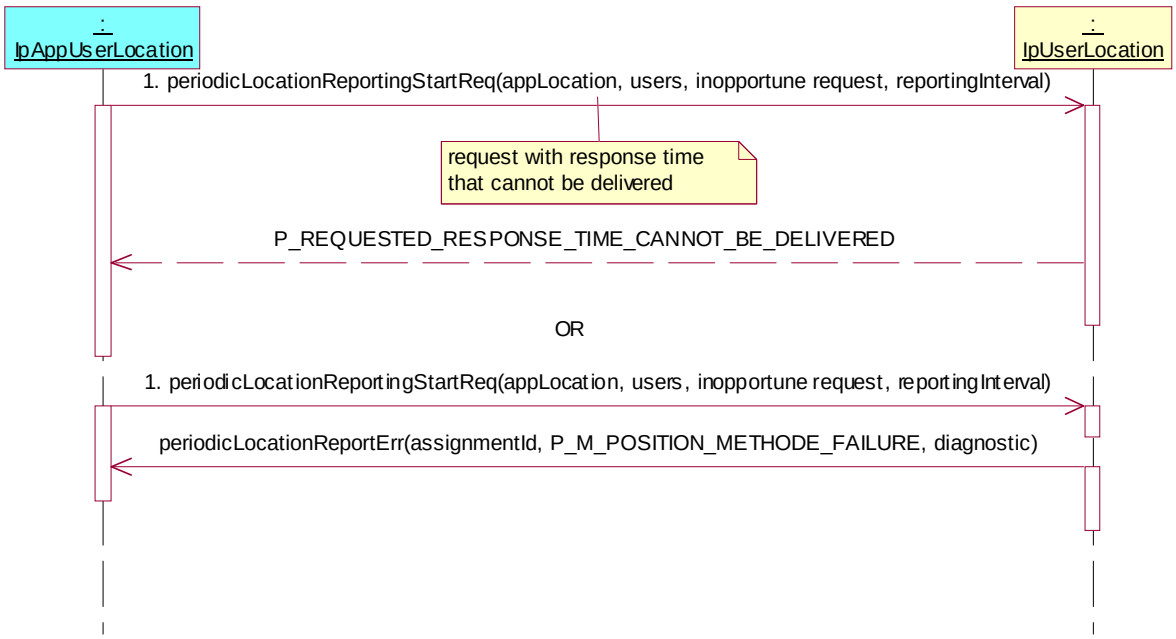
Reference: ES 201 915-6 [1], clause 8.1

Selection: periodocLocationReportingStartReq method supported - PICS item: [2] UL3

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **periodicLocationReportingStartReq ()**
   Parameters: appLocation, users, request with response time that cannot be delivered, reportingInterval
   Check: P_REQUESTED_RESPONSE_TIME_CANNOT_BE_DELIVERED is returned, or periodicLocationReportErr() with P_M_POSITION_METHOD_FAILURE value of TpMobilityError, or another suitable exception.



Test M_UL_11

Summary: periodicLocationReportingStartReq, P_INVALID_REPORTING_INTERVAL

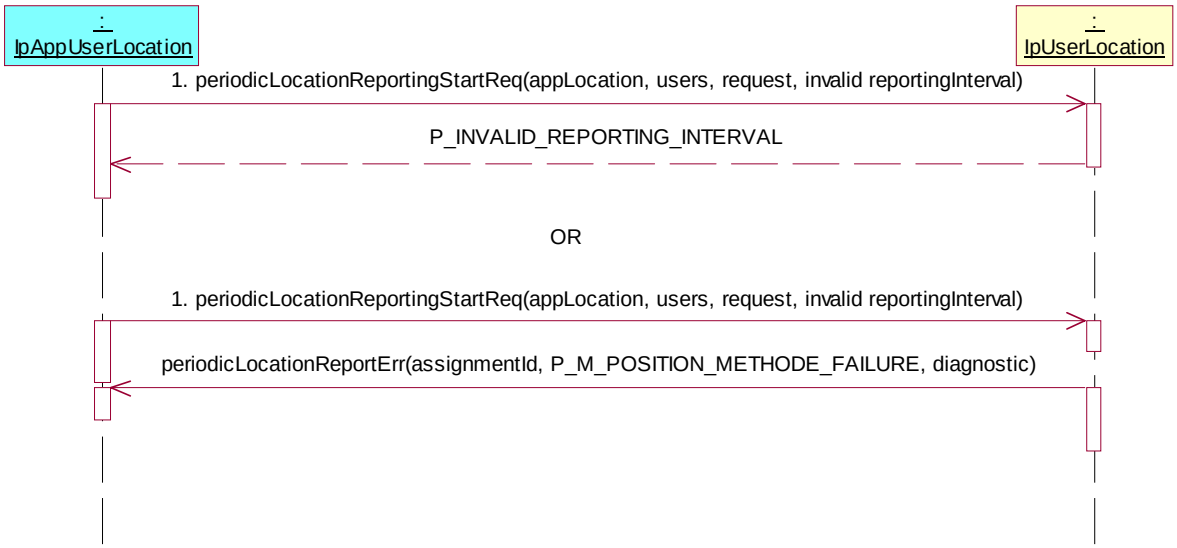
Reference: ES 201 915-6 [1], clause 8.1

Selection: periodocLocationReportingStartReq method supported - PICS item: [2] UL3

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **periodicLocationReportingStartReq ()**
   Parameters: appLocation, users, request, invalid reportingInterval
   Check: P_INVALID_REPORTING_INTERVAL is returned, or periodicLocationReportErr() with P_M_POSITION_METHOD_FAILURE value of TpMobilityError, or another suitable exception.



Test M_UL_12

Summary: periodicLocationReportingStop, P_INVALID_ASSIGNMENT_ID

Reference: ES 201 915-6 [1], clause 8.1

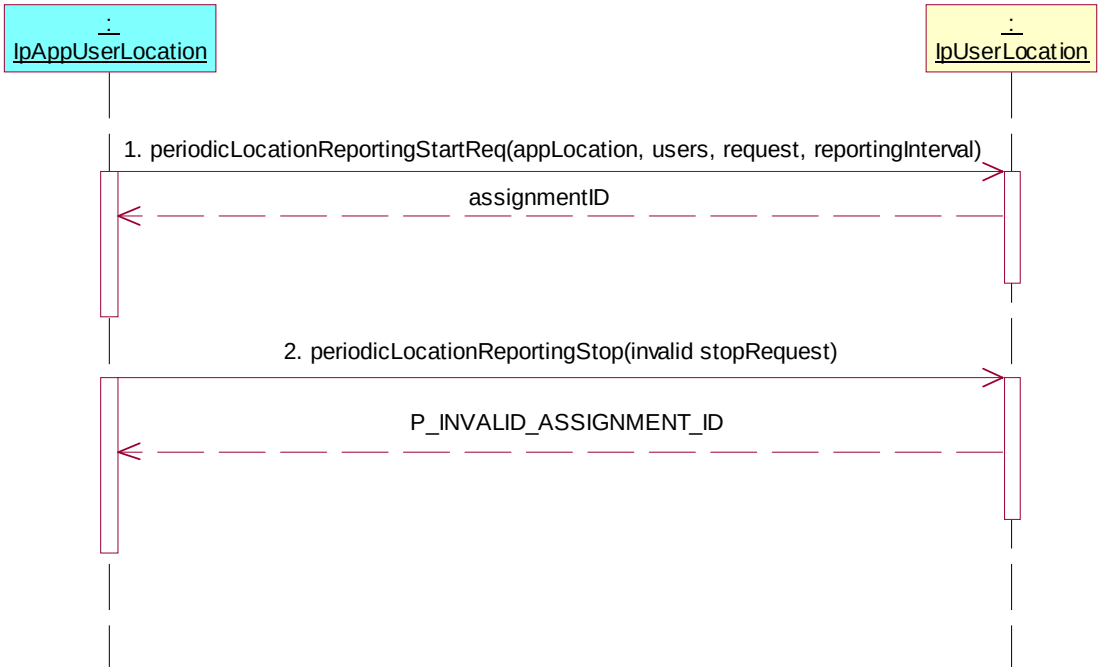
Selection: periodocLocationReportingStartReq method supported - PICS item: [2] UL3

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **periodicLocationReportingStartReq()**
   Parameters: appLocation, users, request, reportingInterval
   Check: valid value of TpSessionID is returned

2. Method call **periodicLocationReportingStop()**
   Parameters: invalid stopRequest
   Check: P_INVALID_ASSIGNMENT_ID, or another suitable exception, is returned.



5.2.1.2 IpTrigerredUserLocation interface

Test M_TUL_01

Summary: all methods, successful

Reference: ES 201 915-6 [1], clause 8.1

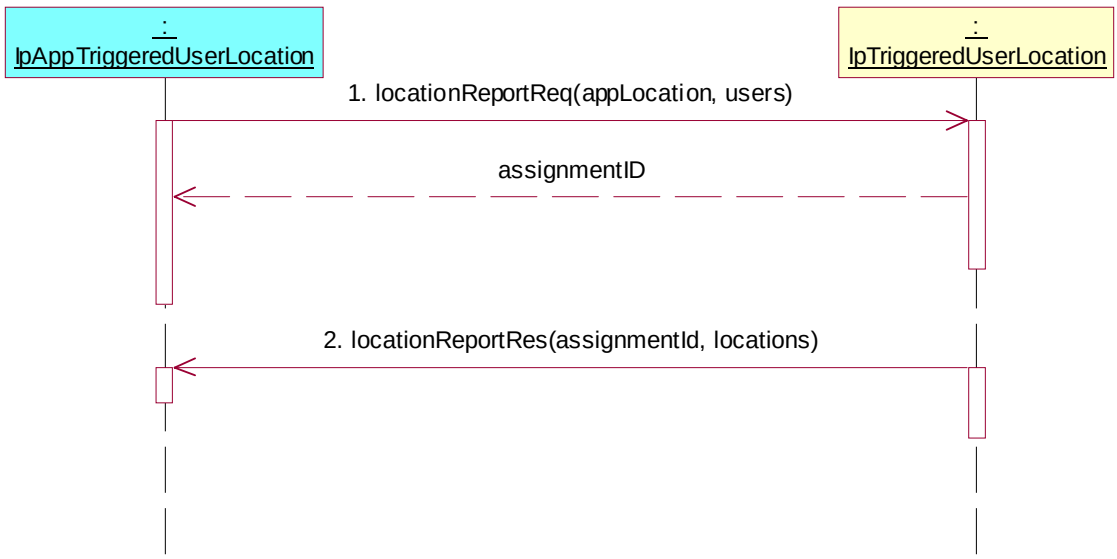
Selection: locationReportReq method supported - PICS item: [2] TUL1

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **locationReportReq()**
   Parameters: appLocation, users
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **locationReportRes()** method on the tester's (Application) **IpAppTriggeredUserLocation** interface.
   Parameters: assignmentId, locations



Test M_TUL_02

Summary: locationReportReq, locationReportErr

Reference: ES 201 915-6 [1], clause 8.1

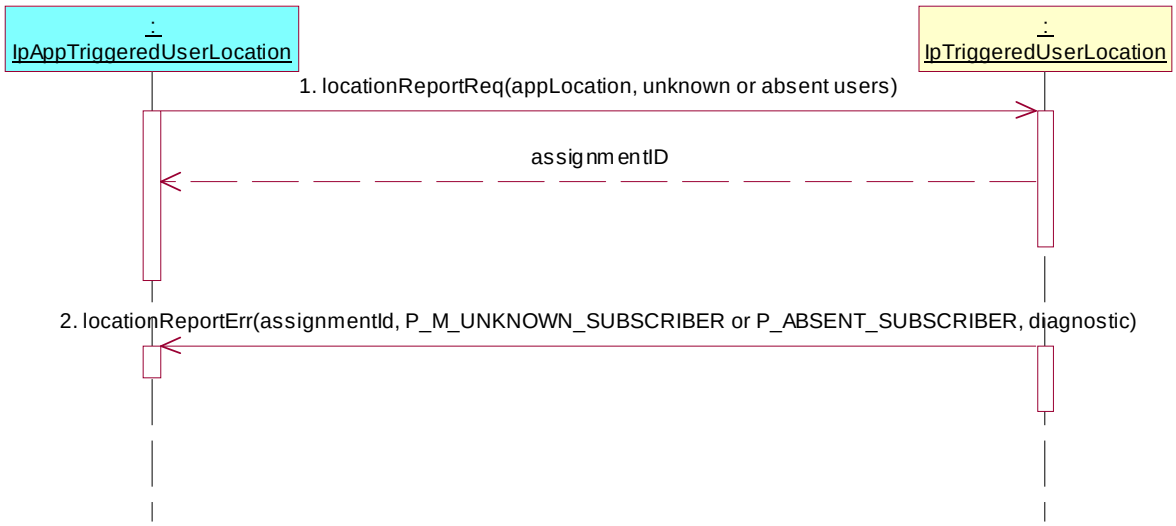
Selection: locationReportReq method supported - PICS item: [2] TUL1

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **locationReportReq()**
   Parameters: appLocation, users with unknown or absent subscriber
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **locationReportErr()** method on the tester's (Application) **IpAppTriggeredUserLocation** interface.
   Parameters: assignmentId, cause indicating P_M_UNKNOWN_SUBSCRIBER or P_ABSENT_SUBSCRIBER, diagnostic



Test M_TUL_03

Summary: all methods, successful

Reference: ES 201 915-6 [1], clause 8.1

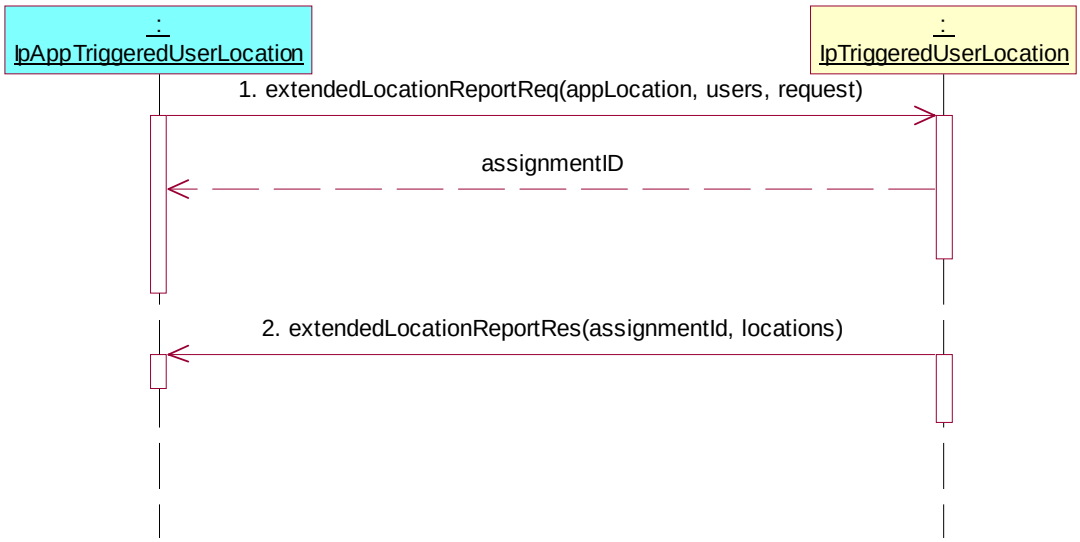
Selection: extendedLocationReportReq method supported - PICS item: [2] TUL2

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **extendedLocationReportReq()**
   Parameters: appLocation, users, request
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **extendedLocationReportRes()** method on the tester's (Application) **IpAppTriggeredUserLocation** interface.
   Parameters: assignmentId, locations



Test M_TUL_04

Summary: extendedLocationReportReq, extendedLocationReportErr

Reference: ES 201 915-6 [1], clause 8.1

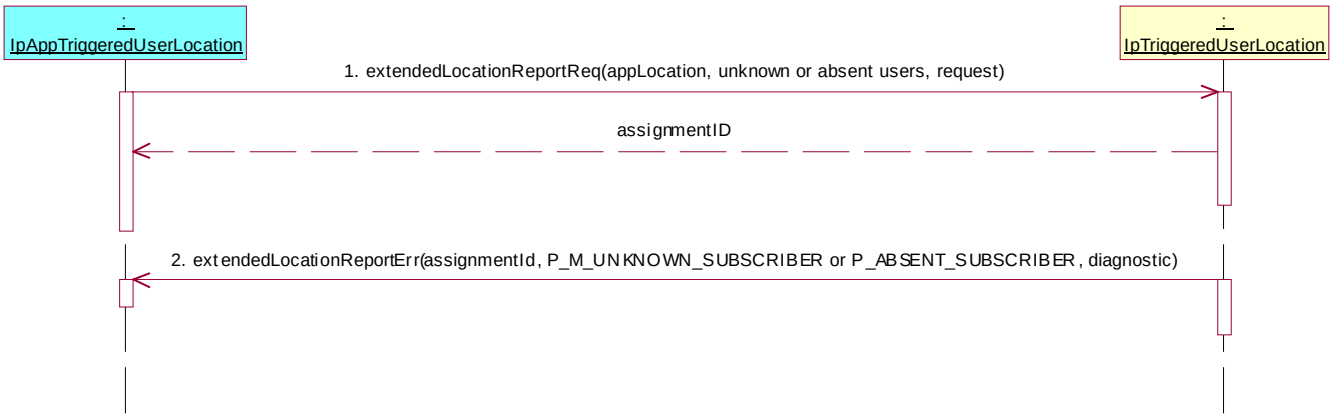
Selection: extendedLocationReportReq method supported - PICS item: [2] TUL2

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **extendedLocationReportReq()**
   Parameters: appLocation, users with unknown or absent subscriber, request
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **extendedLocationReportErr()** method on the tester's (Application) **IpAppTriggeredUserLocation** interface.
   Parameters: assignmentId, cause indicating P_M_UNKNOWN_SUBSCRIBER or P_ABSENT_SUBSCRIBER, diagnostic



Test M_TUL_05

Summary: extendedLocationReportReq, P_REQUESTED_ACCURACY_CANNOT_BE_DELIVERED

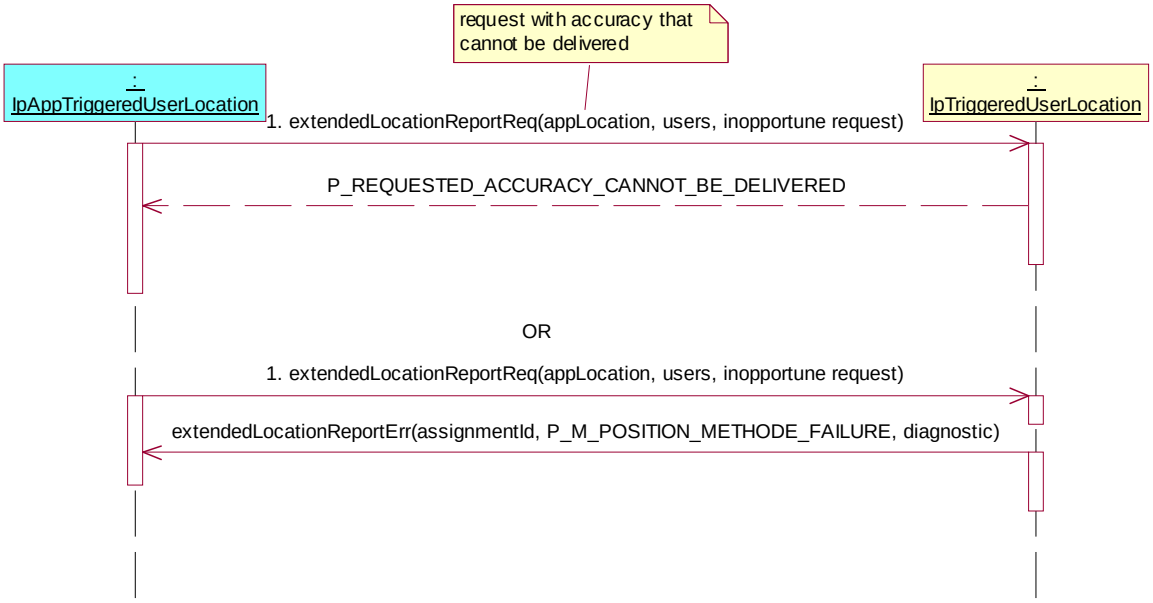
Reference: ES 201 915-6 [1], clause 8.1

Selection: extendedLocationReportReq method supported - PICS item: [2] TUL2

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **extendedLocationReportReq()**
   Parameters: appLocation, users, request with accuracy that cannot be delivered
   Check: P_REQUESTED_ACCURACY_CANNOT_BE_DELIVERED is returned, or extendedLocationReportErr() with P_M_POSITION_METHOD_FAILURE value of TpMobilityError, or another suitable exception.



Test M_TUL_06

Summary: extendedLocationReportReq, P_REQUESTED_RESPONSE_TIME_CANNOT_BE_DELIVERED

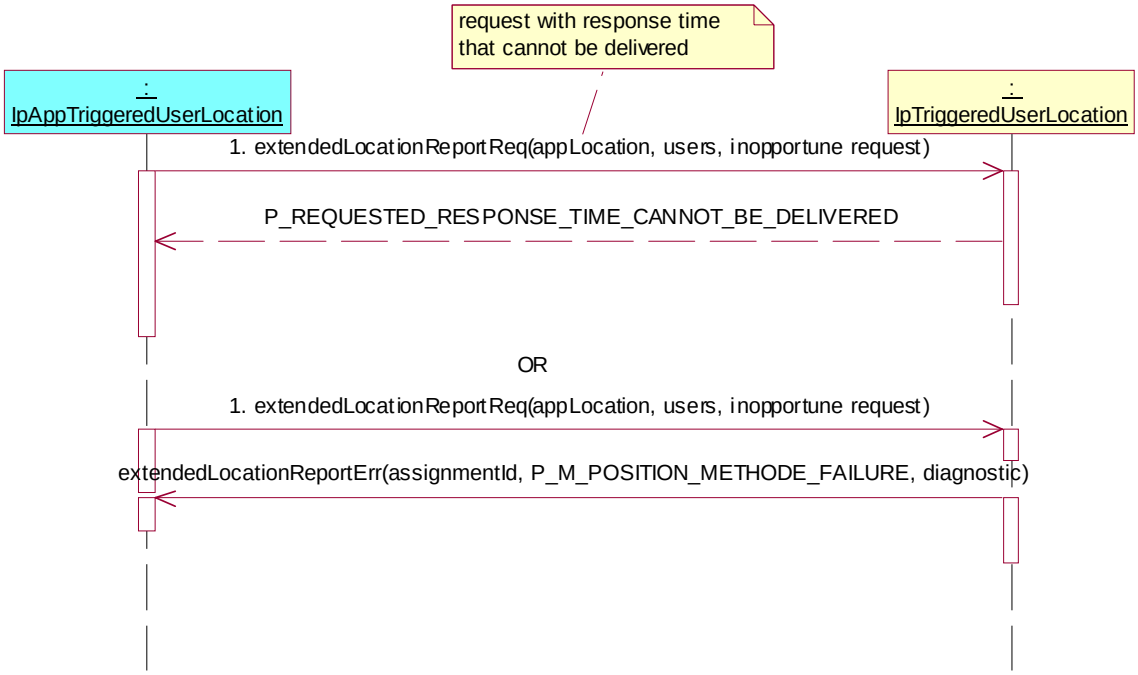
Reference: ES 201 915-6 [1], clause 8.1

Selection: extendedLocationReportReq method supported - PICS item: [2] TUL2

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **extendedLocationReportReq()**
   Parameters: appLocation, users, request with response time that cannot be delivered
   Check: P_REQUESTED_RESPONSE_TIME_CANNOT_BE_DELIVERED is returned, or extendedLocationReportErr() with P_M_POSITION_METHOD_FAILURE value of TpMobilityError, or another suitable exception.



Test M_TUL_07

Summary: all methods, successful

Reference: ES 201 915-6 [1], clause 8.1

Selection: periodocLocationReportingStartReq method supported - PICS item: [2] TUL3

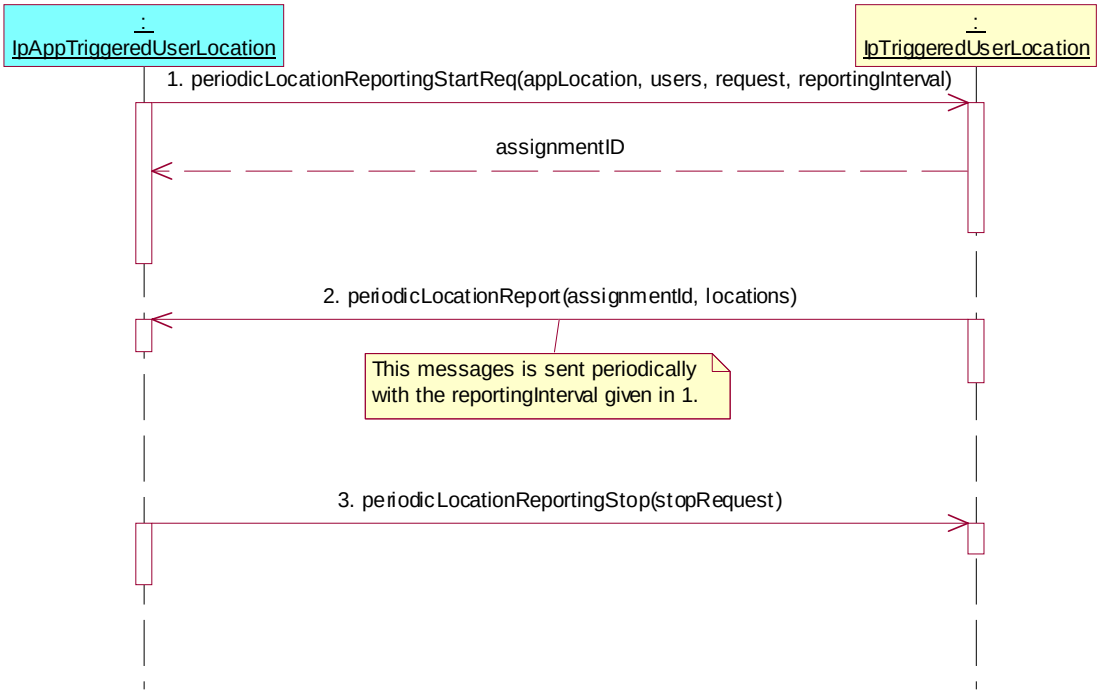
Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **periodicLocationReportingStartReq()**
   Parameters: appLocation, users, request, reportingInterval
   Check: valid value of TpSessionID is returned

2. Triggered action: periodically cause IUT to call **periodicLocationReport ()** method on the tester's (Application) **IpAppTriggeredUserLocation** interface.
   Parameters: assignmentId, locations
   Check: These messages are sent with correct reporting Interval given in 1.

3. Method call **periodicLocationReportingStop()**
   Parameters: stopRequest
   Check: No further periodicLocationReport is sent.



Test M_TUL_08

Summary: all methods, unknown or absent subscriber

Reference: ES 201 915-6 [1], clause 8.1

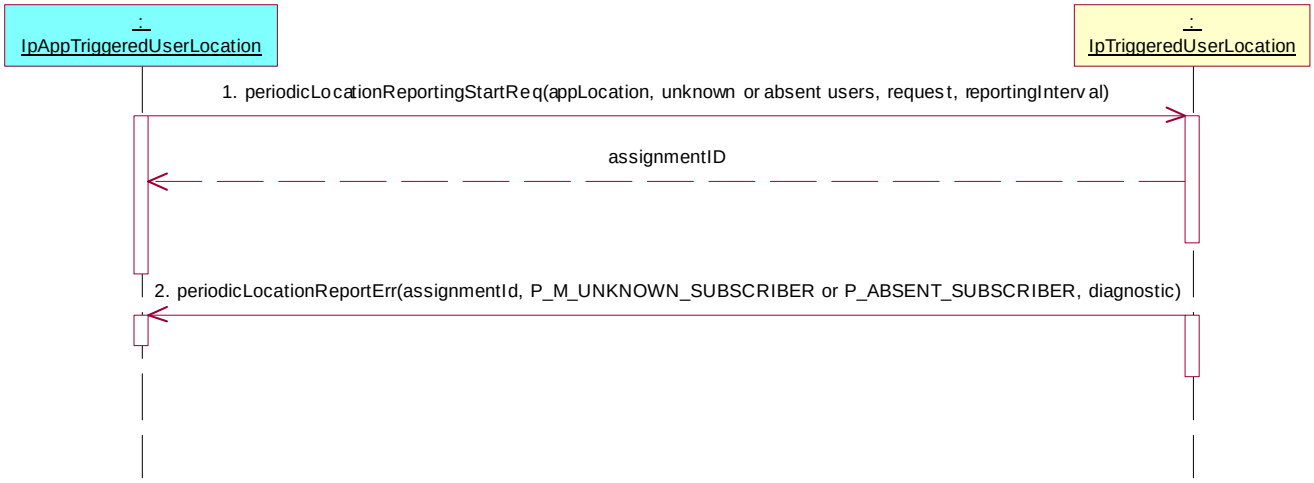
Selection: periodocLocationReportingStartReq method supported - PICS item: [2] TUL3

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **periodicLocationReportingStartReq()**
   Parameters: appLocation, users with unknown or absent subscriber, request, reportingInterval
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **periodicLocationReportErr ()** method on the tester's (Application) **IpAppTriggeredUserLocation** interface.
   Parameters: assignmentId, cause indicating P_M_UNKNOWN_SUBSCRIBER or P_ABSENT_SUBSCRIBER, diagnostic



Test M_TUL_09

Summary: periodicLocationReportingStartReq, P_REQUESTED_ACCURACY_CANNOT_BE_DELIVERED

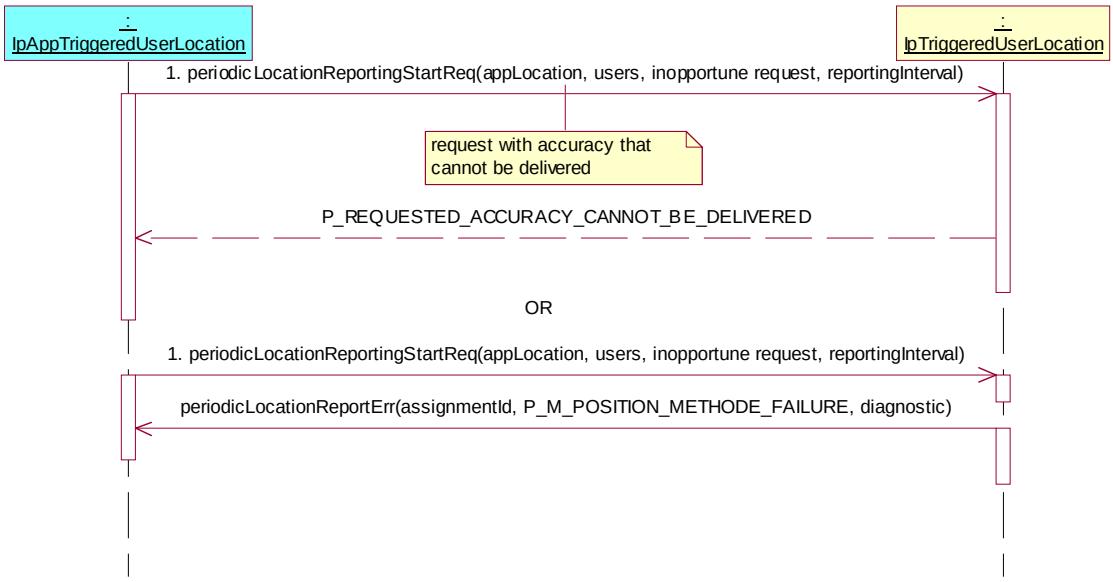
Reference: ES 201 915-6 [1], clause 8.1

Selection: periodocLocationReportingStartReq method supported - PICS item: [2] TUL3

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **periodicLocationReportingStartReq ()**
   Parameters: appLocation, users, request with accuracy that cannot be delivered, reportingInterval
   Check: P_REQUESTED_ACCURACY_CANNOT_BE_DELIVERED is returned, or periodicLocationReportErr() with P_M_POSITION_METHOD_FAILURE value of TpMobilityError, or another suitable exception.



Test M_TUL_10

Summary: periodicLocationReportingStartReq, P_REQUESTED_RESPONSE_TIME_CANNOT_BE_DELIVERED

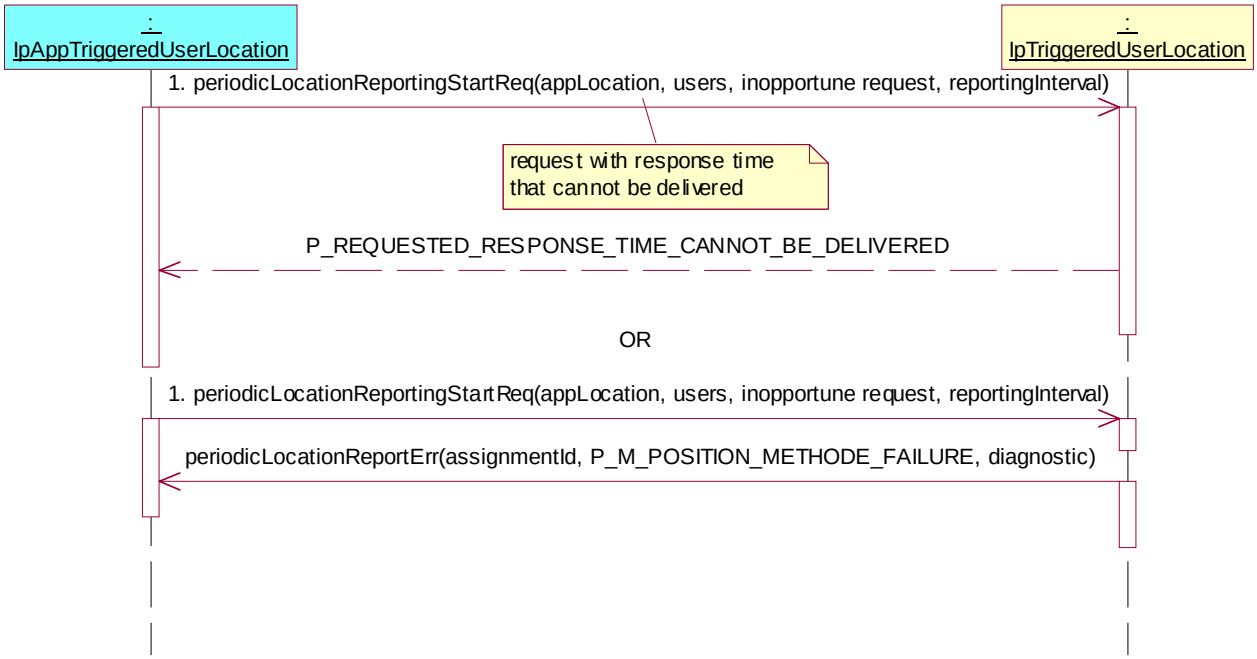
Reference: ES 201 915-6 [1], clause 8.1

Selection: periodocLocationReportingStartReq method supported - PICS item: [2] TUL3

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **periodicLocationReportingStartReq ()**
   Parameters: appLocation, users, request with response time that cannot be delivered, reportingInterval
   Check: P_REQUESTED_RESPONSE_TIME_CANNOT_BE_DELIVERED is returned, or periodicLocationReportErr() with P_M_POSITION_METHOD_FAILURE value of TpMobilityError, or another suitable exception.



Test M_TUL_11

Summary: periodicLocationReportingStartReq, P_INVALID_REPORTING_INTERVAL

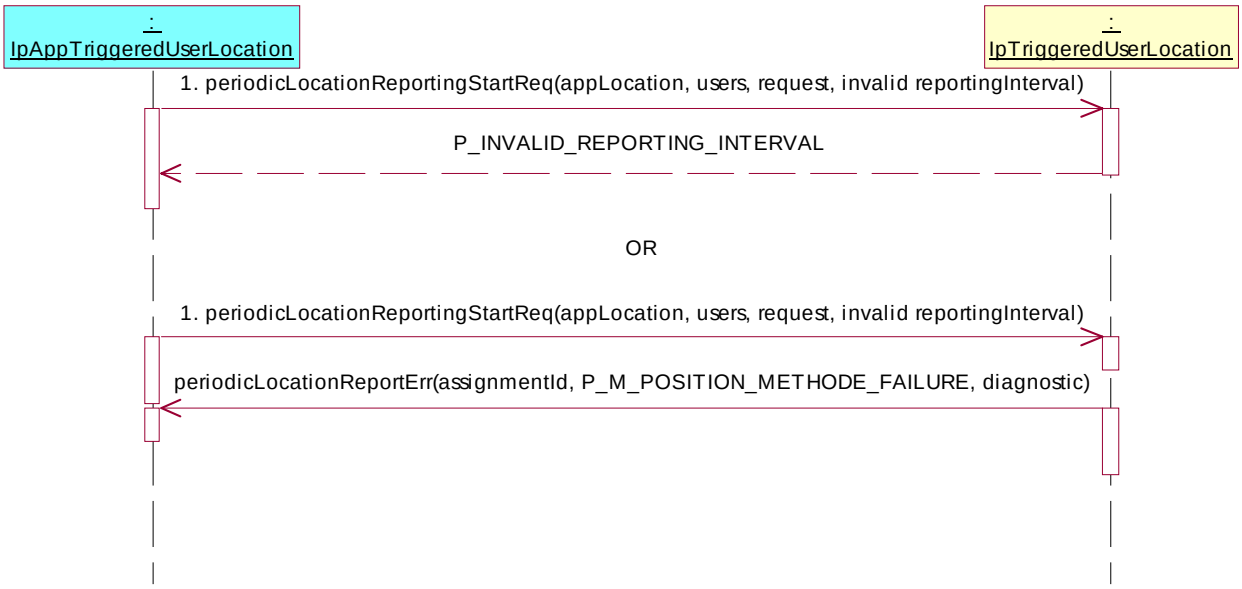
Reference: ES 201 915-6 [1], clause 8.1

Selection: periodocLocationReportingStartReq method supported - PICS item: [2] TUL3

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **periodicLocationReportingStartReq ()**
   Parameters: appLocation, users, request, invalid reportingInterval
   Check: P_INVALID_REPORTING_INTERVAL is returned, or periodicLocationReportErr() with P_M_POSITION_METHOD_FAILURE value of TpMobilityError, or another suitable exception.



Test M_TUL_12

Summary: periodicLocationReportingStop, P_INVALID_ASSIGNMENT_ID

Reference: ES 201 915-6 [1], clause 8.1

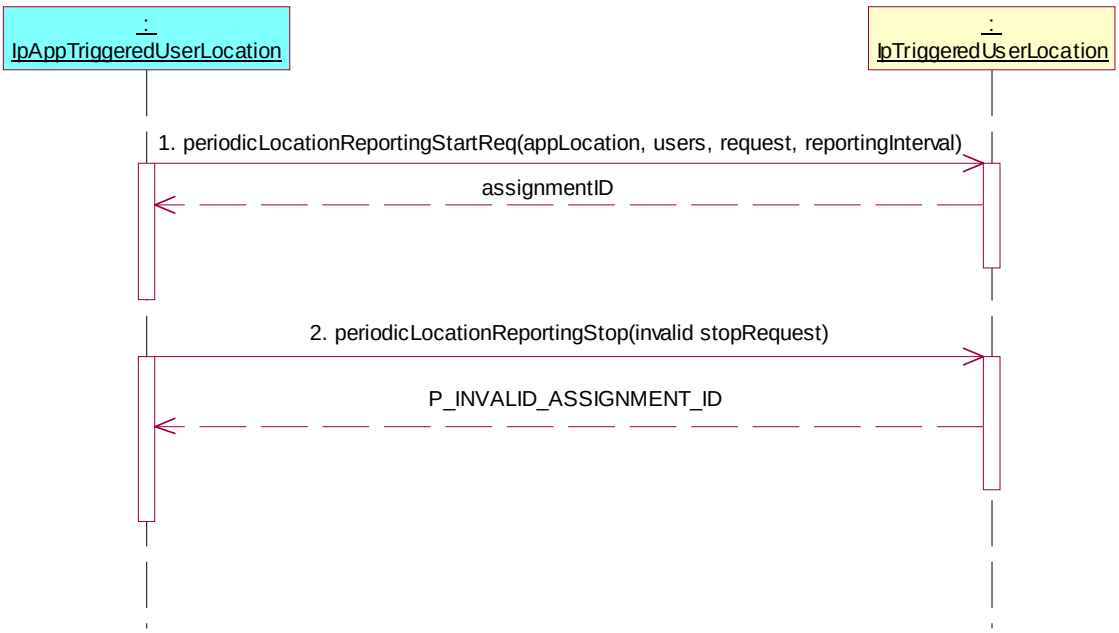
Selection: periodocLocationReportingStartReq method supported - PICS item: [2] TUL3

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **periodicLocationReportingStartReq()**
   Parameters: appLocation, users, request, reportingInterval
   Check: valid value of TpSessionID is returned

2. Method call **periodicLocationReportingStop()**
   Parameters: invalid stopRequest
   Check: P_INVALID_ASSIGNMENT_ID, or another suitable exception, is returned.



Test M_TUL_13

Summary: all methods, successful

Reference: ES 201 915-6 [1], clause 8.1

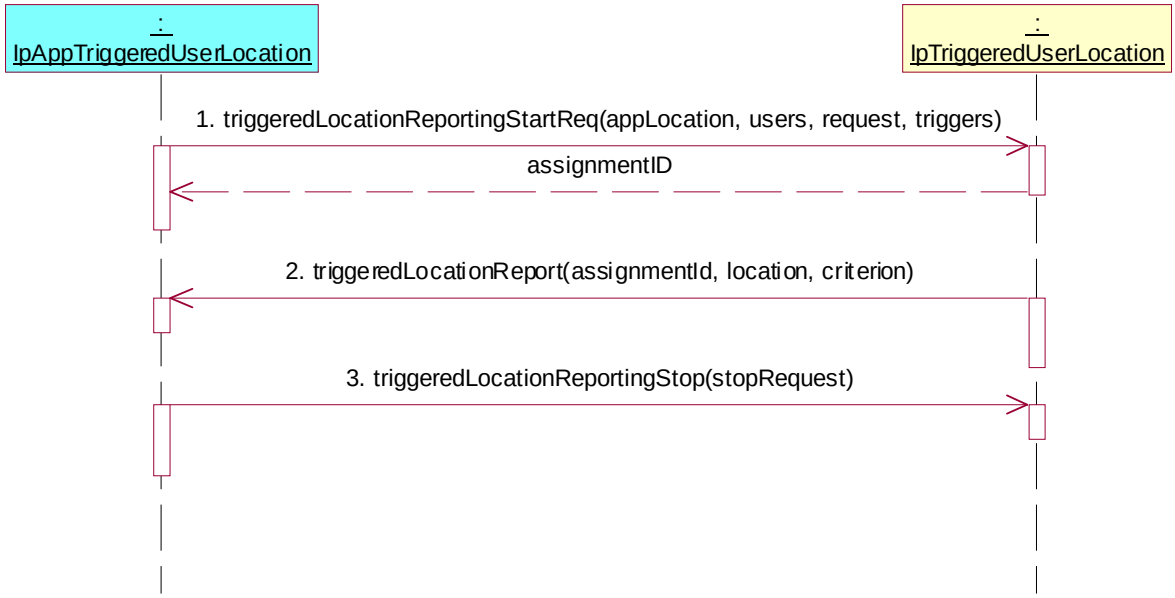
Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **triggeredLocationReportingStartReq()**
   Parameters: appLocation, users, request, triggers
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **triggeredLocationReport ()** method on the tester's (Application) **IpAppTriggeredUserLocation** interface.
   Parameters: assignmentId, location, criterion

3. Method call **triggeredLocationReportingStop()**
   Parameters: stoprequest
   Check: no exception is returned



Test M_TUL_14

Summary: all methods, unknown or absent subscriber

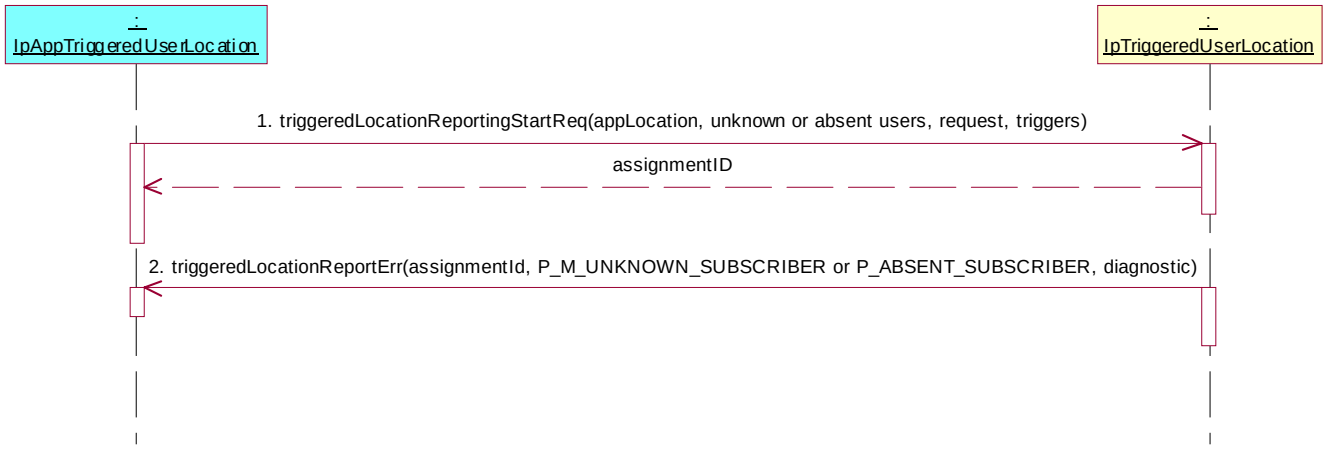
Reference: ES 201 915-6 [1], clause 8.1

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **triggeredLocationReportingStartReq()**
   Parameters: appLocation, users with unknown or absent subscriber, request, triggers
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **triggeredLocationReportErr ()** method on the tester's (Application) **IpAppTriggeredUserLocation** interface.
   Parameters: assignmentId, cause indicating P_M_UNKNOWN_SUBSCRIBER or P_ABSENT_SUBSCRIBER, diagnostic



Test M_TUL_15

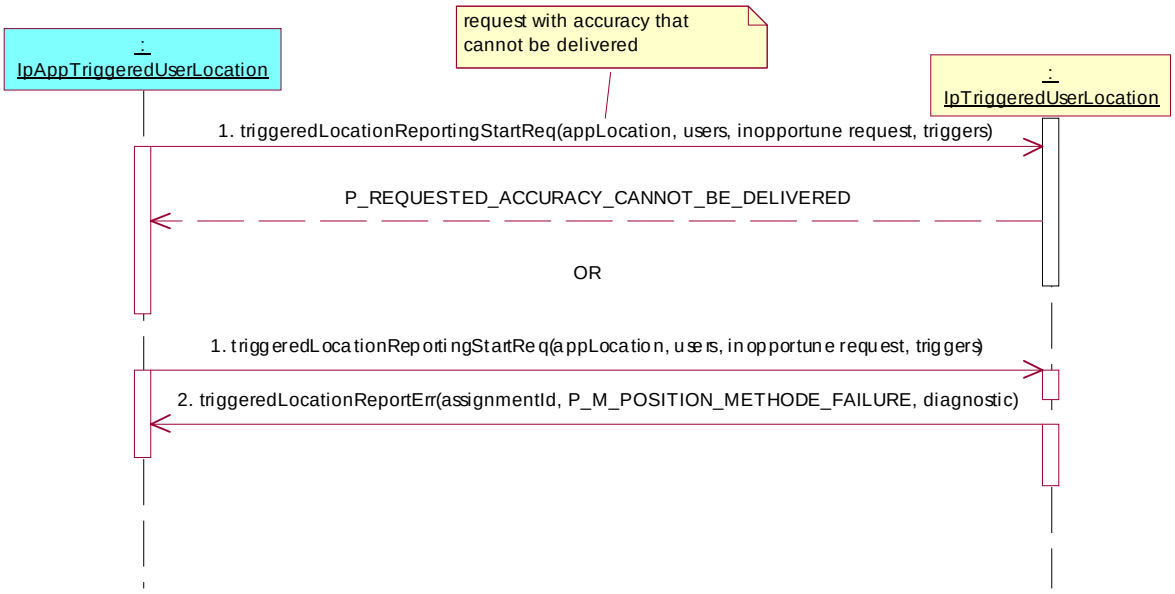
Summary: triggeredLocationReportingStartReq, P_REQUESTED_ACCURACY_CANNOT_BE_DELIVERED

Reference: ES 201 915-6 [1], clause 8.1

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **triggeredLocationReportingStartReq ()**
   Parameters: appLocation, users, request with accuracy that cannot be delivered, triggers
   Check: P_REQUESTED_ACCURACY_CANNOT_BE_DELIVERED is returned, or triggeredLocationReportErr() with P_M_POSITION_METHOD_FAILURE value of TpMobilityError, or another suitable exception is returned.



Test M_TUL_16

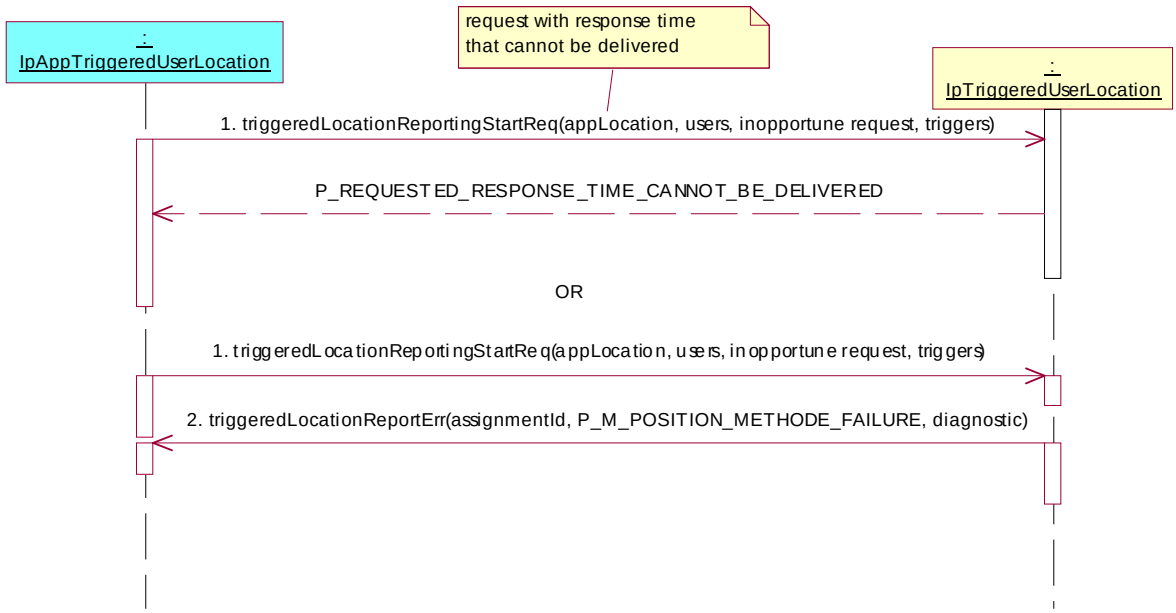
Summary: triggeredLocationReportingStartReq, P_REQUESTED_RESPONSE_TIME_CANNOT_BE_DELIVERED

Reference: ES 201 915-6 [1], clause 8.1

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **triggeredLocationReportingStartReq ()**
   Parameters: appLocation, users, request with response time that cannot be delivered, triggers
   Check: P_REQUESTED_RESPONSE_TIME_CANNOT_BE_DELIVERED is returned, or triggeredLocationReportErr() with P_M_POSITION_METHOD_FAILURE value of TpMobilityError, or another suitable exception is returned.



Test M_TUL_17

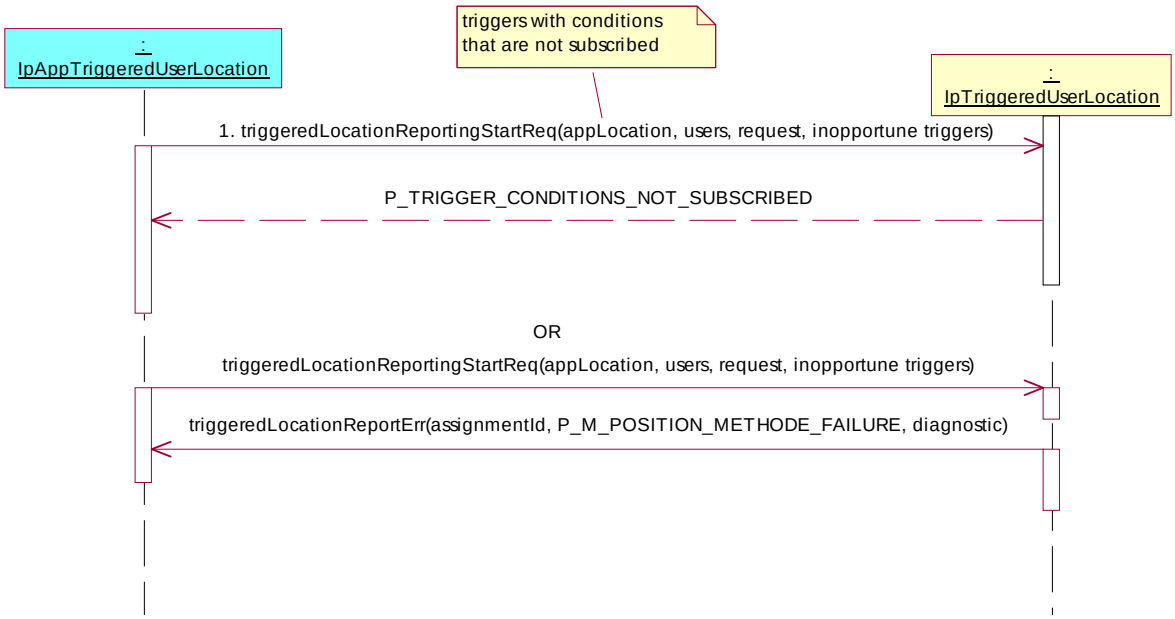
Summary: triggeredLocationReportingStartReq, P_TRIGGER_CONDITIONS_NOT_SUBSCRIBED

Reference: ES 201 915-6 [1], clause 8.1

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **triggeredLocationReportingStartReq ()**
   Parameters: appLocation, users, request, triggers with conditions not subscribed
   Check: P_TRIGGER_CONDITIONS_NOT_SUBSCRIBED is returned, or triggeredLocationReportErr() with P_M_POSITION_METHOD_FAILURE value of TpMobilityError, or another suitable exception is returned.



Test M_TUL_18

Summary: triggeredLocationReportingStop, P_INVALID_ASSIGNMENT_ID

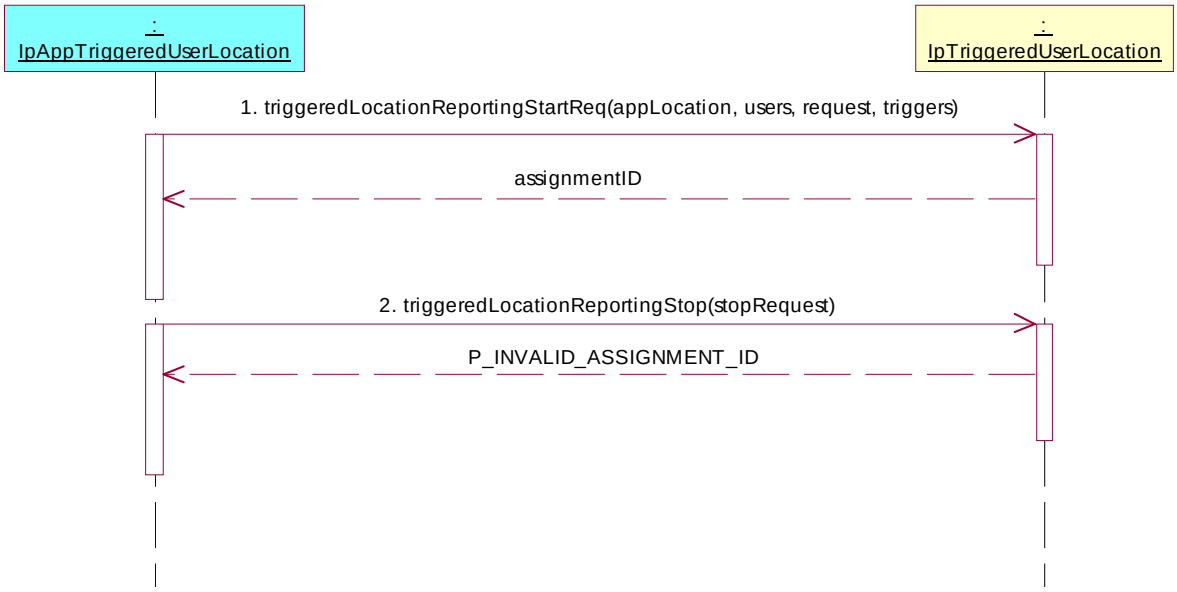
Reference: ES 201 915-6 [1], clause 8.1

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpTriggeredUserLocation interface through selecting that service and signing the required service agreement.

Test Sequence:

1. Method call **triggeredLocationReportingStartReq()**
   Parameters: appLocation, users, request, triggers
   Check: valid value of TpSessionID is returned

2. Method call **triggeredLocationReportingStop ()**
   Parameters: invalid stopRequest
   Check: P_INVALID_ASSIGNMENT_ID, or another suitable exception, is returned.



5.2.2 User Location Camel

Test M_ULC_01

Summary: all methods, successful

Reference: ES 201 915-6 [1], clause 8.2

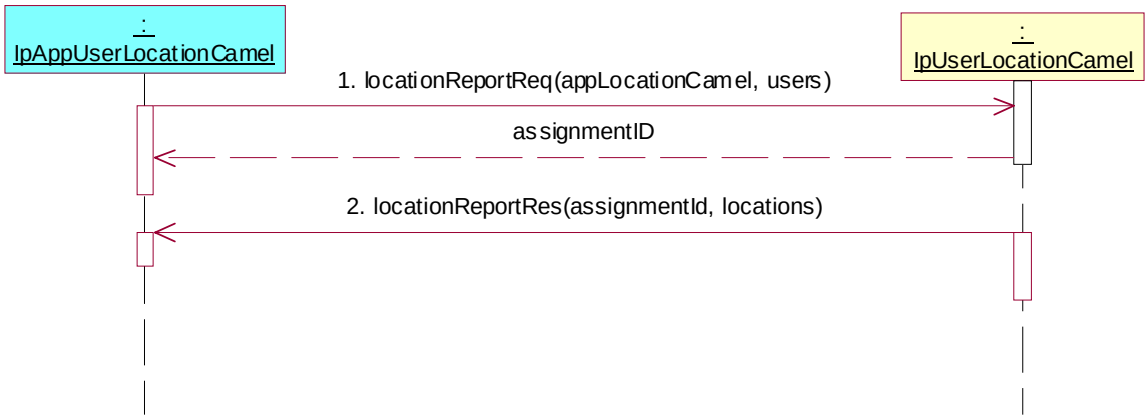
Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocationCamel interface through selecting that service and signing the required service agreement.

Selection Condition: locationReportReq() supported.

Test Sequence:

1. Method call **locationReportReq()**
   Parameters: appLocationCamel, users
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **locationReportRes()** method on the tester's (Application) **IpAppUserLocationCamel** interface.
   Parameters: assignmentId, locations



Test M_ULC_02

Summary: all methods, unknown or absent subscriber

Reference: ES 201 915-6 [1], clause 8.2

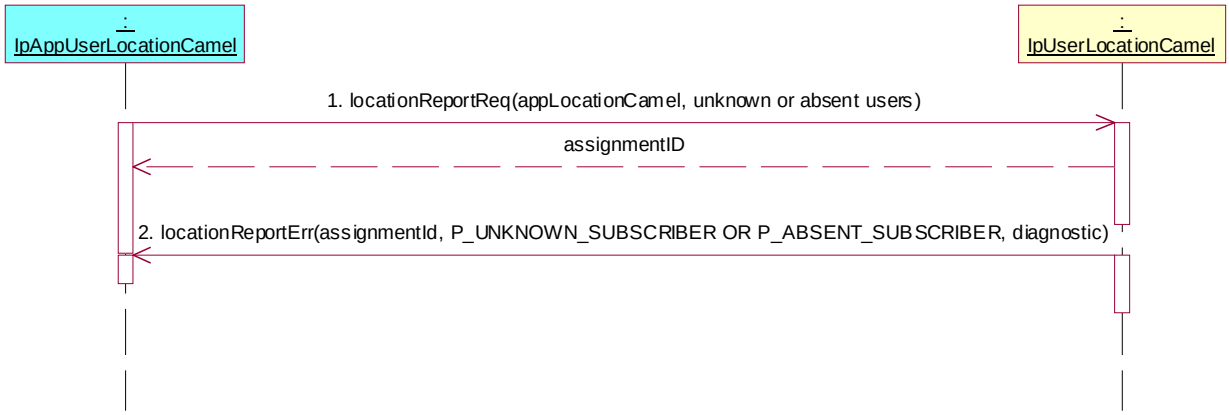
Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocationCamel interface through selecting that service and signing the required service agreement.

Selection Condition: locationReportReq() supported.

Test Sequence:

1. Method call **locationReportReq()**
   Parameters: appLocationCamel, users with unknown or absent subscriber
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **locationReportErr()** method on the tester's (Application) **IpAppUserLocationCamel** interface.
   Parameters: assignmentId, cause indicating P_M_UNKNOWN_SUBSCRIBER or P_ABSENT_SUBSCRIBER, diagnostic



Test M_ULC_03

Summary: all methods, successful

Reference: ES 201 915-6 [1], clause 8.2

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocationCamel interface through selecting that service and signing the required service agreement..

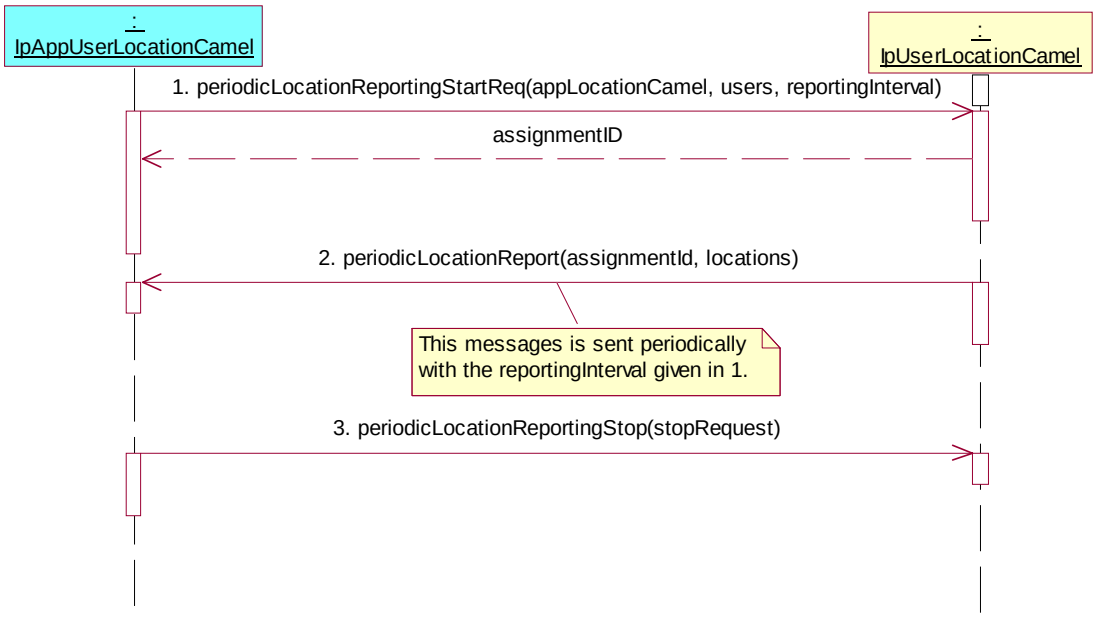
Selection Condition: periodicLocationReportingStartReq() supported.

Test Sequence:

1. Method call **periodicLocationReportingStartReq()**
   Parameters: appLocationCamel, users, reportingInterval
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **periodicLocationReport ()** method on the tester's (Application) **IpAppUserLocationCamel** interface.
   Parameters: assignmentId, locations
   Check: no exception is returned. This message is sending with correct reporting Interval given in 1.

3. Method call **periodicLocationReportingStop()**
   Parameters: stopRequest
   Check: no exception is returned. No periodicLocationReport is still triggered.



Test M_ULC_04

Summary: all methods, unknown or absent subscriber

Reference: ES 201 915-6 [1], clause 8.2

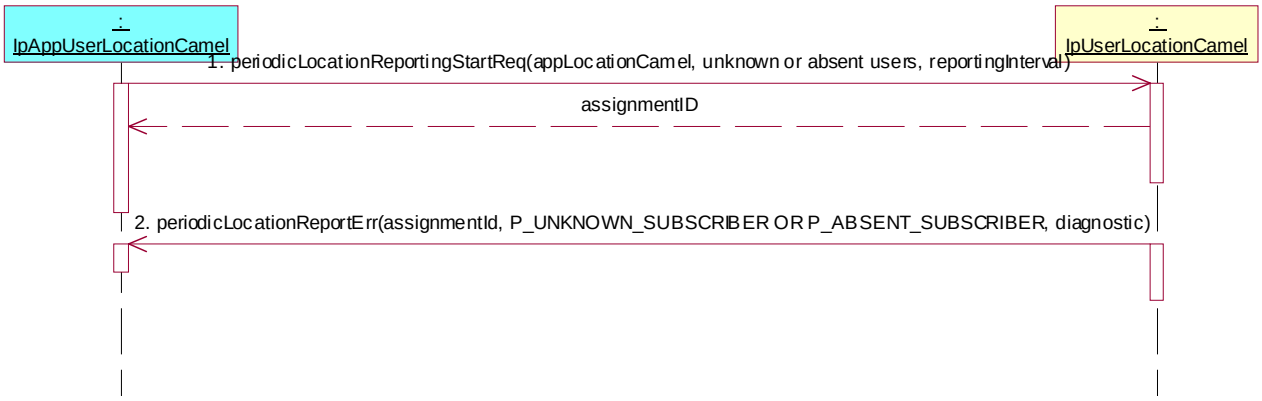
Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocationCamel interface through selecting that service and signing the required service agreement.

Selection Condition: periodicLocationReportingStartReq() supported.

Test Sequence:

1. Method call **periodicLocationReportingStartReq()**
   Parameters: appLocationCamel, users with unknown or absent subscriber, reportingInterval
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **periodicLocationReportErr ()** method on the tester's (Application) **IpAppUserLocationCamel** interface.
   Parameters: assignmentId, cause indicating P_M_UNKNOWN_SUBSCRIBER or P_ABSENT_SUBSCRIBER, diagnostic



Test M_ULC_05

Summary: periodicLocationReportingStartReq, P_INVALID_REPORTING_INTERVAL

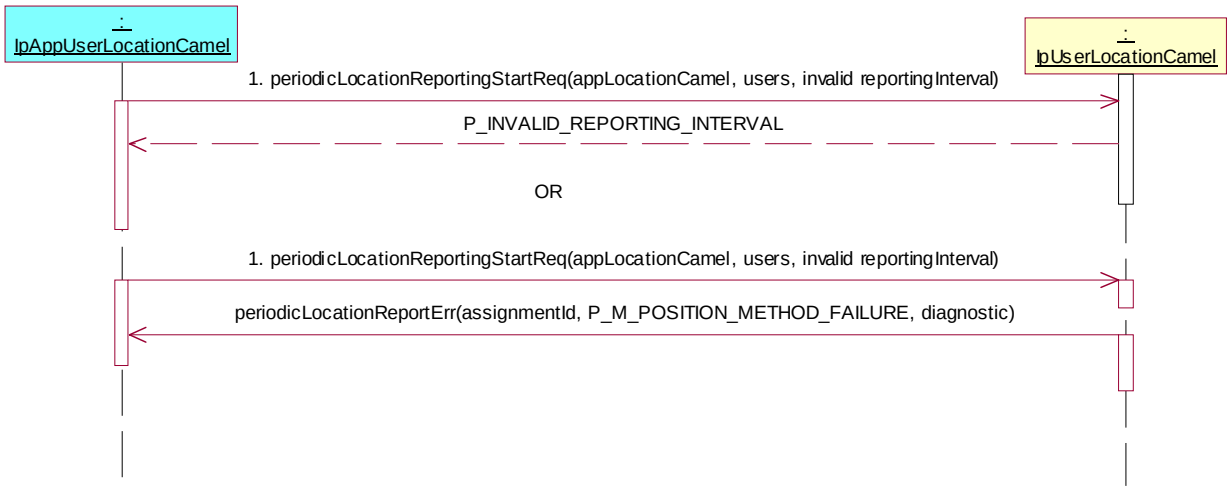
Reference: ES 201 915-6 [1], clause 8.2

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocationCamel interface through selecting that service and signing the required service agreement.

Selection Condition: periodicLocationReportingStartReq() supported.

Test Sequence:

1. Method call **periodicLocationReportingStartReq ()**
   Parameters: appLocationCamel, users, invalid reportingInterval
   Check: P_INVALID_REPORTING_INTERVAL is returned, or periodicLocationReportErr() with P_M_POSITION_METHOD_FAILURE value of TpMobilityError, or another suitable exception.



Test M_ULC_06

Summary: periodicLocationReportingStop, P_INVALID_ASSIGNMENT_ID

Reference: ES 201 915-6 [1], clause 8.2

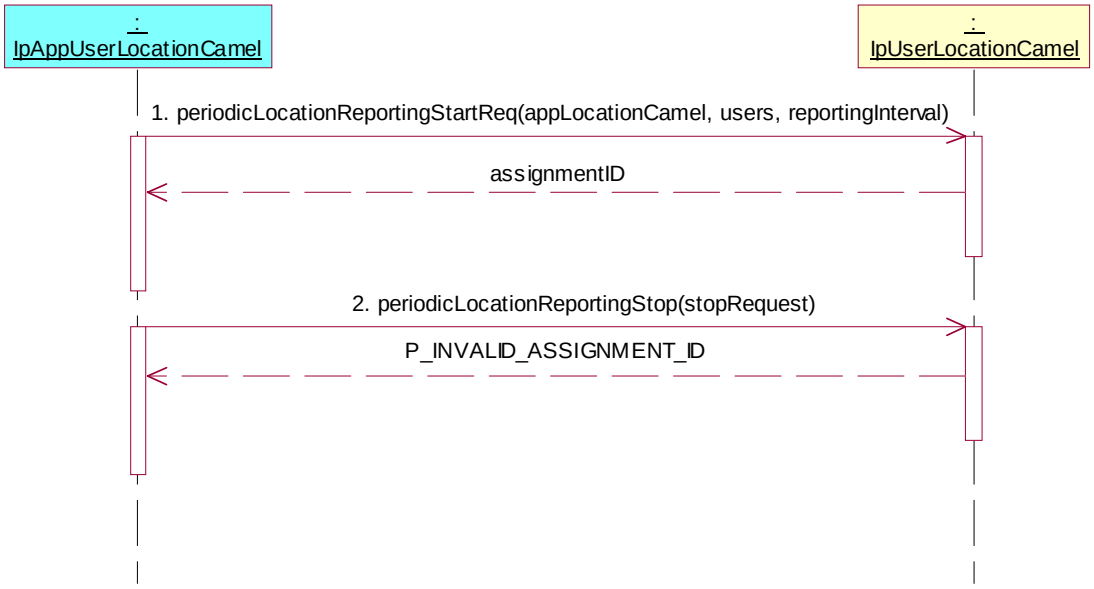
Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocationCamel interface through selecting that service and signing the required service agreement.

Selection Condition: periodicLocationReportingStartReq() supported.

Test Sequence:

1. Method call **periodicLocationReportingStartReq()**
   Parameters: appLocationCamel, users, reportingInterval
   Check: valid value of TpSessionID is returned

2. Method call **periodicLocationReportingStop()**
   Parameters: invalid stopRequest
   Check: P_INVALID_ASSIGNMENT_ID, or another suitable exception, is returned.



Test M_ULC_07

Summary: all methods, successful

Reference: ES 201 915-6 [1], clause 8.2

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocationCamel interface through selecting that service and signing the required service agreement.

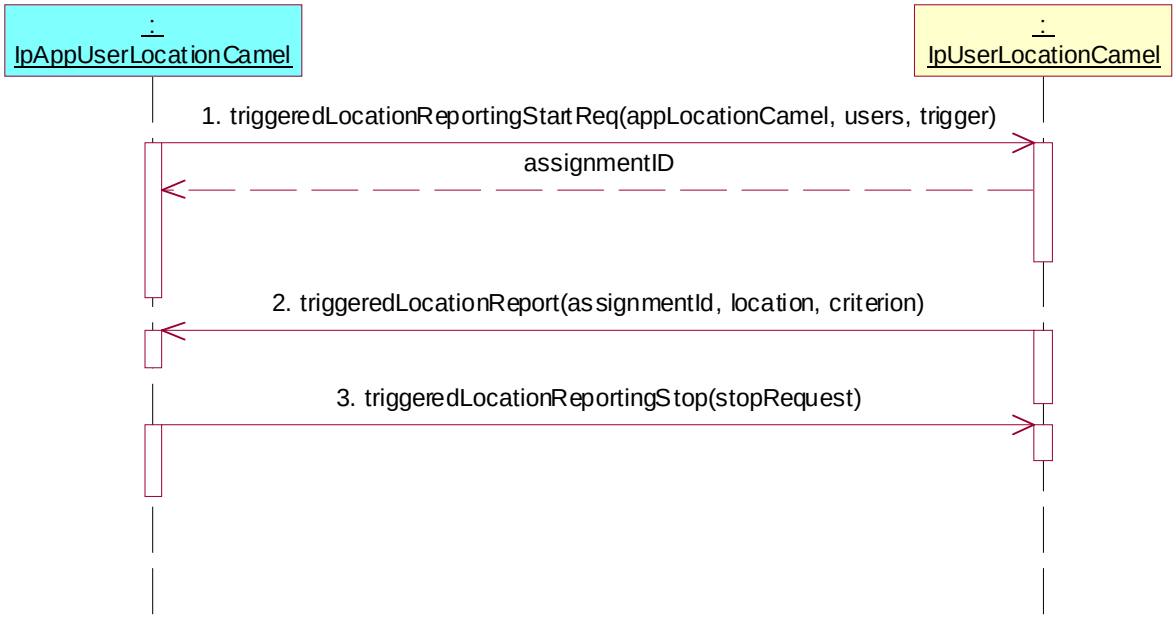
Selection Condition: triggeredLocationReportingStartReq() supported.

Test Sequence:

1. Method call **triggeredLocationReportingStartReq()**
   Parameters: appLocationCamel, users, trigger
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **triggeredLocationReport ()** method on the tester's (Application) **IpAppUserLocationCamel** interface.
   Parameters: assignmentId, location, criterion

3. Method call **triggeredLocationReportingStop()**
   Parameters: stoprequest
   Check: no exception is returned



Test M_ULC_08

Summary: all methods, unknown or absent subscriber

Reference: ES 201 915-6 [1], clause 8.2

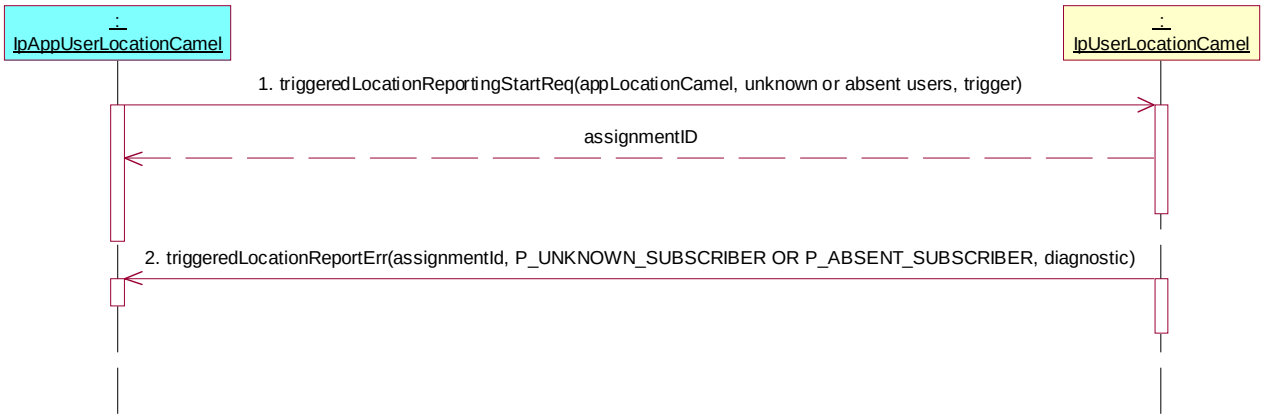
Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocationCamel interface through selecting that service and signing the required service agreement.

Selection Condition: triggeredLocationReportingStartReq() supported.

Test Sequence:

1. Method call **triggeredLocationReportingStartReq()**
   Parameters: appLocationCamel, users with unknown or absent subscriber, trigger
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **triggeredLocationReportErr ()** method on the tester's (Application) **IpAppUserLocationCamel** interface.
   Parameters: assignmentId, cause indicating P_M_UNKNOWN_SUBSCRIBER or P_ABSENT_SUBSCRIBER, diagnostic



Test M_ULC_10

Summary: triggeredLocationReportingStop, P_INVALID_ASSIGNMENT_ID

Reference: ES 201 915-6 [1], clause 8.2

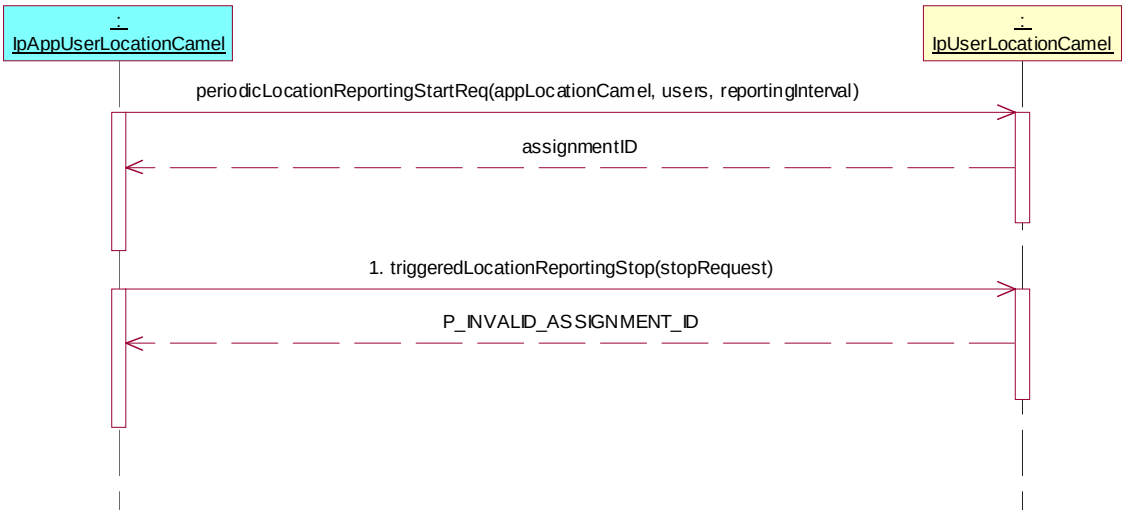
Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocationCamel interface through selecting that service and signing the required service agreement.

Selection Condition: triggeredLocationReportingStartReq() supported.

Test Sequence:

1. Method call **triggeredLocationReportingStartReq()**
   Parameters: appLocationCamel, users, trigger
   Check: valid value of TpSessionID is returned

2. Method call **triggeredLocationReportingStop ()**
   Parameters: invalid stopRequest
   Check: P_INVALID_ASSIGNMENT_ID, or another suitable exception, is returned.



5.2.3 User Location Emergency

Test M_ULE_01

Summary: all methods, successful

Reference: ES 201 915-6 [1], clause 8.3

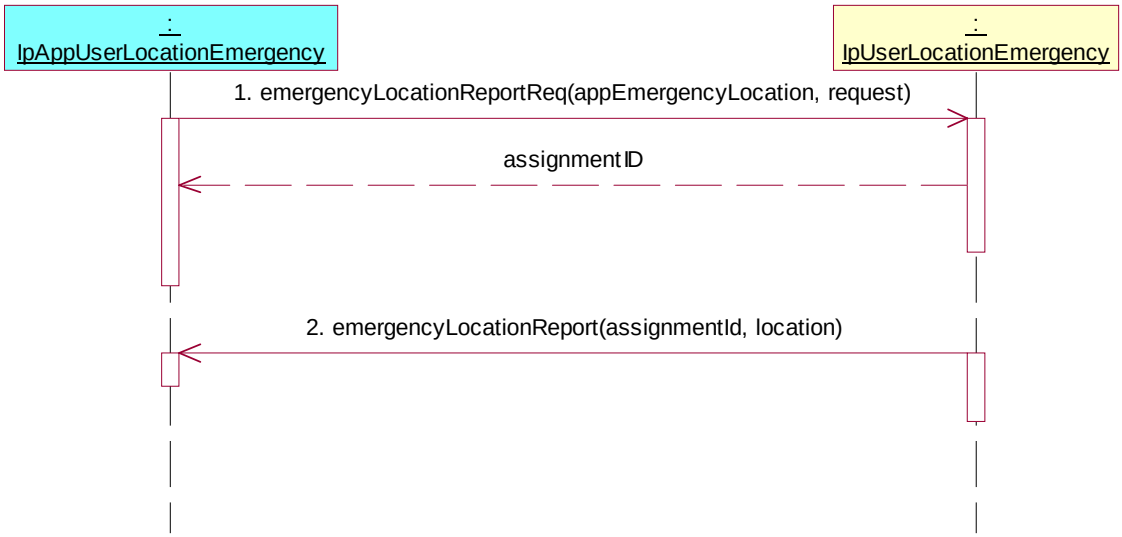
Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocationEmergency interface through selecting that service and signing the required service agreement.

Selection Condition: emergencyLocationReportReq() supported.

Test Sequence:

1. Method call **emergencyLocationReportReq()**
   Parameters: appEmergencyLocation, request
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **emergencyLocationReport()** method on the tester's (Application) **IpAppUserLocationEmergency** interface.
   Parameters: assignmentId, location



Test M_ULE_02

Summary: all methods, unknown or absent subscribe

Reference: ES 201 915-6 [1], clause 8.3

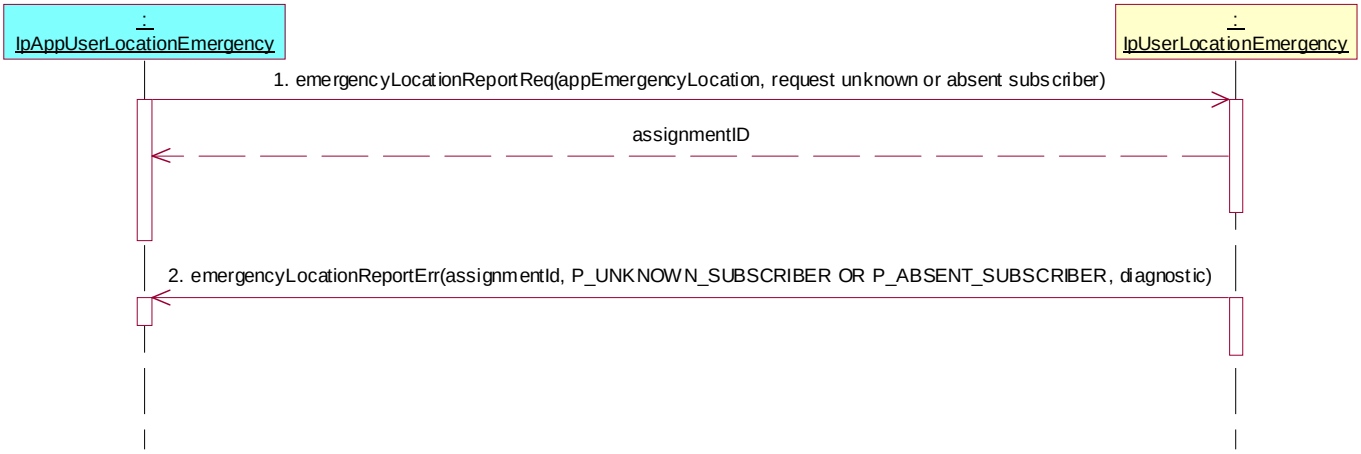
Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocationEmergency interface through selecting that service and signing the required service agreement.

Selection Condition: emergencyLocationReportReq() supported.

Test Sequence:

1. Method call **emergencyLocationReportReq()**
   Parameters: appEmergencyLocation, request with unknown or absent subscriber
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **emergencyLocationReportErr()** method on the tester's (Application) **IpAppUserLocationEmergency** interface.
   Parameters: assignmentId, cause indicating P_M_UNKNOWN_SUBSCRIBER or P_ABSENT_SUBSCRIBER, diagnostic



Test M_ULE_03

Summary: all methods, successful

Reference: ES 201 915-6 [1], clause 8.3

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocationEmergency interface through selecting that service and signing the required service agreement.

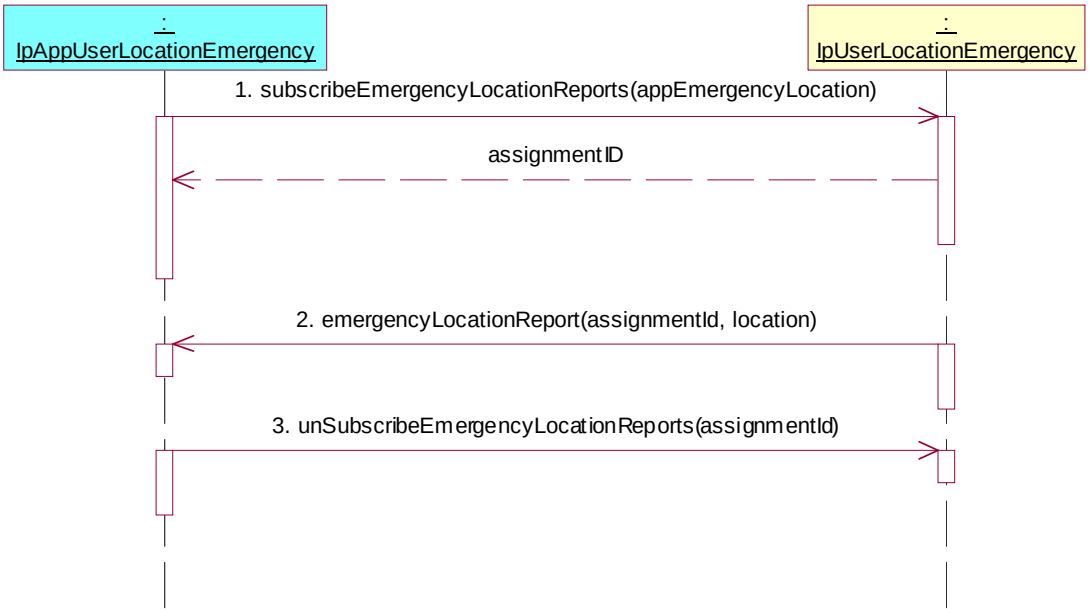
Selection Condition: subscribeEmergencyLocationReports() supported.

Test Sequence:

1. Method call **subscribeEmergencyLocationReports()**
   Parameters: appEmergencyLocation
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **emergencyLocationReport ()** method on the tester's (Application) **IpAppUserLocationEmergency** interface.
   Parameters: assignmentId, locations

3. Method call **unSubsribeEmergencyLocationReports()**
   Parameters: assignmentId
   Check: no exception is returned. No emergencyLocationReport is still triggered.



Test M_ULE_04

Summary: unSubsribeEmergencyLocationReports, P_INVALID_ASSIGNMENT_ID

Reference: ES 201 915-6 [1], clause 8.3

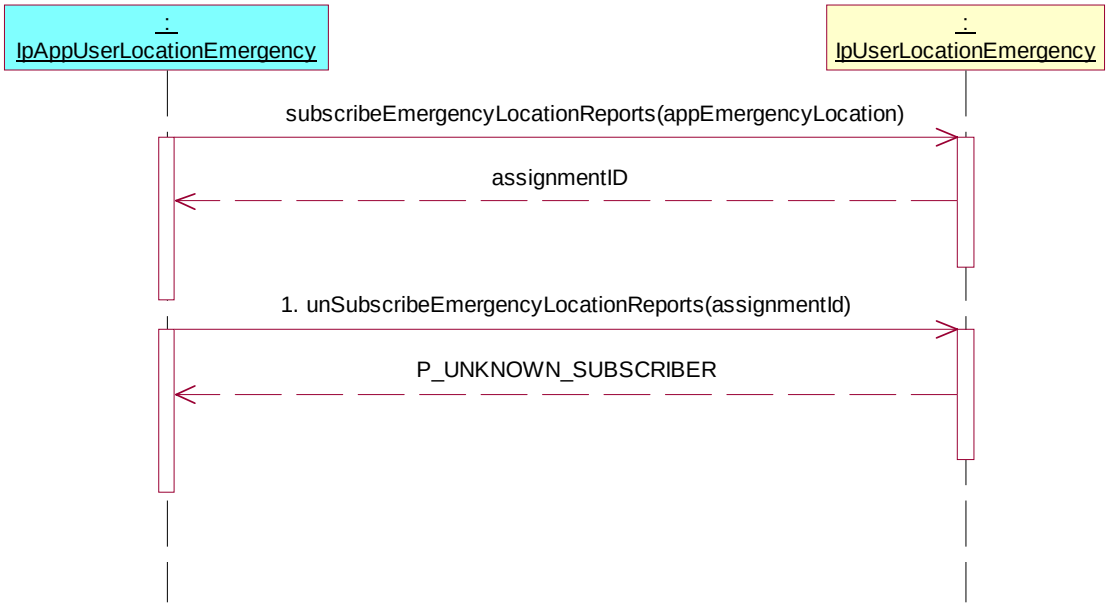
Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserLocationEmergency interface through selecting that service and signing the required service agreement.

Selection Condition: subscribeEmergencyLocationReports() supported.

Test Sequence:

1. Method call **subscribeEmergencyLocationReports()**
   Parameters: appEmergencyLocation
   Check: valid value of TpSessionID is returned

2. Method call **unSubsribeEmergencyLocationReports()**
   Parameters: invalid assignmentId
   Check: P_INVALID_ASSIGNMENT_ID, or another suitable exception, is returned.



5.2.4 User status

Test M_US_01

Summary: all methods, successful

Reference: ES 201 915-6 [1], clause 8.4

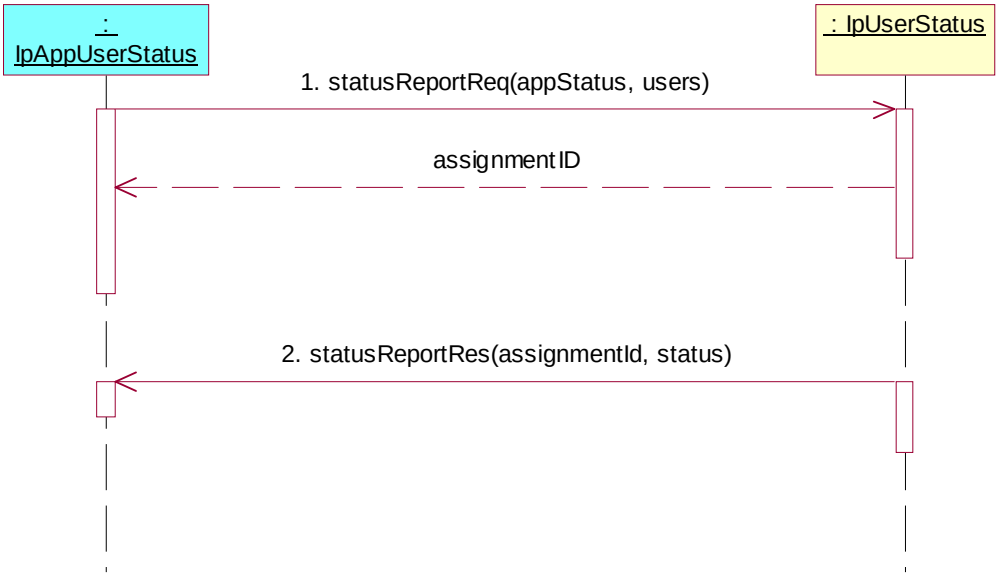
Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserStatus interface through selecting that service and signing the required service agreement.

Selection Condition: statusReportReq() supported.

Test Sequence:

1. Method call **statusReportReq()**
   Parameters: appStatus, users
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **statusReportRes()** method on the tester's (Application) **IpAppUserStatus** interface.
   Parameters: assignmentId, status



Test M_US_02

Summary: all methods, unknown or absent subscriber

Reference: ES 201 915-6 [1], clause 8.4

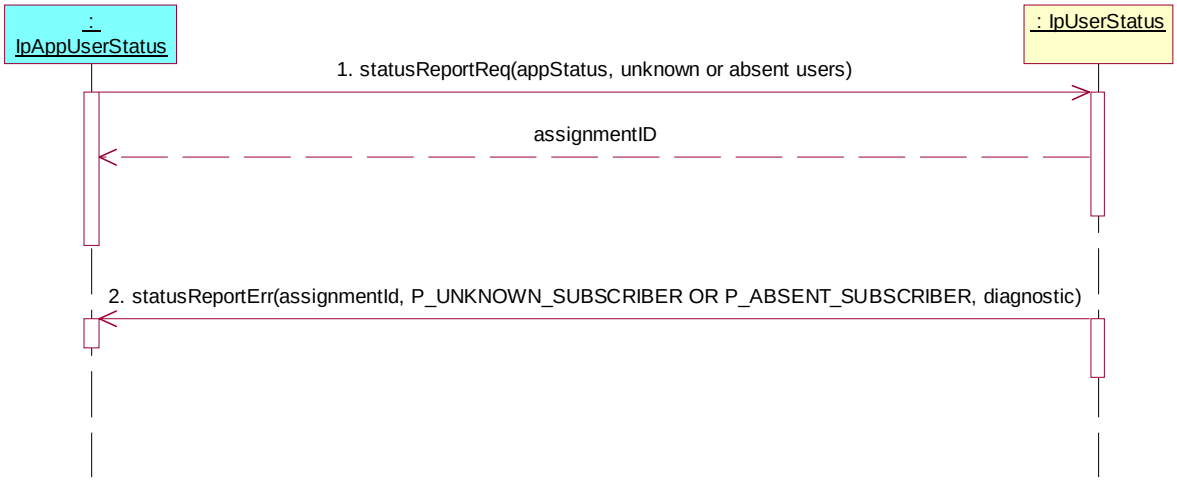
Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserStatus interface through selecting that service and signing the required service agreement.

Selection Condition: statusReportReq() supported.

Test Sequence:

1. Method call **statusReportReq()**
   Parameters: appStatus, users with unknown or absent subscriber
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **statusReportErr()** method on the tester's (Application) **IpAppUserStatus** interface.
   Parameters: assignmentId, cause indicating P_M_UNKNOWN_SUBSCRIBER or P_ABSENT_SUBSCRIBER, diagnostic



Test M_US_03

Summary: all methods, successful

Reference: ES 201 915-6 [1], clause 8.4

Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserStatus interface through selecting that service and signing the required service agreement.

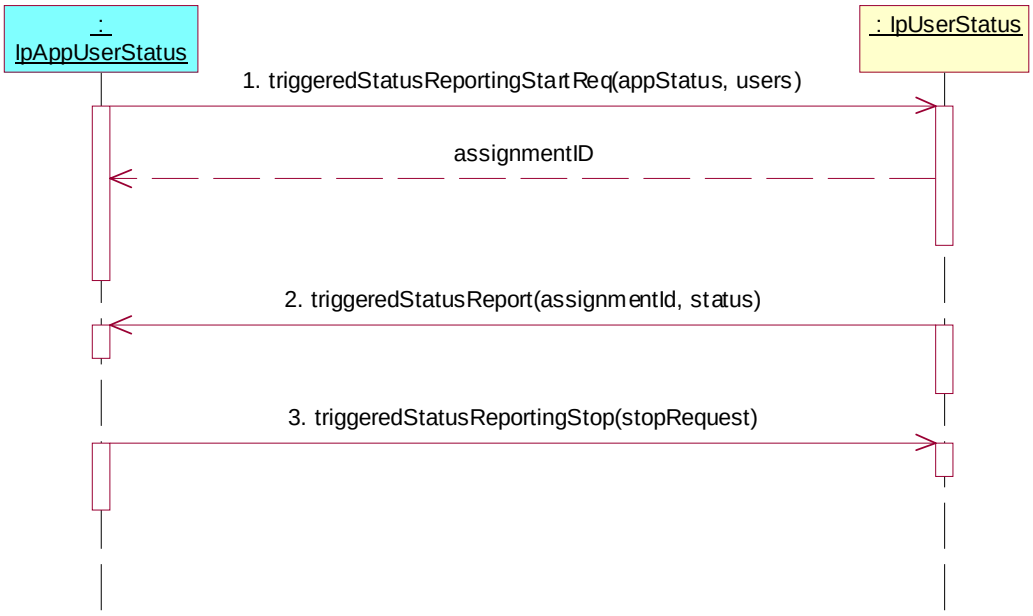
Selection Condition: triggeredStatusReportingStartReq() supported.

Test Sequence:

1. Method call **triggeredStatusReportingStartReq()**
   Parameters: appStatus, users
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **triggeredStatusReport ()** method on the tester's (Application) **IpAppUserStatus** interface.
   Parameters: assignmentId, Status

3. Method call **triggeredStatusReportingStop()**
   Parameters: stoprequest
   Check: no exception is returned. No more triggeredStatusReport() is returned



Test M_US_04

Summary: all methods, unknown or absent subscriber

Reference: ES 201 915-6 [1], clause 8.4

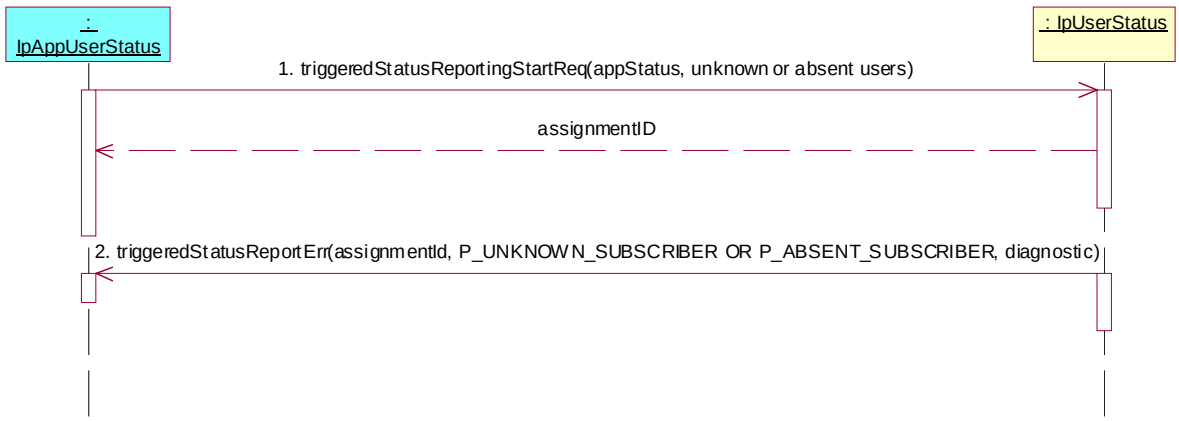
Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserStatus interface through selecting that service and signing the required service agreement.

Selection Condition: triggeredStatusReportingStartReq() supported.

Test Sequence:

1. Method call **triggeredStatusReportingStartReq()**
   Parameters: appStatus, users with unknown or absent subscriber
   Check: valid value of TpSessionID is returned

2. Triggered action: cause IUT to call **triggeredStatusReportErr()** method on the tester's (Application) **IpAppUserStatus** interface.
   Parameters: assignmentId, cause indicating P_M_UNKNOWN_SUBSCRIBER or P_ABSENT_SUBSCRIBER, diagnostic



Test M_US_05

Summary: triggeredStatusReportingStop, P_INVALID_ASSIGNMENT_ID

Reference: ES 201 915-6 [1], clause 8.4

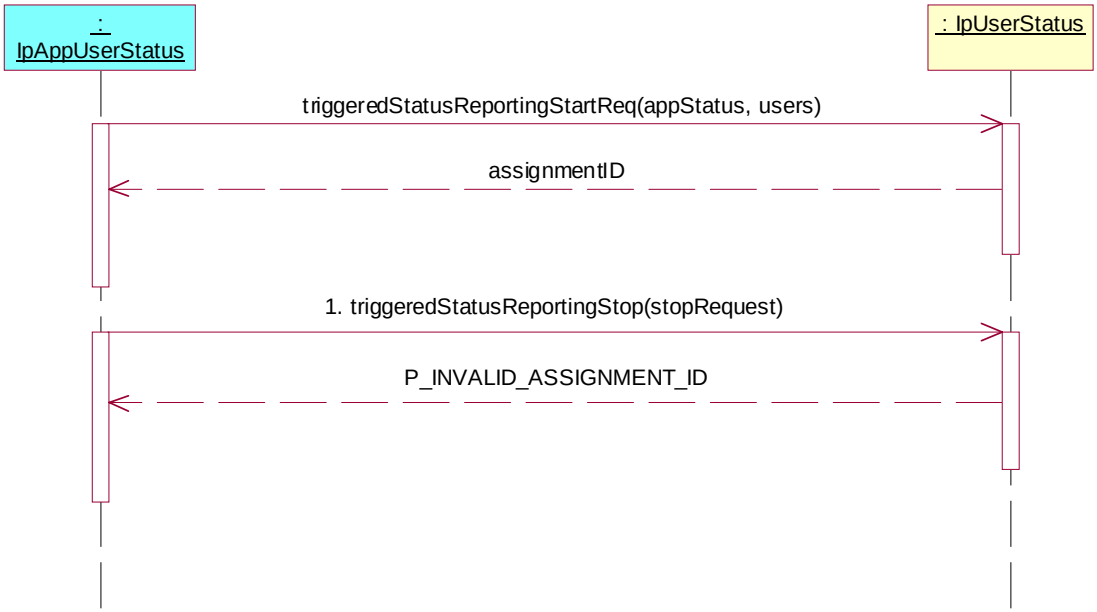
Preamble: Registration of the IUT (User Location SCF) and the tester (application) to the framework. The tester must have obtained a reference to an instance of the IpUserStatus interface through selecting that service and signing the required service agreement.

Selection Condition: triggeredStatusReportingStartReq() supported.

Test Sequence:

1. Method call **triggeredStatusReportingStartReq()**
   Parameters: appStatus, users
   Check: valid value of TpSessionID is returned

2. Method call **triggeredStatusReportingStop ()**
   Parameters: invalid assignmentId
   Check: P_INVALID_ASSIGNMENT_ID exception is returned.



History

Document history		
V1.1.1	June 2003	Membership Approval Procedure MV 20030801: 2003-06-03 to 2003-08-01
V1.1.1	August 2003	Publication