Enabler Test Specification for SUPL

Candidate Version 1.0 – 16 Jan 2007

Open Mobile Alliance

OMA-ETS-SUPL-V1_0-20070116-C

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1. Scope

This document describes in detail available test cases for SUPL V1.0-20060127 including changes incorporated in SUPL AD version AD-ULP-V1_0-20060628-C and SUPL TS version TS-ULP-V1_0-20060704-C.

URL:http://www.openmobilealliance.org/

The test cases are split in two categories, conformance and interoperability test cases.

The conformance test cases are aimed to verify the adherence to normative requirements described in the technical specifications.

The interoperability test cases are aimed to verify that implementations of the specifications work satisfactory.

2. References

2.1 Normative References

[IOPPROC]	"OMA Interoperability Policy and Process", Version 1.3, Open Mobile Alliance™, OMA-ORG-IOP-Process-V1_3, URL:http://www.openmobilealliance.org/
[RFC2119]	"Key words for use in RFCs to Indicate Requirement Levels", S. Bradner, March 1997, URL:http://www.ietf.org/rfc/rfc2119.txt
[ENABLERSPEC]	OMA-ERP-SUPL-V1_0, Open Mobile Alliance™, URL:http://www.openmobilealliance.org/
[IOPETR]	OMA-LOC-SUPL-ETR-V1_0, Open Mobile Alliance™, URL:http://www.openmobilealliance.org/
[IOPETG]	OMA-ETG-SUPL-V1_0, Open Mobile Alliance™, URL:http://www.openmobilealliance.org/
[IOPEICS]	OMA-EICS-Client-SUPL-V1_0, Open Mobile Alliance™, URL:http://www.openmobilealliance.org/ and
	OMA-EICS-Server-SUPL-V1_0, Open Mobile Alliance™, URL:http://www.openmobilealliance.org/
[SUPLAD]	"Secure User Plane Location Architecture", Open Mobile Alliance™, OMA-AD-SUPL-V1_0 URL:http//www.openmobilealliance.org/
[SUPLTS]	"UserPlane Location Protocol", Open Mobile Alliance™, OMA-TS-ULP-V1_0 URL:http//www.openmobilealliance.org/

2.2 Informative References

None

3. Terminology and Conventions

3.1 Conventions

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].

All sections and appendixes, except "Scope", are normative, unless they are explicitly indicated to be informative.

The following numbering scheme is used:

>   **xxx-y.z-con-number** where:
> | | |
> |---|---|
> | xxx | Name of enabler, e.g. MMS or Browsing |
> | y.z | Version of enabler release, e.g. 1.2 or 1.2.1 |
> | 'con' | Indicating this test is a conformance test case |
> | number | Leap number for the test case |

Or

>   **xxx-y.z-int-number** where:
> | | |
> |---|---|
> | xxx | Name of enabler, e.g. MMS or Browsing |
> | y.z | Version of enabler release, e.g. 1.2 or 1.2.1 |
> | 'int' | Indicating this test is a interoperability test case |
> | number | Leap number for the test case |

3.2 Definitions

MLS application	An application which requests and consumes the location information
Network Initiated SUPL Services	Network Initiated SUPL Services are services which originate from within the SUPL network as opposed to the SET. For these services, the SUPL Agent resides in the Network.
Proxy Mode	The SPC system will not have direct communication with the SET. In this environment the SLC system will act as a proxy between the SET and the SPC.
Non-Proxy Mode	The SPC system will have direct communication with the SET.
SET Initiated SUPL Services	SET Initiated SUPL Services are services which originate from the SET. For these services, the SUPL Agent resides within the SET.
SUPL Agent	Service access point which accesses the network resources to obtain location information.
SUPL Enabled Terminal (SET)	A device that is capable of communicating with a SUPL network. Examples of this could be a UE in UMTS, a MS in GSM or IS-95, or a PC over an IP-based transport.
SUPL Location Centre (SLC)	Coordinates the operations of SUPL in the network and interacts with the SUPL Enabled Terminal (SET) over User Plane bearer.
SUPL Location Platform (SLP)	Entity responsible for SUPL Service Management and Position Determination. SLP contains the SLC and SPC Functions.
SUPL Positioning Centre (SPC)	Entity in the SUPL network responsible for all messages and procedures required for position calculation and for the delivery of assistance data.

3.3 Abbreviations

AFLT	Advanced Forward Link Trilateration
A-GPS	Assisted GPS
CID	Cell ID
CI	Cell Identity (3GPP)
ECID	Enhanced Cell ID
EOTD	Enhanced Observed Time Difference
FFS	For Further Study

FQDN	Fully Qualified Domain Name
GMLC	Gateway Mobile Location Center
GMT	Greenwich Mean Time
GPS	Global Positioning System
H-SLP	Home SLP
IMSI	International Mobile Subscriber Identity
IP	Internet Protocol
LAC	Location Area Code (3GPP)
LCS	Location Services
MAC	Message Authentication Code
MCC	Mobile Country Code (3GPP)
MLC	Mobile Location Center
MLP	Mobile Location Protocol
MLS	Mobile Location Services
MNC	Mobile Network Code (3GPP)
MNO	Mobile Network Operator
MSID	Mobile Station Identifier
NID	Network ID (C.S0022-A V1.0)
NMR	Network Measurement Report
OMA	Open Mobile Alliance
OTDOA	Observed Time Difference of Arrival
PAP	WAP Push Access Protocol
PPG	Push Proxy Gateway
QoP	Quality of Position
RLP	Roaming Location Protocol
RRC	Radio Resource Control
RRLP	Radio Resource LCS Protocol
R-SLP	Requesting SLP
RNC	Radio Network Controller
SET	SUPL Enabled Terminal
SIM	Subscriber Identity Module
SLC	SUPL Location Center
SLIA	Standard Location Immediate Answer
SLIR	Standard Location Immediate Request
SLP	SUPL Location Platform
SMLC	Serving Mobile Location Center
SMS	Short Message Service
SMSC	Short Message Service Center
SPC	SUPL Positioning Center
SPCF	SUPL Position Calculation Function
SPF	SUPL Privacy Function
SRLIA	Standard Roaming Location Immediate Answer
SRLIR	Standard Roaming Location Immediate Request

SRRF	SUPL Reference Retrieval Function
SSF	SUPL Security Function
SSMF	SUPL Service Management Function
TBD	To Be Developed
TLS	Transport Layer Security
UE	User Equipment
ULP	Userplane Location Protocol
URI	Uniform Resource Identifier
URL	Uniform Resource Locator
V-SLP	Visited SLP
WAP	Wireless Application Protocol

4. Introduction

The purpose of this document is to provide test cases for SUPL Enabler Release 1.0.

Some features in the SUPL enabler may optionally be implemented in mobile devices. The tests associated with these optional features are marked as [Optional] in the test specification.

4.1   Normal Location Session call flows

The majority of the Conformance Test Cases in this document require a Location Session to be carried out, either in part or in full. The call flows for the various possible Location Sessions are given below and shall be followed in all cases unless the Test Case indicates to the contrary.

In general these call flows are in accordance with the [SUPLAD], with all optional fields in all messages not sent by the Conformance Test Tool. Whenever the unit-under-test sends an optional field; it is generally ignored by the Conformance Test Tool. Further details are given in the following sections.

4.1.1   Client testing

4.1.1.1   Network Initiated - Proxy mode

A. The Conformance Test Tool (SLP) initiates the location session with the SET using the SUPL INIT message, which MAY be either a WAP PUSH or an SMS Trigger depending on the capabilities of the SET.

B. Before the SUPL INIT message is sent, the Conformance Test Tool computes and stores a hash of the message. The SUPL INIT message contains session-id, proxy/non-proxy mode indicator and the intended positioning method. The SUPL INIT message does not contain Notification, SLP Address, QoP, Key Id or MAC

C. When the SUPL INIT message is received by the SET it will either attach itself to Packet Data Network if it has not already attached or establish a circuit switched data connection.

D. The SET SHALL establish a secure IP connection to the Conformance Test Tool (SLP) using the SLP address that has been provisioned in the SET.

E. The SET then sends a SUPL POS INIT message to start a positioning session with the Conformance Test Tool (SLP). The SET SHALL send the SUPL POS INIT message even if the SET supported positioning technologies do not include the intended positioning method indicated in the SUPL INIT message. The SUPL POS INIT message contains session-id, SET capabilities, a hash of the received SUPL INIT message (ver) and location identifier (lid). The SET capabilities include the supported positioning methods and associated positioning protocols. The SET MAY provide NMR specific for the radio technology being used. The SET MAY provide its position, if this is supported. The SET MAY set the Requested Assistance Data element in the SUPL POS INIT message.

F. The Conformance Test Tool (SLP) SHALL check that the hash of SUPL INIT message matches the one which it has computed for this particular session.

G. The SET and the Conformance Test Tool (SLP) MAY exchange several successive positioning procedure messages using SUPL POS messages, depending on the posmethod required for the test. If the SET set the Requested Assistance Data element in the SUPL POS INIT message then the Conformance Test Tool (SLP) SHALL send the requested Assistance Data at the beginning of the SUPL POS session

H. For a SET-based positioning session, including Autonomous GPS, the SET calculates the position estimate and passes this to the Conformance Test Tool (SLP) in the SUPL POS session.

I. The Conformance Test Tool (SLP) sends the SUPL END message to the SET informing it that it will not initiate a further positioning procedure and that the location session is finished. The SET SHALL release the secure IP connection to the Conformance Test Tool (SLP) and release all resources related to this session.

J. The Conformance Test Tool (SLP)   releases all resources related to this session

K. If the test requires the position calculation accuracy to be tested against the reference position, the following procedure is followed:

For SET-Assisted positioning methods, the Conformance Test Tool calculates the position based on the positioning information or measurements received from the SET.

For SET-based positioning methods, the SET calculates the position and sends it to the Conformance Test Tool in the SUPL POS session.

The Conformance Test Tool operator compares the calculated position extracted from the Conformance Test Tool with the reference position.

4.1.1.2   Network Initiated - Non-Proxy mode

A. The Conformance Test Tool (SLC) initiates the location session with the SET using the SUPL INIT message, which MAY be either a WAP PUSH or an SMS Trigger depending on the capabilities of the SET.

B. The SUPL INIT message contains session-id, address of the SPC, proxy/non-proxy mode indicator, Key Id, MAC and the intended positioning method. The SUPL INIT message does not contain Notification or QoP.

C. When the SUPL INIT message is received by the SET it will either attach itself to Packet Data Network if it has not already attached or establish a circuit switched data connection.

D. The SET uses the address provisioned in the SET to establish a secure IP connection to the Conformance Test Tool (SLC).

E. The SET SHALL send a SUPL AUTH REQ message to the Conformance Test Tool (SLC).The SUPL AUTH REQ message SHALL contain session-id, key-id 2 and SET nonce.

F. The Conformance Test Tool (SLC) uses key-id 2 and set nonce to create a key to be used for mutual authentication.

G. The Conformance Test Tool (SLC) returns a SUPL AUTH RESP message to the SET. The SUPL AUTH RESP message SHALL contain the session-id.

H. The SET establishes a secure IP connection to the Conformance Test Tool (SPC) according to the SPC address received in the SLP Address field of the SUPL INIT message.

I. The SET then sends a SUPL POS INIT message to start a positioning session with the Conformance Test Tool (SPC) The SET SHALL send the SUPL POS INIT message even if the SET supported positioning technologies do not include the intended positioning method indicated in the SUPL INIT message. The SUPL POS INIT message contains session-id, SET capabilities and location identifier (lid). The SET capabilities include the supported positioning methods and associated positioning protocols. The SET MAY provide NMR specific for the radio technology being used. The SET MAY provide its position, if this is supported. The SET MAY set the Requested Assistance Data element in the SUPL POS INIT message. The SET SHALL also release the IP connection to the Conformance Test Tool (SLC) and releases all resources related to this session.

J. The SET and the Conformance Test Tool (SPC) MAY exchange several successive positioning procedure messages using SUPL POS messages, depending on the

posmethod required for the test. If the SET set the Requested Assistance Data element in the SUPL POS INIT message then the Conformance Test Tool (SPC) SHALL send the requested Assistance Data at the beginning of the SUPL POS session

K. In the case of a SET-based positioning session, including Autonomous GPS, the SET calculates the position estimate and passes this to the Conformance Test Tool (SPC) in the SUPL POS session

L. The Conformance Test Tool (SPC) sends the SUPL END message to the SET informing it that it will not initiate a further positioning procedure and that the location session is finished. The SET SHALL release the secure IP connection to the Conformance Test Tool (SPC) and release all resources related to this session.

M. The Conformance Test Tool (SPC) releases all resources related to this session

N. If the test requires the position calculation accuracy to be tested against the reference position, the following procedure is followed:

For SET-Assisted positioning methods, the Conformance Test Tool calculates the position based on the positioning information or measurements received from the SET.

For SET-based positioning methods, the SET calculates the position and sends it to the Conformance Test Tool in the SUPL POS session.

The Conformance Test Tool operator compares the calculated position extracted from the Conformance Test Tool with the reference position.

4.1.1.3   SET Initiated - Proxy mode

A. The User triggers the SUPL Agent on the SET to start a location session.

B. If the SET is not already attached to Packet Data Network services it will either attach itself or establish a circuit switched data connection.

C. The SUPL Agent on the SET uses the default address that has been provisioned in the SET to establish a secure IP connection to the Conformance Test Tool (SLP) and sends a SUPL START message to start a positioning session with the Conformance Test Tool (SLP). The SUPL START message contains session-id, SET capabilities and location identifier (lid). The SET capabilities include the supported positioning methods and associated positioning protocols. The SUPL START message MAY contain QoP.

D. If the SUPL START message includes QoP the Conformance Test Tool (SLP) SHALL ignore it.

E. The Conformance Test Tool (SLP) responds with the SUPL RESPONSE message to the SET. The SUPL RESPONSE message contains the session-id but no SLP address, to indicate to the SET that a new connection SHALL NOT be established. The SUPL RESPONSE message also contains the posmethod required for the test.

F. After the SET receives the SUPL RESPONSE message from the Conformance Test Tool (SLP), the SET sends a SUPL POS INIT message. The SUPL POS INIT message contains session-id, SET capabilities and location identifier (lid). The SET capabilities include the supported positioning methods and associated positioning protocols. The SET MAY optionally provide NMR specific for the radio technology being used. The SET MAY provide its position, if this is supported. The SET MAY include the first SUPL POS element in the SUPL POS INIT message. The SET MAY set the Requested Assistance Data element in the SUPL POS INIT message.

G. The SET and the Conformance Test Tool (SLP) MAY exchange several successive positioning procedure messages using SUPL POS messages, depending

on the posmethod required for the test. If the SET set the Requested Assistance Data element in the SUPL POS INIT message then the Conformance Test Tool (SLP) SHALL send the requested Assistance Data at the beginning of the SUPL POS session

H.   The Conformance Test Tool (SLP) calculates the position estimate based on the received positioning measurements (SET-Assisted) or the SET calculates the position estimate (SET-Based including Autonomous GPS).

I.   Once the position calculation is complete the Conformance Test Tool (SLP) sends the SUPL END message to the SET informing it that it will not initiate a further positioning procedure and that the location session is finished. Depending on positioning method and used positioning protocol the Conformance Test Tool (SLP) MAY add the determined position to the SUPL END message.

J.   The SET SHALL release the secure IP connection and release all resources related to this session.

K.   The Conformance Test Tool (SLP)   releases all resources related to this session

L.   If the test requires the position calculation accuracy to be tested against the reference position, the following procedure is followed:

For SET-Assisted positioning methods, the Conformance Test Tool calculates the position based on the positioning information or measurements received from the SET.

For SET-based positioning methods, the SET calculates the position and sends it to the SUPL agent.

The Conformance Test Tool operator compares the calculated position, extracted from either the Conformance Test Tool or from the SUPL agent on the SET, with the reference position.

4.1.1.4   SET Initiated - Non-Proxy mode

A.   The User triggers the SUPL Agent on the SET to start a location session.

B.   If the SET is not already attached to Packet Data Network services it will either attach itself or establish a circuit switched data connection.

C.   The SUPL Agent on the SET uses the address that has been provisioned in the SET to establish a secure IP connection to the Conformance Test Tool (SLC) and sends a SUPL START message to start a positioning session with the Conformance Test Tool (SLC). The SUPL START message contains session-id, SET capabilities and location identifier (lid). The SET capabilities include the supported positioning methods and associated positioning protocols. The SUPL START message MAY contain QoP.

D.   The Conformance Test Tool (SLC) generates a session id for the SUPL session and also generates a key to be used for mutual SPC/SET authentication.

E.   If the SUPL START message includes QoP the Conformance Test Tool (SLC) SHALL ignore it.

F.   The Conformance Test Tool (SLC) responds with a SUPL RESPONSE message to the SET. The SUPL RESPONSE message contains the session-id, the created key, and key id, to be used by the SET for mutual SPC/SET authentication, and the address of the Conformance Test Tool (SPC) to indicate to the SET that a new secure IP connection SHALL be established. The SUPL RESPONSE message also contains the posmethod required for the test.

G. To initiate the actual positioning session the SET opens a new secure IP connection to the Conformance Test Tool (SPC) using the address received in the SLP Address field of the SUPL RESPONSE message.

H. Then the SET sends a SUPL POS INIT message. The SET releases the existing secure IP connection to the Conformance Test Tool (SLC) before a new secure IP connection is established. The SUPL POS INIT message contains session-id, SET capabilities and location identifier (lid). The SET capabilities include the supported positioning methods and associated positioning protocols. The SET MAY provide NMR specific for the radio technology being used. The SET MAY provide its position, if this is supported. The SET MAY include the first SUPL POS element in the SUPL POS INIT message. The SET MAY set the Requested Assistance Data element in the SUPL POS INIT message.

I. The SET and the Conformance Test Tool (SPC) MAY exchange several successive positioning procedure messages using SUPL POS messages, depending on the posmethod required for the test. If the SET set the Requested Assistance Data element in the SUPL POS INIT message then the Conformance Test Tool (SPC) SHALL send the requested Assistance Data at the beginning of the SUPL POS session

J. Either the Conformance Test Tool calculates the position estimate based on the received positioning measurements (SET-Assisted) or the SET calculates the position estimate (SET-Based including Autonomous GPS).

K. Once the position calculation is complete the Conformance Test Tool (SPC) SHALL send the SUPL END message to the SET informing it that it will not initiate a further positioning procedure and that the location session is finished. Depending on positioning method and used positioning protocol the Conformance Test Tool (SPC) MAY add the determined position to the SUPL END message.

L. The SET SHALL release the secure IP connection to the Conformance Test Tool (SPC) and release all resources related to this session.

M. The Conformance Test Tool (SPC) releases all resources related to this session

N. If the test requires the position calculation accuracy to be tested against the reference position, the following procedure is followed:

For SET-Assisted positioning methods, the Conformance Test Tool calculates the position based on the positioning information or measurements received from the SET.

For SET-based positioning methods, the SET calculates the position and sends it to the SUPL agent.

The Conformance Test Tool operator compares the calculated position, extracted from either the Conformance Test Tool or from the SUPL agent on the SET, with the reference position.

4.1.2 Server testing

4.1.2.1 Network Initiated - Proxy mode

A. Ensure there is no previously computed position available at the SLP and that no notification or verification is required.

B. The SUPL Agent issues an MLP SLIR message to the SLP.

C. The SLP initiates the location session with the Conformance Test Tool (SET) using the SUPL INIT message, which MAY be either a WAP PUSH or an SMS Trigger depending on the capabilities of the SLP.

D. The SUPL INIT message contains session-id, proxy/non-proxy mode indicator and the intended positioning method. The SUPL INIT message MAY contain the desired QoP, a Key Id, and a MAC. The SUPL INIT message should not contain Notification. Before the SUPL INIT message is sent the SLP computes and stores a hash of the message.

E. When the SUPL INIT message is received by the Conformance Test Tool (SET) it will either attach itself to Packet Data Network if it has not already attached or establish a circuit switched data connection. If a Key Id and a MAC is present in the received SUPL INIT message, the Conformance Test Tool (SET) SHALL check these parameters are correctly encoded. If a desired QoP is present in the received SUPL INIT message, the Conformance Test Tool (SET) SHALL ignore it.

F. The Conformance Test Tool (SET) establishes a secure IP connection to the SLP using the SLP address known to the Conformance Test Tool (SET). The Conformance Test Tool (SET) then sends a SUPL POS INIT message to start a positioning session with the SLP. The SUPL POS INIT message contains session-id, SET capabilities, a hash of the received SUPL INIT message (ver) and location identifier (lid). The SET capabilities include the supported positioning methods and associated positioning protocols as required by the test. The Conformance Test Tool (SET) MAY provide NMR specific for the radio technology being used, if required by the test. The SUPL POS INIT message does not contain either Requested Assistance Data or Position.

G. The SLP checks that the hash of SUPL INIT message matches the one it has computed for this particular session.

H. Based on the SUPL POS INIT message including posmethod(s) indicated by the Conformance Test Tool (SET) the SLP SHALL then determine the posmethod.

I. The Conformance Test Tool (SET) and the SLP MAY exchange several successive positioning procedure messages using SUPL POS messages, using the supported positioning protocol from the SUPL POS INIT message and depending on the posmethod used for the test.

J. The SLP then calculates the position estimate based on the received positioning measurements (SET-Assisted) or the Conformance Test Tool (SET) forwards its actual position to the SLP in the SUPL POS session (SET-Based).

K. Once the position calculation is complete the SLP sends the SUPL END message to the Conformance Test Tool (SET) informing it that it will not initiate a further positioning procedure and that the location session is finished.

L. The Conformance Test Tool (SET) releases the secure IP connection to the SLP and releases all resources related to this session.

M. The SLP sends the position estimate back to the SUPL Agent by means of the MLP SLIA message and the SLP SHALL release all resources related to this session.

N. If the test requires the position calculation accuracy to be tested against the reference position, the Conformance Test Tool operator compares the calculated position, extracted from the SUPL agent, with the reference position.

4.1.2.2   Network Initiated - Non-Proxy mode

A. Ensure there is no previously computed position available at the SLP and that no notification or verification is required.

B. The SUPL Agent issues an MLP SLIR message to the SLC

C. The SLC initiates the location session with the Conformance Test Tool (SET) using the SUPL INIT message, which MAY be either a WAP PUSH or an SMS Trigger depending on the capabilities of the SLP.

D. The SUPL INIT message contains session-id, address of the SPC, proxy/non-proxy mode indicator, Key Id, MAC and the intended positioning method. The SUPL INIT message MAY contain the desired QoP. The SUPL INIT message should not contain Notification.

E. When the SUPL INIT message is received by the Conformance Test Tool (SET) it will either attach itself to Packet Data Network if it has not already attached or establish a circuit switched data connection. The Conformance Test Tool (SET) SHALL check the Key Id and MAC parameters are correctly encoded. If a desired QoP is present in the received SUPL INIT message, the Conformance Test Tool (SET) SHALL ignore it.

F. The Conformance Test Tool (SET) uses the known address to establish a secure IP connection to the SLC. The Conformance Test Tool (SET) then sends a SUPL AUTH REQ message to the SLC. The SUPL AUTH REQ message contains session-id, key-id 2 and SET nonce.

G. The SLC uses key-id 2 and SET nonce to create a key to be used for mutual SPC/SET authentication. The SLC forwards the created key to the SPC through internal communication and returns a SUPL AUTH RESP message to the Conformance Test Tool (SET). The SUPL AUTH RESP message SHALL contain the session-id.

H. The Conformance Test Tool (SET) establishes a secure IP connection to the SPC according to the address received in the SLP Address field of the SUPL INIT message.

I. The Conformance Test Tool (SET) sends a SUPL POS INIT message to start a positioning session with the SPC. The SUPL POS INIT message contains session-id, SET capabilities and location identifier (lid). The SET capabilities include the supported positioning methods and associated positioning protocols. The Conformance Test Tool (SET) MAY provide NMR specific for the radio technology being used, if required by the test. The SUPL POS INIT message does not contain Requested Assistance Data or Position. The Conformance Test Tool (SET) also releases the IP connection to the SLC and releases all resources related to this session.

J. Based on the SUPL POS INIT message including posmethod(s) indicated by the Conformance Test Tool (SET) the SPC SHALL determine the posmethod.

K. The Conformance Test Tool (SET) and the SPC MAY exchange several successive positioning procedure messages using SUPL POS messages, using the supported positioning protocol from the SUPL POS INIT message and depending on the posmethod used for the test.

L. The SPC then calculates the position estimate based on the received positioning measurements (SET-Assisted) or the Conformance Test Tool (SET) forwards its actual position to the SPC in the SUPL POS session (SET-Based).

M. Once the position calculation is complete the SPC sends the SUPL END message to the Conformance Test Tool (SET) informing it that it will not initiate a further positioning procedure and that the location session is finished.

N. The Conformance Test Tool (SET) releases the secure IP connection to the SPC and releases all resources related to this session.

O. The SPC informs the SLC of the SUPL session termination and the determined position. The SPC SHALL release all resources related to this session.

P. The SLC sends the position estimate back to the SUPL Agent by means of the MLP SLIA message and the SLC SHALL release all resources related to this session.

Q. If the test requires the position calculation accuracy to be tested against the reference position, the Conformance Test Tool operator compares the calculated position, extracted from the SUPL agent, with the reference position.

4.1.2.3   SET Initiated - Proxy mode

A. If the Conformance Test Tool (SET) is not already attached to Packet Data Network services it will attach itself or establish a circuit switched data connection.

B. The Conformance Test Tool (SET) uses the known default address to establish a secure IP connection to the SLP and sends a SUPL START message to start a positioning session with the SLP.

C. The SUPL START message contains session-id, SET capabilities and location identifier (lid). The SET capabilities include the positioning methods and associated positioning protocols required for the test. The SUPL START message does not contain QoP.

D. Consistent with the SUPL START message including posmethod(s) indicated by the Conformance Test Tool (SET), the SLP SHALL determine the posmethod. If required for the posmethod, the SLP SHALL use the supported positioning protocol from the SUPL START message.

E. The SLP SHALL respond with the SUPL RESPONSE message to the Conformance Test Tool (SET). The SUPL RESPONSE message contains the session-id but no H-SLP address, to indicate to the Conformance Test Tool (SET) that a new connection SHALL NOT be established. The SUPL RESPONSE also contains the posmethod.

F. After the Conformance Test Tool (SET) receives the SUPL RESPONSE message from the SLP, the Conformance Test Tool (SET) sends a SUPL POS INIT message. The SUPL POS INIT message contains session-id, SET capabilities and location identifier (lid). The SET capabilities include the positioning methods and associated positioning protocols required for the test. The Conformance Test Tool (SET) MAY provide NMR specific for the radio technology being used, if required by the test. For 3GPP2 testing the Conformance Test Tool (SET) MAY include the first SUPL POS element in the SUPL POS INIT message. The SUPL POS INIT message does not contain Requested Assistance Data or Position.

G. The Conformance Test Tool (SET) and the SLP MAY exchange several successive positioning procedure messages using SUPL POS messages, using the supported positioning protocol from the SUPL POS INIT message and depending on the posmethod used for the test.

H. The SLP then calculates the position estimate based on the received positioning measurements (SET-Assisted) or the Conformance Test Tool (SET) forwards its actual position to the SLP in the SUPL POS session (SET-Based).

I. Once the position calculation is complete the SLP SHALL send the SUPL END message to the Conformance Test Tool (SET) informing it that it will not initiate a further positioning procedure and that the location session is finished. Depending on positioning method and used positioning protocol the SLP MAY add the determined position to the SUPL END message.

J. The Conformance Test Tool (SET) releases the secure IP connection to the SLP and releases all resources related to this session.

K.   The SLP SHALL release all resources related to this session.

L. If the test requires the position calculation accuracy to be tested against the reference position, the Conformance Test Tool operator compares the calculated position, extracted from the Conformance Test Tool, with the reference position.

4.1.2.4 SET Initiated - Non-Proxy mode

A. If the Conformance Test Tool (SET) is not already attached to Packet Data Network services it will attach itself or establish a circuit switched data connection.

B. The Conformance Test Tool (SET) uses the known address to establish a secure IP connection to the SLC and sends a SUPL START message to start a positioning session with the SLC.

C. The SUPL START message contains session-id, SET capabilities and location identifier (lid). The SET capabilities include the positioning methods and associated positioning protocols required for the test. The SUPL START message does not contain QoP.

D. The SLC generates a session id for the SUPL session and informs the SPC of an incoming SUPL POS session from the Conformance Test Tool (SET) identified by the generated session-id. The SLC also generates a key to be used for mutual SPC/SET authentication. This key is also forwarded to the SPC. In collaboration the SLC and SPC determine the initial location based on the lid received in the SUPL START message received from the Conformance Test Tool (SET).

E. Consistent with the SUPL START message including posmethod(s) indicated by the Conformance Test Tool (SET), the SLC SHALL determine the posmethod. If required for the posmethod, the SLC SHALL use the supported positioning protocol from the SUPL START message.

F. The H-SLP SHALL respond with a SUPL RESPONSE message to the Conformance Test Tool (SET). The SUPL RESPONSE message contains the session-id, the created key, and key id, to be used by the Conformance Test Tool (SET) for mutual SPC/SET authentication, and the address of the SPC to indicate to the Conformance Test Tool (SET) that a new secure IP connection SHALL be established. The SUPL RESPONSE message also contains the posmethod.

G. To initiate the actual positioning session the Conformance Test Tool (SET) opens a new secure IP connection to the SPC using the address received in the SLP address field of the SUPL RESPONSE message. The Conformance Test Tool (SET) then sends a SUPL POS INIT message. The Conformance Test Tool releases the existing secure IP connection to the SLP before a new secure IP connection is established.

H. The SUPL POS INIT message contains session-id, SET capabilities and location identifier (lid). The SET capabilities include the positioning methods and associated positioning protocols. The Conformance Test Tool (SET) MAY provide NMR specific for the radio technology being used, if required by the test. For 3GPP2 testing, the Conformance Test Tool (SET) MAY include the first SUPL POS element in the SUPL POS INIT message. The SUPL POS INIT message does not contain Requested Assistance Data or Position.

The SPC informs the SLC that the positioning procedure is started.

I. The Conformance Test Tool (SET) and the SPC MAY exchange several successive positioning procedure messages using SUPL POS messages, using the supported positioning protocol from the SUPL POS INIT message and depending on the posmethod used for the test.

J. For a SET-assisted positioning session the SPC then calculates the position estimate based on the received positioning measurements.

K. Once the position calculation is complete the SPC SHALL send the SUPL END message to the Conformance Test Tool (SET) informing it that it will not initiate a further positioning procedure and that the location session is finished. Depending on positioning method and used positioning protocol the SPC MAY add the determined position to the SUPL END message.

L. When the SUPL END message is received the Conformance Test Tool (SET) releases the secure IP connection to the SPC and release all resources related to this session.

M. The SPC informs the SLC that the positioning procedure is finished. The SLP SHALL release all resources related to this session.

N. If the test requires the position calculation accuracy to be tested against the reference position, the Conformance Test Tool operator compares the calculated position, extracted from the Conformance Test Tool, with the reference position.

4.2   Acceptable Position Estimates

Many Test Cases in this document require that a Location Session completes successfully; it is assumed that for a Test Case to complete successfully it will produce an acceptable Position Estimate. In addition some Test Cases in this document specifically require that a Location Session produces an acceptable Position Estimate.

The OMA does not specify any requirements for the accuracy of a Position Estimate in order for it to be judged as being acceptable, therefore finally this must be left to the judgment and experience of those running the tests. However some guidance is given below which may be used if deemed useful.

The figures given below are based on expected accuracies of Position Estimates from various sources in the industry, with an additional allowance for the fact that no requirements are specified by the OMA.

In all cases ideal test conditions are assumed with strong, noise free, signals. For A-GPS and GPS testing, these test conditions should be similar to an "outdoor" or "clear view of sky" environment; for other testing, these test conditions should be similar to an urban or city environment. Otherwise, the accuracy figures mentioned below may not hold and under less than ideal conditions they should be relaxed further.

Positioning Method used in Location Session	Acceptable accuracy of Position Estimate
A-GPS	+/- 100m
Autonomous GPS	+/- 100m
AFLT	+/- 250m
Cell ID	+/- 5km
Enhanced Cell / sector	+/- 1km
EOTD	+/- 250m
OTDOA	FFS

Table Acceptable accuracies of Position Estimates

4.3   A-GPS Assistance Data

Many Conformance Test Cases in this document require that an A-GPS Location Session is run. Normally this will take place under laboratory conditions using a simulated GPS constellation and suitable Assistance Data for that simulation. The OMA does not specify the GPS constellation or Assistance Data to be used under these circumstances, however suitable scenarios and associated Assistance Data is specified by 3GPPand 3GPP2 for similar testing. The details can be found in the following documents:

- For testing using RRLP protocol: [3GPP TS 51.010]

- For testing using RRC protocol: [3GPP TS 34.123]

- For testing using TIA-801 protocol: [3GPP2 TIA-916]

5. SUPL Conformance Test Cases

5.1 Client Conformance Testing, Network Initiated

5.1.1 Basic Functionality

5.1.1.1 Version.

5.1.1.1.1 SUPL-1.0-con-000 - Compatible Versions.

Test Case Id	SUPL-1.0-con-000
Test Object	Client
Test Case Description	To test SET correctly accepts compatible Version numbers in SUPL messages
Specification Reference	ULP 5, 6, 7, 8
SCR Reference	ULP-B-C-001, ULP-B-C-002, ULP-B-C-003
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	Test 1: 1. Set the Version number supported in the Conformance Test Tool to a higher Min and Serv ind than that supported by the SET 2. Start a NI Location Session 3. After the Conformance Test Tool sends SUPL INIT to the SET ensure the SET responds with SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode) and the Location Session completes successfully. Test 2: 4. If applicable repeat test from step 1 to step 3 with the Min and Serv ind set to lower values than the maximum values supported by the SET
Pass-Criteria	Test 1and 2: 1. At step 3 the SET shall respond with SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode) with the correct Version number supported by the SET

5.1.1.1.2 SUPL-1.0-con-001 - Unsupported Version.

Test Case Id	SUPL-1.0-con-001
Test Object	Client
Test Case Description	To test SET correctly rejects unsupported Version number in SUPL messages
Specification Reference	ULP 5, 6, 7, 8
SCR Reference	ULP-B-C-001, ULP-B-C-002, ULP-B-C-003
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case

Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: None
Test Procedure	1. Set the Version number supported in the Conformance Test Tool to a higher Maj than that supported by the SET.
	2. Start a NI Location Session.
	3. After the Conformance Test Tool sends SUPL INIT to the SET, ensure the SET responds with SUPL END with Status Code set to versionNotSupported and a correctly calculated Ver parameter.
	4. The Location Session ends and the SET should release the secure IP connection.
Pass-Criteria	1. At step 3 the SET shall respond with SUPL END with Status Code set to versionNotSupported and a correctly calculated Ver parameter.
	2. At step 4 the SET shall release the secure IP connection.

5.1.1.2   Session ID.

5.1.1.2.1   SUPL-1.0-con-002 - Correct Session ID.

Test Case Id	SUPL-1.0-con-002
Test Object	Client
Test Case Description	To test SET correctly actions Session ID
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-B-C-001, ULP-B-C-002, ULP-B-C-003
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: None
Test Procedure	1. Set the SLP Session ID in the Conformance Test Tool to a valid value with the SLP ID using the Parameter type IPAddress, IPv4.
	2. Start a NI Location Session
	3. After the Conformance Test Tool sends SUPL INIT to the SET ensure the SET responds with SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode) with a correct full Session ID and the Location Session completes successfully.
	4. Repeat step 1 through step 3 with the SLP ID using the Parameter type IPAddress, IPv6.
	5. Repeat step 1 through step 3 with the SLP ID using the Parameter type FQDN.
Pass-Criteria	1. At step 3 in each case the SET shall respond with SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode) with a correct full Session ID

5.1.1.2.2   SUPL-1.0-con-003 - Incorrect SET Session ID.

Test Case Id	SUPL-1.0-con-003
Test Object	Client
Test Case Description	To test SET correctly rejects an incorrect SET Session ID

Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-B-C-001, ULP-B-C-002, ULP-B-C-003
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	1. Start a NI Location Session. 2. In the SUPL INIT message sent from the Conformance Test Tool to the SET, include a plausible SET Session ID in the Session ID field. 3. Ensure the SET responds with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID. 4. The Location Session ends and the SET should release the secure IP connection. 5. Start a NI Location Session. 6. After the SET sends SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode) to the Conformance Test Tool, send SUPL POS (proxy mode) or SUPL AUTH RESP (non- proxy mode) from the Conformance Test Tool to the SET with an incorrect value of Session ID in the SET Session ID field (i.e. set Session ID to a different value from that received from the SET) 7. Ensure the SET responds with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID. 8. The Location Session ends and the SET should release the secure IP connection. 9. Repeat step 5 through step 8, but at step 6 instead use an incorrect value of SET ID in the SET Session ID field (i.e. set SET ID to a different value or a different parameter type from that received from the SET)
Pass-Criteria	1. At step 3, and at step 7 in both cases, the SET shall respond with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID. 2. At step 4, and at step 8 in both cases, the SET shall release the secure IP connection.

5.1.1.2.3 SUPL-1.0-con-004 - Missing or incorrect SLP Session ID.

Test Case Id	SUPL-1.0-con-004
Test Object	Client
Test Case Description	To test SET correctly rejects a missing or incorrect SLP Session ID
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-B-C-001, ULP-B-C-002, ULP-B-C-003
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None

Test Procedure	1. Start a NI Location Session.
	2. In the SUPL INIT message sent from the Conformance Test Tool to the SET, do not include SLP Session ID in the Session ID field.
	3. Ensure the SET responds with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID.
	4. The Location Session ends and the SET should release the secure IP connection.
	5. Start a NI Location Session.
	6. After the SET sends SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode) to the Conformance Test Tool, send SUPL POS (proxy mode) or SUPL AUTH RESP (non- proxy mode) from the Conformance Test Tool to the SET with an incorrect value of Session ID in the SLP Session ID field (i.e. set Session ID to a different value from that used in the SUPL INIT message)
	7. Ensure the SET responds with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID.
	8. The Location Session ends and the SET should release the secure IP connection.
	9. Repeat step 5 through step 8, but at step 6 instead use an incorrect value of SLP ID in the SLP Session ID field (i.e. set SLP ID to a different value or a different parameter type from that used in the SUPL INIT message)
Pass-Criteria	1. At step 3, and at step 7 in both cases, the SET shall respond with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID.
	2. At step 4, and at step 8 in both cases, the SET shall release the secure IP connection.

5.1.1.3   Optional Features

5.1.1.3.1   SUPL-1.0-con-006 - Optional parameters not supported.

Test Case Id	SUPL-1.0-con-006
Test Object	Client
Test Case Description	To test SET correctly ignores optional parameters sent by the SLP that the SET does not support
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-001, ULP-D-C-001, ULP-D-C-007
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: SET does not support one or more parameters from the table below

Test Procedure	1. In the Conformance Test Tool, for each parameter listed in the table below which the SET does not support, run the corresponding Test, setting to valid, realistic values the parameter(s) that the SET does not support. Note that if the SET does not support more than one parameter then Tests may be effectively combined into a single Test if required.
	2. For each Test start a Network Initiated Location Session with the parameter(s) sent in the appropriate message.
	3. For each Test ensure the Location Session completes successfully.
	4. Ensure the SET releases the secure IP connection.
Pass-Criteria	1. At step 3 the Location Session shall complete successfully.
	2. At step 4 the SET shall release the secure IP connection.

Test #	Parameter not supported by SET	Notes
Test 1	Notification in SUPL INIT	In Notification include RequestorID and ClientName fields
Test 2	QoP in SUPL INIT	In QoP include Vertical accuracy, Maximum Location Age and Delay fields

Table 1: Parameters not supported by SET

5.1.2   Initiation of SUPL session by SLP

5.1.2.1   Support of WAP Push and MT SMS

5.1.2.1.1   SUPL-1.0-con-010 - WAP Push and, or MT SMS support.

Test Case Id	SUPL-1.0-con-010
Test Object	Client
Test Case Description	To test SET correctly supports WAP Push and, or MT SMS
Specification Reference	ULP 6
SCR Reference	ULP-C-C-001, ULP-A-C-007, ULP-A-C-008, ULP-B-C-004, ULP-B-C-005
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: None
Test Procedure	Test 1: If WAP Push Access Protocol supported by the SET:
	1. Start a NI Location Session using WAP Push Access Protocol with content type set to 0X03020312 and x-application-id-field set to 0X090
	2. Ensure the Location Session completes successfully.
	3. Repeat the test from step 1 to step 2 with content type set to application/vnd.omaloc-supl-init and x-application-id-field set to x-oma-aplication:ulp.ua.
	Test 2: If MT SMS supported by the SET:
	4. Repeat the test from step 1 to step 2 using MT SMS if supported by the SET.

Pass-Criteria	Test 1 and 2:
	1. At step 2 in each case the Location Session shall complete successfully.

5.1.2.1.2 SUPL-1.0-con-013 - Incorrect WAP Push message content.

Test Case Id	SUPL-1.0-con-013
Test Object	Client
Test Case Description	To test SET correctly rejects incorrect WAP Push message content
Specification Reference	ULP 5.1
SCR Reference	ULP-C-C-001, ULP-A-C-007, ULP-A-C-008, ULP-B-C-004, ULP-B-C-005
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: SET supports WAP Push
Test Procedure	1. Start a NI Location Session using WAP Push Access Protocol with incorrect content type in the WAP Push by setting the content type to some other value than application/vnd.omaloc-supl-init.
	2. Ensure the SET does not respond.
	3. Repeat the test from step 1 to step 2 setting the content type to some other value than 0X03020312
	4. Repeat step 1 through step 2 using incorrect x-application –id-field in the WAP Push by setting the application id to some other value than ulp.ua.
	5. Repeat step 1 through step 2 using incorrect x-application-id-field in the WAP Push setting the application id to some other value than 0X90.
Pass-Criteria	1. At step 2 in each case the SET shall not respond

5.1.2.1.3 SUPL-1.0-con-014 - Incorrect MT SMS message content.

Test Case Id	SUPL-1.0-con-014
Test Object	Client
Test Case Description	To test SET correctly rejects incorrect MT SMS message content
Specification Reference	ULP 5.1
SCR Reference	ULP-C-C-001, ULP-A-C-007, ULP-A-C-008, ULP-B-C-004, ULP-B-C-005
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: SET supports MT SMS

Test Procedure	Test 1: GSM/WCDMA SET:
	1. For a SET supporting GSM/WCDMA, start a NI Location Session using MT SMS with incorrect port number in the MT SMS (i.e. set the port number to some other value than oma-ulp 7275/ udp OMA User Plane Location Protocol).
	2. Ensure the SET does not respond.
	Test 2: CDMA SET:
	3. For a SET supporting CDMA, start a NI Location Session using MT SMS with incorrect dedicated Teleservice Identifier in the MT SMS (i.e. set the dedicated Teleservice Identifier to some other value than 4115).
	4. Ensure the SET does not respond.
Pass-Criteria	Test 1 and 2:
	1. At step 2 for GSM/WCDMA or step 4 for CDMA the SET shall not respond

5.1.2.2   SLP Mode

5.1.2.2.1   SUPL-1.0-con-011 - Proxy and, or Non-Proxy mode support.

Test Case Id	SUPL-1.0-con-011
Test Object	Client
Test Case Description	To test SET correctly supports Proxy and, or Non-proxy mode
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-001, ULP-A-C-007, ULP-A-C-008, ULP-B-C-004, ULP-B-C-005
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: None
Test Procedure	Test 1: SET supports Proxy Mode:
	1. Start a NI Location Session with SLP Mode in the SUPL INIT message set to Proxy mode if Proxy mode is supported by the SET.
	2. Ensure the Location Session completes successfully.
	Test 2: SET supports Non-proxy Mode:
	3. Repeat the test from step 1 to step 2 with SLP Mode in the SUPL INIT message set to Non-proxy mode if Non-proxy mode is supported by the SET.
Pass-Criteria	Test 1 and 2:
	1. At step 2 the Location Session shall complete successfully.

5.1.2.2.2   SUPL-1.0-con-012 - Proxy or Non-Proxy mode not supported by SET.

Test Case Id	SUPL-1.0-con-012
Test Object	Client
Test Case Description	To test SET correctly actions non-support of Proxy or Non-proxy mode
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-001, ULP-A-C-007, ULP-A-C-008, ULP-B-C-004, ULP-B-C-005
Tool	SUPL Client Conformance Test Tool

Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: None
Test Procedure	Test 1: SET does not support Proxy mode:
	1. Start a NI Location Session with SLP Mode in the SUPL INIT message set to Proxy mode if Proxy mode is not supported by the SET.
	2. Ensure the SET responds to the SUPL INIT message with SUPL END with Status Code set to proxyModeNotSupported.
	3. The Location Session ends and the SET should release the secure IP connection.
	Test 2: SET does not support Non-proxy mode:
	4. Start a NI Location Session with SLP Mode in the SUPL INIT message set to Non-proxy mode if Non-proxy mode is not supported by the SET.
	5. Ensure the SET responds to the SUPL INIT message with SUPL END with Status Code set to nonProxyModeNotSupported.
	6. The Location Session ends and the SET should release the secure IP connection.
Pass-Criteria	Test 1:
	1. At step 2 the SET shall respond with SUPL END with Status Code set to proxyModeNotSupported. The SET shall also send a correctly calculated Ver parameter.
	2. At step 3 the SET shall release the secure IP connection.
	Test 2:
	3. At step 5 the SET shall respond with SUPL END with Status Code set to nonProxyModeNotSupported. The SET shall also send a correctly calculated Ver parameter.
	4. At step 6 the SET shall release the secure IP connection.

5.1.3   Establishment and termination of secure session for SUPL session

5.1.3.1   MAC and Key Identity

5.1.3.1.1   SUPL-1.0-con-020 - Correct MAC and Key Identity.

Test Case Id	SUPL-1.0-con-020
Test Object	Client
Test Case Description	To test SET correctly supports MAC and Key Identity
Specification Reference	ULP 6, 7, 8, AD 7
SCR Reference	ULP-A-C-001, ULP-A-C-002, ULP-A-C-003, ULP-A-C-004, ULP-A-C-005, ULP-A-C-006, ULP-C-C-001
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: For 3GPP SETs, the SET shall support PSK-TLS. Ensure SET is provisioned with a MAC_KEYID known to the Conformance Test Tool

Test Procedure	1. Start a NI Location Session with the MAC and Key Identity fields in the SUPL INIT message set to valid values.
	2. Ensure the Location Session completes successfully.
Pass-Criteria	1. At step 2 the Location Session shall complete successfully.

5.1.3.1.2 SUPL-1.0-con-021 - Incorrect MAC.

Test Case Id	SUPL-1.0-con-021
Test Object	Client
Test Case Description	To test SET correctly rejects an incorrect MAC
Specification Reference	ULP 6, 7, 8, AD 7
SCR Reference	ULP-A-C-001, ULP-A-C-002, ULP-A-C-003, ULP-A-C-004, ULP-A-C-005, ULP-A-C-006, ULP-C-C-001
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: For 3GPP SETs, the SET shall support PSK-TLS. Ensure SET is provisioned with a MAC_KEYID known to the Conformance Test Tool
Test Procedure	1. Start a NI Location Session with an incorrect value of MAC field (e.g. by inverting the final bit of the field) and correct Key Identity field in the SUPL INIT message. 2. For a 3GPP SET ensure the Location Session completes successfully or for a 3GPP2 SET ensure the SET does not respond to the SUPL INIT message.
Pass-Criteria	1. At step 2 for a 3GPP SET the Location Session shall complete successfully, for a 3GPP2 SET the SET shall not respond to the SUPL INIT message.

5.1.3.1.3 SUPL-1.0-con-022 - Incorrect Key Identity.

Test Case Id	SUPL-1.0-con-022
Test Object	Client
Test Case Description	To test SET correctly rejects an incorrect Key Identity
Specification Reference	ULP 6, 7, 8, AD 7
SCR Reference	ULP-A-C-001, ULP-A-C-002, ULP-A-C-003, ULP-A-C-004, ULP-A-C-005, ULP-A-C-006, ULP-C-C-001
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: For a 3GPP SET, the SET shall support PSK-TLS. Ensure SET is provisioned with a MAC_KEYID known to the Conformance Test Tool. For a 3GPP2 SET ensure SET is also provisioned with another key such as KEYID2 known to the Conformance Test Tool.

Test Procedure	Test 1: 3GPP SET: 1. Start a NI Location Session with a correct value of MAC field and a value of Key Identity in the Key Identity field that is not stored in the SET (e.g. by inverting the final bit of the field) in the SUPL INIT message. 2. For a 3GPP SET ensure the Location Session completes successfully. Test 2: 3GPP2 SET: 3. Start a NI Location Session with a correct value of MAC field and a value of Key Identity in the Key Identity field that is not stored in the SET (e.g. by inverting the final bit of the field) in the SUPL INIT message. 4. For a 3GPP2 SET ensure the SET does not respond to the SUPL INIT message. 5. For a 3GPP2 SET repeat step 1 through step 4 using a value of Key Identity which is stored in the SET but which was not used to generate the MAC (e.g. use the value of KEYID2).
Pass-Criteria	Test 1: 1. At step 2 for a 3GPP SET the Location Session shall complete successfully. Test 2: 2. At step 4, for a 3GPP2 SET in both cases the SET shall not respond to the SUPL INIT message.

5.1.4   Notification and Confirmation

5.1.4.1   Support of Notification in SUPL INIT

5.1.4.1.1   SUPL-1.0-con-270 - No notification & no verification.

Test Case Id	SUPL-1.0-con-270
Test Object	Client
Test Case Description	To test SET correctly actions No notification & no verification
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-D-C-007, ULP-C-C-001
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	1. Set up the Conformance Test Tool so that Notification is not sent in SUPL INIT. 2. Start a NI Location Session 3. After the Conformance Test Tool sends SUPL INIT to the SET ensure the SET responds with SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode) and the Location Session completes successfully. 4. Ensure there is no indication or notification of the Location Session to the User on the SET 5. Repeat step 1 through 4, but in step 1 set up the Conformance Test Tool so that Notification is sent in SUPL INIT and is set to No notification & no verification.

Pass-Criteria	1. At step 3 in both cases the SET shall respond with SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode).
	2. At step 4 in both cases there shall be no indication or notification of the Location Session to the User on the SET

5.1.4.1.2   SUPL-1.0-con-271 - Notification only.

Test Case Id	SUPL-1.0-con-271
Test Object	Client
Test Case Description	To test SET correctly actions Notification only
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-D-C-007, ULP-C-C-001
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	1. In the Conformance Test Tool set Notification to Notification only with Encoding type, RequestorID and ClientName not sent 2. Start a NI Location Session 3. After the Conformance Test Tool sends SUPL INIT to the SET ensure the SET responds with SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode) and the Location Session completes successfully.
Pass-Criteria	1. At step 3 the SET shall respond with SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode) and there shall be some form of notification of the Location Session to the User on the SET.

5.1.4.1.3   SUPL-1.0-con-272 - Notification and verification (Allowed on no answer). User accepts.

Test Case Id	SUPL-1.0-con-272
Test Object	Client
Test Case Description	To test SET correctly actions Notification and verification (Allowed on no answer) when the user accepts
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-D-C-007, ULP-C-C-001
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None

Test Procedure	1. In the Conformance Test Tool set Notification to Notification and verification (Allowed on no answer) with Encoding type, RequestorID and ClientName not sent
	2. Start a NI Location Session
	3. After the Conformance Test Tool sends SUPL INIT to the SET the user accepts the Location attempt prompt before the internal SET timer expires (value is implementation specific)
	4. The SET responds with SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode) and the Location Session completes successfully.
Pass-Criteria	1. At step 3 there shall be a Location attempt prompt on the SET
	2. At step 4 the SET shall respond with SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode).

5.1.4.1.4   SUPL-1.0-con-273 - Notification and verification (Allowed on no answer). User rejects.

Test Case Id	SUPL-1.0-con-273
Test Object	Client
Test Case Description	To test SET correctly actions Notification and verification (Allowed on no answer) when the user rejects.
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-D-C-007, ULP-C-C-001
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: None
Test Procedure	1. In the Conformance Test Tool set Notification to Notification and verification (Allowed on no answer) with Encoding type, RequestorID and ClientName not sent
	2. Start a NI Location Session
	3. After the Conformance Test Tool sends SUPL INIT to the SET the user rejects the Location attempt prompt before the internal SET timer expires (value is implementation specific)
	4. The SET sends SUPL END with Status Code set to consentDeniedByUser and a correctly calculated Ver parameter.
	5. The Location Session ends and the SET should release the secure IP connection.
Pass-Criteria	1. At step 3 there shall be a Location attempt prompt on the SET
	2. At step 4 the SET shall respond with SUPL END with Status Code set to consentDeniedByUser and a correctly calculated Ver parameter.
	3. At step 4 the SET shall release the secure IP connection.

5.1.4.1.5   SUPL-1.0-con-274 - Notification and verification (Allowed on no answer). No response.

Test Case Id	SUPL-1.0-con-274
Test Object	Client

Test Case Description	To test SET correctly actions Notification and verification (Allowed on no answer) when the user does not respond
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-D-C-007, ULP-C-C-001
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	1. In the Conformance Test Tool set Notification to Notification and verification (Allowed on no answer) with Encoding type, RequestorID and ClientName not sent 2. Start a NI Location Session 3. After the Conformance Test Tool sends SUPL INIT to the SET the user performs no action to the Location attempt prompt and the internal SET timer expires (value is implementation specific) 4. The SET responds with SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode) and the Location Session completes successfully.
Pass-Criteria	1. At step 3 there shall be a Location attempt prompt on the SET 2. At step 4, after the internal SET timer expires (value is implementation specific), the SET shall respond with SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode).

5.1.4.1.6 SUPL-1.0-con-275 - Notification and verification (Denied on no answer). User accepts.

Test Case Id	SUPL-1.0-con-275
Test Object	Client
Test Case Description	To test SET correctly actions Notification and verification (Denied on no answer) when the user accepts
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-D-C-007, ULP-C-C-001
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	1. In the Conformance Test Tool set Notification to Notification and verification (Denied on no answer) with Encoding type, RequestorID and ClientName not sent 2. Start a NI Location Session 3. After the Conformance Test Tool sends SUPL INIT to the SET the user accepts the Location attempt prompt before the internal SET timer expires (value is implementation specific) 4. The SET responds with SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode) and the Location Session completes successfully.

Pass-Criteria	1. At step 3 there shall be a Location attempt prompt on the SET
	2. At step 4 the SET shall respond with SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode).

5.1.4.1.7   SUPL-1.0-con-276 - Notification and verification (Denied on no answer). User rejects.

Test Case Id	SUPL-1.0-con-276
Test Object	Client
Test Case Description	To test SET correctly actions Notification and verification (Denied on no answer) when the user rejects.
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-D-C-007, ULP-C-C-001
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: None
Test Procedure	1. In the Conformance Test Tool set Notification to Notification and verification (Denied on no answer) with Encoding type, RequestorID and ClientName not sent
	2. Start a NI Location Session
	3. After the Conformance Test Tool sends SUPL INIT to the SET the user rejects the Location attempt prompt before the internal SET timer expires (value is implementation specific)
	4. The SET sends SUPL END with Status Code set to consentDeniedByUser and a correctly calculated Ver parameter.
	5. The Location Session ends and the SET should release the secure IP connection.
Pass-Criteria	1. At step 3 there shall be a Location attempt prompt on the SET
	2. At step 4 the SET shall respond with SUPL END with Status Code set to consentDeniedByUser and a correctly calculated Ver parameter.
	3. At step 4 the SET shall release the secure IP connection.

5.1.4.1.8   SUPL-1.0-con-277 - Notification and verification (Denied on no answer). No response.

Test Case Id	SUPL-1.0-con-277
Test Object	Client
Test Case Description	To test SET correctly actions Notification and verification (Denied on no answer) when the user does not respond
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-D-C-007, ULP-C-C-001
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: None

Test Procedure	1. In the Conformance Test Tool set Notification to Notification and verification (Denied on no answer) with Encoding type, RequestorID and ClientName not sent
	2. Start a NI Location Session
	3. After the Conformance Test Tool sends SUPL INIT to the SET the user performs no action to the Location attempt prompt and the internal SET timer expires (value is implementation specific)
	4. The SET sends SUPL END with Status Code set to consentDeniedByUser and a correctly calculated Ver parameter.
	5. The Location Session ends and the SET should release the secure IP connection.
Pass-Criteria	1. At step 3 there shall be a Location attempt prompt on the SET
	2. At step 4, after the internal SET timer expires (value is implementation specific), the SET shall respond with SUPL END with Status Code set to consentDeniedByUser and a correctly calculated Ver parameter.
	3. At step 5 the SET shall release the secure IP connection.

5.1.4.1.9   SUPL-1.0-con-278 - Privacy override.

Test Case Id	SUPL-1.0-con-278
Test Object	Client
Test Case Description	To test SET correctly actions Privacy override
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-D-C-007, ULP-C-C-001
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: None
Test Procedure	1. In the Conformance Test Tool set Privacy override
	2. Start a NI Location Session
	3. After the Conformance Test Tool sends SUPL INIT to the SET ensure the SET responds with SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode) and the Location Session completes successfully.
Pass-Criteria	1. At step 3 the SET shall respond with SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode) and there shall be no indication or notification of the Location Session to the User on the SET.
	2. Inspect all SET log files and debug information (implementation specific) and ensure there is no record or indication of the Location Session.

5.1.5   Choice of Positioning method and Protocol

5.1.5.1   Positioning Method

5.1.5.1.1   SUPL-1.0-con-030 - Common Positioning method.

Test Case Id	SUPL-1.0-con-030

Test Object	Client
Test Case Description	To test SET correctly accepts common Positioning method
Specification Reference	ULP 6, 7, 8. AD 6.3.3
SCR Reference	ULP-C-C-001, ULP-C-C-002, ULP-C-C-003, ULP-C-C-004, ULP-A-C-011, ULP-A-C-012, ULP-A-C-013, ULP-A-C-014, ULP-A-C-015, ULP-A-C-016, ULP-A-C-017, ULP-A-C-018
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	1. In the Conformance Test Tool set the Positioning Method to be used in the SUPL INIT message to the first value in the table below that corresponds to a Positioning technology supported by the SET 2. Start a NI Location Session 3. When the SET responds with SUPL POS INIT ensure the details of the SET capabilities parameter are consistent with the known Positioning technologies supported by the SET 4. Ensure the Location Session completes successfully using the Positioning Method defined in step 1. In the case of Test 6, Cell ID, ensure the Location Session completes successfully using Cell ID only. In the case of Autonomous GPS this shall include a SUPL POS session with no Assistance Data. 5. If applicable repeat step 1 through step 4 with the Positioning Method to be used in the SUPL INIT message set to each other value in the table below corresponding to a Positioning technology that is supported by the SET
Pass-Criteria	1. At step 3 in all cases the details of the SET capabilities parameter in the SUPL POS INIT message shall be consistent with the known Positioning technologies supported by the SET. 2. At step 4 in all cases the Location Session shall complete successfully using the Positioning Method defined in Step 1. In the case of Test 6, Cell ID, the Location Session shall complete successfully using Cell ID only. In the case of Autonomous GPS this shall include a SUPL POS session with no Assistance Data.

Test #	Positioning technology supported by SET	Positioning Method to be used in SUPL INIT message
Test 1	A-GPS SET assisted	A-GPS SET assisted only
Test 2	A-GPS SET based	A-GPS SET based only
Test 3	Autonomous GPS	Autonomous GPS
Test 4	AFLT	AFLT
Test 5	Enhanced Cell ID	Enhanced Cell / sector
Test 6	Cell ID (only if ECID is not supported)	Enhanced Cell / sector
Test 7	EOTD	EOTD
Test 8	OTDOA	OTDOA

Table 2: Positioning methods

5.1.5.1.2 SUPL-1.0-con-031 - Preferred or fallback Positioning method.

Test Case Id	SUPL-1.0-con-031
Test Object	Client
Test Case Description	To test SET correctly accepts preferred or fallback Positioning method
Specification Reference	ULP 6, 7, 8. AD 6.3.3
SCR Reference	ULP-C-C-001, ULP-C-C-002, ULP-C-C-003, ULP-C-C-004, ULP-A-C-011, ULP-A-C-012, ULP-A-C-013, ULP-A-C-014, ULP-A-C-015, ULP-A-C-016, ULP-A-C-017, ULP-A-C-018
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: The SET supports either or both A-GPS SET assisted and A-GPS SET based Positioning methods
Test Procedure	1. In the Conformance Test Tool set the Positioning method to be used in the SUPL INIT message to A-GPS SET assisted preferred (A-GPS SET based is the fallback mode) 2. Start a NI Location Session 3. When the SET responds with SUPL POS INIT ensure the details of the SET capabilities parameter are consistent with the known Positioning technologies supported by the SET 4. Ensure the Location Session completes successfully using the Positioning method defined in the table below, depending on the Positioning technology(ies) supported by the SET and the Positioning method used in the SUPL INIT message 5. Repeat step 1 through step 4 with the Positioning method to be used in the SUPL INIT message set to A-GPS SET based preferred (A-GPS SET assisted is the fallback mode)
Pass-Criteria	1. At step 3 the details of the SET capabilities parameter in the SUPL POS INIT message shall be consistent with the known Positioning technologies supported by the SET. 2. At step 4 in both case s the Location Session shall complete successfully using the Positioning method defined in the table below, depending on the Positioning technology(ies) supported by the SET and the Positioning method used in the SUPL INIT message.

Test #	Positioning technology supported by SET	Positioning Method used in SUPL INIT message	Positioning method used for Location Session
Test 1	A-GPS SET assisted only	A-GPS SET assisted preferred (A-GPS SET based is the fallback mode)	A-GPS SET assisted
		A-GPS SET based preferred (A-GPS SET assisted is the fallback mode)	A-GPS SET assisted

Test 2	A-GPS SET based only	A-GPS SET assisted preferred (A-GPS SET based is the fallback mode)	A-GPS SET based
		A-GPS SET based preferred (A-GPS SET assisted is the fallback mode)	A-GPS SET based
Test 3	Both A-GPS SET assisted and A-GPS SET based	A-GPS SET assisted preferred (A-GPS SET based is the fallback mode)	A-GPS SET assisted
		A-GPS SET based preferred (A-GPS SET assisted is the fallback mode)	A-GPS SET based

Table 3: Positioning methods

5.1.5.1.3 SUPL-1.0-con-032 - No common Positioning method.

Test Case Id	SUPL-1.0-con-032
Test Object	Client
Test Case Description	To test SET correctly responds if no common Positioning method is initially indicated.
Specification Reference	ULP 6, 7, 8. AD 6.3.3
SCR Reference	ULP-C-C-001, ULP-C-C-002, ULP-C-C-003, ULP-C-C-004, ULP-A-C-011, ULP-A-C-012, ULP-A-C-013, ULP-A-C-014, ULP-A-C-015, ULP-A-C-016, ULP-A-C-017, ULP-A-C-018
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: None

Test Procedure	1. In the Conformance Test Tool set the Positioning method to be used in the SUPL INIT message to a value that corresponds to a Positioning technology not supported by the SET
	2. Start a NI Location Session
	3. After the Conformance Test Tool sends SUPL INIT to the SET, ensure the SET responds with SUPL POS INIT with all supported positioning methods in the SET Capabilities field.
	4. Select the first Positioning Method from the table below that corresponds to the first of the Positioning Technologies supported by the SET. Continue the Location Session using this Positioning Method.
	5. Ensure the Location Session completes successfully using the Positioning Method selected in step 4. In the case of Autonomous GPS this shall include a SUPL POS session with no Assistance Data.
	6. Ensure the SET releases the secure IP connection.
	7. Repeat step 1 through 6, but at step 4 select the next Positioning Method from the table below that corresponds to the next Positioning Technology supported by the SET.
	8. Repeat step 6 until all the Positioning Technologies supported by the SET have been tested.
	9. In the Conformance Test Tool set the Positioning method to be used in the SUPL INIT message to a value that corresponds to a Positioning technology not supported by the SET
	10. Start a NI Location Session
	11. After the Conformance Test Tool sends SUPL INIT to the SET, ensure the SET responds with SUPL POS INIT with all supported positioning methods in the SET Capabilities field.
	12. From the Conformance Test Tool send SUPL END with Status Code set to posMethodMismatch.
	13. Ensure the SET releases the secure IP connection.
Pass-Criteria	1. At step 3 the SET shall respond with SUPL POS INIT with all supported positioning methods.
	2. At step 5 the Location Session shall complete successfully using the Positioning Method selected in step 4. In the case of Autonomous GPS this shall include a SUPL POS session with no Assistance Data.
	3. At step 6 the SET shall release the secure IP connection.
	4. At step 13 the SET shall release the secure IP connection.

Test #	Positioning Method to be used for Location Session
Test 1	A-GPS SET assisted only
Test 2	A-GPS SET based only
Test 3	Autonomous GPS
Test 4	AFLT
Test 5	Enhanced Cell ID
Test 6	Cell ID (only if ECID is not supported)
Test 7	EOTD
Test 8	OTDOA

Table 4: Positioning methods

5.1.5.1.4 SUPL-1.0-con-033 - No Position.

Test Case Id	SUPL-1.0-con-033
Test Object	Client
Test Case Description	To test SET correctly responds if No Position is signalled by the SLP.
Specification Reference	ULP 6, 7, 8. AD 6.3.3
SCR Reference	ULP-C-C-001, ULP-C-C-002, ULP-C-C-003, ULP-C-C-004, ULP-A-C-011, ULP-A-C-012, ULP-A-C-013, ULP-A-C-014, ULP-A-C-015, ULP-A-C-016, ULP-A-C-017, ULP-A-C-018
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Notification in SUPL INIT test cases. If Support of Notification in SUPL INIT test cases are run, then steps 5 onwards of this test case may be omitted. Prerequisite for this test: None

Test Procedure	1. In the Conformance Test Tool set the Positioning method to be used in the SUPL INIT message to No position and set Notification to Notification only.
	2. Start a NI Location Session
	3. After the Conformance Test Tool sends SUPL INIT to the SET, ensure the SET responds with SUPL END with no parameters except for a correctly calculated Ver parameter and displays a notification of the Location Session to the user.
	4. The Location Session ends and the SET should release the secure IP connection.
	5. Repeat step 1 through step 4 with Notification set to Notification and verification (Allowed on no answer)
	6. At step 3 after the Conformance Test Tool sends SUPL INIT to the SET, the user accepts the Location attempt prompt before the internal SET timer expires (value is implementation specific) and the SET then responds with SUPL END with Status Code set to consentGrantedByUser and a correctly calculated Ver parameter.
	7. Repeat step 1 through step 4 with Notification set to Notification and verification (Allowed on no answer)
	8. At step 3 after the Conformance Test Tool sends SUPL INIT to the SET, the user performs no action to the Location attempt prompt and the internal SET timer expires (value is implementation specific) and the SET then responds with SUPL END with Status Code set to consentGrantedByUser and a correctly calculated Ver parameter.
	9. Repeat step 1 through step 4 with Notification set to Notification and verification (Allowed on no answer)
	10. At step 3 after the Conformance Test Tool sends SUPL INIT to the SET, the user rejects the Location attempt prompt before the internal SET timer expires (value is implementation specific) and the SET then responds with SUPL END with Status Code set to consentDeniedByUser and a correctly calculated Ver parameter.
	11. Repeat step 1 through step 4 with Notification set to Notification and verification (Denied on no answer)
	12. At step 3 after the Conformance Test Tool sends SUPL INIT to the SET, the user accepts the Location attempt prompt before the internal SET timer expires (value is implementation specific) and the SET then responds with SUPL END with Status Code set to consentGrantedByUser and a correctly calculated Ver parameter.
	13. Repeat step 1 through step 4 with Notification set to Notification and verification (Denied on no answer)
	14. At step 3 after the Conformance Test Tool sends SUPL INIT to the SET, the user performs no action to the Location attempt prompt and the internal SET timer expires (value is implementation specific) and the SET then responds with SUPL END with Status Code set to consentDeniedByUser and a correctly calculated Ver parameter.
	15. Repeat step 1 through step 4 with Notification set to Notification and verification (Denied on no answer)
	16. At step 3 after the Conformance Test Tool sends SUPL INIT to the SET, the user rejects the Location attempt prompt before the internal SET timer expires (value is implementation specific) and the SET then responds with SUPL END with Status Code set to consentDeniedByUser and a correctly calculated Ver parameter.

Pass-Criteria	1. At step 3 the SET shall respond with SUPL END with no parameters except a correctly calculated Ver parameter.
	2. At step 3 there shall be some form of notification of the Location Session to the User on the SET.
	3. At step 4 for all cases the SET shall release the secure IP connection.
	4. At step 6 there shall be some form of notification of the Location Session and a prompt to the User on the SET.
	5. At step 6 the SET shall respond with SUPL END with Status Code set to consentGrantedByUser and a correctly calculated Ver parameter.
	6. At step 8 the SET shall respond with SUPL END with Status Code set to consentGrantedByUser and a correctly calculated Ver parameter.
	7. At step 10 the SET shall respond with SUPL END with Status Code set to consentDeniedByUser and a correctly calculated Ver parameter.
	8. At step 12 the SET shall respond with SUPL END with Status Code set to consentGrantedByUser and a correctly calculated Ver parameter.
	9. At step 14 the SET shall respond with SUPL END with Status Code set to consentDeniedByUser and a correctly calculated Ver parameter.
	10. At step 16 the SET shall respond with SUPL END with Status Code set to consentDeniedByUser and a correctly calculated Ver parameter.

5.1.6 Execution of positioning session

5.1.7 Validate requested QoP

5.1.7.1 QoP in SUPL INIT

5.1.7.1.1 SUPL-1.0-con-281 - Previous position stored in SET meets QoP.

Test Case Id	SUPL-1.0-con-281
Test Object	Client
Test Case Description	To test SET correctly responds when a previous position estimate stored in the SET meets the requested QoP.
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-001, ULP-D-C-001
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: SET supports QoP

Test Procedure	1. Perform a complete Location Session so that both the SET and the Conformance Test Tool contain an up-to-date and reasonably accurate position estimate (e.g. a Network Initiated A-GPS SET based location session or a SET Initiated A-GPS SET assisted location session)
	2. Start a subsequent A-GPS Network Initiated Location Session with the QoP fields and values in the SUPL INIT message set according to the table below.
	3. Ensure that the SET responds with the SUPL POS INIT message including the Position parameter with the values of Position set to the previously calculated position estimate from step 1.
	4. From the Conformance Test Tool send SUPL END to the SET.
	5. Ensure the Location Session ends and the SET releases the secure IP connection.
Pass-Criteria	1. At step 3 the SET shall respond with the SUPL POS INIT message including the Position parameter with the values of Position identical to the previously calculated position estimate from step 1.
	2. At step 5 the Location Session shall end and the SET shall release the secure IP connection.

Fields sent	Values
Horizontal Accuracy	Worse than that achieved in step 1, i.e. outside the Uncertainty ellipse.
Vertical Accuracy	Worse than that achieved in step 1, i.e. greater than the Altitude uncertainty.
Maximum Location Age	A value that allows the previously calculated position estimate from step 1 to be used.
Delay	Shorter than that normally required to make an A-GPS fix.

Table 5: Fields to be sent in QoP

5.1.7.1.2   SUPL-1.0-con-282 - Previous position stored in SET does not meet QoP.

Test Case Id	SUPL-1.0-con-282
Test Object	Client
Test Case Description	To test SET correctly responds when a previous position estimate stored in the SET does not meet the requested QoP.
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-001, ULP-D-C-001
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: SET supports QoP

Test Procedure	1. Perform a complete Location Session so that both the SET and the Conformance Test Tool contain an up-to-date but not very accurate position estimate (e.g. a SET Initiated Enhanced Cell ID location session)
	2. Start a subsequent A-GPS Network Initiated Location Session with the QoP fields and values in the SUPL INIT message set according to Case 1 in the table below.
	3. Ensure that the SET continues with a normal SUPL POS session and the A-GPS location session ends successfully.
	4. Repeat step 1 thru 3 using the values for Case 2 from the table below.
	5. Repeat step 1 thru 3 using the values for Case 3 from the table below; however after step 1 wait for at least 60 seconds before starting step 2.
	6. [Testing of Delay is FFS]
Pass-Criteria	1. At step 3 in each case the SET shall continue with a normal SUPL POS session and the A-GPS location session shall end successfully.

Case #	Fields sent	Values
Case 1	Horizontal Accuracy	Better (tighter) than that achieved in step 1, i.e. inside the Uncertainty ellipse.
Case 2	Horizontal Accuracy	Worse than that achieved in step 1, i.e. outside the Uncertainty ellipse.
	Vertical Accuracy	Better (tighter) than that achieved in step 1, i.e. less than the Altitude uncertainty.
Case 3	Horizontal Accuracy	Worse than that achieved in step 1, i.e. outside the Uncertainty ellipse.
	Maximum Location Age	Shorter than pause between steps 1 and 2 (e.g. 60 (seconds))
Case 4	Horizontal Accuracy	[FFS]
	Maximum Location Age	[FFS]
	Delay	[Testing of Delay is FFS]

Table 6: Fields to be sent in QoP

5.1.8   Completion of SUPL session

5.1.9   Premature Session Termination & General Error Message

5.1.9.1   Status Code

5.1.9.1.1   SUPL-1.0-con-060 - Protocol error

Test Case Id	SUPL-1.0-con-060
Test Object	Client
Test Case Description	To test SET correctly actions a protocol parsing error
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-006, ULP-C-C-008
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case

Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test:
Test Procedure	1. Start a NI Location Session with the Message Length field in the SUPL INIT message set to a value of one less (octet) than the correct value. 2. After the SET receives SUPL INIT from the Conformance Test Tool, the SET should send SUPL END with Status Code set to protocolError and a correctly calculated Ver parameter. 3. The Location Session ends and the SET should release the secure IP connection.
Pass-Criteria	1. At step 2 the SET shall respond with SUPL END with Status Code set to protocolError and a correctly calculated Ver parameter. 2. At step 3 the SET shall release the secure IP connection.

5.1.9.1.2 SUPL-1.0-con-061 - Data missing.

Test Case Id	SUPL-1.0-con-061
Test Object	Client
Test Case Description	To test SET correctly actions a data missing error
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-006, ULP-C-C-008
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test:
Test Procedure	1. Start a NI Location Session with the value for the SLP Mode parameter missing in the SUPL INIT message. Ensure the Message Length field is set to the correct value to take account of this missing value. 2. After the SET receives SUPL INIT from the Conformance Test Tool, the SET should send SUPL END with Status Code set to dataMissing and a correctly calculated Ver parameter. 3. The Location Session ends and the SET should release the secure IP connection.
Pass-Criteria	1. At step 2 the SET shall respond with SUPL END with Status Code set to dataMissing and a correctly calculated Ver parameter. 2. At step 3 the SET shall release the secure IP connection.

5.1.9.1.3 SUPL-1.0-con-062 - Unexpected data value.

Test Case Id	SUPL-1.0-con-062
Test Object	Client
Test Case Description	To test SET correctly actions an unexpected data value error
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-006, ULP-C-C-008

Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test:
Test Procedure	1. Start a NI Location Session with the value for the Positioning Method parameter set to (decimal) 10 in the SUPL INIT message (i.e. a value which is not defined). 2. After the SET receives SUPL INIT from the Conformance Test Tool, the SET should send SUPL END with Status Code set to unexpectedDataValue and a correctly calculated Ver parameter. 3. The Location Session ends and the SET should release the secure IP connection.
Pass-Criteria	1. At step 2 the SET shall respond with SUPL END with Status Code set to unexpectedDataValue and a correctly calculated Ver parameter. 2. At step 3 the SET shall release the secure IP connection.

5.1.9.1.4   SUPL-1.0-con-063 - Unexpected message.

Test Case Id	SUPL-1.0-con-063
Test Object	Client
Test Case Description	To test SET correctly actions an unexpected message error
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-006, ULP-C-C-008
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test:
Test Procedure	1. Start a normal NI Location Session. 2. After the SET sends SUPL POS INIT to the Conformance Test Tool, send a SUPL RESPONSE message with the parameters set to as realistic values as possible. 3. After the SET receives SUPL RESPONSE the SET should send SUPL END with Status Code set to unexpectedMessage. 4. The Location Session ends and the SET should release the secure IP connection.
Pass-Criteria	1. At step 3 the SET shall respond with SUPL END with Status Code set to unexpectedMessage. 2. At step 4 the SET shall release the secure IP connection.

5.1.9.1.5   SUPL-1.0-con-066 - Timeout UT2 - non Cell ID.

Test Case Id	SUPL-1.0-con-066
Test Object	Client
Test Case Description	To test SET correctly actions timer UT2 when Cell ID is not being used for the Location Session

Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-006, ULP-C-C-008
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: SET supports a positioning method other than Cell ID
Test Procedure	1. Start a normal NI Location Session using a Positioning Method other than Cell ID that is supported by the SET 2. After the SET sends SUPL POS INIT to the Conformance Test Tool do not respond from the Conformance Test Tool 3. After timer UT2 expires (value is implementation specific, but default value is 10s) ensure the SET sends SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure. 4. The Location Session ends and the SET should release the secure IP connection.
Pass-Criteria	1. At step 3 after UT2 expires (value is implementation specific, but default value is 10s) the SET shall respond with SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure. 2. At step 4 the SET shall release the secure IP connection.

5.1.9.1.6   SUPL-1.0-con-067 - Timeout UT2 - Cell ID.

Test Case Id	SUPL-1.0-con-067
Test Object	Client
Test Case Description	To test SET correctly actions timer UT2 when a Cell ID based method is being used for the Location Session
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-006, ULP-C-C-008
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test:
Test Procedure	1. Start a normal NI Location Session using a Cell ID based method as the Positioning Method by setting eCID as the Positioning Method in the SUPL INIT message. 2. After the SET sends SUPL POS INIT to the Conformance Test Tool do not respond from the Conformance Test Tool 3. After timer UT2 expires (value is implementation specific, but default value is 10s) ensure the SET sends SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure. 4. The Location Session ends and the SET should release the secure IP connection.

Pass-Criteria	1. At step 3 after UT2 expires (value is implementation specific, but default value is 10s) the SET shall respond with SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure. 2. At step 4 the SET shall release the secure IP connection.

5.1.9.1.7 SUPL-1.0-con-068 - Timeout UT3.

Test Case Id	SUPL-1.0-con-068
Test Object	Client
Test Case Description	To test SET correctly actions timer UT3
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-006, ULP-C-C-008
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: SET supports a positioning method that requires the use of SUPL POS
Test Procedure	1. Start a normal NI Location Session using a Positioning Method that requires the use of SUPL POS that is supported by the SET 2. After the SET sends the final SUPL POS to the Conformance Test Tool do not respond from the Conformance Test Tool 3. After timer UT3 expires (value is implementation specific, but default value is 10s) ensure the SET sends SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure. 4. The Location Session ends and the SET should release the secure IP connection.
Pass-Criteria	1. At step 3 after UT3 expires (value is implementation specific, but default value is 10s) the SET shall respond with SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure. 2. At step 4 the SET shall release the secure IP connection.

5.1.9.1.8 SUPL-1.0-con-069 - Timeout UT4.

Test Case Id	SUPL-1.0-con-069
Test Object	Client
Test Case Description	To test SET correctly actions timer UT4
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-006, ULP-C-C-008
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: SET supports non-proxy mode

Test Procedure	1. Start a normal NI Location Session using a Positioning Method that is supported by the SET
	2. After the SET sends SUPL AUTH REQ to the Conformance Test Tool do not respond from the Conformance Test Tool
	3. After timer UT4 expires (value is implementation specific, but default value is 10s) ensure the SET sends SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure.
	4. The Location Session ends and the SET should release the secure IP connection.
Pass-Criteria	1. At step 3 after UT4 expires (value is implementation specific, but default value is 10s) the SET shall respond with SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure.
	2. At step 4 the SET shall release the secure IP connection.

5.2 Client Conformance Testing, SET Initiated

5.2.1 Basic Functionality

5.2.1.1 Version.

5.2.1.1.1 SUPL-1.0-con-100 - Compatible Versions.

Test Case Id	SUPL-1.0-con-100
Test Object	Client
Test Case Description	To test SET correctly accepts compatible Version numbers in SUPL messages
Specification Reference	ULP 8.5
SCR Reference	ULP-B-C-001, ULP-B-C-002, ULP-B-C-003
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: None
Test Procedure	Test 1:
	1. Set the Version number supported in the Conformance Test Tool to a higher Min and Serv ind than that supported by the SET
	2. Start a SI Location Session
	3. After the Conformance Test Tool sends SUPL RESPONSE to the SET ensure the SET responds with SUPL POS INIT and the Location Session completes successfully.
	Test 2:
	4. If applicable repeat test from step 1 to step 3 with the Min and Serv ind set to lower values than the maximum values supported by the SET
Pass-Criteria	Test 1 and 2:
	1. At step 3 the SET shall respond with SUPL POS INIT with the correct Version number supported by the SET

5.2.1.2   Session ID.

5.2.1.2.1   SUPL-1.0-con-102 - Correct Session ID.

Test Case Id	SUPL-1.0-con-102
Test Object	Client
Test Case Description	To test SET correctly actions Session ID
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-B-C-001, ULP-B-C-002, ULP-B-C-003
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	1. Set the SLP Session ID in the Conformance Test Tool to a valid value with the SLP ID using the Parameter type IPAddress, IPv4. 2. Start a SI Location Session 3. After the Conformance Test Tool sends SUPL RESPONSE to the SET ensure the SET responds with SUPL POS INIT with a correct full Session ID and the Location Session completes successfully. 4. Repeat step 1 through step 3 with the SLP ID using the Parameter type IPAddress, IPv6. 5. Repeat step 1 through step 3 with the SLP ID using the Parameter type FQDN.
Pass-Criteria	1. At step 3 in each case the SET shall respond with SUPL POS INIT with a correct full Session ID

5.2.1.2.2   SUPL-1.0-con-103 - Incorrect SET Session ID.

Test Case Id	SUPL-1.0-con-103
Test Object	Client
Test Case Description	To test SET correctly rejects an incorrect SET Session ID
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-B-C-001, ULP-B-C-002, ULP-B-C-003
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None

Test Procedure	1. Start a SI Location Session
	2. After the SET sends SUPL START to the Conformance Test Tool, send SUPL RESPONSE from the Conformance Test Tool to the SET with an incorrect value of Session ID in the SET Session ID field (i.e. set Session ID to a different value from that received from the SET)
	3. Ensure the SET responds with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID.
	4. The Location Session ends and the SET should release the secure IP connection.
	5. Repeat step 1 through step 4, but at step 2 instead use an incorrect value of SET ID in the SET Session ID field (i.e. set SET ID to a different value or a different parameter type from that received from the SET)
Pass-Criteria	1. At step 3 in both case s the SET shall respond with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID.
	2. At step 4 in both case s the SET shall release the secure IP connection.

5.2.1.2.3 SUPL-1.0-con-104 - Incorrect SLP Session ID.

Test Case Id	SUPL-1.0-con-104
Test Object	Client
Test Case Description	To test SET correctly rejects an incorrect SLP Session ID
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-B-C-001, ULP-B-C-002, ULP-B-C-003
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	1. Start a SI Location Session
	2. After the SET sends SUPL POS INIT to the Conformance Test Tool, send SUPL POS from the Conformance Test Tool to the SET with an incorrect value of Session ID in the SLP Session ID field (i.e. set Session ID to a different value from that used in the SUPL RESPONSE message)
	3. Ensure the SET responds with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID.
	4. The Location Session ends and the SET should release the secure IP connection.
	5. Repeat step 1 through step 4, but at step 2 instead use an incorrect value of SLP ID in the SLP Session ID field (i.e. set SLP ID to a different value or a different parameter type from that used in the SUPL RESPONSE message)

Pass-Criteria	1. At step 3 in both case s the SET shall respond with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID. 2. At step 4 in both case s the SET shall release the secure IP connection.

5.2.1.3   Optional Features

5.2.1.3.1   SUPL-1.0-con-106 - Optional parameters not supported.

Test Case Id	SUPL-1.0-con-106
Test Object	Client
Test Case Description	To test SET correctly ignores optional parameters sent by the SLP that the SET does not support
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-005, ULP-C-C-006, ULP-D-C-005
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: SET does not support one or more parameters from the table below
Test Procedure	1. In the Conformance Test Tool, for each parameter listed in the table below which the SET does not support, run the corresponding Test, setting to valid, realistic values the parameter(s) that the SET does not support. Note that if the SET does not support more than one parameter then Tests may be effectively combined into a single Test if required. 2. For each Test start a SET Initiated Location Session with the parameter(s) sent in the appropriate message. 3. For each Test ensure the Location Session completes successfully. 4. Ensure the SET releases the secure IP connection.
Pass-Criteria	1. At step 3 the Location Session shall complete successfully. 2. At step 4 the SET shall release the secure IP connection.

Test #	Parameter not supported by SET	Notes
Test 1	Velocity in SUPL POS	FFS
Test 2	Altitude in Position in SUPL END	Do not use a SET based A-GPS or Autonomous GPS Location Session.
Test 3	Velocity in Position in SUPL END	Do not use a SET based A-GPS or Autonomous GPS Location Session. Use Horizontal and Vertical Velocity Uncertainty.

Table 7: Parameters not supported by SET

5.2.2 Initiation of SUPL session by SET

5.2.3 SUPL RESPONSE

5.2.4 Choice of Positioning method and Protocol

5.2.4.1 Positioning Method

5.2.4.1.1 SUPL-1.0-con-130 - Common Positioning method.

Test Case Id	SUPL-1.0-con-130
Test Object	Client
Test Case Description	To test SET correctly accepts common Positioning method
Specification Reference	ULP 6, 7, 8. AD 6.3.3
SCR Reference	ULP-C-C-001, ULP-C-C-002, ULP-C-C-003, ULP-C-C-004, ULP-A-C-011, ULP-A-C-012, ULP-A-C-013, ULP-A-C-014, ULP-A-C-015, ULP-A-C-016, ULP-A-C-017, ULP-A-C-018
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	1. In the Conformance Test Tool set the Positioning Method to be used in the SUPL RESPONSE message to the first value in the table below that corresponds to a Positioning technology supported by the SET 2. Start a SI Location Session 3. In the SUPL START message ensure the details of the SET capabilities parameter are consistent with the known Positioning technologies supported by the SET 4. In the SUPL POS INIT message ensure the details of the SET capabilities parameter are identical to those in step 3. 5. Ensure the Location Session completes successfully using the Positioning Method defined in step 1. In the case of Test 6, Cell ID, ensure the Location Session completes successfully using Cell ID only. In the case of Autonomous GPS this shall include a SUPL POS session with no Assistance Data. 6. If applicable repeat step 1 through step 5 with the Positioning Method to be used in the SUPL RESPONSE message set to each other value in the table below corresponding to a Positioning technology that is supported by the SET
Pass-Criteria	1. At step 3 in each case the details of the SET capabilities parameter in the SUPL START message shall be consistent with the known Positioning technologies supported by the SET. 2. At step 4 in each case the details of the SET capabilities parameter in the SUPL POS INIT message shall be identical to those in the SUPL START message in step 3 3. At step 5 in each case the Location Session shall complete successfully using the Positioning Method defined in Step 1. In the case of Test 6, Cell ID, the Location Session shall complete successfully using Cell ID only. In the case of Autonomous GPS this shall include a SUPL POS session with no Assistance Data.

Test #	Positioning technology supported by SET	Positioning Method to be used in SUPL RESPONSE message
Test 1	A-GPS SET assisted	A-GPS SET assisted only
Test 2	A-GPS SET based	A-GPS SET based only
Test 3	Autonomous GPS	Autonomous GPS
Test 4	AFLT	AFLT
Test 5	Enhanced Cell ID	Enhanced Cell / sector
Test 6	Cell ID (only if ECID is not supported)	Enhanced Cell / sector
Test 7	EOTD	EOTD
Test 8	OTDOA	OTDOA

Table 8: Positioning methods

5.2.4.1.2 SUPL-1.0-con-132 - No common Positioning method.

Test Case Id	SUPL-1.0-con-132
Test Object	Client
Test Case Description	To test SET correctly responds if no common Positioning method is available
Specification Reference	ULP 6, 7, 8. AD 6.3.3
SCR Reference	ULP-C-C-001, ULP-C-C-002, ULP-C-C-003, ULP-C-C-004, ULP-A-C-011, ULP-A-C-012, ULP-A-C-013, ULP-A-C-014, ULP-A-C-015, ULP-A-C-016, ULP-A-C-017, ULP-A-C-018
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	1. Start a SI Location Session 2. After the SET sends SUPL START to the Conformance Test Tool, from the Conformance Test Tool send SUPL END with Status Code set to posMethodMismatch. 3. The Location Session ends, the SET should indicate to the user that the Location Session cannot be completed and should release the secure IP connection.
Pass-Criteria	1. At step 3 the SET shall indicate to the user that the Location Session cannot be completed (method is implementation specific). 2. At step 3 the SET shall release the secure IP connection.

5.2.5   Execution of positioning session

5.2.6   Validate requested QoP

5.2.6.1   QoP in SUPL START

5.2.6.1.1   SUPL-1.0-con-381 - Previous position stored in SLP meets QoP.

Test Case Id	SUPL-1.0-con-381
Test Object	Client
Test Case Description	To test SET correctly responds when a previous position estimate stored in the SLP meets the requested QoP.
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-002, ULP-D-C-002
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: SET supports QoP
Test Procedure	1. Start a normal SET Initiated A-GPS Location Session and request a reasonable QoP from the requesting application that could be met from an A-GPS fix, such that the SET sets all the fields in the QoP parameter in the SUPL START message to reasonable values. 2. After the SET sends SUPL START; from the Conformance Test Tool send SUPL END with the Position parameter containing a realistic 3D position consistent with the Location ID parameter received in SUPL START. The value of Uncertainty Ellipse should be such that the effective horizontal accuracy will be better than the value received in SUPL START, the value of Confidence should be set to a high value (e.g. 90%), the value of Altitude uncertainty should be better (tighter) than the value of Vertical Accuracy received in SUPL START, and the Timestamp should be closer to current time than the Maximum Location Age received in SUPL START. 3. Ensure the SET uses the Position values received in SUPL END and that the correct value(s) are displayed or shown by the client application. 4. Ensure the SET releases the secure IP connection.
Pass-Criteria	1. At step 3 the SET shall use the Position values received in SUPL END and the correct value(s) shall be displayed or shown by the client application. 2. At step 4 the SET shall release the secure IP connection.

5.2.7   Completion of SUPL session

5.2.7.1   Position

5.2.7.1.1   SUPL-1.0-con-150 - Reception of 3D Position and / or Velocity.

Test Case Id	SUPL-1.0-con-150
Test Object	Client
Test Case Description	To test SET correctly supports the reception of 3D Position and / or Velocity in the SUPL END message.
Specification Reference	ULP 6, 7, 8, AD 7

SCR Reference	ULP-C-C-006, ULP-D-C-005
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: the SET supports a position method that requires the SLP to send the finally determined position to the SET in SUPL END (e.g. SET assisted A-GPS). The SET supports the use of Altitude and / or Velocity.
Test Procedure	1. Start a SET Initiated Location Session using a position method that requires the SLP to send the finally determined position to the SET in SUPL END (e.g. SET assisted A-GPS). 2. Depending on the feature(s) supported by the SET, in the SUPL END message sent from the Conformance Test Tool to the SET include the parameters from the relevant row of the table below in Position, using realistic, non-zero values. 3. Ensure the Location Session completes successfully and the SET releases the secure IP connection. Note that if supported in the SET the Altitude and / or Velocity values may be displayed or used by the client application.
Pass-Criteria	1. At step 3 the Location Session shall complete successfully and the SET shall release the secure IP connection.

Test #	Feature(s) supported by SET	Additional parameters to be sent in Position in SUPL END
Test 1	3D position only	Altitude information
Test 2	Velocity only	Horizontal Velocity Uncertainty
Test 3	3D position and velocity	Altitude information and Horizontal and Vertical Velocity Uncertainty

Table 9: Additional parameters to be sent in Position

5.2.8 Premature Session Termination & General Error Message

5.2.8.1 Status Code

5.2.8.1.1 SUPL-1.0-con-165 - Timeout UT1.

Test Case Id	SUPL-1.0-con-165
Test Object	Client
Test Case Description	To test SET correctly actions timer UT1
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-006, ULP-C-C-008
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test:

Test Procedure	1. Start a normal SI Location Session.
	2. After the SET sends SUPL START to the Conformance Test Tool do not respond from the Conformance Test Tool
	3. After timer UT1 expires (value is implementation specific, but default value is 10s) ensure the SET sends SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure.
	4. The Location Session ends and the SET should release the secure IP connection.
Pass-Criteria	1. At step 3 after UT1 expires (value is implementation specific, but default value is 10s) the SET shall respond with SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure.
	2. At step 4 the SET shall release the secure IP connection.

5.2.8.1.2   SUPL-1.0-con-166 - Timeout UT2 - non Cell ID.

Test Case Id	SUPL-1.0-con-166
Test Object	Client
Test Case Description	To test SET correctly actions timer UT2 when Cell ID is not being used for the Location Session
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-006, ULP-C-C-008
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: SET supports a positioning method other than Cell ID
Test Procedure	1. Start a normal SI Location Session using a Positioning Method other than Cell ID that is supported by the SET
	2. After the SET sends SUPL POS INIT to the Conformance Test Tool do not respond from the Conformance Test Tool
	3. After timer UT2 expires (value is implementation specific, but default value is 10s) ensure the SET sends SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure.
	4. The Location Session ends and the SET should release the secure IP connection.
Pass-Criteria	1. At step 3 after UT2 expires (value is implementation specific, but default value is 10s) the SET shall respond with SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure.
	2. At step 4 the SET shall release the secure IP connection.

5.2.8.1.3   SUPL-1.0-con-167 - Timeout UT2 - Cell ID.

Test Case Id	SUPL-1.0-con-167
Test Object	Client
Test Case Description	To test SET correctly actions timer UT2 when a Cell ID based method is being used for the Location Session

Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-006, ULP-C-C-008
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test:
Test Procedure	1. Start a normal SI Location Session using a Cell ID based method as the Positioning Method by setting eCID as the Positioning Method in the SUPL RESPONSE message. 2. After the SET sends SUPL POS INIT to the Conformance Test Tool do not respond from the Conformance Test Tool 3. After timer UT2 expires (value is implementation specific, but default value is 10s) ensure the SET sends SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure. 4. The Location Session ends and the SET should release the secure IP connection.
Pass-Criteria	1. At step 3 after UT2 expires (value is implementation specific, but default value is 10s) the SET shall respond with SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure. 2. At step 4 the SET shall release the secure IP connection.

5.2.8.1.4 SUPL-1.0-con-168 - Timeout UT3.

Test Case Id	SUPL-1.0-con-168
Test Object	Client
Test Case Description	To test SET correctly actions timer UT3
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-C-C-006, ULP-C-C-008
Tool	SUPL Client Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: SET supports a positioning method that requires the use of SUPL POS
Test Procedure	1. Start a normal SI Location Session using a Positioning Method that requires the use of SUPL POS that is supported by the SET 2. After the SET sends the final SUPL POS to the Conformance Test Tool do not respond from the Conformance Test Tool 3. After timer UT3 expires (value is implementation specific, but default value is 10s) ensure the SET sends SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure. 4. The Location Session ends and the SET should release the secure IP connection.

Pass-Criteria	1. At step 3 after UT3 expires (value is implementation specific, but default value is 10s) the SET shall respond with SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure.
	2. At step 4 the SET shall release the secure IP connection.

5.3   Server Conformance Testing, Network Initiated

5.3.1   Basic Functionality

5.3.1.1   Version.

5.3.1.1.1   SUPL-1.0-con-400 - Compatible Versions.

Test Case Id	SUPL-1.0-con-400
Test Object	Server
Test Case Description	To test SLP correctly accepts compatible Version numbers in SUPL messages
Specification Reference	ULP 5, 6, 7, 8
SCR Reference	ULP-D-S-001, ULP-D-S-002, ULP-D-S-003
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	Test 1; 1. Set the Version number supported in the Conformance Test Tool to a higher Min and Serv ind than that supported by the SLP 2. Start a NI Location Session 3. After the Conformance Test Tool sends SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non- proxy mode) to the SLP ensure the SLP responds with SUPL POS (proxy mode) or SUPL AUTH RESP (non- proxy mode) and the Location Session completes successfully. Test 2: 4. If applicable repeat test from step 1 to step 3 with the Min and Serv ind set to lower values than the maximum values supported by the SLP.
Pass-Criteria	Test 1 and 2: 1. At step 3 the SLP shall respond with SUPL POS (proxy mode) or SUPL AUTH RESP (non- proxy mode) with the correct Version number supported by the SLP

5.3.1.2   Session ID.

5.3.1.2.1   SUPL-1.0-con-402 - Correct Session ID.

Test Case Id	SUPL-1.0-con-402
Test Object	Server
Test Case Description	To test SLP correctly actions Session ID
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-D-S-001, ULP-D-S-002, ULP-D-S-003
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case

Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: None
Test Procedure	1. Set the SET Session ID in the Conformance Test Tool to a valid value with the SET ID using the first supported Parameter type in the table below
	2. Start a NI Location Session
	3. After the Conformance Test Tool sends SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non- proxy mode) to the SLP ensure the SLP responds with SUPL POS (proxy mode) or SUPL AUTH RESP (non- proxy mode) with a correct full Session ID and the Location Session completes successfully.
	4. If applicable repeat test from step 1 to step 3 with the other supported Parameter types in the table below
Pass-Criteria	1. At step 3 the SLP shall respond with SUPL POS (proxy mode) or SUPL AUTH RESP (non- proxy mode) with a correct full Session ID

Test #	Parameter Types to be used in SET ID
Test 1	MSISDN
Test 2	MDN
Test 3	MIN
Test 4	IMSI
Test 5	NAI
Test 6	IPAddress IPv4
Test 7	IPAddress IPv6

Table 10: Parameter Types

5.3.1.2.2   SUPL-1.0-con-403 - Incorrect SET Session ID.

Test Case Id	SUPL-1.0-con-403
Test Object	Server
Test Case Description	To test SLP correctly rejects an incorrect SET Session ID
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-D-S-001, ULP-D-S-002, ULP-D-S-003
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: None

Test Procedure	1. Start a NI Location Session
	2. After the SLP sends SUPL POS (proxy mode) or SUPL AUTH RESP (non- proxy mode) to the Conformance Test Tool, send SUPL POS (proxy mode) OR SUPL POS INIT (non- proxy mode) from the Conformance Test Tool to the SLP with an incorrect value of Session ID in the SET Session ID field (i.e. set Session ID to a different value from that used in the SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode) message)
	3. Ensure the SLP responds with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID.
	4. The Location Session ends and the SLP should release all resources.
	5. Repeat step 1 through step 4, but at step 2 instead use an incorrect value of SET ID in the SET Session ID field (i.e. set SET ID to a different value or a different parameter type from that used in the SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non-proxy mode) message)
Pass-Criteria	1. At step 3 in both cases the SLP shall respond with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID.
	2. At step 4 in both cases the SLP shall release all resources.

5.3.1.2.3 SUPL-1.0-con-404 - Incorrect SLP Session ID.

Test Case Id	SUPL-1.0-con-404
Test Object	Server
Test Case Description	To test SLP correctly rejects an incorrect SLP Session ID
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-D-S-001, ULP-D-S-002, ULP-D-S-003
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	1. Start a NI Location Session
	2. After the SLP sends SUPL to the Conformance Test Tool, send SUPL POS INIT (proxy mode) or SUPL AUTH REQ (non- proxy mode) from the Conformance Test Tool to the SLP with an incorrect value of Session ID in the SLP Session ID field (i.e. set Session ID to a different value from that received from the SLP)
	3. Ensure the SLP responds with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID.
	4. The Location Session ends and the SLP should release all resources.
	5. Repeat step 1 through step 4, but at step 2 instead use an incorrect value of SLP ID in the SET Session ID field (i.e. set SLP ID to a different value or a different parameter type from that received from the SLP)
Pass-Criteria	1. At step 3 in both cases the SLP shall respond with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID.
	2. At step 4 in both cases the SLP shall release all resources.

5.3.1.3   Optional Features

5.3.1.3.1   SUPL-1.0-con-406 - Optional parameters not supported.

Test Case Id	SUPL-1.0-con-406
Test Object	Server
Test Case Description	To test SLP correctly ignores optional parameters sent by the SET that the SLP does not support
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-004, ULP-E-S-005, ULP-F-S-003, ULP-F-S-004, ULP-F-S-005
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: SLP does not support one or more parameters from the table below
Test Procedure	1. In the Conformance Test Tool, for each parameter listed in the table below which the SLP does not support, run the corresponding Test, setting to valid, realistic values the parameter(s) that the SLP does not support. Note that if the SLP does not support more than one parameter then Tests may be effectively combined into a single Test if required. 2. For each Test start a Network Initiated Location Session with the parameter(s) sent in the appropriate message. 3. For each Test ensure the Location Session completes successfully. 4. Ensure the SLP releases all resources.
Pass-Criteria	1. At step 3 the Location Session shall complete successfully. 2. At step 4 the SLP shall release all resources.

Test #	Parameter not supported by SLP	Notes
Test 1	Requested Assistance Data in SUPL POS INIT	Use an A-GPS Location Session
Test 2	Position in SUPL POS INIT	In Position include Uncertainty, Confidence, Altitude and Velocity fields
Test 3	Velocity in SUPL POS	FFS

Table 11: Parameters not supported by SLP

5.3.2   Initiation of SUPL session by SLP

5.3.2.1   Support of WAP Push and MT SMS

5.3.2.1.1   SUPL-1.0-con-410 - WAP Push and, or MT SMS support.

Test Case Id	SUPL-1.0-con-410
Test Object	Server
Test Case Description	To test SLP correctly supports WAP Push and, or MT SMS

Specification Reference	ULP 6
SCR Reference	ULP-E-S-001, ULP-A-S-007, ULP-A-S-008, ULP-D-S-004, ULP-D-S-005
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	Test 1: WAP Push Access Protocol supported by the SLP: 1. Start a NI Location Session using WAP Push Access Protocol. 2. Ensure the format of the SUPL INIT message is correct 3. The Location Session can be terminated after the Conformance Test Tool sends SUPL POS INIT or can be allowed to complete. Test 2: MT SMS supported by the SLP: 4. Repeat the test from step 1 to step 3 using MT SMS.
Pass-Criteria	Test 1 and 2: 1. At step 2 the format of the SUPL INIT message shall be correct.

5.3.2.2   SLP Mode

5.3.2.2.1   SUPL-1.0-con-411 - Proxy and, or Non-Proxy mode support.

Test Case Id	SUPL-1.0-con-411
Test Object	Server
Test Case Description	To test SLP correctly supports Proxy and, or Non-proxy mode
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-001, ULP-A-S-007, ULP-A-S-008, ULP-D-S-004, ULP-D-S-005
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	Test 1: SLP supports Proxy mode: 1. Start a NI Location Session with SLP Mode in the SUPL INIT message set to Proxy mode if Proxy mode is supported by the SLP. 2. Ensure the Location Session completes successfully. Test 2: SLP supports Non-proxy mode: 3. Repeat the test from step 1 to step 2 with SLP Mode in the SUPL INIT message set to Non-proxy mode if Non-proxy mode is supported by the SLP.
Pass-Criteria	Test 1 and 2: 1. At step 2 the Location Session shall complete successfully.

5.3.2.2.2   SUPL-1.0-con-412 - Proxy or Non-Proxy mode not supported by SET.

Test Case Id	SUPL-1.0-con-412
Test Object	Server

Test Case Description	To test SLP correctly actions non-support of Proxy or Non-proxy mode in the SET
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-001, ULP-A-S-007, ULP-A-S-008, ULP-D-S-004, ULP-D-S-005
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	Test 1: SLP supports Proxy mode: 1. Start a NI Location Session with SLP Mode in the SUPL INIT message set to Proxy mode if Proxy mode is supported by the SLP. 2. After the SLP sends SUPL INIT to the Conformance Test Tool, send from the Conformance Test Tool SUPL END with Status Code set to proxyModeNotSupported. 3. The Location Session ends and the SLP should release all session resources. Test 2: SLP supports Non-proxy mode: 4. Repeat the test from step 1 to step 3 with SLP Mode in the SUPL INIT message set to Non-proxy mode if Non-proxy mode is supported by the SLP and at step 2 send SUPL END with Status Code set to nonProxyModeNotSupported..
Pass-Criteria	Test 1 and 2: 1. At step 3 the SLP shall release the all session resources.

5.3.3   Establishment and termination of secure session for SUPL session

5.3.3.1   Ver

5.3.3.1.1   SUPL-1.0-con-423 - Incorrect Ver.

Test Case Id	SUPL-1.0-con-423
Test Object	Server
Test Case Description	To test SLP correctly rejects an incorrect Ver
Specification Reference	ULP 6, 7, 8, AD 7
SCR Reference	ULP-A-S-001, ULP-A-S-002, ULP-A-S-003, ULP-A-S-004, ULP-A-S-005, ULP-A-S-006, ULP-E-S-004
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: SLP supports Proxy mode
Test Procedure	1. Start a NI Location Session. 2. After the SLP sends SUPL INIT to the Conformance Test Tool, the Conformance Test Tool sends SUPL POS INIT to the SLP with an incorrect value of Ver (e.g. by inverting the final bit of the field). 3. Ensure the SLP terminates the Location Session and sends SUPL END with Status Code set to authSuplinitFailure to the Conformance Test Tool and MLP SLIA with result code 6 (Position Method Failure) to the originating client.

Pass-Criteria	1. At step 3 the SLP shall terminate the Location Session and send SUPL END with Status Code set to authSuplinitFailure to the Conformance Test Tool and MLP SLIA with result code 6 (Position Method Failure) to the originating client.

5.3.4   Choice of Positioning method and Protocol

5.3.4.1   Positioning Method

5.3.4.1.1   SUPL-1.0-con-430 - Common Positioning method.

Test Case Id	SUPL-1.0-con-430
Test Object	Server
Test Case Description	To test SLP correctly uses common Positioning method
Specification Reference	ULP 6, 7, 8. AD 6.3.3
SCR Reference	ULP-E-S-001, ULP-E-S-002, ULP-E-S-003, ULP-E-S-004, ULP-A-S-011, ULP-A-S-012, ULP-A-S-013, ULP-A-S-014, ULP-A-S-015, ULP-A-S-016, ULP-A-S-017, ULP-A-S-018
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	1. In the Conformance Test Tool set the Pos Technology in the SET capabilities to be used in the SUPL POS INIT message to the values in the table below that correspond to the Positioning Method desired by the SLP (as indicated in the Positioning Method field in the SUPL INIT message). Set Pref Method to No preferred method and Pos Protocol as appropriate for the server under test 2. Start a NI Location Session 3. Ensure the Location Session completes successfully using the Positioning Method desired by the SLP. If a preferred and fallback method of A-GPS is desired, ensure that the preferred method is the one that is used for the Location Session. In the case of Autonomous GPS this shall include a SUPL POS session with no Assistance Data.
Pass-Criteria	1. At step 3 the Location Session shall complete successfully using the Positioning Method desired by the SLP. If a preferred and fallback method of A-GPS is desired, the preferred method shall be the one that is used for the Location Session. In the case of Autonomous GPS this shall include a SUPL POS session with no Assistance Data.

Test #	Positioning Method desired by SLP (as indicated in the Positioning Method field in the SUPL INIT message)	Pos Technology to be used in SET capabilities in SUPL POS INIT message
Test 1	A-GPS SET assisted only	SET assisted A-GPS, SET based A-GPS, Autonomous GPS
Test 2	A-GPS SET based only	SET assisted A-GPS, SET based A-GPS, Autonomous GPS
Test 3	A-GPS SET assisted preferred (A-GPS SET based is the fallback mode)	SET assisted A-GPS, SET based A-GPS, Autonomous GPS
Test 4	A-GPS SET based preferred (A-GPS SET assisted is the fallback mode)	SET assisted A-GPS, SET based A-GPS, Autonomous GPS

Test 5	Autonomous GPS	SET assisted A-GPS, SET based A-GPS, Autonomous GPS
Test 6	AFLT	AFLT, Autonomous GPS
Test 7	Enhanced Cell / sector	Enhanced Cell / sector, Autonomous GPS
Test 8	Cell ID (Enhanced Cell / sector used in the Positioning Method field)	Autonomous GPS
Test 9	EOTD	EOTD, Autonomous GPS
Test 10	OTDOA	OTDOA, Autonomous GPS

Table 12: Positioning technologies

5.3.4.1.2 SUPL-1.0-con-431 - Preferred or fallback Positioning method.

Test Case Id	SUPL-1.0-con-431
Test Object	Server
Test Case Description	To test SLP correctly uses preferred or fallback Positioning method
Specification Reference	ULP 6, 7, 8. AD 6.3.3
SCR Reference	ULP-E-S-001, ULP-E-S-002, ULP-E-S-003, ULP-E-S-004, ULP-A-S-011, ULP-A-S-012, ULP-A-S-013, ULP-A-S-014, ULP-A-S-015, ULP-A-S-016, ULP-A-S-017, ULP-A-S-018
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: The SLP supports both A-GPS SET assisted and A-GPS SET based Positioning methods and indicates a preferred mode
Test Procedure	1. In the Conformance Test Tool set the Pos Technology and Pref Method in the SET capabilities to be used in the SUPL POS INIT message to the values for Case 1 in the table below, depending on the Positioning Method desired by the SLP (as indicated in the Positioning Method field in the SUPL INIT message)
	2. Start a NI Location Session
	3. Ensure the Location Session completes successfully using the Positioning Method defined in the table below, depending on the Positioning Method desired by the SLP and the values used in the SUPL POS INIT message.
	4. Repeat step 1 through step 3 with the values for Case 2 in the table below.
	5. Repeat step 1 through step 3 with the values for Case 3 in the table below.
Pass-Criteria	1. At step 3 in all cases the Location Session shall complete successfully using the Positioning method defined in the table below 5.5.3.2.1, depending on the Positioning Method desired by the SLP and the values used in the SUPL POS INIT message.

Test #	Positioning Method desired by SLP (as indicated in the Positioning Method field in the SUPL INIT message)	Pos Technology and Pref Method to be used in SET capabilities in SUPL POS INIT messages	Positioning method used for Location Session
Test 1	A-GPS SET assisted preferred (A-GPS SET based is the fallback mode)	Case 1: SET assisted A-GPS, SET based A-GPS, SET assisted preferred	A-GPS SET assisted
		Case 2: SET assisted A-GPS, SET based A-GPS, SET based preferred	A-GPS SET assisted
		Case 3: SET based A-GPS, No preferred mode	A-GPS SET based
Test 2	A-GPS SET based preferred (A-GPS SET assisted is the fallback mode)	Case 1: SET assisted A-GPS, SET based A-GPS, SET based preferred	A-GPS SET based
		Case 2: SET assisted A-GPS, SET based A-GPS, SET assisted preferred	A-GPS SET based
		Case 3: SET assisted A-GPS, No preferred mode	A-GPS SET assisted

Table 13: Positioning technologies

5.3.4.1.3   SUPL-1.0-con-432 - No common Positioning method.

Test Case Id	SUPL-1.0-con-432
Test Object	Server
Test Case Description	To test SLP correctly acts if no common Positioning method is initially indicated
Specification Reference	ULP 6, 7, 8. AD 6.3.3
SCR Reference	ULP-E-S-001, ULP-E-S-002, ULP-E-S-003, ULP-E-S-004, ULP-A-S-011, ULP-A-S-012, ULP-A-S-013, ULP-A-S-014, ULP-A-S-015, ULP-A-S-016, ULP-A-S-017, ULP-A-S-018
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None

Test Procedure	1. Start a NI Location Session
	2. After the SLP sends SUPL INIT to the Conformance Test Tool, the Test Tool user should note the value of Positioning Method desired by the SLP.
	3. From the Conformance Test Tool send SUPL POS INIT with the values of the SET Capabilities field in the SUPL POS INIT message set to include all the values of Positioning Technology known to be supported by the SLP, excluding the value noted in step 2. If both SET based and SET assisted A-GPS are indicated in step 2, then exclude both methods from the SET capabilities field. Set the Preferred method to No preferred mode and the Positioning Protocol as appropriate.
	4. The SLP should continue the Location Session using one of the methods set in the SET Capabilities field in step 3. In the case of Autonomous GPS this shall include a SUPL POS session with no Assistance Data.
	5 The Location Session should end successfully and the SLP should release all resources.
	6. Repeat steps 1 thru 5, but at step 3 exclude the Positioning method that has already been tested.
	7. Repeat step 6 until all the possible Positioning Methods have been tested in step 4. It is also acceptable that the SLP may simply use Cell ID in all cases at step 4 and therefore other Positioning Methods cannot be tested.
	8. Start a NI Location Session
	9. After the SLP sends SUPL INIT to the Conformance Test Tool, from the Conformance Test Tool send SUPL POS INIT with the value of the SET Capabilities field in the SUPL POS INIT message set to a value of Positioning Technology known not to be supported by the SLP. Set the Preferred method to No preferred mode and the Positioning Protocol to a value supported by the SLP.
	10. The SLP should either continue the Location Session using Cell ID or it may send SUPL END with Status Code set to posMethodMismatch.
	11. Either the Cell ID Location Session should end successfully and the SLP should release all resources or the SLP should release all resources.
Pass-Criteria	1. At step 4 in all cases the SLP shall continue the Location Session using one of the methods set in the SET Capabilities field in step 3. In the case of Autonomous GPS this shall include a SUPL POS session with no Assistance Data. It is also acceptable that the SLP may simply use Cell ID in all cases.
	2. At step 5 in all cases the Location Session shall end successfully and the SLP shall release all resources.
	3. At step 10 the SLP shall either continue the Location Session using Cell ID or it shall send SUPL END with Status Code set to posMethodMismatch.
	4. At step 11 either the Cell ID Location Session shall end successfully and the SLP shall release all resources or the SLP shall release all resources.

5.3.4.1.4 SUPL-1.0-con-433 - No Position.

Test Case Id	SUPL-1.0-con-433
Test Object	Server
Test Case Description	To test SLP acts correctly when No Position is signalled by the SLP.

Specification Reference	ULP 6, 7, 8. AD 6.3.3
SCR Reference	ULP-E-S-001, ULP-E-S-002, ULP-E-S-003, ULP-E-S-004, ULP-A-S-011, ULP-A-S-012, ULP-A-S-013, ULP-A-S-014, ULP-A-S-015, ULP-A-S-016, ULP-A-S-017, ULP-A-S-018
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: it is possible to set the value of Notification in the SLP.
Test Procedure	1. Ensure the SLP contains an existing suitable position for the SET so that No position will be sent as the desired Positioning method in the SUPL INIT message. Set Notification to Notification and verification (Allowed on no answer). 2. Start a NI Location Session 3. After the SLP sends SUPL INIT to the Conformance Test Tool, wait for 30 seconds (or whatever other time is deemed reasonable for the SET user-response timer) and then send from the Conformance Test Tool SUPL END with Status Code set to consentGrantedBy User 4. Ensure SLP sends SET position to the requesting SUPL agent. 5. Repeat step 1 through step 3 however at step 3 do not wait and send SUPL END with Status Code set to consentDeniedBy User. 6. Ensure SLP does not send SET position to the requesting SUPL agent and indicates to the SUPL agent that the user rejected the location request. 7. Ensure the SLP contains an existing suitable position for the SET so that No position will be sent as the Positioning method to be used in the SUPL INIT message. Set Notification to Notification and verification (Denied on no answer). 8. Start a NI Location Session 9. After the SLP sends SUPL INIT to the Conformance Test Tool, wait for 30 seconds (or whatever other time is deemed reasonable for the SET user-response timer) and then send from the Conformance Test Tool SUPL END with Status Code set to consentDeniedBy User. 10. Ensure SLP does not send SET position to the requesting SUPL agent and indicates to the SUPL agent that the user rejected the location request. 11. Repeat step 7 through step 9 however at step 9 do not wait and send SUPL END with Status Code set to consentGrantedBy User. 12. Ensure SLP sends SET position to the requesting SUPL agent.
Pass-Criteria	1. At steps 4 and 12 the SLP shall sends SET position to the requesting SUPL agent. 2. At steps 6 and 10 the SLP shall not send SET position to the requesting SUPL agent and shall indicate to the SUPL agent that the user rejected the location request.

5.3.5 Execution of positioning session

5.3.5.1 Support for requested Assistance Data

5.3.5.1.1 SUPL-1.0-con-440 - Requested Assistance Data

Test Case Id	SUPL-1.0-con-440
Test Object	Server
Test Case Description	To test SLP correctly supplies Assistance Data requested in SUPL POS INIT
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-004, ULP-F-S-004
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: 3GPP support only
Test Procedure	Test 1: SLP supports A-GPS SET-based positioning: 1. Start a normal NI Location Session with the Positioning Technology in SET Capabilities in SUPL POS INIT set to A-GPS SET-based only. 2. In the SUPL POS INIT message sent from the Conformance Test Tool to the SLP set the Requested Assistance Data field to request a suitable set of Assistance data. 3. In the following SUPL POS procedure ensure the SLP sends the set of Assistance data requested in step 2 without the need for a further request from the Conformance Test Tool. The SLP may send the Assistance data during the Position Measurement Procedure or by using the Assistance Data Delivery Procedure followed by the Position Measurement Procedure. 4. Ensure the Location Session completes successfully. Test 2: SLP supports A-GPS SET-assisted positioning: 5. Repeat the test from step 1 through step 4 using A-GPS SET-assisted only
Pass-Criteria	Test 1 and 2: 1. At step 3 the SLP shall send the set of Assistance data requested in step 2. 2. At step 4 the Location Session shall complete successfully.

5.3.5.2 Support of Location ID

5.3.5.2.1 SUPL-1.0-con-441 - Location ID parameters

Test Case Id	SUPL-1.0-con-441
Test Object	Server
Test Case Description	To test SLP correctly supports the optional parameters and the different values of the Status field in Location ID in SUPL POS INIT
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-004
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case

Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: None
Test Procedure	1. Start a normal NI Location Session with the Positioning Technology in SET Capabilities in SUPL POS INIT set to Enhanced Cell/sector only.
	2. For GSM SETs, in the SUPL POS INIT message sent from the Conformance Test Tool to the SLP set the Location ID field to include one set of suitable NMR parameters for an adjacent cell and a suitable value of TA (e.g. 32). Set the value of Status to Current, the present cell info.
	3. For WCDMA SETs, in the SUPL POS INIT message sent from the Conformance Test Tool to the SLP set the Location ID field to include suitable values of all optional parameters and one set of suitable Measured Results List for an adjacent cell. Set the value of Status to Current, the present cell info.
	4. For CDMA SETs, in the SUPL POS INIT message sent from the Conformance Test Tool to the SLP set the value of Status to Current, the present cell info.
	5. Ensure the Location Session completes successfully.
	6. Repeat step 1 through step 4 and in step 2, 3 or 4 as appropriate set the value of Status to Not Current, the last known cell info.
	7. Ensure the Location Session completes. Note that the reaction of the SLP to Status Not Current is not defined therefore the session may complete successfully (preferred outcome) or the SLP may end the session immediately with SUPL END with a suitable status code error (e.g. posMethodFailure).
	8. Repeat step 1 through step 4 and in step 2, 3 or 4 as appropriate set the value of Status to Unknown.
	9. Ensure the Location Session completes. Note that the reaction of the SLP to Status Unknown is not defined therefore the session may complete successfully (preferred outcome) or the SLP may end the session immediately with SUPL END with a suitable status code error (e.g. posMethodFailure).
Pass-Criteria	1. At step 5 the Location Session shall complete successfully.
	2. At steps 7 and 9 the Location Session shall complete. Note that the reaction of the SLP to Status Not Current and Unknown is not defined therefore the session may complete successfully (preferred outcome) or the SLP may end the session immediately with SUPL END with a suitable status code error (e.g. posMethodFailure).

5.3.5.3   Position

5.3.5.3.1   SUPL-1.0-con-443 - Reception of Position, 3D Position and / or Velocity in Position

Test Case Id	SUPL-1.0-con-443
Test Object	Server
Test Case Description	To test SLP correctly supports the use of Position or 3D Position and / or Velocity in Position in the SUPL POS INIT message.
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-004, ULP-F-S-003, ULP-F-S-005
Tool	SUPL Server Conformance Test Tool

Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: only one of this test or SUPL-1.0-con-543 needs to be run. Prerequisite for this test: The SLP supports at least one Positioning Technology that would realistically mean the SET might send Position in SUPL POS INIT and that normally requires a SUPL POS session (e.g. SET based A-GPS) The SLP supports the use of Position or 3D Position and / or Velocity in Position.
Test Procedure	1. Start a normal NI Location Session with the Positioning Technology in SET Capabilities in SUPL POS INIT set to a value that would realistically mean the SET might send Position in SUPL POS INIT and that normally requires a SUPL POS session (e.g. SET based A-GPS) 2. Depending on the feature(s) supported by the SLP, in the SUPL POS INIT message sent from the Conformance Test Tool to the SLP, send the Position parameter, including the additional fields from the relevant row of the table below. For these fields use realistic, non-zero values that are consistent with the values used in the Location ID parameter. However, if the SLP uses QoP in SUPL INIT ensure the values used do NOT comply with the requested QoP. (The case where the values do comply with the requested QoP is tested elsewhere) 3. Ensure that a subsequent SUPL POS session takes place and the Location Session completes successfully. Note that what use the SLP makes of the Position parameter and whether Altitude and / or Velocity are eventually passed to the requesting application is not defined.
Pass-Criteria	1. At step 3 a subsequent SUPL POS session shall take place and the Location Session shall complete successfully.

Test #	Feature(s) supported by SLP	Additional parameters to be sent in Position in SUPL POS INIT
Test 1	Use of Position only	None
Test 2	3D position only in Position	Altitude information
Test 3	Velocity only in Position	Horizontal Velocity Uncertainty
Test 4	3D position and velocity in Position	Altitude information and Horizontal and Vertical Velocity Uncertainty

Table 14: Additional parameters to be sent in Position

5.3.6   Validate requested QoP

5.3.6.1   QoP in SUPL INIT

5.3.6.1.1   SUPL-1.0-con-681 - Previous position stored in SET meets QoP.

Test Case Id	SUPL-1.0-con-681
Test Object	Server
Test Case Description	To test SLP correctly responds when a previous position estimate stored in the SET meets the requested QoP.

Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-001, ULP-F-S-001
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: The SLP supports QoP. There is no stored position in the SLP.
Test Procedure	1. Start a normal Network Initiated A-GPS Location Session and request a reasonable QoP from the requesting application that could be met from an A-GPS fix, such that the SLP sets all the fields in the QoP parameter to reasonable values. 2. After the SLP sends SUPL INIT (proxy mode) or SUPL AUTH RESP (non-proxy mode); from the Conformance Test Tool send SUPL POS INIT with the Position parameter containing a realistic 3D position consistent with the Location ID parameter. The value of Uncertainty Ellipse should be such that the effective horizontal accuracy will be better than the value received in SUPL INIT, the value of Confidence should be set to a high value (e.g. 90%), the value of Altitude uncertainty should be better (tighter) than the value of Vertical Accuracy received in SUPL INIT, and the Timestamp should be closer to current time than the Maximum Location Age received in SUPL INIT. 3. Ensure the SLP responds with SUPL END and does not attempt a subsequent SUPL POS session. 4. Ensure the SLP releases all resources.
Pass-Criteria	1. At step 3 the SLP shall respond with SUPL END and shall not attempt a subsequent SUPL POS session. 2. At step 4 the SLP shall release all resources.

5.3.6.1.2   SUPL-1.0-con-682 - Previous position stored in SET does not meet QoP.

Test Case Id	SUPL-1.0-con-682
Test Object	Server
Test Case Description	To test SLP correctly responds when a previous position estimate stored in the SET does not meet the requested QoP.
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-001, ULP-F-S-001
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: The SLP supports QoP. There is no stored position in the SLP.

Test Procedure	1. Start a normal Network Initiated A-GPS Location Session and request a tight QoP from the requesting application that could not be met from an Enhanced Cell ID fix alone, such that the SLP sets all the fields in the QoP parameter to tight values.
	2. After the SLP sends SUPL INIT (proxy mode) or SUPL AUTH RESP (non-proxy mode); from the Conformance Test Tool send SUPL POS INIT but do not include the Position parameter.
	3. Ensure the SLP continues with a normal A-GPS location session that completes successfully.
	4. Ensure the SLP releases all resources.
Pass-Criteria	1. At step 3 the SLP shall continue with a normal A-GPS location session that completes successfully.
	2. At step 4 the SLP shall release all resources.

5.3.7   Completion of SUPL session

5.3.7.1   Position

5.3.7.1.1   SUPL-1.0-con-450 - Reception of 3D Position and / or Velocity.

Test Case Id	SUPL-1.0-con-450
Test Object	Server
Test Case Description	To test SLP correctly supports the reception of 3D Position and / or Velocity in the SUPL END message.
Specification Reference	ULP 6, 7, 8, AD 7
SCR Reference	ULP-E-S-006, ULP-F-S-005
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: the SLP supports a position method that requires the SET to send the finally determined position to the SLP in SUPL END (e.g. SET based A-GPS).
	The SLP supports the use of Altitude and / or Velocity.
Test Procedure	1. Start a Network Initiated Location Session using a position method that requires the SET to send the finally determined position to the SLP in SUPL END (e.g. SET based A-GPS).
	2. Depending on the feature(s) supported by the SLP, in the SUPL END message sent from the Conformance Test Tool to the SLP include the parameters from the relevant row of the table below in Position, using realistic, non-zero values.
	3. Ensure the Location Session completes successfully.
	Note that if supported in the SLP the Altitude and / or Velocity values may be displayed or used by the client application.
Pass-Criteria	1. At step 3 the Location Session shall complete successfully.

Test #	Feature(s) supported by SLP	Additional parameters to be sent in Position in SUPL END

Test 1	3D position only	Altitude information
Test 2	Velocity only	Horizontal Velocity Uncertainty
Test 3	3D position and velocity	Altitude information and Horizontal and Vertical Velocity Uncertainty

Table 15: Additional parameters to be sent in Position

5.3.8 Premature Session Termination & General Error Message

5.3.8.1 Status Code

5.3.8.1.1 SUPL-1.0-con-460 - Protocol error.

Test Case Id	SUPL-1.0-con-460
Test Object	Server
Test Case Description	To test SLP correctly actions a protocol parsing error
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-006, ULP-E-S-008
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test:
Test Procedure	1. Start a NI Location Session. 2. After the Conformance Test Tool receives SUPL INIT from the SLP (proxy mode) or SUPL AUTH RESP (non-proxy mode), send SUPL POS INIT with the Message Length field in the SUPL POS INIT message set to a value of one less (octet) than the correct value, from the Conformance Test Tool. 3. After the SLP receives the SUPL POS INIT the SLP should send SUPL END with Status Code set to protocolError. 4. The Location Session ends and the SLP should release all session resources.
Pass-Criteria	1. At step 3 the SLP shall respond with SUPL END with Status Code set to protocolError. 2. At step 4 the SLP shall release the all session resources.

5.3.8.1.2 SUPL-1.0-con-461 - Data missing

Test Case Id	SUPL-1.0-con-461
Test Object	Server
Test Case Description	To test SLP correctly actions a data missing error
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-006, ULP-E-S-008
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test:

Test Procedure	1. Start a NI Location Session.
	2. After the Conformance Test Tool receives SUPL INIT from the SLP (proxy mode) or SUPL AUTH RESP (non-proxy mode), send from the Conformance Test Tool SUPL POS INIT with the value for the Status field missing in the Location ID parameter in the SUPL POS INIT message. Ensure the Message Length field is set to the correct value to take account of this missing value.
	3. After the SLP receives the SUPL POS INIT the SLP should send SUPL END with Status Code set to dataMissing.
	4. The Location Session ends and the SLP should release all session resources
Pass-Criteria	1. At step 3 the SLP shall respond with SUPL END with Status Code set to dataMissing.
	2. At step 4 the SLP shall release the all session resources.

5.3.8.1.3 SUPL-1.0-con-462 - Unexpected data value

Test Case Id	SUPL-1.0-con-462
Test Object	Server
Test Case Description	To test SLP correctly actions an unexpected data value error
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-006, ULP-E-S-008
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test:
Test Procedure	1. Start a NI Location Session.
	2. After the Conformance Test Tool receives SUPL INIT from the SLP (proxy mode) or SUPL AUTH RESP (non-proxy mode), send from the Conformance Test Tool SUPL POS INIT with the value for the Status field to 3 (i.e. a value which is not defined) in the Location ID parameter in the SUPL POS INIT message.
	3. After the SLP receives the SUPL POS INIT the SLP should send SUPL END with Status Code set to unexpectedDataValue.
	4. The Location Session ends and the SLP should release all session resources
Pass-Criteria	1. At step 3 the SLP shall respond with SUPL END with Status Code set to unexpectedDataValue.
	2. At step 4 the SLP shall release the all session resources.

5.3.8.1.4 SUPL-1.0-con-463 - Unexpected message

Test Case Id	SUPL-1.0-con-463
Test Object	Server
Test Case Description	To test SLP correctly actions an unexpected message error
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-006, ULP-E-S-008
Tool	SUPL Server Conformance Test Tool

Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test:
Test Procedure	1. Start a NI Location Session. 2. After the Conformance Test Tool receives SUPL INIT from the SLP (proxy mode) or SUPL AUTH RESP (non-proxy mode), send from the Conformance Test Tool SUPL START message with the parameters set to as realistic values as possible. 3. After the SLP receives SUPL START the SLP should send SUPL END with Status Code set to unexpectedMessage. 4. The Location Session ends and the SLP should release all session resources
Pass-Criteria	1. At step 3 the SLP shall respond with SUPL END with Status Code set to unexpectedMessage. 2. At step 4 the SLP shall release the all session resources.

5.3.8.1.5   SUPL-1.0-con-465 - Timeout ST2 - normal

Test Case Id	SUPL-1.0-con-465
Test Object	Server
Test Case Description	To test SLP correctly actions timer ST2 when no verification is requested from the user
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-006, ULP-E-S-008
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None.
Test Procedure	1. In the SLP set Notification to No notification & no verification or to Notification only 2. Start a normal NI Location Session 3. After the SLP sends SUPL INIT to the Conformance Test Tool the Conformance Test Tool should not respond. 4. After timer ST2 expires (value is implementation specific, but default value for proxy mode is 10s, for Non-proxy mode is 50+s) ensure the SLP sends MLP-SLIA to the SUPL agent. 5. The Location Session ends and the SLP should release all session resources.
Pass-Criteria	1. At step 4 after ST2 expires (value is implementation specific, but default value for proxy mode is 10s, for Non-proxy mode is 50+s) the SLP shall send MLP-SLIA to the SUPL agent. 2. At step 5 the SLP shall release the all session resources

5.3.8.1.6   SUPL-1.0-con-466 - Timeout ST2 - no response to Verification from user

Test Case Id	SUPL-1.0-con-466
Test Object	Server

Test Case Description	To test SLP correctly actions timer ST2 when there is no response to a verification request from the user
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-006, ULP-E-S-008
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None.
Test Procedure	1. In the SLP set Notification to Notification and verification - Allowed on no answer. 2. Start a normal NI Location Session 3. After the SLP sends SUPL INIT to the Conformance Test Tool, the Conformance Test Tool should not respond. 4. After timer ST2 expires (value is implementation specific, but default value for proxy mode is 10s plus a reasonable allowance to allow the user to respond to the verification request, suggested value is 20s, for Non-proxy mode, the suggested value is 50+s) ensure the SLP sends MLP-SLIA to the SUPL agent. 5. The Location Session ends and the SLP should release all session resources. 6. Repeat step 1 through step 5 with Notification set to Notification and verification - Denied on no answer.
Pass-Criteria	1. In both cases at step 4 after ST2 expires (value is implementation specific, but default value for proxy mode is 10s plus a reasonable allowance to allow the user to respond to the verification request, suggested value 20s, for Non-proxy mode, the suggested value is 50+s) the SLP shall send MLP-SLIA to the SUPL agent. 2. In both cases at step 5 the SLP shall release the all session resources

5.3.8.2   Ver

5.3.8.2.1   SUPL-1.0-con-467 - Incorrect Ver.

Test Case Id	SUPL-1.0-con-467
Test Object	Server
Test Case Description	To test SLP correctly rejects an incorrect Ver received in SUPL END
Specification Reference	ULP 6, 7, 8, AD 7
SCR Reference	ULP-E-S-006
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None

Test Procedure	1. Start a NI Location Session with the Positioning Method set to No Position in SUPL INIT and Notification set to either Notification only, or Notification and verification, Allowed on no answer or Denied on no answer.
	2. After the SLP sends SUPL INIT to the Conformance Test Tool, the Conformance Test Tool sends SUPL END to the SLP with the Status Code empty if Notification was set to either Notification only, or consentGrantedByUser if Notification was set to Notification and verification. Set the Ver field to an incorrect value of Ver (e.g. by inverting the final bit of the field).
	3. Ensure the SLP terminates the Location Session and sends MLP SLIA with a suitable result code (e.g. 6 (Position Method Failure) or other suitable error code value) to the originating client.
Pass-Criteria	1. At step 3 the SLP shall terminate the Location Session and send MLP SLIA with a suitable result code (e.g. 6 (Position Method Failure) or other suitable error code value) to the originating client.

5.3.9   Roaming - Proxy Mode with H-SLP positioning

5.3.9.1   Home SLP procedures

5.3.9.1.1   SUPL-1.0-con-470 – Cell id positioning method

Test Case Id	SUPL-1.0-con-470
Test Object	Server
Test Case Description	To test H-SLP correctly supplies an acceptable location when SET is roaming and cell id positioning method is used.
Specification Reference	AD 6.8.5
SCR Reference	ULP-C-S-001
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in a visited GSM, CDMA or WCDMA network.
	The positioning method to be used in the location session is cell id.
	The initiator of the Location session requests, "best effort" and "current location".
	Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in H-SLP.

Test Procedure	1. Start a normal NI Location Session.
	2. The H-SLP determines that the SET is roaming by requesting routing information from the HLR (Optional procedure)
	3. The Conformance Test Tool (SET) receives SUPL INIT from the H-SLP.
	4. The Conformance Test Tool (SET) responds with an SUPL POS INIT containing a LID that belongs to the visited GSM network.
	5. The H-SLP determines that the SET is roaming by analysing the LID (Optional procedure) and sends an RLP-SRLIR to the Conformance Test Tool (V-SLP).
	6. The Conformance Test Tool (V-SLP) responds with an RLP-SRLIA containing the location of the SET.
	7. The Location Session ends and the H-SLP releases all session resources
	8. Repeat the test from step 1 with SET located in a visited CDMA network.
	9. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 5 the LID in the RLP-SRLIR is the one received from the Conformance Test Tool (SET).
	2. At step 7 the H-SLP ends the location session by supplying an acceptable location to the initiator of the location session.

5.3.9.1.2   SUPL-1.0-con-471 – SET-Based A-GPS positioning method

Test Case Id	SUPL-1.0-con-471
Test Object	Server
Test Case Description	To test H-SLP correctly supplies an acceptable location when SET is roaming and SET-based A-GPS positioning method is used.
Specification Reference	AD 6.8.5
SCR Reference	ULP-C-S-001
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network.
	The positioning method to be used in the location session is SET-based A-GPS.
	The initiator of the Location session requests, "best effort" and "current location".
	Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in H-SLP.

Test Procedure	1. Start a normal NI Location Session.
	2. The H-SLP determines that the SET is roaming by requesting routing information from the HLR (Optional procedure)
	3. The Conformance Test Tool (SET) receives SUPL INIT from the H-SLP.
	4. The Conformance Test Tool (SET) responds with an SUPL POS INIT containing a LID that belongs to the visited GSM network.
	5. The H-SLP determines that the SET is roaming by analysing the LID (Optional procedure) and sends an RLP-SRLIR to the Conformance Test Tool (V-SLP).
	6. The Conformance Test Tool (V-SLP) responds with an RLP-SRLIA containing the coarse location of the SET.
	7. The H-SLP and the Conformance Test Tool (SET) exchange several SUPL POS messages to determine a more accurate location of the SET.
	8. The Location Session ends and the H-SLP releases all session resources
	9. Repeat the test from step 1 with SET located in a visited CDMA network.
	10. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 5 the LID in the RLP-SRLIR is the one received from the Conformance Test Tool (SET).
	2. At step 7 the H-SLP uses the coarse location received from Conformance Test Tool (V-SLP) to supply relevant information to the Conformance Test Tool (SET).
	3. At step 8 the H-SLP ends the location session by supplying an acceptable location to the initiator of the location session.

5.3.9.1.3   SUPL-1.0-con-472 – SET-Assisted A-GPS positioning method

Test Case Id	SUPL-1.0-con-472
Test Object	Server
Test Case Description	To test H-SLP correctly supplies an acceptable location when SET is roaming and SET-assisted A-GPS positioning method is used.
Specification Reference	AD 6.8.5
SCR Reference	ULP-C-S-001
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network.
	The positioning method to be used in the location session is SET-assisted A-GPS.
	The initiator of the Location session requests, "best effort" and "current location".
	Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in H-SLP.

Test Procedure	1. Start a normal NI Location Session.
	2. The H-SLP determines that the SET is roaming by requesting routing information from the HLR (Optional procedure)
	3. The Conformance Test Tool (SET) receives SUPL INIT from the H-SLP.
	4. The Conformance Test Tool (SET) responds with an SUPL POS INIT containing a LID that belongs to the visited GSM network.
	5. The H-SLP determines that the SET is roaming by analysing the LID (Optional procedure) and sends an RLP-SRLIR to the Conformance Test Tool (V-SLP).
	6. The Conformance Test Tool (V-SLP) responds with an RLP-SRLIA containing the coarse location of the SET.
	7. The H-SLP and the Conformance Test Tool (SET) exchange several SUPL POS messages to determine a more accurate location of the SET.
	8. The Location Session ends and the H-SLP releases all session resources
	9. Repeat the test from step 1 with SET located in a visited CDMA network.
	10. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 5 the LID in the RLP-SRLIR is the one received from the Conformance Test Tool (SET).
	2. At step 7 the H-SLP uses the coarse location received from Conformance Test Tool (V-SLP) to supply relevant information to the Conformance Test Tool (SET).
	3. At step 8 the H-SLP ends the location session by supplying an acceptable location to the initiator of the location session.

5.3.9.1.4 SUPL-1.0-con-473 – No response from V-SLP (Timer ST4 expires)

Test Case Id	SUPL-1.0-con-473
Test Object	Server
Test Case Description	To test H-SLP correctly actions on no response from the V-SLP (Timer ST4 expires)
Specification Reference	AD 6.8.5
SCR Reference	ULP-C-S-001
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network.
	The positioning method to be used in the location session is SET-based A-GPS.
	The initiator of the Location session requests, "best effort" and "current location".
	Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in H-SLP.

Test Procedure	1. Start a normal NI Location Session.
	2. The H-SLP determines that the SET is roaming by requesting routing information from the HLR (Optional procedure)
	3. The Conformance Test Tool (SET) receives SUPL INIT from the H-SLP.
	4. The Conformance Test Tool (SET) responds with an SUPL POS INIT containing a LID that belongs to the visited GSM network.
	5. The H-SLP determines that the SET is roaming by analysing the LID (Optional procedure) and sends an RLP-SRLIR to the Conformance Test Tool (V-SLP).
	6. The Conformance Test Tool (V-SLP) does not respond to the RLP-SRLIR.
	7. When ST4 expires, the Location Session ends and the H-SLP releases all session resources
	8. Repeat the test from step 1 with SET located in a visited CDMA network.
	9. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 5 the LID in the RLP-SRLIR is the one received from the Conformance Test Tool (SET).
	2. At step 7 the H-SLP ends the location session by supplying an appropriate error message (result code) to the initiator of the location session.

5.3.9.1.5　　　SUPL-1.0-con-474 – V-SLP responds with error message

Test Case Id	SUPL-1.0-con-474
Test Object	Server
Test Case Description	To test H-SLP correctly actions error message (result code) from V-SLP
Specification Reference	AD 6.8.5
SCR Reference	ULP-C-S-001
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network. The positioning method to be used in the location session is SET-based A-GPS. The initiator of the Location session requests, "best effort" and "current location". Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in H-SLP.
Test Procedure	1. Start a normal NI Location Session. 2. The H-SLP determines that the SET is roaming by requesting routing information from the HLR (Optional procedure) 3. The Conformance Test Tool (SET) receives SUPL INIT from the H-SLP. 4. The Conformance Test Tool (SET) responds with an SUPL POS INIT containing a LID that belongs to the visited GSM network. 5. The H-SLP determines that the SET is roaming by analysing the LID (Optional procedure) and sends an RLP-SRLIR to the Conformance Test Tool (V-SLP). 6. The Conformance Test Tool (V-SLP) responds with an RLP-SRLIA containing an error message (result code). 7. The Location Session ends and the H-SLP releases all session resources 8. Repeat the test from step 1 with SET located in a visited CDMA network. 9. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 5 the LID in the RLP-SRLIR is the one received from the Conformance Test Tool (SET). 2. At step 7 the H-SLP ends the location session by supplying an appropriate error message (result code) to the initiator of the location session.

5.3.9.2 Visited SLP Procedures

5.3.9.2.1 SUPL-1.0-con-475 – Successful look up of location based on received LID

Test Case Id	SUPL-1.0-con-475
Test Object	Server
Test Case Description	To test V-SLP correctly supplies an acceptable location when SET is roaming.
Specification Reference	ULP-B-S-001
SCR Reference	AD 6.8.5
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network. Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in H-SLP.
Test Procedure	1. The Conformance Test Tool (H-SLP) sends an RLP-SRLIR to the V-SLP containing a GSM LID. 2. V-SLP responds with an RLP-SRLIA containing the coarse location of the SET. 3. Repeat the test from step 1 with SET located in a visited CDMA network (that is, a CDMA LID is included in RLP-SRLIR). 4. Repeat the test from step 1 with SET located in a visited WCDMA network (that is, a WCDMA LID is included in RLP-SRLIR).
Pass-Criteria	1. At step 2 the V-SLP supplies an acceptable location to the Conformance Test Tool (H-SLP).

5.3.9.2.2 SUPL-1.0-con-476 – Authentication failure

Test Case Id	SUPL-1.0-con-476
Test Object	Server
Test Case Description	To test V-SLP replies with correct error message (result code) when authentication of H-SLP fails.
Specification Reference	ULP-B-S-001
SCR Reference	AD 6.8.7
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network. Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in H-SLP.
Test Procedure	1. The Conformance Test Tool (H-SLP) sends an RLP-SRLIR to the V-SLP containing a GSM LID, but incorrect Id and Pwd elements in the message header. 2. The V-SLP fails to authenticate the H-SLP and responds with an RLP-SRLIA. 3. Repeat the test from step 1 with SET located in a visited CDMA network (that is, a CDMA LID is included in RLP-SRLIR). 4. Repeat the test from step 1 with SET located in a visited WCDMA network (that is, a WCDMA LID is included in RLP-SRLIR).

Pass-Criteria	1. At step 2 the V-SLP supplies correct result code (3, UNAUTHORIZED APPLICATION) to the Conformance Test Tool (H-SLP).

5.3.9.2.3 SUPL-1.0-con-477 – Mandatory element missing

Test Case Id	SUPL-1.0-con-477
Test Object	Server
Test Case Description	To test V-SLP replies with correct error message (result code) when a mandatory element is missing in SRLIR.
Specification Reference	ULP-B-S-001
SCR Reference	AD 6.8.7
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network. Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in H-SLP.
Test Procedure	1. The Conformance Test Tool (H-SLP) sends an RLP-SRLIR to the V-SLP containing a GSM LID, but no MSID element. 2. V-SLP responds with an RLP-SRLIA. 3. Repeat the test from step 1 with SET located in a visited CDMA network (that is, a CDMA LID is included in RLP-SRLIR). 4. Repeat the test from step 1 with SET located in a visited WCDMA network (that is, a WCDMA LID is included in RLP-SRLIR).
Pass-Criteria	1. At step 2 the V-SLP supplies correct result code (106, SYNTAX ERROR) to the Conformance Test Tool (H-SLP).

5.3.10 Roaming - Proxy Mode with V-SLP positioning

5.3.10.1 Home SLP procedures

5.3.10.1.1 SUPL-1.0-con-480 – Cell id positioning method

Test Case Id	SUPL-1.0-con-480
Test Object	Server
Test Case Description	To test H-SLP correctly supplies an acceptable location when SET is roaming and cell id positioning method is used.
Specification Reference	AD 6.8.3
SCR Reference	ULP-C-S-003
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in a visited GSM, CDMA or WCDMA network. The positioning method to be used in the location session is cell id. The initiator of the location session requests, "best effort" and "current location". Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in V-SLP.

Test Procedure	1. Start a normal NI location session.
	2. The H-SLP determines that the SET is roaming by requesting routing information from the HLR. The H-SLP uses the routing information to determine the address of the V-SLP that serves the visited network.
	3. The Conformance Test Tool (V-SLP) receives RLP-SSRLIR(SUPL START) from the H-SLP.
	4. The Conformance Test Tool (V-SLP) responds with RLP-SSRLIA(SUPL RESPONSE).
	5. The Conformance Test Tool (SET) receives SUPL INIT from the H-SLP.
	6. The Conformance Test Tool (SET) responds with an SUPL POS INIT containing a GSM LID that belongs to the visited GSM network.
	7. The Conformance Test Tool (V-SLP) receives RLP-SSRP(SUPL POS INIT) from the H-SLP.
	8. The Conformance Test Tool (V-SLP) responds with RLP-SSRP(SUPL END) containing the location of the SET.
	9. The location session ends and the H-SLP releases all session resources
	10. Repeat the test from step 1 with SET located in a visited CDMA network.
	11. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 3 the RLP-SSRLIR(SUPL START) message contains the mandatory parameters (LID and SET capabilities).
	2. At step 7 the LID in RLP-SSRP(SUPL POS INIT) is the one received from the Conformance Test Tool (SET).
	3. At step 9 the H-SLP sends SUPL END to the Conformance Test Tool (SET) and ends the location session by supplying an acceptable location to the initiator of the location session.

5.3.10.1.2   SUPL-1.0-con-481 – SET-Based A-GPS positioning method

Test Case Id	SUPL-1.0-con-481
Test Object	Server
Test Case Description	To test H-SLP correctly supplies an acceptable location when SET is roaming and SET-based A-GPS positioning method is used.
Specification Reference	AD 6.8.3
SCR Reference	ULP-C-S-003
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network.
	The positioning method to be used in the location session is SET-based A-GPS.
	The initiator of the location session requests, "best effort" and "current location".
	Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in V-SLP.

Test Procedure	1. Start a normal NI location session.
	2. The H-SLP determines that the SET is roaming by requesting routing information from the HLR. The H-SLP uses the routing information to determine the address of the V-SLP that serves the visited network.
	3. The Conformance Test Tool (V-SLP) receives RLP-SSRLIR(SUPL START) from the H-SLP.
	4. The Conformance Test Tool (V-SLP) responds with RLP-SSRLIA(SUPL RESPONSE).
	5. The Conformance Test Tool (SET) receives SUPL INIT from the H-SLP.
	6. The Conformance Test Tool (SET) responds with an SUPL POS INIT containing a GSM LID that belongs to the visited GSM network.
	7. The Conformance Test Tool (V-SLP) receives RLP-SSRP(SUPL POS INIT) from the H-SLP.
	8. The Conformance Test Tool (V-SLP) and the Conformance Test Tool (SET) exchange several SUPL POS messages to determine a more accurate location of the SET.
	9. The Conformance Test Tool (V-SLP) sends RLP- SSRP(SUPL END) to the H-SLP. The RLP- SSRP(SUPL END) contains the location of the SET.
	10. The location session ends and the H-SLP releases all session resources.
	11. Repeat the test from step 1 with SET located in a visited CDMA network.
	12. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 3 the RLP-SSRLIR(SUPL START) message contains the mandatory parameters (LID and SET capabilities).
	2. At step 7 the LID in RLP-SSRP(SUPL POS INIT) is the one received from the Conformance Test Tool (SET).
	3. At step 8 the H-SLP forwards SUPL POS messages to the Conformance Test Tool (V-SLP). The H-SLP also forwards RLP-SSRP(SUPL POS) messages to the Conformance Test Tool (SET).
	4. At step 10 the H-SLP sends SUPL END to the Conformance Test Tool (SET) and ends the location session by supplying an acceptable location to the initiator of the location session.

5.3.10.1.3   SUPL-1.0-con-482 – SET-Assisted A-GPS positioning method

Test Case Id	SUPL-1.0-con-482
Test Object	Server
Test Case Description	To test H-SLP correctly supplies an acceptable location when SET is roaming and SET-assisted A-GPS positioning method is used.
Specification Reference	AD 6.8.3
SCR Reference	ULP-C-S-004
Tool	SUPL Server Conformance Test Tool
Test code	

Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network.
	The positioning method to be used in the location session is SET-assisted A-GPS.
	The initiator of the location session requests, "best effort" and "current location".
	Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in V-SLP.
Test Procedure	1. Start a normal NI location session.
	2. The H-SLP determines that the SET is roaming by requesting routing information from the HLR. The H-SLP uses the routing information to determine the address of the V-SLP that serves the visited network.
	3. The Conformance Test Tool (V-SLP) receives RLP-SSRLIR(SUPL START) from the H-SLP.
	4. The Conformance Test Tool (V-SLP) responds with RLP-SSRLIA(SUPL RESPONSE).
	5. The Conformance Test Tool (SET) receives SUPL INIT from the H-SLP.
	6. The Conformance Test Tool (SET) responds with an SUPL POS INIT containing a GSM LID that belongs to the visited GSM network.
	7. The Conformance Test Tool (V-SLP) receives RLP-SSRP(SUPL POS INIT) from the H-SLP.
	8. The Conformance Test Tool (V-SLP) and the Conformance Test Tool (SET) exchange several SUPL POS messages to determine a more accurate location of the SET.
	9. The Conformance Test Tool (V-SLP) sends RLP- SSRP(SUPL END) to the H-SLP. The RLP- SSRP(SUPL END) contains the location of the SET.
	10. The location session ends and the H-SLP releases all session resources.
	11. Repeat the test from step 1 with SET located in a visited CDMA network.
	12. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 3 the RLP-SSRLIR(SUPL START) message contains the mandatory parameters (LID and SET capabilities).
	2. At step 7 the LID in RLP-SSRP(SUPL POS INIT) is the one received from the Conformance Test Tool (SET).
	3. At step 8 the H-SLP forwards SUPL POS messages to the Conformance Test Tool (V-SLP). The H-SLP also forwards RLP-SSRP(SUPL POS) messages to the Conformance Test Tool (SET).
	4. At step 10 the H-SLP sends SUPL END to the Conformance Test Tool (SET) and ends the location session by supplying an acceptable location to the initiator of the location session.

5.3.10.1.4   SUPL-1.0-con-483 – No response from V-SLP (Timer ST3 expires)

Test Case Id	SUPL-1.0-con-483
Test Object	Server
Test Case Description	To test H-SLP correctly actions on no response from the V-SLP (Timer ST3 expires)

Specification Reference	AD 6.8.3
SCR Reference	ULP-C-S-003
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network.
	The positioning method to be used in the location session is SET-based A-GPS.
	The initiator of the location session requests, "best effort" and "current location".
	Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in V-SLP.
Test Procedure	1. Start a normal NI location session.
	2. The H-SLP determines that the SET is roaming by requesting routing information from the HLR. The H-SLP uses the routing information to determine the address of the V-SLP that serves the visited network.
	3. The Conformance Test Tool (V-SLP) receives RLP-SSRLIR(SUPL START) from the H-SLP.
	4. The Conformance Test Tool (V-SLP) does not respond to the RLP-SSRLIR(SUPL START).
	5. When ST3 expires, the location session ends and the H-SLP releases all session resources
	6. Repeat the test from step 1 with SET located in a visited CDMA network.
	7. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 5 the H-SLP ends the location session by supplying an appropriate error message (result code) to the initiator of the location session.

5.3.10.1.5   SUPL-1.0-con-484 – V-SLP responds with error message

Test Case Id	SUPL-1.0-con-484
Test Object	Server
Test Case Description	To test H-SLP correctly actions error message (result code) from V-SLP
Specification Reference	AD 6.8.3
SCR Reference	ULP-C-S-003
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network.
	The positioning method to be used in the location session is SET-based A-GPS.
	The initiator of the location session requests, "best effort" and "current location".
	Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in V-SLP.

Test Procedure	1. Start a normal NI location session.
	2. The H-SLP determines that the SET is roaming by requesting routing information from the HLR. The H-SLP uses the routing information to determine the address of the V-SLP that serves the visited network.
	3. The Conformance Test Tool (V-SLP) receives RLP-SSRLIR(SUPL START) from the H-SLP.
	4. The Conformance Test Tool (V-SLP) responds with RLP- SSRLIA containing a result code.
	5. The location session ends and the H-SLP releases all session resources
	6. Repeat the test from step 1 with SET located in a visited CDMA network.
	7. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 5 the H-SLP ends the location session by supplying an appropriate error code (result code) to the initiator of the location session.

5.3.10.2   Visited SLP procedures

5.3.10.2.1   SUPL-1.0-con-487 – Cell id positioning method

Test Case Id	SUPL-1.0-con-487
Test Object	Server
Test Case Description	To test H-SLP correctly supplies an acceptable location when SET is roaming and cell id positioning method is used.
Specification Reference	ULP-B-S-003
SCR Reference	AD 6.8.3
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network. Prerequisite for this test: V-SLP supports Proxy mode with positioning calculation in V-SLP.
Test Procedure	1. The Conformance Test Tool (H-SLP) sends RLP-SSRLIR(SUPL START) to the V-SLP. 2. V-SLP responds with RLP- SSRLIA(SUPL RESPONSE). 3. The Conformance Test Tool (V-SLP) sends RLP-SSRP(SUPL POS INIT) to the V-SLP, containing a GSM LID that belongs to the visited GSM network. 4. V-SLP responds with RLP-SSRP(SUPL END) containing the location of the SET. 5. Repeat the test from step 1 with SET located in a visited CDMA network (that is, a CDMA LID is included in RLP-SSRP(SUPL POS INIT). 6. Repeat the test from step 1 with SET located in a visited WCDMA network (that is, a WCDMA LID is included in RLP-SSRP(SUPL POS INIT).
Pass-Criteria	1. At step 4 the V-SLP supplies an acceptable location to the Conformance Test Tool (H-SLP).

5.3.10.2.2   SUPL-1.0-con-488 – SET- Based A-GPS positioning method

Test Case Id	SUPL-1.0-con-488
Test Object	Server
Test Case Description	To test V-SLP correctly supplies an acceptable location when SET is roaming and SET-based A-GPS positioning method is used.
Specification Reference	ULP-B-S-003
SCR Reference	AD 6.8.3
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network. Prerequisite for this test: V-SLP supports Proxy mode with positioning calculation in V-SLP.
Test Procedure	1. The Conformance Test Tool (H-SLP) sends RLP-SSRLIR(SUPL START) to the V-SLP. 2. V-SLP responds with RLP- SSRLIA(SUPL RESPONSE). 3. The Conformance Test Tool (H-SLP) sends RLP-SSRP(SUPL POS INIT) to the V-SLP, containing a GSM LID that belongs to the visited GSM network. 4. The V-SLP and the Conformance Test Tool (H-SLP) exchange several RLP- SSRP(SUPL POS) messages to determine a more accurate location of the SET. 5. The location session ends and the V-SLP releases all session resources. 6. Repeat the test from step 1 with SET located in a visited CDMA network (that is, a CDMA LID is included in RLP-SSRP(SUPL POS INIT). 7. Repeat the test from step 1 with SET located in a visited WCDMA network (that is, a WCDMA LID is included in RLP-SSRP(SUPL POS INIT).
Pass-Criteria	1. At step 4 the V-SLP uses the LID to determine the coarse location of the SET. The V-SLP then uses this location to supply relevant information to the Conformance Test Tool (H-SLP). 2. At step 5 the V-SLP sends RLP- SSRP(SUPL END) to the Conformance Test Tool (H-SLP) containing an acceptable location.

5.3.10.2.3 SUPL-1.0-con-489 – SET- Assisted A-GPS positioning method

Test Case Id	SUPL-1.0-con-489
Test Object	Server
Test Case Description	To test V-SLP correctly supplies an acceptable location when SET is roaming and SET-assisted A-GPS positioning method is used.
Specification Reference	ULP-B-S-003
SCR Reference	AD 6.8.3
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network. Prerequisite for this test: V-SLP supports Proxy mode with positioning calculation in V-SLP.
Test Procedure	1. The Conformance Test Tool (H-SLP) sends RLP-SSRLIR(SUPL START) to the V-SLP. 2. V-SLP responds with RLP- SSRLIA(SUPL RESPONSE). 3. The Conformance Test Tool (H-SLP) sends RLP-SSRP(SUPL POS INIT) to the V-SLP, containing a GSM LID that belongs to the visited GSM network. 4. The V-SLP and the Conformance Test Tool (H-SLP) exchange several RLP- SSRP(SUPL POS) messages to determine a more accurate location of the SET. 5. The location session ends and the V-SLP releases all session resources. 6. Repeat the test from step 1 with SET located in a visited CDMA network (that is, a CDMA LID is included in RLP-SSRP(SUPL POS INIT). 7. Repeat the test from step 1 with SET located in a visited WCDMA network (that is, a WCDMA LID is included in RLP-SSRP(SUPL POS INIT).
Pass-Criteria	1. At step 4 the V-SLP uses the LID to determine the coarse location of the SET. The V-SLP then uses this location to supply relevant information to the Conformance Test Tool (H-SLP). 2. At step 5 the V-SLP sends RLP- SSRP(SUPL END) to the Conformance Test Tool (H-SLP) containing an acceptable location.

5.3.10.2.4   SUPL-1.0-con-490 – Authentication failure

Test Case Id	SUPL-1.0-con-490
Test Object	Server
Test Case Description	To test V-SLP replies with correct error message (result code) when authentication of H-SLP fails.
Specification Reference	ULP-B-S-003
SCR Reference	AD 6.8.7
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network.
	Prerequisite for this test: V-SLP supports Proxy mode with positioning calculation in V-SLP.
Test Procedure	1. The Conformance Test Tool (H-SLP) sends RLP-SSRLIR(SUPL START) to the V-SLP containing incorrect Id and Pwd elements in the message header.
	2. The V-SLP fails to authenticate the H-SLP and responds with RLP-SSRLIA.
	3. Repeat the test from step 1 with SET located in a visited CDMA network (that is, a CDMA LID is included in RLP-SSRLIR).
	4. Repeat the test from step 1 with SET located in a visited WCDMA network (that is, a WCDMA LID is included in RLP-SSRLIR).
Pass-Criteria	1. At step 2 the V-SLP supplies correct result code (3, UNAUTHORIZED APPLICATION) to the Conformance Test Tool (H-SLP).

5.3.10.2.5   SUPL-1.0-con-491 – Mandatory element missing

Test Case Id	SUPL-1.0-con-491
Test Object	Server
Test Case Description	To test V-SLP replies with correct error message (result code) when a mandatory element is missing in SSRLIR.
Specification Reference	ULP-B-S-003
SCR Reference	AD 6.8.7
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network.
	Prerequisite for this test: V-SLP supports Proxy mode with positioning calculation in V-SLP.
Test Procedure	1. The Conformance Test Tool (H-SLP) sends RLP-SSRLIR(SUPL START) to the V-SLP without supl_session_id element.
	2. V-SLP responds with RLP-SSRLIA.
	3. Repeat the test from step 1 with SET located in a visited CDMA network (that is, a CDMA LID is included in RLP-SSRLIR).
	4. Repeat the test from step 1 with SET located in a visited WCDMA network (that is, a WCDMA LID is included in RLP-SSRLIR).
Pass-Criteria	1. At step 2 the V-SLP supplies correct result code (106, SYNTAX ERROR) to the Conformance Test Tool (H-SLP).

5.4   Server Conformance Testing, SET Initiated

5.4.1   Basic Functionality

5.4.1.1   Version.

5.4.1.1.1   SUPL-1.0-con-500 - Compatible Versions.

Test Case Id	SUPL-1.0-con-500
Test Object	Server
Test Case Description	To test SLP correctly accepts compatible Version numbers in SUPL messages
Specification Reference	ULP 5, 6, 7, 8
SCR Reference	ULP-D-S-001, ULP-D-S-002, ULP-D-S-003
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	Test 1: 1. Set the Version number supported in the Conformance Test Tool to a higher Min and Serv ind than that supported by the SLP 2. Start a SI Location Session 3. After the Conformance Test Tool sends SUPL START to the SLP ensure the SLP responds with SUPL RESPONSE and the Location Session completes successfully. Test 2: 4. If applicable repeat test from step 1 through step 3 with the Min and Serv ind set to lower values than the maximum values supported by the SLP.
Pass-Criteria	Test 1 and 2: 1. At step 3 the SLP shall respond with SUPL RESPONSE with the correct Version number supported by the SLP

5.4.1.1.2   SUPL-1.0-con-501 - Unsupported Version.

Test Case Id	SUPL-1.0-con-501
Test Object	Server
Test Case Description	To test SLP correctly rejects unsupported Version number in SUPL messages
Specification Reference	ULP 5, 6, 7, 8
SCR Reference	ULP-D-S-001, ULP-D-S-002, ULP-D-S-003
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case

Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: None
Test Procedure	1. Set the Version number supported in the Conformance Test Tool to a higher Maj than that supported by the SLP.
	2. Start a SI Location Session.
	3. After the Conformance Test Tool sends SUPL START to the SLP, ensure the SLP responds with SUPL END with Status Code set to versionNotSupported.
	4. The Location Session ends and the SLP should release all resources.
Pass-Criteria	1. At step 3 the SLP shall respond with SUPL END with Status Code set to versionNotSupported.
	2. At step 4 the SLP shall release all resources.

5.4.1.2   Session ID.

5.4.1.2.1   SUPL-1.0-con-502 - Correct Session ID.

Test Case Id	SUPL-1.0-con-502
Test Object	Server
Test Case Description	To test SLP correctly actions Session ID
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-D-S-001, ULP-D-S-002, ULP-D-S-003
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: None
Test Procedure	1. Set the SET Session ID in the Conformance Test Tool to a valid value with the SET ID using the first supported Parameter type in the table below
	2. Start a SI Location Session
	3. After the Conformance Test Tool sends SUPL START to the SLP ensure the SLP responds with SUPL RESPONSE with a correct full Session ID and the Location Session completes successfully.
	4. If applicable repeat the test from step 1 through step 3 with all the other supported Parameter types in the table below
Pass-Criteria	1. At step 3 the SLP shall respond with SUPL RESPONSE with a correct full Session ID

Test #	Parameter Types to be used in SET ID
Test 1	MSISDN
Test 2	MDN
Test 3	MIN
Test 4	IMSI
Test 5	NAI

Test 6	IPAddress IPv4
Test 7	IPAddress IPv6

Table 16: Parameter Types

5.4.1.2.2   SUPL-1.0-con-503 - Missing or incorrect SET Session ID.

Test Case Id	SUPL-1.0-con-503
Test Object	Server
Test Case Description	To test SLP correctly rejects a missing or incorrect SET Session ID
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-D-S-001, ULP-D-S-002, ULP-D-S-003
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	1. Start a SI Location Session. 2. In the SUPL START message sent from the Conformance Test Tool to the SLP, do not include SET Session ID in the Session ID field. 3. Ensure the SLP responds with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID. 4. The Location Session ends and the SLP should release all resources. 5. Start a SI Location Session 6. After the SLP sends SUPL RESPONSE to the Conformance Test Tool, send SUPL POS INIT from the Conformance Test Tool to the SLP with an incorrect value of Session ID in the SET Session ID field (i.e. set Session ID to a different value from that used in the SUPL START message) 7. Ensure the SLP responds with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID. 8. The Location Session ends and the SLP should release all resources. 9. Repeat step 5 through step 8, but at step 6 instead use an incorrect value of SET ID in the SET Session ID field (i.e. set SET ID to a different value or a different parameter type from that used in the SUPL START message)
Pass-Criteria	1. At step 3, and at step 7 in both cases, the SLP shall respond with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID. 2. At step 4, and at step 8 in both cases, the SLP shall release all resources.

5.4.1.2.3   SUPL-1.0-con-504 - Incorrect SLP Session ID.

Test Case Id	SUPL-1.0-con-504
Test Object	Server
Test Case Description	To test SLP correctly rejects an incorrect SLP Session ID
Specification Reference	ULP 6, 7, 8

SCR Reference	ULP-D-S-001, ULP-D-S-002, ULP-D-S-003
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	1. Start a SI Location Session. 2. In the SUPL START message sent from the Conformance Test Tool to the SLP, include a plausible SLP Session ID in the Session ID field. 3. Ensure the SLP responds with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID. 4. The Location Session ends and the SLP should release all resources. 5. Start a SI Location Session 6. After the SLP sends SUPL RESPONSE to the Conformance Test Tool, send SUPL POS INIT from the Conformance Test Tool to the SLP with an incorrect value of Session ID in the SLP Session ID field (i.e. set Session ID to a different value from that received from the SLP) 7. Ensure the SLP responds with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID. 8. The Location Session ends and the SLP should release all resources. 9. Repeat step 5 through step 8, but at step 6 instead use an incorrect value of SLP ID in the SLP Session ID field (i.e. set SLP ID to a different value or a different parameter type from that received from the SLP)
Pass-Criteria	1. At step 3, and at step 7 in both cases, the SLP shall respond with SUPL END with the incorrect Session ID in the SUPL END Common Part and with Status Code set to invalidSessionID. 2. At step 4, and at step 8 in both cases, the SLP shall release all resources.

5.4.1.3   Optional Features

5.4.1.3.1   SUPL-1.0-con-506 - Optional parameters not supported.

Test Case Id	SUPL-1.0-con-506
Test Object	Server
Test Case Description	To test SLP correctly ignores optional parameters sent by the SET that the SLP does not support
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-002, ULP-E-S-004, ULP-E-S-005, ULP-F-S-002, ULP-F-S-003, ULP-F-S-005
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: SLP does not support one or more parameters from the table below

Test Procedure	1. In the Conformance Test Tool, for each parameter listed in the table below which the SLP does not support, run the corresponding Test, setting to valid, realistic values the parameter(s) that the SLP does not support. Note that if the SLP does not support more than one parameter then Tests may be effectively combined into a single Test if required.
	2. For each Test start a SET Initiated Location Session with the parameter(s) sent in the appropriate message.
	3. For each Test ensure the Location Session completes successfully.
	4. Ensure the SLP releases all resources.
Pass-Criteria	1. At step 3 the Location Session shall complete successfully.
	2. At step 4 the SLP shall release all resources.

Test #	Parameter not supported by SLP	Notes
Test 1	QoP in SUPL START	In QoP include Vertical accuracy, Maximum Location Age and Delay fields
Test 2	Position in SUPL POS INIT	In Position include Uncertainty, Confidence, Altitude and Velocity fields.
Test 3	Velocity in SUPL POS	FFS

Table 17: Parameters not supported by SLP

5.4.2   Initiation of SUPL session by SET

5.4.2.1   Support of Location ID

5.4.2.1.1   SUPL-1.0-con-510 - Location ID parameters

Test Case Id	SUPL-1.0-con-510
Test Object	Server
Test Case Description	To test SLP correctly supports the optional parameters and the different values of the Status field in Location ID in SUPL START and SUPL POS INIT
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-002, ULP-A-S-009, ULP-A-S-010, ULP-E-S-004
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: 3GPP support only

Test Procedure	1. Start a normal SI Location Session with the Positioning Technology in SET Capabilities in SUPL START set to Enhanced Cell/sector only.
	2. For GSM SETs, in the SUPL START message and the SUPL POS INIT message sent from the Conformance Test Tool to the SLP set the Location ID field to include one set of suitable NMR parameters for an adjacent cell and a suitable value of TA (e.g. 32). Set the value of Status to Current, the present cell info.
	3. For WCDMA SETs, in the SUPL START message and the SUPL POS INIT message sent from the Conformance Test Tool to the SLP set the Location ID field to include suitable values of all optional parameters and one set of suitable Measured Results List for an adjacent cell. Set the value of Status to Current, the present cell info.
	4. For CDMA SETs, in the SUPL START message and the SUPL POS INIT message sent from the Conformance Test Tool to the SLP set the value of Status to Current, the present cell info.
	5. Ensure the Location Session completes successfully.
	6. Repeat step 1 through step 4 and in step 2, 3 or 4 as appropriate set the value of Status to Not Current, the last known cell info.
	7. Ensure the Location Session completes. Note that the reaction of the SLP to Status Not Current is not defined therefore the session may complete successfully (preferred outcome) or the SLP may end the session immediately with SUPL END with a suitable status code error (e.g. posMethodFailure).
	8. Repeat step 1 through step 4 and in step 2, 3 or 4 as appropriate set the value of Status to Unknown.
	9. Ensure the Location Session completes. Note that the reaction of the SLP to Status Unknown is not defined therefore the session may complete successfully (preferred outcome) or the SLP may end the session immediately with SUPL END with a suitable status code error (e.g. posMethodFailure).
Pass-Criteria	1. At step 5 the Location Session shall complete successfully.
	2. At steps 7 and 9 the Location Session shall complete. Note that the reaction of the SLP to Status Not Current and Unknown is not defined therefore the session may complete successfully (preferred outcome) or the SLP may end the session immediately with SUPL END with a suitable status code error (e.g. posMethodFailure).

5.4.3   SUPL RESPONSE

5.4.4   Choice of Positioning method and Protocol

5.4.4.1   Positioning Method

5.4.4.1.1   SUPL-1.0-con-530 - Common Positioning.

Test Case Id	SUPL-1.0-con-530
Test Object	Server
Test Case Description	To test SLP correctly uses common Positioning method
Specification Reference	ULP 6, 7, 8. AD 6.3.3
SCR Reference	ULP-E-S-001, ULP-E-S-002, ULP-E-S-003, ULP-E-S-004, ULP-A-S-011, ULP-A-S-012, ULP-A-S-013, ULP-A-S-014, ULP-A-S-015, ULP-A-S-016, ULP-A-S-017, ULP-A-S-018
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case

Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: None
Test Procedure	1. In the Conformance Test Tool set the Pos Technology in the SET capabilities to be used in the SUPL START and SUPL POS INIT messages to all the values that correspond to all the Positioning Methods supported by the SLP as detailed in the table below. Set Pref Method to No preferred method and Pos Protocol as appropriate for the server under test
	2. Start a SI Location Session
	3. Ensure the Location Session completes successfully using one of the Positioning Methods supported by the SLP as indicated in the SUPL RESPONSE Message. Note that A-GPS preferred modes should never be indicated. In the case of Autonomous GPS this shall include a SUPL POS session with no Assistance Data.
	4. If more than one Pos Technology was set in step 1, remove the Technology used in step 3 from the list and repeat step 1 through step 3.
	5. Repeat step 4 until all the Positioning Methods supported by the SLP in the table below have been tested.
	6. In the Conformance Test Tool set the Pos Technology in the SET capabilities to be used in the SUPL START and SUPL POS INIT messages to no Pos Technology. Set Pref Method to No preferred method and Pos Protocol as appropriate for the server under test
	7. Start a SI Location Session
	8. Ensure the Location Session completes successfully using Cell ID.
Pass-Criteria	1. At step 3 in each case the Location Session shall complete successfully using the Positioning method indicated in the SUPL RESPONSE message. In the case of Autonomous GPS this shall include a SUPL POS session with no Assistance Data.
	2. At step 8 the Location Session shall complete successfully using Cell ID.

Positioning Method supported by SLP	Pos Technology to be used in SET capabilities in SUPL START and SUPL POS INIT messages
A-GPS SET assisted only	SET assisted A-GPS
A-GPS SET based only	SET based A-GPS
A-GPS SET assisted preferred (A-GPS SET based is the fallback mode)	SET assisted A-GPS
A-GPS SET based preferred (A-GPS SET assisted is the fallback mode)	SET based A-GPS
Autonomous GPS	Autonomous GPS
AFLT	AFLT
Enhanced Cell / sector	Enhanced Cell / sector
EOTD	EOTD
OTDOA	OTDOA

Table 18: Positioning technologies

5.4.4.1.2 SUPL-1.0-con-531 - Preferred or fallback Positioning method.

Test Case Id	SUPL-1.0-con-531
Test Object	Server
Test Case Description	To test SLP correctly uses preferred or fallback Positioning method
Specification Reference	ULP 6, 7, 8. AD 6.3.3
SCR Reference	ULP-E-S-001, ULP-E-S-002, ULP-E-S-003, ULP-E-S-004, ULP-A-S-011, ULP-A-S-012, ULP-A-S-013, ULP-A-S-014, ULP-A-S-015, ULP-A-S-016, ULP-A-S-017, ULP-A-S-018
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: The SLP supports either or both A-GPS SET assisted and A-GPS SET based Positioning methods
Test Procedure	1. In the Conformance Test Tool set the Pos Technology and Pref Method in the SET capabilities to be used in the SUPL START and SUPL POS INIT messages to SET assisted A-GPS, SET based A-GPS, SET assisted preferred. Set Pos Protocol as appropriate for the server under test 2. Start a SI Location Session 3. Ensure the SLP signals the desired Positioning Method in the SUPL RESPONSE message and the Location Session completes successfully using the Positioning Method defined in the table below for Case 1, depending on the Positioning Method(s) supported the SLP. 4. In the Conformance Test Tool set the Pos Technology and Pref Method in the SET capabilities to be used in the SUPL START and SUPL POS INIT messages to SET assisted A-GPS, SET based A-GPS, SET based preferred. Set Pos Protocol as appropriate for the server under test 5. Start a SI Location Session 6. Ensure the SLP signals the intended Positioning Method in the SUPL RESPONSE message and the Location Session completes successfully using the Positioning Method defined in the table below for Case 2, depending on the Positioning Method(s) supported the SLP.
Pass-Criteria	1. At step 3 and 6 the SLP shall signal the desired Positioning Method in the SUPL RESPONSE message and the Location Session shall complete successfully using the Positioning method defined in the appropriate table below, depending on the Positioning Method(s) supported by the SLP.

Test #	Positioning Method(s) supported by SLP	Positioning method used for SUPL RESPONSE and Location Session
Test 1	A-GPS SET assisted only	A-GPS SET assisted
Test 2	A-GPS SET based only	A-GPS SET based
Test 3	Both A-GPS SET assisted and A-GPS SET based	A-GPS SET assisted

Table 19: Case 1Positioning method

Test #	Positioning Method(s) supported by SLP	Positioning method used for SUPL RESPONSE and Location Session

Test 1	A-GPS SET assisted only	A-GPS SET assisted
Test 2	A-GPS SET based only	A-GPS SET based
Test 3	Both A-GPS SET assisted and A-GPS SET based	A-GPS SET based

Table 20: Case 2 Positioning method

5.4.4.1.3 SUPL-1.0-con-532 - No common Positioning method.

Test Case Id	SUPL-1.0-con-532
Test Object	Server
Test Case Description	To test SLP correctly responds if no common Positioning method is available
Specification Reference	ULP 6, 7, 8. AD 6.3.3
SCR Reference	ULP-E-S-001, ULP-E-S-002, ULP-E-S-003, ULP-E-S-004, ULP-A-S-011, ULP-A-S-012, ULP-A-S-013, ULP-A-S-014, ULP-A-S-015, ULP-A-S-016, ULP-A-S-017, ULP-A-S-018
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: None
Test Procedure	1. In the Conformance Test Tool set the Pos Technology in the SET capabilities to be used in the SUPL START message to a value that correspond to a Positioning Method that is not supported by the SLP as detailed in the table below. Set Pref Method to No preferred method and Pos Protocol as appropriate for the server under test 2. Start a SI Location Session 3. Ensure the SLP either completes the Location Session successfully using Cell ID, or sends SUPL END with Status Code set to posMethodMismatch. 4. The Location Session ends and the SLP should release all resources. Note that this test only requires to be run for one value from the table below.
Pass-Criteria	1. At step 3 the SLP shall either complete the Location Session successfully using Cell ID, or send SUPL END with Status Code set to posMethodMismatch. 2. At step 4 the SLP shall release all resources.

Pos Technology to be used in SET capabilities in SUPL START message
A-GPS SET assisted only
A-GPS SET based only
Autonomous GPS
AFLT
Enhanced Cell / sector
EOTD
OTDOA

Table 21: Positioning technologies

5.4.5 Execution of positioning session

5.4.5.1 Support for requested Assistance Data

5.4.5.1.1 SUPL-1.0-con-540 - Default Assistance Data (SET-based A-GPS)

Test Case Id	SUPL-1.0-con-540
Test Object	Server
Test Case Description	To test SLP correctly supplies default Assistance Data when Assistance Data is not requested in SUPL POS INIT in the case of SET-based A-GPS
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-004, ULP-F-S-004
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: 3GPP support only
Test Procedure	1. Start a normal SI Location Session with the Positioning Technology in SET Capabilities in SUPL START set to SET-based A-GPS only 2. After the SLP sends SUPL RESPONSE to the Conformance Test Tool, in the SUPL POS INIT message sent from the Conformance Test Tool to the SLP do not include the Requested Assistance Data element. 3. In the case of RRLP support, in the following SUPL POS procedure ensure the SLP sends the RRLP Assistance Data message with a "default" set of Assistance data. In the case of RRC support, in the following SUPL POS procedure ensure the SLP sends the RRC Assistance Data Delivery message with a "default" set of Assistance data. (The "default" set of Assistance data is not defined, but the set of data defined in 3GPP TS 25.171 Annex E as: Reference Time, Reference Position, Navigation Model and Ionospheric Model would be acceptable). 4. Ensure the Location Session completes successfully.
Pass-Criteria	1. At step 3, in the case of RRLP support the SLP shall send the RRLP Assistance Data message with a "default" set of Assistance data. In the case of RRC support the SLP shall send the RRC Assistance Data Delivery message with a "default" set of Assistance data. (The "default" set of Assistance data is not defined, but the set of data defined in 3GPP TS 25.171 Annex E as: Reference Time, Reference Position, Navigation Model and Ionospheric Model would be acceptable). 2. At step 4 the Location Session shall complete successfully.

5.4.5.1.2 SUPL-1.0-con-541 - Requested Assistance Data (SET-based A-GPS)

Test Case Id	SUPL-1.0-con-541
Test Object	Server
Test Case Description	To test SLP correctly supplies Assistance Data requested in SUPL POS INIT in the case of SET-based A-GPS
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-004, ULP-F-S-004
Tool	SUPL Server Conformance Test Tool

Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: 3GPP support only
Test Procedure	1. Start a normal SI Location Session with the Positioning Technology in SET Capabilities in SUPL START set to SET-based A-GPS only 2. After the SLP sends SUPL RESPONSE to the Conformance Test Tool, in the SUPL POS INIT message sent from the Conformance Test Tool to the SLP set the Requested Assistance Data field to request the "default" set of Assistance data plus an extra Assistance Data element other than those supplied by default, e.g. add UTC model if not supplied in the default set. (The "default" set of Assistance data is not defined, but the set of data defined in 3GPP TS 25.171 Annex E as: Reference Time, Reference Position, Navigation Model and Ionospheric Model would be acceptable). 3. In the case of RRLP support, in the following SUPL POS procedure ensure the SLP sends the RRLP Assistance Data message with the complete set of Assistance data requested in step 2. In the case of RRC support, in the following SUPL POS procedure ensure the SLP sends the RRC Assistance Data Delivery message with the complete set of Assistance data requested in step 2. 4. Ensure the Location Session completes successfully.
Pass-Criteria	1. At step 3, in the case of RRLP support the SLP shall send the RRLP Assistance Data message with the complete set of Assistance data requested in step 2. In the case of RRC support the SLP shall send the RRC Assistance Data Delivery message with the complete set of Assistance data requested in step 2. 2. At step 4 the Location Session shall complete successfully.

5.4.5.1.3   SUPL-1.0-con-542 - Requested Assistance Data (SET-assisted A-GPS)

Test Case Id	SUPL-1.0-con-542
Test Object	Server
Test Case Description	To test SLP correctly supplies Assistance Data requested in SUPL POS INIT in the case of SET-assisted A-GPS
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-004, ULP-F-S-004
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State: Continuation of / Can be tested at the same time as: Prerequisite for this test: 3GPP support only

Test Procedure	1. Start a normal SI Location Session with the Positioning Technology in SET Capabilities in SUPL START set to SET-assisted A-GPS only
	2. After the SLP sends SUPL RESPONSE to the Conformance Test Tool, in the SUPL POS INIT message sent from the Conformance Test Tool to the SLP set the Requested Assistance Data field to request a suitable set of Assistance data.
	3. In the following SUPL POS procedure ensure the SLP sends the set of Assistance data requested in step 2 without the need for a further request from the Conformance Test Tool. The SLP may send the Assistance data during the Position Measurement Procedure or by using the Assistance Data Delivery Procedure followed by the Position Measurement Procedure.
	4. Ensure the Location Session completes successfully.
Pass-Criteria	1. At step 3 the SLP shall send the set of Assistance data requested in step 2.
	2. At step 4 the Location Session shall complete successfully.

5.4.5.2   Position

5.4.5.2.1   SUPL-1.0-con-543 - Reception of Position, 3D Position and / or Velocity in Position

Test Case Id	SUPL-1.0-con-543
Test Object	Server
Test Case Description	To test SLP correctly supports the use of Position or 3D Position and / or Velocity in Position in the SUPL POS INIT message.
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-004, ULP-F-S-003, ULP-F-S-005
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as: only one of this test or SUPL-1.0-con-443 needs to be run.
	Prerequisite for this test: The SLP supports at least one Positioning Technology that would realistically mean the SET might send Position in SUPL POS INIT and that normally requires a SUPL POS session (e.g. SET based A-GPS)
	The SLP supports the use of Position or 3D Position and / or Velocity in Position.

Test Procedure	1. Start a normal SI Location Session with the Positioning Technology in SET Capabilities in SUPL START set to a value that would realistically mean the SET might send Position in SUPL POS INIT and that normally requires a SUPL POS session (e.g. SET based A-GPS)
	2. Depending on the feature(s) supported by the SLP, in the SUPL POS INIT message sent from the Conformance Test Tool to the SLP, send the Position parameter, including the additional fields from the relevant row of the table below. For these fields use realistic, non-zero values that are consistent with the values used in the Location ID parameter.
	3. Ensure that a subsequent SUPL POS session takes place and the Location Session completes successfully.
	Note that what use the SLP makes of the Position parameter and whether Altitude and / or Velocity are eventually passed to the requesting application is not defined.
Pass-Criteria	1. At step 3 a subsequent SUPL POS session shall take place and the Location Session shall complete successfully.

Test #	Feature(s) supported by SLP	Additional parameters to be sent in Position in SUPL POS INIT
Test 1	Use of Position only	None
Test 2	3D position only in Position	Altitude information
Test 3	Velocity only in Position	Horizontal Velocity Uncertainty
Test 4	3D position and velocity in Position	Altitude information and Horizontal and Vertical Velocity Uncertainty

Table 22: Additional parameters to be sent in Position

5.4.6   Validate requested QoP

5.4.6.1   QoP in SUPL START

5.4.6.1.1   SUPL-1.0-con-781 - Previous position stored in SLP meets QoP.

Test Case Id	SUPL-1.0-con-781
Test Object	Server
Test Case Description	To test SLP correctly responds when a previous position estimate stored in the SLP meets the requested QoP.
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-002, ULP-F-S-002
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: The SLP supports QoP.

Test Procedure	1. Perform a complete A-GPS Location Session so that both the SLP and the Conformance Test Tool contain an up-to-date and reasonably accurate position estimate (e.g. a SET Initiated A-GPS SET assisted location session, or a Network Initiated A-GPS SET based location session)
	2. Start a subsequent A-GPS SET Initiated Location Session with the QoP fields and values in the SUPL START message set according to the table below.
	3. Ensure that the SLP responds with SUPL END including the Position parameter with the values of Position set to the previously calculated position estimate from step 1.
	4. Ensure the SLP releases all resources.
Pass-Criteria	1. At step 3 the SLP shall respond with SUPL END and shall not attempt a subsequent SUPL POS session.
	2. At step 4 the SLP shall release all resources.

Fields sent	Values
Horizontal Accuracy	Worse than that achieved in step 1, i.e. outside the Uncertainty ellipse.
Vertical Accuracy	Worse than that achieved in step 1, i.e. greater than the Altitude uncertainty.
Maximum Location Age	A value that allows the previously calculated position estimate from step 1 to be used.
Delay	Shorter than that normally required to make an A-GPS fix.

Table 23: Fields to be sent in QoP

5.4.6.1.2   SUPL-1.0-con-782 - Previous position stored in SLP does not meet QoP.

Test Case Id	SUPL-1.0-con-782
Test Object	Server
Test Case Description	To test SLP correctly responds when a previous position estimate stored in the SLP does not meet the requested QoP.
Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-002, ULP-F-S-002
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: The SLP supports QoP.

Test Procedure	1. Perform a complete Location Session so that both the SLP and the Conformance Test Tool contain an up-to-date but not very accurate position estimate (e.g. a SET Initiated Enhanced Cell ID location session)
	2. Start a subsequent A-GPS SET Initiated Location Session with the QoP fields and values in the SUPL START message set according to Case 1 in the table below.
	3. Ensure that the SLP responds with SUPL RESPONSE and continues with a normal SUPL POS session and the A-GPS location session ends successfully.
	4. Ensure the SLP releases all resources.
	5. Repeat step 1 to step 4 using the values for Case 2 from the table below.
	6. Repeat step 1 to step 4 using the values for Case 3 from the table below; however after step 1 wait for at least 60 seconds before starting step 2.
	7. [Testing of Delay is FFS]
Pass-Criteria	1. At step 3 in each case the SLP shall continue with a normal A-GPS location session that completes successfully.
	2. At step 4 in each case the SLP shall release all resources.

Case #	Fields sent	Values
Case 1	Horizontal Accuracy	Better (tighter) than that achieved in step 1, i.e. inside the Uncertainty ellipse.
Case 2	Horizontal Accuracy	Worse than that achieved in step 1, i.e. outside the Uncertainty ellipse.
	Vertical Accuracy	Better (tighter) than that achieved in step 1, i.e. less than the Altitude uncertainty.
Case 3	Horizontal Accuracy	Worse than that achieved in step 1, i.e. outside the Uncertainty ellipse.
	Maximum Location Age	Shorter than pause between steps 1 and 2 (e.g. 60 (seconds))
Case 4	Horizontal Accuracy	[FFS]
	Maximum Location Age	[FFS]
	Delay	[Testing of Delay is FFS]

Table 24: Fields to be sent in QoP

5.4.7   Completion of SUPL session

5.4.8   Premature Session Termination & General Error Message

5.4.8.1   Status Code

5.4.8.1.1   SUPL-1.0-con-565 - Timeout ST1

Test Case Id	SUPL-1.0-con-565
Test Object	Server
Test Case Description	To test SLP correctly actions timer ST1

Specification Reference	ULP 6, 7, 8
SCR Reference	ULP-E-S-006, ULP-E-S-008
Tool	SUPL Server Conformance Test Tool
Test code	Validated test code for this test case
Preconditions	State:
	Continuation of / Can be tested at the same time as:
	Prerequisite for this test: SLP supports proxy mode. Non-proxy mode is [FFS]
Test Procedure	1. For proxy mode start a normal SI Location Session
	2. After the SLP sends SUPL RESPONSE to the Conformance Test Tool do not respond from the Conformance Test Tool
	3. After timer ST1 expires (value is implementation specific, but default value is 10s) ensure the SLP sends SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure.
	4. The Location Session ends and the SLP should release all session resources.
	5. For non-proxy mode [FFS]
Pass-Criteria	1. At step 3 after ST1 expires (value is implementation specific, but default value is 10s) the SLP shall send SUPL END with Status Code not sent or set to any of unspecified, systemFailure or posMethodFailure.
	2. At step 4 the SLP shall release the all session resources

5.4.9 Roaming - Proxy Mode with H-SLP positioning

5.4.9.1 Home SLP procedures

5.4.9.1.1 SUPL-1.0-con-570 – Cell id positioning method

Test Case Id	SUPL-1.0-con-570
Test Object	Server
Test Case Description	To test H-SLP correctly supplies an acceptable location when SET is roaming and cell id positioning method is used.
Specification Reference	AD 6.9.5
SCR Reference	ULP-C-S-001
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in a visited GSM, CDMA or WCDMA network. The positioning method to be used in the location session is cell id. The initiator of the location session requests the "current location" of the SET. Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in H-SLP.
Test Procedure	1. Start a normal SI Location Session. 2. The Conformance Test Tool (SET) sends SUPL START to the H-SLP containing a LID that belongs to the visited GSM network. 3. The H-SLP determines that the SET is roaming. This is done either by requesting routing information from the HLR or by analysing the LID. 4. The H-SLP sends an RLP-SRLIR to the Conformance Test Tool (V-SLP). 5. The Conformance Test Tool (V-SLP) responds with an RLP-SRLIA containing the location of the SET. 6. The Location Session ends and the H-SLP releases all session resources 7. Repeat the test from step 1 with SET located in a visited CDMA network. 8. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 4 the LID in the RLP-SRLIR is the one received from the Conformance Test Tool (SET). 2. At step 6 the H-SLP ends the location session by supplying an acceptable location to the SET in SUPL END.

5.4.9.1.2 SUPL-1.0-con-571 – SET-Based A-GPS positioning method

Test Case Id	SUPL-1.0-con-571
Test Object	Server
Test Case Description	To test H-SLP correctly supplies an acceptable location when SET is roaming and SET-based A-GPS positioning method is used.
Specification Reference	AD 6.9.5
SCR Reference	ULP-C-S-001
Tool	SUPL Server Conformance Test Tool

Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network.
	The positioning method to be used in the location session is SET-based A-GPS.
	The initiator of the location session requests the "current location" of the SET.
	Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in H-SLP.
Test Procedure	1. Start a normal SI Location Session.
	2. The Conformance Test Tool (SET) sends SUPL START to the H-SLP containing a LID that belongs to the visited GSM network.
	3. The H-SLP determines that the SET is roaming. This is done either by requesting routing information from the HLR or by analysing the LID.
	4. The H-SLP sends an RLP-SRLIR to the Conformance Test Tool (V-SLP).
	5. The Conformance Test Tool (V-SLP) responds with an RLP-SRLIA containing the coarse location of the SET.
	6. The H-SLP sends SUPL RESPONSE to the Conformance Test Tool (SET).
	7. The Conformance Test Tool (SET) sends SUPL POS INIT to the H-SLP.
	8. The H-SLP and the Conformance Test Tool (SET) exchange several SUPL POS messages to determine a more accurate location of the SET.
	9. The Location Session ends and the H-SLP releases all session resources
	10. Repeat the test from step 1 with SET located in a visited CDMA network.
	11. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 4 the LID in the RLP-SRLIR is the one received from the Conformance Test Tool (SET).
	2. At step 8 the H-SLP uses the coarse location received from Conformance Test Tool (V-SLP) to supply relevant information to the Conformance Test Tool (SET).

5.4.9.1.3   SUPL-1.0-con-572 – SET-Assisted A-GPS positioning method

Test Case Id	SUPL-1.0-con-572
Test Object	Server
Test Case Description	To test H-SLP correctly supplies an acceptable location when SET is roaming and SET-assisted A-GPS positioning method is used.
Specification Reference	AD 6.9.5
SCR Reference	ULP-C-S-001
Tool	SUPL Server Conformance Test Tool
Test code	

Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network.
	The positioning method to be used in the location session is SET-assisted A-GPS.
	The initiator of the location session requests the "current location" of the SET.
	Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in H-SLP.
Test Procedure	1. Start a normal SI Location Session.
	2. The Conformance Test Tool (SET) sends SUPL START to the H-SLP containing a LID that belongs to the visited GSM network.
	3. The H-SLP determines that the SET is roaming. This is done either by requesting routing information from the HLR or by analysing the LID.
	4. The H-SLP sends an RLP-SRLIR to the Conformance Test Tool (V-SLP).
	5. The Conformance Test Tool (V-SLP) responds with an RLP-SRLIA containing the coarse location of the SET.
	6. The H-SLP sends SUPL RESPONSE to the Conformance Test Tool (SET).
	7. The Conformance Test Tool (SET) sends SUPL POS INIT to the H-SLP.
	8. The H-SLP and the Conformance Test Tool (SET) exchange several SUPL POS messages to determine a more accurate location of the SET.
	9. The Location Session ends and the H-SLP releases all session resources
	10. Repeat the test from step 1 with SET located in a visited CDMA network.
	11. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 4 the LID in the RLP-SRLIR is the one received from the Conformance Test Tool (SET).
	2. At step 8 the H-SLP uses the coarse location received from Conformance Test Tool (V-SLP) to supply relevant information to the Conformance Test Tool (SET).
	3. At step 9 the H-SLP ends the location session by supplying an acceptable location to the SET in SUPL END.

5.4.9.1.4   SUPL-1.0-con-573 – No response from V-SLP (Timer ST4 expires)

Test Case Id	SUPL-1.0-con-573
Test Object	Server
Test Case Description	To test H-SLP correctly actions on no response from the V-SLP (Timer ST4 expires)
Specification Reference	AD 6.9.5
SCR Reference	ULP-C-S-001
Tool	SUPL Server Conformance Test Tool
Test code	

Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network.
	The positioning method to be used in the location session is SET-based A-GPS.
	The initiator of the location session requests the "current location" of the SET.
	Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in H-SLP.
Test Procedure	1. Start a normal SI Location Session.
	2. The Conformance Test Tool (SET) sends SUPL START to the H-SLP containing a LID that belongs to the visited GSM network.
	3. The H-SLP determines that the SET is roaming. This is done either by requesting routing information from the HLR or by analysing the LID.
	4. The H-SLP sends an RLP-SRLIR to the Conformance Test Tool (V-SLP).
	5. The Conformance Test Tool (V-SLP) does not respond to the RLP-SRLIR.
	6. When timer ST4 expires, the Location Session ends and the H-SLP releases all session resources
	7. Repeat the test from step 1 with SET located in a visited CDMA network.
	8. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 4 the LID in the RLP-SRLIR is the one received from the Conformance Test Tool (SET).
	2. At step 6 the H-SLP ends the location session by sending SUPL END to the Conformance Test Tool (SET).

5.4.9.1.5   SUPL-1.0-con-574 – V-SLP responds with error message

Test Case Id	SUPL-1.0-con-574
Test Object	Server
Test Case Description	To test H-SLP correctly actions error message (result code) from V-SLP
Specification Reference	AD 6.9.5
SCR Reference	ULP-C-S-001
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network.
	The positioning method to be used in the location session is SET-based A-GPS.
	The initiator of the location session requests the "current location" of the SET.
	Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in H-SLP.
Test Procedure	1. Start a normal SI Location Session.
	2. The Conformance Test Tool (SET) sends SUPL START to the H-SLP containing a LID that belongs to the visited GSM network.
	3. The H-SLP determines that the SET is roaming. This is done either by requesting routing information from the HLR or by analysing the LID.
	4. The H-SLP sends an RLP-SRLIR to the Conformance Test Tool (V-SLP).
	5. The Conformance Test Tool (V-SLP) responds with an RLP-SRLIA containing an error message (result code).
	6. The Location Session ends and the H-SLP releases all session resources
	7. Repeat the test from step 1 with SET located in a visited CDMA network.
	8. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 4 the LID in the RLP-SRLIR is the one received from the Conformance Test Tool (SET).
	2. At step 6 the H-SLP ends the location session by sending SUPL END to the Conformance Test Tool (SET).

5.4.10   Visited SLP procedures

For proxy mode roaming with H-SLP positioning the Visited SLP procedures are the same for both SI and NI location sessions. To avoid duplication of test cases no new test cases have been added to this section, instead the corresponding NI location session test cases shall be used when testing visited SLP procedures

5.4.11   Roaming - Proxy Mode with V-SLP positioning

5.4.11.1   Home SLP procedures

5.4.11.1.1   SUPL-1.0-con-580 – Cell id positioning method

Test Case Id	SUPL-1.0-con-580
Test Object	Server
Test Case Description	To test H-SLP correctly supplies an acceptable location when SET is roaming and cell id positioning method is used.
Specification Reference	AD 6.9.3
SCR Reference	ULP-C-S-003
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in a visited GSM, CDMA or WCDMA network. The positioning method to be used in the location session is cell id. The initiator of the location session requests the "current location" of the SET. Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in V-SLP.
Test Procedure	1. Start a normal SI Location Session. 2. The Conformance Test Tool (SET) sends SUPL START to the H-SLP. 3. The H-SLP determines that the SET is roaming by requesting routing information from the HLR. The H-SLP uses the routing information to determine the address of the V-SLP that serves the visited network. 4. The Conformance Test Tool (V-SLP) receives RLP-SSRLIR(SUPL START) from the H-SLP. 5. The Conformance Test Tool (V-SLP) responds with RLP-SSRLIA(SUPL RESPONSE). 6. The Conformance Test Tool (SET) receives SUPL RESPONSE from the H-SLP. 7. The Conformance Test Tool (SET) sends SUPL POS INIT to the H-SLP. 8. The Conformance Test Tool (V-SLP) receives RLP-SSRP(SUPL POS INIT) from the H-SLP. 9. The Conformance Test Tool (V-SLP) responds with RLP-SSRP(SUPL END). The RLP- SSRP(SUPL END) contains the location of the SET. 10. The location session ends and the H-SLP releases all session resources. 11. Repeat the test from step 1 with SET located in a visited CDMA network. 12. Repeat the test from step 1 with SET located in a visited WCDMA network.

Pass-Criteria	1. At step 4 the H-SLP forwards the received SUPL START message to the Conformance Test Tool (V-SLP).
	2. At step 6 the H-SLP forwards the received RLP-SSRLIA(SUPL RESPONSE) message to the Conformance Test Tool (SET).
	3. At step 8 the H-SLP forwards the received SUPL POS INIT message to the Conformance Test Tool (V-SLP).
	4. At step 10 the H-SLP ends the location session by supplying an acceptable location to the SET in SUPL END.

5.4.11.1.2 SUPL-1.0-con-581 – SET-Based A-GPS positioning method

Test Case Id	SUPL-1.0-con-581
Test Object	Server
Test Case Description	To test H-SLP correctly supplies an acceptable location when SET is roaming and SET-based A-GPS positioning method is used.
Specification Reference	AD 6.9.3
SCR Reference	ULP-C-S-003
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network.
	The positioning method to be used in the location session is SET-based A-GPS.
	The initiator of the location session requests the "current location" of the SET.
	Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in V-SLP.

Test Procedure	1. Start a normal SI Location Session.
	2. The Conformance Test Tool (SET) sends SUPL START to the H-SLP.
	3. The H-SLP determines that the SET is roaming by requesting routing information from the HLR. The H-SLP uses the routing information to determine the address of the V-SLP that serves the visited network.
	4. The Conformance Test Tool (V-SLP) receives RLP-SSRLIR(SUPL START) from the H-SLP.
	5. The Conformance Test Tool (V-SLP) responds with RLP-SSRLIA(SUPL RESPONSE).
	6. The Conformance Test Tool (SET) receives SUPL RESPONSE from the H-SLP.
	7. The Conformance Test Tool (SET) sends SUPL POS INIT to the H-SLP.
	8. The Conformance Test Tool (V-SLP) receives RLP-SSRP(SUPL POS INIT) from the H-SLP.
	9. The Conformance Test Tool (V-SLP) and the Conformance Test Tool (SET) exchange several SUPL POS messages to determine a more accurate location of the SET.
	10. The Conformance Test Tool (V-SLP) sends RLP- SSRP(SUPL END) to the H-SLP.
	11. The location session ends and the H-SLP releases all session resources.
	12. Repeat the test from step 1 with SET located in a visited CDMA network.
	13. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 4 the H-SLP forwards the received SUPL START message to the Conformance Test Tool (V-SLP).
	2. At step 6 the H-SLP forwards the received RLP-SSRLIA(SUPL RESPONSE) message to the Conformance Test Tool (SET).
	3. At step 8 the H-SLP forwards the received SUPL POS INIT message to the Conformance Test Tool (V-SLP).
	4. At step 9 the H-SLP forwards received SUPL POS messages to the Conformance Test Tool (V-SLP). The H-SLP also forwards received RLP-SSRP(SUPL POS) messages to the Conformance Test Tool (SET).
	5. At step 11 the H-SLP ends the location session by sending SUPL END to the Conformance Test Tool (SET).

5.4.11.1.3   SUPL-1.0-con-582 – SET-Assisted A-GPS positioning method

Test Case Id	SUPL-1.0-con-582
Test Object	Server
Test Case Description	To test H-SLP correctly supplies an acceptable location when SET is roaming and SET-assisted A-GPS positioning method is used.
Specification Reference	AD 6.9.3
SCR Reference	ULP-C-S-003
Tool	SUPL Server Conformance Test Tool
Test code	

Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network.
	The positioning method to be used in the location session is SET-assisted A-GPS.
	The initiator of the location session requests the "current location" of the SET.
	Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in V-SLP.
Test Procedure	1. Start a normal SI Location Session.
	2. The Conformance Test Tool (SET) sends SUPL START to the H-SLP.
	3. The H-SLP determines that the SET is roaming by requesting routing information from the HLR. The H-SLP uses the routing information to determine the address of the V-SLP that serves the visited network.
	4. The Conformance Test Tool (V-SLP) receives RLP-SSRLIR(SUPL START) from the H-SLP.
	5. The Conformance Test Tool (V-SLP) responds with RLP-SSRLIA(SUPL RESPONSE).
	6. The Conformance Test Tool (SET) receives SUPL RESPONSE from the H-SLP.
	7. The Conformance Test Tool (SET) sends SUPL POS INIT to the H-SLP.
	8. The Conformance Test Tool (V-SLP) receives RLP-SSRP(SUPL POS INIT) from the H-SLP.
	9. The Conformance Test Tool (V-SLP) and the Conformance Test Tool (SET) exchange several SUPL POS messages to determine a more accurate location of the SET.
	10. The Conformance Test Tool (V-SLP) sends RLP- SSRP(SUPL END) to the H-SLP. The RLP- SSRP(SUPL END) contains the location of the SET.
	11. The location session ends and the H-SLP releases all session resources.
	12. Repeat the test from step 1 with SET located in a visited CDMA network.
	13. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 4 the H-SLP forwards the received SUPL START message to the Conformance Test Tool (V-SLP).
	2. At step 6 the H-SLP forwards the received RLP-SSRLIA(SUPL RESPONSE) message to the Conformance Test Tool (SET).
	3. At step 8 the H-SLP forwards the received SUPL POS INIT message to the Conformance Test Tool (V-SLP).
	4. At step 9 the H-SLP forwards received SUPL POS messages to the Conformance Test Tool (V-SLP). The H-SLP also forwards received RLP-SSRP(SUPL POS) messages to the Conformance Test Tool (SET).
	5. At step 11 the H-SLP ends the location session by supplying an acceptable location to the SET in SUPL END.

5.4.11.1.4   SUPL-1.0-con-583 – No response from V-SLP (Timer ST3 expires)

Test Case Id	SUPL-1.0-con-583

Test Object	Server
Test Case Description	To test H-SLP correctly actions on no response from the V-SLP (Timer ST3 expires)
Specification Reference	AD 6.9.3
SCR Reference	ULP-C-S-003
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network. The positioning method to be used in the location session is SET-based A-GPS. The initiator of the location session requests the "current location" of the SET. Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in V-SLP.
Test Procedure	1. Start a normal SI Location Session. 2. The Conformance Test Tool (SET) sends SUPL START to the H-SLP. 3. The H-SLP determines that the SET is roaming by requesting routing information from the HLR. The H-SLP uses the routing information to determine the address of the V-SLP that serves the visited network. 4. The Conformance Test Tool (V-SLP) receives RLP-SSRLIR(SUPL START) from the H-SLP. 5. The Conformance Test Tool (V-SLP) does not respond to the RLP-SSRLIR(SUPL START). 6. When ST3 expires, the location session ends and the H-SLP releases all session resources. 7. Repeat the test from step 1 with SET located in a visited CDMA network. 8. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 4 the H-SLP forwards the received SUPL START message to the Conformance Test Tool (V-SLP). 2. At step 6 the H-SLP ends the location session by sending SUPL END to the Conformance Test Tool (SET) containing an appropriate status code.

5.4.11.1.5   SUPL-1.0-con-584 – V-SLP responds with error message

Test Case Id	SUPL-1.0-con-584
Test Object	Server
Test Case Description	To test H-SLP correctly actions error message (result code) from V-SLP
Specification Reference	AD 6.9.3
SCR Reference	ULP-C-S-003
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network. The positioning method to be used in the location session is SET-based A-GPS. The initiator of the location session requests the "current location" of the SET. Prerequisite for this test: H-SLP supports Proxy mode with positioning calculation in V-SLP.
Test Procedure	1. Start a normal SI Location Session. 2. The Conformance Test Tool (SET) sends SUPL START to the H-SLP. 3. The H-SLP determines that the SET is roaming by requesting routing information from the HLR. The H-SLP uses the routing information to determine the address of the V-SLP that serves the visited network. 4. The Conformance Test Tool (V-SLP) receives RLP-SSRLIR(SUPL START) from the H-SLP. 5. The Conformance Test Tool (V-SLP) responds with RLP- SSRLIA containing an error message (result code). 6. The location session ends and the H-SLP releases all session resources. 7. Repeat the test from step 1 with SET located in a visited CDMA network. 8. Repeat the test from step 1 with SET located in a visited WCDMA network.
Pass-Criteria	1. At step 6 the H-SLP ends the location session by sending SUPL END to the Conformance Test Tool (SET) containing an appropriate status code.

5.4.11.2 Visited SLP procedures

5.4.11.2.1 SUPL-1.0-con-585 – Cell id positioning method

Test Case Id	SUPL-1.0-con-585
Test Object	Server
Test Case Description	To test V-SLP correctly supplies an acceptable location when SET is roaming and cell id positioning method is used.
Specification Reference	ULP-B-S-003
SCR Reference	AD 6.9.3
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network. The positioning method to be used in the location session is cell id. The initiator of the location session requests the "current location" of the SET. Prerequisite for this test: V-SLP supports Proxy mode with positioning calculation in V-SLP.
Test Procedure	1. The Conformance Test Tool (H-SLP) sends RLP-SSRLIR(SUPL START) to the V-SLP, containing a GSM LID that belongs to the visited GSM network. 2. V-SLP responds with RLP- SSRLIA(SUPL RESPONSE). 3. The Conformance Test Tool (H-SLP) sends RLP-SSRP(SUPL POS INIT) to the V-SLP. 4. V-SLP responds with RLP-SSRP(SUPL END) containing the location of the SET. 5. Repeat the test from step 1 with SET located in a visited CDMA network (that is, a CDMA LID is included in RLP-SSRP(SUPL POS INIT). 6. Repeat the test from step 1 with SET located in a visited WCDMA network (that is, a WCDMA LID is included in RLP-SSRP(SUPL POS INIT).
Pass-Criteria	1. At step 4 the V-SLP supplies an acceptable location to the Conformance Test Tool (H-SLP).

5.4.11.2.2   SUPL-1.0-con-586 – SET- Based A-GPS positioning method

Test Case Id	SUPL-1.0-con-586
Test Object	Server
Test Case Description	To test V-SLP correctly supplies an acceptable location when SET is roaming and SET-based A-GPS positioning method is used.
Specification Reference	ULP-B-S-003
SCR Reference	AD 6.9.3
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network. The positioning method to be used in the location session is SET-based A-GPS. The initiator of the location session requests the "current location" of the SET. Prerequisite for this test: V-SLP supports Proxy mode with positioning calculation in V-SLP.
Test Procedure	1. The Conformance Test Tool (H-SLP) sends RLP-SSRLIR(SUPL START) to the V-SLP, containing a GSM LID that belongs to the visited GSM network. 2. V-SLP responds with RLP- SSRLIA(SUPL RESPONSE). 3. The Conformance Test Tool (H-SLP) sends RLP-SSRP(SUPL POS INIT) to the V-SLP. 4. The V-SLP and the Conformance Test Tool (H-SLP) exchange several RLP- SSRP(SUPL POS) messages to determine a more accurate location of the SET. 5. The location session ends and the V-SLP releases all session resources. 6. Repeat the test from step 1 with SET located in a visited CDMA network (that is, a CDMA LID is included in RLP-SSRP(SUPL POS INIT). 7. Repeat the test from step 1 with SET located in a visited WCDMA network (that is, a WCDMA LID is included in RLP-SSRP(SUPL POS INIT).
Pass-Criteria	1. At step 4 the V-SLP uses the LID to determine the coarse location of the SET. The V-SLP then uses this location to supply relevant information to the Conformance Test Tool (H-SLP). 2. At step 5 the V-SLP sends RLP- SSRP(SUPL END) to the Conformance Test Tool (H-SLP).

5.4.11.2.3 SUPL-1.0-con-587 – SET- Assisted A-GPS positioning method

Test Case Id	SUPL-1.0-con-587
Test Object	Server
Test Case Description	To test V-SLP correctly supplies an acceptable location when SET is roaming and SET-assisted A-GPS positioning method is used.
Specification Reference	ULP-B-S-003
SCR Reference	AD 6.9.3
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network. The positioning method to be used in the location session is SET-assisted A-GPS. The initiator of the location session requests the "current location" of the SET. Prerequisite for this test: V-SLP supports Proxy mode with positioning calculation in V-SLP.
Test Procedure	1. The Conformance Test Tool (H-SLP) sends RLP-SSRLIR(SUPL START) to the V-SLP, containing a GSM LID that belongs to the visited GSM network. 2. V-SLP responds with RLP- SSRLIA(SUPL RESPONSE). 3. The Conformance Test Tool (H-SLP) sends RLP-SSRP(SUPL POS INIT) to the V-SLP. 4. The V-SLP and the Conformance Test Tool (H-SLP) exchange several RLP- SSRP(SUPL POS) messages to determine a more accurate location of the SET. 5. The location session ends and the V-SLP releases all session resources. 6. Repeat the test from step 1 with SET located in a visited CDMA network (that is, a CDMA LID is included in RLP-SSRP(SUPL POS INIT). 7. Repeat the test from step 1 with SET located in a visited WCDMA network (that is, a WCDMA LID is included in RLP-SSRP(SUPL POS INIT).
Pass-Criteria	1. At step 4 the V-SLP uses the LID to determine the coarse location of the SET. The V-SLP then uses this location to supply relevant information to the Conformance Test Tool (H-SLP). 2. At step 5 the V-SLP sends RLP- SSRP(SUPL END) to the Conformance Test Tool (H-SLP) containing an acceptable location.

5.4.11.2.4   SUPL-1.0-con-588 – Authentication failure

Test Case Id	SUPL-1.0-con-588
Test Object	Server
Test Case Description	To test V-SLP replies with correct error message (result code) when authentication of H-SLP fails.
Specification Reference	ULP-B-S-003
SCR Reference	AD 6.9.7
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network. The initiator of the location session requests the "current location" of the SET. Prerequisite for this test: V-SLP supports Proxy mode with positioning calculation in V-SLP.
Test Procedure	1. The Conformance Test Tool (H-SLP) sends RLP-SSRLIR(SUPL START) to the V-SLP containing incorrect Id and Pwd elements in the message header. 2. The V-SLP fails to authenticate the H-SLP and responds with RLP-SSRLIA
Pass-Criteria	1. At step 2 the V-SLP supplies correct result code (3, UNAUTHORIZED APPLICATION) to the Conformance Test Tool (H-SLP).

5.4.11.2.5   SUPL-1.0-con-589 – Mandatory element missing

Test Case Id	SUPL-1.0-con-589
Test Object	Server
Test Case Description	To test V-SLP replies with correct error message (result code) when a mandatory element is missing in SSRLIR.
Specification Reference	ULP-B-S-003
SCR Reference	AD 6.9.7
Tool	SUPL Server Conformance Test Tool
Test code	
Preconditions	The SET is located in the visited GSM, CDMA or WCDMA network. The initiator of the location session requests the "current location" of the SET. Prerequisite for this test: V-SLP supports Proxy mode with positioning calculation in V-SLP. Non-proxy mode is [FFS].
Test Procedure	1. The Conformance Test Tool (H-SLP) sends RLP-SSRLIR(SUPL START) to the V-SLP without supl_session_id element. 2. V-SLP responds with RLP-SSRLIA.
Pass-Criteria	1. At step 2 the V-SLP supplies correct result code (106, SYNTAX ERROR) to the Conformance Test Tool (H-SLP).

6. SUPL Interoperability Test Cases

6.1 Interoperability, Network Initiated

6.1.1 Positioning Methods

6.1.1.1   SUPL-1.0-int-000 - Cell ID

Test Case Id	SUPL-1.0-int-000
Test Object	H-SLP and SET
Test Case Description	To test Cell ID positioning method when SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-A-S-007, ULP-A-S-008, ULP-A-S-011 ULP-A-C-007, ULP-A-C-008, ULP-A-C-011
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.1.2   SUPL-1.0-int-200 - SET-assisted A-GPS

Test Case Id	SUPL-1.0-int-200
Test Object	H-SLP and SET
Test Case Description	To test SET-assisted A-GPS positioning method when SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-A-S-007, ULP-A-S-008, ULP-A-S-012 ULP-A-C-007, ULP-A-C-008, ULP-A-C-012
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET are configured to use the SET-assisted A-GPS positioning method.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.1.3   SUPL-1.0-int-201 - SET-based A-GPS

Test Case Id	SUPL-1.0-int-201

Test Object	H-SLP and SET
Test Case Description	To test SET-based A-GPS positioning method when SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-A-S-007, ULP-A-S-008, ULP-A-S-013 ULP-A-C-007, ULP-A-C-008, ULP-A-C-013
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET are configured to use the SET-based A-GPS positioning method.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.1.4 SUPL-1.0-int-202 - Autonomous GPS

Test Case Id	SUPL-1.0-int-202
Test Object	H-SLP and SET
Test Case Description	To test Autonomous GPS positioning method when SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-A-S-007, ULP-A-S-008, ULP-A-S-014 ULP-A-C-007, ULP-A-C-008, ULP-A-C-014
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET are configured to use the Autonomous GPS positioning method.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. This shall include a SUPL POS session with no Assistance Data. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.1.5   SUPL-1.0-int-203 - AFLT

Test Case Id	SUPL-1.0-int-203
Test Object	H-SLP and SET
Test Case Description	To test AFLT positioning method when SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-A-S-007, ULP-A-S-008, ULP-A-S-015 ULP-A-C-007, ULP-A-C-008, ULP-A-C-015
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for CDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	    o SET is attached to the home PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	    o The H-SLP and/or SET are configured to use the AFLT positioning method.
	    o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.1.6   SUPL-1.0-int-204 - Enhanced Cell ID

Test Case Id	SUPL-1.0-int-204
Test Object	H-SLP and SET
Test Case Description	To test Enhanced Cell ID positioning method when SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-A-S-007, ULP-A-S-008, ULP-A-S-016 ULP-A-C-007, ULP-A-C-008, ULP-A-C-016
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-
Preconditions	• Equipment for GSM/WCDMA implementations: 　o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both. • State: 　o SET is attached to the home PLMN. 　o SET is idle. 　o The SET's position is known. 　o H-SLP has access to cell data from the Home PLMN. 　o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy. 　o The H-SLP and/or SET are configured to use the Enhanced Cell ID positioning method. 　o The H-SLP is configured to indicate no notification and no verification to the SET user. • Continuation of / Can be tested at the same time as: 　o None • Prerequisite for this test: 　o None
Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: 　• The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.1.7   SUPL-1.0-int-205 - E-OTD

Test Case Id	SUPL-1.0-int-205
Test Object	H-SLP and SET
Test Case Description	To test E-OTD positioning method when SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-A-S-007, ULP-A-S-008, ULP-A-S-017 ULP-A-C-007, ULP-A-C-008, ULP-A-C-017
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• State:
	    o SET is attached to the home PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o H-SLP has access to cell data from the Home PLMN.
	    o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	    o The H-SLP and/or SET are configured to use the E-OTD positioning method.
	    o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.1.8 SUPL-1.0-int-206 – OTDOA

Test Case Id	SUPL-1.0-int-206
Test Object	H-SLP and SET
Test Case Description	To test OTDOA positioning method when SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-A-S-007, ULP-A-S-008, ULP-A-S-018 ULP-A-C-007, ULP-A-C-008, ULP-A-C-018
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• State:
	    o SET is attached to the home PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o H-SLP has access to cell data from the Home PLMN.
	    o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	    o The H-SLP and/or SET are configured to use the OTDOA positioning method.
	    o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.2 Authentication

6.1.2.1   SUPL-1.0-int-010 - Alternative authentication model for GSM/WCDMA

Test Case Id	SUPL-1.0-int-010
Test Object	H-SLP and SET
Test Case Description	To test SET and H-SLP mutual authentication when H-SLP does not support PSK-TLS authentication.
Specification Reference	AD 7
SCR Reference	ULP-A-S-005 ULP-A-C-005
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, RADIUS Server, Home PLMN with either GSM or WCDMA access network, or both.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support Proxy mode of operation.
	   o H-SLP has access to a RADIUS server for SET authentication.
	   o H-SLP is configured with a server side TLS certificate.
	   o SET is configured with a root certificate of the H-SLP.
	   o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, before the H-SLP returns MLP-SLIA the H-SLP interrogates the RADIUS server to authenticate the SET. The authentication procedure is successful. 3. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.3 Quality of Position

6.1.3.1 SUPL-1.0-int-210 - Horizontal accuracy

Test Case Id	SUPL-1.0-int-210
Test Object	H-SLP and SET
Test Case Description	To test that the returned position fulfills the requested horizontal accuracy. SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-001 ULP-D-C-001
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	    o SET is attached to the home PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o H-SLP has access to cell data from the Home PLMN.
	    o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	    o The H-SLP and/or SET support one or more positioning methods that give better horizontal accuracy than the Cell ID positioning method.
	    o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o SUPL-1.0-int-000

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameters to the H-SLP:
	  • The loc_type parameter is set to "CURRENT"
	  • The eqop->hor_acc parameter is set to a value that gives a better horizontal accuracy than the one obtained in SUPL-1.0-int-000
	2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.

| Pass-Criteria | 1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. |
| | 2. At step 2, check that the returned position fulfills the requested horizontal accuracy and that the timestamp indicates that the current position of the SET has been calculated. |

6.1.3.2 SUPL-1.0-int-211 - Response time

Test Case Id	SUPL-1.0-int-211
Test Object	H-SLP and SET
Test Case Description	To test that a position is returned within the specified response time. SET is not roaming
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-001 ULP-D-C-001
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-
Preconditions	• Equipment for GSM/WCDMA implementations: o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both. • Equipment for CDMA implementations: o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network. • State: o SET is attached to the home PLMN. o SET is idle. o The SET's position is known. o H-SLP has access to cell data from the Home PLMN. o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy. o The H-SLP and/or SET support one or more positioning methods that give better horizontal accuracy than the Cell ID positioning method. o The H-SLP is configured to indicate no notification and no verification to the SET user. • Continuation of / Can be tested at the same time as: o None • Prerequisite for this test: o SUPL-1.0-int-000 o SUPL-1.0-int-210

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameters to the H-SLP:
	• The loc_type parameter is set to "CURRENT"
	• The eqop->hor_acc parameter is set to a value that gives a better horizontal accuracy than the one obtained in SUPL-1.0-int-000
	• The eqop->resp_timer or the eqop->resp_req parameter is set to a value that gives a shorter response time than the response time in SUPL-1.0-int-210
	2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection.
	2. At step 2, check that the MLP-SLIA is returned within the specified response time. Also check that the horizontal accuracy is not fulfilled and that the timestamp indicates that the current position of the SET has been calculated.

6.1.3.3   SUPL-1.0-int-212 - Vertical accuracy (Altitude), Best Effort

Test Case Id	SUPL-1.0-int-212
Test Object	H-SLP and SET
Test Case Description	To test that altitude is returned although the requested accuracy may not be fulfilled. SET is not roaming
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-001 ULP-D-C-001
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position and altitude are known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET support a positioning method that calculates altitude.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameters to the H-SLP:
	  • The loc_type parameter is set to "CURRENT"
	  • The eqop->alt_acc parameter is set to 10 meters.
	  • The attribute to the eqop->alt_acc parameter is set to "BEST_EFFORT"
	2. The H-SLP returns position, timestamp, and altitude in MLP-SLIA to the SUPL Agent, which in turn returns position, timestamp, and altitude to the network resident MLS application.

Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated. Also check that an altitude is returned.

6.1.3.4   SUPL-1.0-int-213 - Vertical accuracy (Altitude), Assured

Test Case Id	SUPL-1.0-int-213
Test Object	H-SLP and SET
Test Case Description	To test that an error message is returned when the requested vertical accuracy can not be fulfilled. SET is not roaming
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-001 ULP-D-C-001
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	     o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	     o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	     o SET is attached to the home PLMN.
	     o SET is idle.
	     o The SET's position and altitude are known.
	     o H-SLP has access to cell data from the Home PLMN.
	     o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	     o The H-SLP and/or SET support a positioning method that calculates altitude.
	     o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	     o None
	• Prerequisite for this test:
	     o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameters to the H-SLP:
	     • The loc_type parameter is set to "CURRENT"
	     • The eqop->alt_acc parameter is set to a value that gives a better altitude accuracy than the one obtained in SUPL-1.0-int-212
	     • The attribute to the eqop->alt_acc parameter is set to "ASSURED"
	2. The H-SLP returns an error message (result code) in MLP-SLIA to the SUPL Agent, which in turn returns error message (result code) to the network resident MLS application.

Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the result code is 201 "QOP NOT ATTAINABLE".

6.1.3.5 SUPL-1.0-int-214 – Horizontal Accuracy, Best Effort

Test Case Id	SUPL-1.0-int-214
Test Object	H-SLP and SET
Test Case Description	To test that a position is returned although the requested horizontal accuracy may not be fulfilled. SET is not roaming
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-001 ULP-D-C-001
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o SUPL-1.0-int-000

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameters to the H-SLP: • The loc_type parameter is set to "CURRENT" • The attribute to the eqop->hor_acc parameter is set to "BEST_EFFORT" • The eqop->hor_acc parameter is set to a value that gives a better horizontal accuracy than the one obtained in SUPL-1.0-int-000 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.3.6 SUPL-1.0-int-215 - Horizontal Accuracy, Assured

Test Case Id	SUPL-1.0-int-215
Test Object	H-SLP and SET
Test Case Description	To test that an error message is returned when the requested horizontal accuracy can not be fulfilled. SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-001 ULP-D-C-001
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	    o SET is attached to the home PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o H-SLP has access to cell data from the Home PLMN.
	    o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	    o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	    o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o SUPL-1.0-int-000

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameters to the H-SLP:
	    • The loc_type parameter is set to "CURRENT"
	    • The attribute to the eqop->hor_acc parameter is set to "ASSURED"
	    • The eqop->hor_acc parameter is set to a value that gives a better horizontal accuracy than the one obtained in SUPL-1.0-int-000
	2. The H-SLP returns an error message (result code) in MLP-SLIA to the SUPL Agent, which in turn returns error message (result code) to the network resident MLS application.

Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the result code is 201 "QOP NOT ATTAINABLE".

6.1.3.7   SUPL-1.0-int-216 - Max location age, previously computed position returned

Test Case Id	SUPL-1.0-int-216
Test Object	H-SLP and SET
Test Case Description	To test that the previously computed position is returned when the previously computed position fulfils the specified age limit. SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-001 ULP-D-C-001
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o SUPL-1.0-int-000

Test Procedure	1. The network resident MLS application requests the current or last known position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameters to the H-SLP:
	   • The loc_type parameter is set to "CURRENT_OR_LAST"
	   • The eqop->max_loc_age parameter is set to an age that admits the position computed in SUPL-1.0-int-000 to be returned.
	2. The H-SLP returns the previously computed position in MLP-SLIA to the SUPL Agent, which in turn returns the previously computed position to the network resident MLS application.

Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position and timestamp is the same as in SUPL-1.0-int-000.

6.1.3.8 SUPL-1.0-int-217- Max location age, current position returned

Test Case Id	SUPL-1.0-int-217
Test Object	H-SLP and SET
Test Case Description	To test that the current position is returned when a previously computed position does not fulfil the specified age limit. SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-001 ULP-D-C-001
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	    o SET is attached to the home PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o H-SLP has access to cell data from the Home PLMN.
	    o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	    o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	    o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o SUPL-1.0-int-000

Test Procedure	1. The network resident MLS application requests the current or last known position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameters to the H-SLP:
	    • The loc_type parameter is set to "CURRENT_OR_LAST"
	    • The eqop->max_loc_age parameter is set to an age that does not admit the position computed in SUPL-1.0-int-000 to be returned.
	2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.

Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.3.9   SUPL-1.0-int-218 - Location type, current location

Test Case Id	SUPL-1.0-int-218
Test Object	H-SLP and SET
Test Case Description	To test that an error message is returned when current location is requested and the SET is switched off.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-001 ULP-D-C-001
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	  o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	  o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	  o SET is attached to the home PLMN.
	  o SET is idle.
	  o The SET's position is known.
	  o H-SLP has access to cell data from the Home PLMN.
	  o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	  o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	  o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	  o None
	• Prerequisite for this test:
	  o SUPL-1.0-int-000

Test Procedure	1. Run through test case SUPL-1.0-int-000. 2. Turn off the SET. 3. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameters to the H-SLP: • The loc_type parameter is set to "CURRENT" • The attribute to the eqop->hor_acc parameter is set to "ASSURED" 4. The H-SLP returns an error message (result code) in MLP-SLIA to the SUPL Agent, which in turn returns error message (result code) to the network resident MLS application.
Pass-Criteria	1. At step 4, check that the result code is 201 "QOP NOT ATTAINABLE" or 5 "ABSENT SUBSCRIBER".

6.1.3.10   SUPL-1.0-int-219 - Location type, current or last known location

Test Case Id	SUPL-1.0-int-219

Test Object	H-SLP and SET
Test Case Description	To test that the previously computed position is returned when current or last known location is requested and the SET is switched off.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-001 ULP-D-C-001
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o SUPL-1.0-int-000

Test Procedure	1. Run through test case SUPL-1.0-int-000. 2. Turn off the SET. 3. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT_OR_LAST" 4. The H-SLP returns the previously computed position in MLP-SLIA to the SUPL Agent, which in turn returns the previously computed position to the network resident MLS application.
Pass-Criteria	1. At step 4, check that the returned position and timestamp are the same as in SUPL-1.0-int-000

6.1.4 Position in SUPL POS INIT

6.1.4.1 SUPL-1.0-int-220 - Position fulfils requested QoP

Test Case Id	SUPL-1.0-int-220
Test Object	H-SLP and SET

Test Case Description	To test that a previously computed position stored in the SET is returned to the H-SLP when the requested QoP is fulfilled.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-003 ULP-D-C-003
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-
Preconditions	• Equipment for GSM/WCDMA implementations: o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both. • Equipment for CDMA implementations: o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network. • State: o SET is attached to the home PLMN. o SET is idle. o The SET's position is known. o H-SLP has access to cell data from the Home PLMN. o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy. o The H-SLP and/or SET are configured to use the SET based A-GPS positioning method. o The H-SLP is configured to indicate no notification and no verification to the SET user. • Continuation of / Can be tested at the same time as: o None • Prerequisite for this test: o SUPL-1.0-int-601
Test Procedure	1. Run through SET initiated test case SUPL-1.0-int-601 to store the SET's current position internally in the SET. 2. The network resident MLS application requests the current or last known position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameters to the H-SLP: • The loc_type parameter is set to "CURRENT_OR_LAST" • The eqop->max_loc_age parameter is set to an age that admits the position computed in SUPL-1.0-int-601 to be returned. 3. The H-SLP returns the previously computed position in MLP-SLIA to the SUPL Agent, which in turn returns the previously computed position to the network resident MLS application.
Pass-Criteria	1. Check that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 3, check that the returned position and timestamp are the same as in SUPL-1.0-int-601.

6.1.4.2   SUPL-1.0-int-221 - Position does not fulfil requested QoP

Test Case Id	SUPL-1.0-int-221
Test Object	H-SLP and SET
Test Case Description	To test that the current position is returned to the H-SLP when the requested QoP is not fulfilled.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-003 ULP-D-C-003
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET are configured to use the SET based A-GPS positioning method.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o SUPL-1.0-int-601

Test Procedure	1. Run through the SET initiated test case SUPL-1.0-int-601 to store the SET's current position internally in the SET. 2. The network resident MLS application requests the current or last known position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameters to the H-SLP: • The loc_type parameter is set to "CURRENT_OR_LAST" • The eqop->max_loc_age parameter is set to an age that does not admit the position computed in SUPL-1.0-int-601 to be returned. 3. The H-SLP returns the current position in MLP-SLIA to the SUPL Agent, which in turn returns the current position to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 3, check that the returned position is acceptable and timestamp indicates that the current position of the SET has been calculated.

6.1.5 Velocity

6.1.5.1   SUPL-1.0-int-240 - SET-based A-GPS

Test Case Id	SUPL-1.0-int-240
Test Object	H-SLP and SET
Test Case Description	To test that the velocity of the SET can be returned when the SET-based A-GPS positioning method is used. SET is not roaming
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-005 ULP-D-C-006
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position and velocity are known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET are configured to use the SET-based A-GPS positioning method.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position, timestamp, and speed in MLP-SLIA to the SUPL Agent, which in turn returns position, timestamp, and velocity (speed) to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position and velocity (speed) are acceptable, and that the timestamp indicates that the current position of the SET has been calculated.

6.1.5.2 SUPL-1.0-int-241 - SET-assisted A-GPS

Test Case Id	SUPL-1.0-int-241
Test Object	H-SLP and SET
Test Case Description	To test that the velocity of the SET can be returned when the SET-assisted A-GPS positioning method is used. SET is not roaming
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-006 ULP-D-C-005
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-
Preconditions	• Equipment for GSM/WCDMA implementations: o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both. • Equipment for CDMA implementations: o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network. • State: o SET is attached to the home PLMN. o SET is idle. o The SET's position and speed are known. o H-SLP has access to cell data from the Home PLMN. o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy. o The H-SLP and/or SET are configured to use the SET-assisted A-GPS positioning method. o The H-SLP is configured to indicate no notification and no verification to the SET user. • Continuation of / Can be tested at the same time as: o None • Prerequisite for this test: o None
Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position, timestamp, and speed in MLP-SLIA to the SUPL Agent, which in turn returns position, timestamp, and velocity (speed) to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position and velocity (speed) are acceptable, and that the timestamp indicates that the current position and speed of the SET have been calculated.

6.1.6 Notification

6.1.6.1   SUPL-1.0-int-250 - Notification only

Test Case Id	SUPL-1.0-int-250
Test Object	H-SLP and SET
Test Case Description	To test Notification only. SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-007 ULP-D-C-007
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	    o SET is attached to the home PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o H-SLP has access to cell data from the Home PLMN.
	    o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	    o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	    o The H-SLP is configured to indicate notification only to the SET user.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. Check that the SET user is notified when the SET's position is requested by the network resident MLS application. 3. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.6.2 SUPL-1.0-int-251 - Notification and Verification Allowed on No Answer, SET User Answers and Accepts

Test Case Id	SUPL-1.0-int-251
Test Object	H-SLP and SET
Test Case Description	To test Notification and Verification Allowed on No Answer. The SET User answers and accepts the positioning request. SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-007 ULP-D-C-007
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	   o The H-SLP is configured to indicate Notification and Verification, Allowed on No Answer, to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The SET user is notified when the SET's position is requested by the network resident MLS application. 3. The SET user accepts the request. 4. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 4, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.6.3 SUPL-1.0-int-252 - Notification and Verification Allowed on No Answer, SET User answers and Rejects

Test Case Id	SUPL-1.0-int-252
Test Object	H-SLP and SET
Test Case Description	To test Notification and Verification Allowed on No Answer. The SET User answers and rejects the positioning request. SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-007 ULP-D-C-007
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-
Preconditions	• Equipment for GSM/WCDMA implementations: o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both. • Equipment for CDMA implementations: o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network. • State: o SET is attached to the home PLMN. o SET is idle. o The SET's position is known. o H-SLP has access to cell data from the Home PLMN. o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy. o The H-SLP and/or SET are configured to use the Cell ID positioning method. o The H-SLP is configured to indicate Notification and Verification, Allowed on No Answer, to the SET user. • Continuation of / Can be tested at the same time as: o None • Prerequisite for this test: o None
Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The SET user is notified when the SET's position is requested by the network resident MLS application. 3. The SET user rejects the request. 4. The H-SLP returns an error message (result code) in MLP-SLIA to the SUPL Agent, which in turn returns error message (result code) to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 4, check that the result code is 202 "POSITIONING NOT ALLOWED"

6.1.6.4 SUPL-1.0-int-253 - Notification and Verification Allowed on No Answer, SET User does not answer, which means Accept

Test Case Id	SUPL-1.0-int-253
Test Object	H-SLP and SET
Test Case Description	To test Notification and Verification Allowed on No Answer. The SET User does not answer, which means that the positioning request is accepted. SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-007 ULP-D-C-007
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-
Preconditions	• Equipment for GSM/WCDMA implementations: o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both. • Equipment for CDMA implementations: o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network. • State: o SET is attached to the home PLMN. o SET is idle. o The SET's position is known. o H-SLP has access to cell data from the Home PLMN. o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy. o The H-SLP and/or SET are configured to use the Cell ID positioning method. o The H-SLP is configured to indicate Notification and Verification, Allowed on No Answer, to the SET user. • Continuation of / Can be tested at the same time as: o None • Prerequisite for this test: o None
Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The SET user is notified when the SET's position is requested by the network resident MLS application. 3. The SET user does not answer the request. 4. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 4, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.6.5 SUPL-1.0-int-254 - Notification and Verification Denied on No Answer, SET User answers and Accepts

Test Case Id	SUPL-1.0-int-254
Test Object	H-SLP and SET
Test Case Description	To test Notification and Verification Denied on No Answer. The SET User answers and accepts the positioning request. SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-007 ULP-D-C-007
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	   o The H-SLP is configured to indicate Notification and Verification, Denied on No Answer, to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The SET user is notified when the SET's position is requested by the network resident MLS application. 3. The SET user accepts the request. 4. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 4, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.6.6 SUPL-1.0-int-255 - Notification and Verification Denied on No Answer, SET User answers and Rejects

Test Case Id	SUPL-1.0-int-255
Test Object	H-SLP and SET
Test Case Description	To test Notification and Verification Denied on No Answer. The SET User answers and rejects the positioning request. SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-007 ULP-D-C-007
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	   o The H-SLP is configured to indicate Notification and Verification, Denied on No Answer, to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The SET user is notified when the SET's position is requested by the network resident MLS application. 3. The SET user rejects the request. 4. The H-SLP returns an error message (result code) in MLP-SLIA to the SUPL Agent, which in turn returns error message (result code) to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 4, check that the result code is 202 "POSITIONING NOT ALLOWED"

6.1.6.7 SUPL-1.0-int-256 - Notification and Verification Denied on No Answer, SET User does not answer, which means Reject

Test Case Id	SUPL-1.0-int-256
Test Object	H-SLP and SET
Test Case Description	To test Notification and Verification Denied on No Answer. The SET User does not answer, which means that the positioning request is denied. SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-007 ULP-D-C-007
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	    o SET is attached to the home PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o H-SLP has access to cell data from the Home PLMN.
	    o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	    o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	    o The H-SLP is configured to indicate Notification and Verification, Denied on No Answer, to the SET user.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The SET user is notified when the SET's position is requested by the network resident MLS application. 3. The SET user does not answer the request. 4. The H-SLP returns an error message (result code) in MLP-SLIA to the SUPL Agent, which in turn returns error message (result code) to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 4, check that the result code is 202 "POSITIONING NOT ALLOWED"

6.1.6.8   SUPL-1.0-int-257 - Privacy Override

Test Case Id	SUPL-1.0-int-257
Test Object	H-SLP and SET
Test Case Description	To test Privacy Override. SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-007 ULP-D-C-007
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	   o The H-SLP is configured to indicate privacy override.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. The SET user is not notified when the SET's position is requested by the network resident MLS application. 3. Check that no record of the positioning is stored in the SET's log files 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.6.9 SUPL-1.0-int-258 - Requestor Id

Test Case Id	SUPL-1.0-int-258
Test Object	H-SLP and SET
Test Case Description	To test that the Requestor Id can be presented to the SET User. SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-007 ULP-D-C-007
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	    o SET is attached to the home PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o H-SLP has access to cell data from the Home PLMN.
	    o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	    o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	    o The H-SLP is configured to indicate Notification and Verification, Allowed on No Answer, to the SET user.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameters to the H-SLP:
	    • The loc_type parameter is set to "CURRENT"
	    • The requestor parameter in the message header contains the requestor's MSISDN/MDN.
	2. The SET user is notified when the SET's position is requested by the network resident MLS application.
	3. The SET user accepts the request.
	4. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.

Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection.
	2. At step 2, when the SET user is notified it also sees the identity of the requestor.
	3. At step 4, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.6.10   SUPL-1.0-int-259 - Client Name

Test Case Id	SUPL-1.0-int-259
Test Object	H-SLP and SET
Test Case Description	To test that the Client Name (name of the network resident MLS application) can be presented to the SET User. SET is not roaming.
Specification Reference	AD 6.8.1, 6.8.2
SCR Reference	ULP-F-S-007 ULP-D-C-007
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-
Preconditions	• Equipment for GSM/WCDMA implementations: 　　o 1 MLS Client, 1 SET, 1 H-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both. • Equipment for CDMA implementations: 　　o 1 MLS Client, 1 SET, 1 H-SLP, Home PLMN with CDMA access network. • State: 　　o SET is attached to the home PLMN. 　　o SET is idle. 　　o The SET's position is known. 　　o H-SLP has access to cell data from the Home PLMN. 　　o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy. 　　o The H-SLP and/or SET are configured to use the Cell ID positioning method. 　　o The H-SLP is configured to indicate Notification and Verification, Allowed on No Answer, to the SET user. 　　o The H-SLP is configured with a name of the network resident MLS application. • Continuation of / Can be tested at the same time as: 　　o None • Prerequisite for this test: 　　o None
Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: 　• The loc_type parameter is set to "CURRENT" 2. The SET user is notified when the SET's position is requested by the network resident MLS application. 3. The SET user accepts the request. 4. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.

Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection.
	2. At step 2, when the SET user is notified it also sees the name of the network resident MLS application.
	3. At step 4, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.7 Roaming – Proxy Mode, Position Calculation in H-SLP

6.1.7.1   SUPL-1.0-int-020 - Cell ID Positioning Method

Test Case Id	SUPL-1.0-int-020
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test Cell ID positioning method when SET is roaming and position calculation is done by H-SLP (Proxy Mode).
Specification Reference	AD 6.8.5
SCR Reference	ULP-B-S-001, ULP-C-S-001, ULP-A-S-011 ULP-A-C-007, ULP-A-C-011
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, 1 PPG, 1 SMS-C, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network.
	• State:
	   o SET is attached to the visited PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o V-SLP has access to cell data from the Visited PLMN.
	   o H-SLP has no access to cell data from the Visited PLMN.
	   o SET, H-SLP, and V-SLP support Proxy mode of operation.
	   o H-SLP and V-SLP support roaming with position calculation in H-SLP.
	   o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.7.2   SUPL-1.0-int-270 - SET-assisted A-GPS Positioning Method

Test Case Id	SUPL-1.0-int-270
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test SET-assisted A-GPS Positioning Method when SET is roaming and position calculation is done by H-SLP (Proxy Mode).
Specification Reference	AD 6.8.5
SCR Reference	ULP-B-S-001, ULP-C-S-001, ULP-A-S-012 ULP-A-C-007, ULP-A-C-012
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, 1 PPG, 1 SMS-C, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network.
	• State:
	    o SET is attached to the visited PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o V-SLP has access to cell data from the Visited PLMN.
	    o H-SLP has no access to cell data from the Visited PLMN.
	    o SET, H-SLP, and V-SLP support Proxy mode of operation.
	    o H-SLP and V-SLP support roaming with position calculation in H-SLP.
	    o The H-SLP and/or SET are configured to use the SET-assisted A-GPS positioning method.
	    o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.7.3 SUPL-1.0-int-271 - SET-based A-GPS Positioning Method

Test Case Id	SUPL-1.0-int-271
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test SET-based A-GPS Positioning Method when SET is roaming and position calculation is done by H-SLP (Proxy Mode).
Specification Reference	AD 6.8.5
SCR Reference	ULP-B-S-001, ULP-C-S-001, ULP-A-S-013 ULP-A-C-007, ULP-A-C-013
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-
Preconditions	• Equipment for GSM/WCDMA implementations: 　o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, 1 PPG, 1 SMS-C, Home and Visited PLMN with either GSM or WCDMA access network, or both. • Equipment for CDMA implementations: 　o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network. • State: 　o SET is attached to the visited PLMN. 　o SET is idle. 　o The SET's position is known. 　o V-SLP has access to cell data from the Visited PLMN. 　o H-SLP has no access to cell data from the Visited PLMN. 　o SET, H-SLP, and V-SLP support Proxy mode of operation. 　o H-SLP and V-SLP support roaming with position calculation in H-SLP. 　o The H-SLP and/or SET are configured to use the SET-based A-GPS positioning method. 　o The H-SLP is configured to indicate no notification and no verification to the SET user. • Continuation of / Can be tested at the same time as: 　o None • Prerequisite for this test: 　o None
Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: 　• The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.7.4   SUPL-1.0-int-272 - Autonomous GPS Positioning Method

Test Case Id	SUPL-1.0-int-272
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test Autonomous GPS Positioning Method when SET is roaming and position calculation is done by H-SLP (Proxy Mode).
Specification Reference	AD 6.8.5
SCR Reference	ULP-B-S-001, ULP-C-S-001, ULP-A-S-014 ULP-A-C-007, ULP-A-C-014
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	  o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, 1 PPG, 1 SMS-C, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	  o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network.
	• State:
	  o SET is attached to the visited PLMN.
	  o SET is idle.
	  o The SET's position is known.
	  o V-SLP has access to cell data from the Visited PLMN.
	  o H-SLP has no access to cell data from the Visited PLMN.
	  o SET, H-SLP, and V-SLP support Proxy mode of operation.
	  o H-SLP and V-SLP support roaming with position calculation in H-SLP.
	  o The H-SLP and/or SET are configured to use the Autonomous GPS positioning method.
	  o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	  o None
	• Prerequisite for this test:
	  o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. This shall include a SUPL POS session with no Assistance Data. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.7.5   SUPL-1.0-int-273 - AFLT Positioning Method

Test Case Id	SUPL-1.0-int-273
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test AFLT Positioning Method when SET is roaming and position calculation is done by H-SLP (Proxy Mode).
Specification Reference	AD 6.8.5
SCR Reference	ULP-B-S-001, ULP-C-S-001, ULP-A-S-015 ULP-A-C-007, ULP-A-C-015
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for CDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network.
	• State:
	   o SET is attached to the visited PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o V-SLP has access to cell data from the Visited PLMN.
	   o H-SLP has no access to cell data from the Visited PLMN.
	   o SET, H-SLP, and V-SLP support Proxy mode of operation.
	   o H-SLP and V-SLP support roaming with position calculation in H-SLP.
	   o The H-SLP and/or SET are configured to use the AFLT positioning method.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.7.6 SUPL-1.0-int-274 - Enhanced Cell ID Positioning Method

Test Case Id	SUPL-1.0-int-274
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test Enhanced Cell ID Positioning Method when SET is roaming and position calculation is done by H-SLP (Proxy Mode).
Specification Reference	AD 6.8.5
SCR Reference	ULP-B-S-001, ULP-C-S-001, ULP-A-S-016 ULP-A-C-007, ULP-A-C-016
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, 1 PPG, 1 SMS-C, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• State:
	   o SET is attached to the visited PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o V-SLP has access to cell data from the Visited PLMN.
	   o H-SLP has no access to cell data from the Visited PLMN.
	   o SET, H-SLP, and V-SLP support Proxy mode of operation.
	   o H-SLP and V-SLP support roaming with position calculation in H-SLP.
	   o The H-SLP and/or SET are configured to use the Enhanced Cell ID positioning method.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.7.7   SUPL-1.0-int-275 - E-OTD Positioning Method

Test Case Id	SUPL-1.0-int-275
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test E-OTD Positioning Method when SET is roaming and position calculation is done by H-SLP (Proxy Mode).
Specification Reference	AD 6.8.5
SCR Reference	ULP-B-S-001, ULP-C-S-001, ULP-A-S-017 ULP-A-C-007, ULP-A-C-017
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, 1 PPG, 1 SMS-C, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• State:
	   o SET is attached to the visited PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o V-SLP has access to cell data from the Visited PLMN.
	   o H-SLP has no access to cell data from the Visited PLMN.
	   o SET, H-SLP, and V-SLP support Proxy mode of operation.
	   o H-SLP and V-SLP support roaming with position calculation in H-SLP.
	   o The H-SLP and/or SET are configured to use the E-OTD positioning method.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.7.8   SUPL-1.0-int-276 - OTDOA Positioning Method

Test Case Id	SUPL-1.0-int-276
Test Object	H-SLP, V-SLP, and SET

Test Case Description	To test OTDOA Positioning Method when SET is roaming and position calculation is done by H-SLP (Proxy Mode).
Specification Reference	AD 6.8.5
SCR Reference	ULP-B-S-001, ULP-C-S-001, ULP-A-S-018 ULP-A-C-007, ULP-A-C-018
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, 1 PPG, 1 SMS-C, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• State:
	    o SET is attached to the visited PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o V-SLP has access to cell data from the Visited PLMN.
	    o H-SLP has no access to cell data from the Visited PLMN.
	    o SET, H-SLP, and V-SLP support Proxy mode of operation.
	    o H-SLP and V-SLP support roaming with position calculation in H-SLP.
	    o The H-SLP and/or SET are configured to use the OTDOA positioning method.
	    o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.8 Roaming – Proxy Mode, Position Calculation in V-SLP

6.1.8.1   SUPL-1.0-int-030 - Cell ID Positioning Method

Test Case Id	SUPL-1.0-int-030
Test Object	H-SLP, V-SLP, and SET

Test Case Description	To test Cell ID positioning method when SET is roaming and position calculation is done by V-SLP (Proxy Mode).
Specification Reference	AD 6.8.3
SCR Reference	ULP-B-S-003, ULP-C-S-003, ULP-A-S-011 ULP-A-C-007, ULP-A-C-011
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, 1 PPG, 1 SMS-C, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP 1 V-SLP, Home and Visited PLMN with CDMA access network.
	• State:
	    o SET is attached to the visited PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o V-SLP has access to cell data from the Visited PLMN.
	    o H-SLP has no access to cell data from the Visited PLMN.
	    o SET, H-SLP, and V-SLP support Proxy mode of operation.
	    o H-SLP and V-SLP support roaming with position calculation in V-SLP.
	    o The V-SLP and/or SET are configured to use the Cell ID positioning method.
	    o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.8.2   SUPL-1.0-int-280 - SET-assisted A-GPS Positioning Method

Test Case Id	SUPL-1.0-int-280
Test Object	H-SLP, V-SLP, and SET

Test Case Description	To test SET-assisted A-GPS Positioning Method when SET is roaming and position calculation is done by V-SLP (Proxy Mode).
Specification Reference	AD 6.8.3
SCR Reference	ULP-B-S-003, ULP-C-S-003, ULP-A-S-012 ULP-A-C-007, ULP-A-C-012
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, 1 PPG, 1 SMS-C, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	
	• Equipment for CDMA implementations:
	
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network.
	
	• State:
	
	   o SET is attached to the visited PLMN.
	
	   o SET is idle.
	
	   o The SET's position is known.
	
	   o V-SLP has access to cell data from the Visited PLMN.
	
	   o H-SLP has no access to cell data from the Visited PLMN.
	
	   o SET, H-SLP, and V-SLP support Proxy mode of operation.
	
	   o H-SLP and V-SLP support roaming with position calculation in V-SLP.
	
	   o The V-SLP and/or SET are configured to use the SET-assisted A-GPS positioning method.
	
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	
	• Continuation of / Can be tested at the same time as:
	
	   o None
	
	• Prerequisite for this test:
	
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.8.3 SUPL-1.0-int-281 - SET-based A-GPS Positioning Method

Test Case Id	SUPL-1.0-int-281
Test Object	H-SLP, V-SLP, and SET

Test Case Description	To test SET-based A-GPS Positioning Method when SET is roaming and position calculation is done by V-SLP (Proxy Mode).
Specification Reference	AD 6.8.3
SCR Reference	ULP-B-S-003, ULP-C-S-003, ULP-A-S-013 ULP-A-C-007, ULP-A-C-013
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, 1 PPG, 1 SMS-C, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	    o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network.
	• State:
	    o SET is attached to the visited PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o V-SLP has access to cell data from the Visited PLMN.
	    o H-SLP has no access to cell data from the Visited PLMN.
	    o SET, H-SLP, and V-SLP support Proxy mode of operation.
	    o H-SLP and V-SLP support roaming with position calculation in V-SLP.
	    o The V-SLP and/or SET are configured to use the SET-based A-GPS positioning method.
	    o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.8.4 SUPL-1.0-int-282 - Autonomous GPS Positioning Method

Test Case Id	SUPL-1.0-int-282
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test Autonomous GPS Positioning Method when SET is roaming and position calculation is done by V-SLP (Proxy Mode).
Specification Reference	AD 6.8.3
SCR Reference	ULP-B-S-003, ULP-C-S-003, ULP-A-S-014 ULP-A-C-007, ULP-A-C-014
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-
Preconditions	• Equipment for GSM/WCDMA implementations: o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, 1 PPG, 1 SMS-C, Home and Visited PLMN with either GSM or WCDMA access network, or both. • Equipment for CDMA implementations: o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network. • State: o SET is attached to the visited PLMN. o SET is idle. o The SET's position is known. o V-SLP has access to cell data from the Visited PLMN. o H-SLP has no access to cell data from the Visited PLMN. o SET, H-SLP, and V-SLP support Proxy mode of operation. o H-SLP and V-SLP support roaming with position calculation in V-SLP. o The V-SLP and/or SET are configured to use the Autonomous GPS positioning method. o The H-SLP is configured to indicate no notification and no verification to the SET user. • Continuation of / Can be tested at the same time as: o None • Prerequisite for this test: o None
Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. This shall include a SUPL POS session with no Assistance Data. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.8.5   SUPL-1.0-int-283 - AFLT Positioning Method

Test Case Id	SUPL-1.0-int-283
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test AFLT Positioning Method when SET is roaming and position calculation is done by V-SLP (Proxy Mode).
Specification Reference	AD 6.8.3
SCR Reference	ULP-B-S-003, ULP-C-S-003, ULP-A-S-015 ULP-A-C-007, ULP-A-C-015
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for CDMA implementations:
	  o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network.
	• State:
	  o SET is attached to the visited PLMN.
	  o SET is idle.
	  o The SET's position is known.
	  o V-SLP has access to cell data from the Visited PLMN.
	  o H-SLP has no access to cell data from the Visited PLMN.
	  o SET, H-SLP, and V-SLP support Proxy mode of operation.
	  o H-SLP and V-SLP support roaming with position calculation in V-SLP.
	  o The V-SLP and/or SET are configured to use the AFLT positioning method.
	  o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	  o None
	• Prerequisite for this test:
	  o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.8.6   SUPL-1.0-int-284 - Enhanced Cell ID Positioning Method

Test Case Id	SUPL-1.0-int-284
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test Enhanced Cell ID Positioning Method when SET is roaming and position calculation is done by V-SLP (Proxy Mode).
Specification Reference	AD 6.8.3
SCR Reference	ULP-B-S-003, ULP-C-S-003, ULP-A-S-016 ULP-A-C-007, ULP-A-C-016
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-
Preconditions	• Equipment for GSM/WCDMA implementations: o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, 1 PPG, 1 SMS-C, Home and Visited PLMN with either GSM or WCDMA access network, or both. • State: o SET is attached to the visited PLMN. o SET is idle. o The SET's position is known. o V-SLP has access to cell data from the Visited PLMN. o H-SLP has no access to cell data from the Visited PLMN. o SET, H-SLP, and V-SLP support Proxy mode of operation. o H-SLP and V-SLP support roaming with position calculation in V-SLP. o The V-SLP and/or SET are configured to use the Enhanced Cell ID positioning method. o The H-SLP is configured to indicate no notification and no verification to the SET user. • Continuation of / Can be tested at the same time as: o None • Prerequisite for this test: o None
Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.8.7   SUPL-1.0-int-285 - E-OTD Positioning Method

Test Case Id	SUPL-1.0-int-285
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test E-OTD Positioning Method when SET is roaming and position calculation is done by V-SLP (Proxy Mode).
Specification Reference	AD 6.8.3
SCR Reference	ULP-B-S-003, ULP-C-S-003, ULP-A-S-017 ULP-A-C-007, ULP-A-C-017
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, 1 PPG, 1 SMS-C, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• State:
	   o SET is attached to the visited PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o V-SLP has access to cell data from the Visited PLMN.
	   o H-SLP has no access to cell data from the Visited PLMN.
	   o SET, H-SLP, and V-SLP support Proxy mode of operation.
	   o H-SLP and V-SLP support roaming with position calculation in V-SLP.
	   o The V-SLP and/or SET are configured to use the E-OTD positioning method.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.8.8   SUPL-1.0-int-286 - OTDOA Positioning Method

Test Case Id	SUPL-1.0-int-286
Test Object	H-SLP, V-SLP, and SET

Test Case Description	To test OTDOA Positioning Method when SET is roaming and position calculation is done by V-SLP (Proxy Mode).
Specification Reference	AD 6.8.3
SCR Reference	ULP-B-S-003, ULP-C-S-003, ULP-A-S-018 ULP-A-C-007, ULP-A-C-018
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 V-SLP, 1 PPG, 1 SMS-C, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• State:
	   o SET is attached to the visited PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o V-SLP has access to cell data from the Visited PLMN.
	   o H-SLP has no access to cell data from the Visited PLMN.
	   o SET, H-SLP, and V-SLP support Proxy mode of operation.
	   o H-SLP and V-SLP support roaming with position calculation in V-SLP.
	   o The V-SLP and/or SET are configured to use the OTDOA positioning method.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues a MLP-SLIR request containing the following optional parameter to the H-SLP: • The loc_type parameter is set to "CURRENT" 2. The H-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.1.9   Requesting SLP procedures

6.1.9.1   SUPL-1.0-int-310 – Network resident MLS application requests position from Requesting SLP

Test Case Id	SUPL-1.0-int-310

Test Object	H-SLP and SET
Test Case Description	To test that Requesting SLP (R-SLP) forwards a positioning request from a network resident MLS application to the SET's home SLP (H-SLP). The H-SLP determines the position of the SET and returns the position, through the R-SLP, to the network resident MLS application. SET is not roaming.
Specification Reference	AD 6.8, 6.8.1 - 6.8.6
SCR Reference	None
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 R-SLP, 1 PPG, 1 SMS-C, Home PLMN with either GSM or WCDMA access network, or both. HLR or DNS server capable of returning the address of the H-SLP based on the SET's MSISDN.
	
	   Note: The R-SLP can be an R-GMLC supporting 3GPP release 6 location services.
	• Equipment for CDMA implementations:
	   o 1 MLS Client, 1 SET, 1 H-SLP, 1 R-SLP, Home PLMN with CDMA access network. HLR or DNS server capable of returning the address of the H-SLP based on the SET's MDN.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	   o The R-SLP has the capability to resolve the H-SLP address based on the SET's MSISDN/MDN.
	   o The H-SLP is configured to indicate no notification and no verification to the SET user.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The network resident MLS application requests the current position of the SET and the SUPL Agent issues an MLP-SLIR request containing the following optional parameter to the R-SLP: • The loc_type parameter is set to "CURRENT" 2. The R-SLP returns position and timestamp in MLP-SLIA to the SUPL Agent, which in turn returns position and timestamp to the network resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2 Interoperability, SET Initiated

6.2.1 Positioning Methods

6.2.1.1 SUPL-1.0-int-500 - Cell ID

Test Case Id	SUPL-1.0-int-500
Test Object	H-SLP and SET
Test Case Description	To test Cell ID positioning method when SET is not roaming.
Specification Reference	AD 6.9.1, 6.9.2
SCR Reference	ULP-A-S-009, ULP-A-S-010, ULP-A-S-011 ULP-A-C-009, ULP-A-C-010, ULP-A-C-011
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 SET, 1 H-SLP, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	  • The qoP->horacc parameter is set to 127
	  • The qoP->maxLocAge parameter is set to 0
	2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.

Pass-Criteria	1. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.1.2   SUPL-1.0-int-600 - SET-assisted A-GPS

Test Case Id	SUPL-1.0-int-600
Test Object	H-SLP and SET
Test Case Description	To test SET-assisted A-GPS positioning method when SET is not roaming.
Specification Reference	AD 6.9.1, 6.9.2
SCR Reference	ULP-A-S-009, ULP-A-S-010, ULP-A-S-012 ULP-A-C-009, ULP-A-C-010, ULP-A-C-012
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	  o 1 SET, 1 H-SLP, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	  o 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	  o SET is attached to the home PLMN.
	  o SET is idle.
	  o The SET's position is known.
	  o H-SLP has access to cell data from the Home PLMN.
	  o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	  o The H-SLP and/or SET are configured to use the SET-assisted A-GPS positioning method.
	• Continuation of / Can be tested at the same time as:
	  o None
	• Prerequisite for this test:
	  o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	  • The qoP->horacc parameter is set to 127
	  • The qoP->maxLocAge parameter is set to 0
	2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.

Pass-Criteria	1. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.1.3   SUPL-1.0-int-601 - SET-based A-GPS

Test Case Id	SUPL-1.0-int-601
Test Object	H-SLP and SET

Test Case Description	To test SET-based A-GPS positioning method when SET is not roaming.
Specification Reference	AD 6.9.1, 6.9.2
SCR Reference	ULP-A-S-009, ULP-A-S-010, ULP-A-S-013 ULP-A-C-009, ULP-A-C-010, ULP-A-C-013
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	  o 1 SET, 1 H-SLP, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	  o 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	  o SET is attached to the home PLMN.
	  o SET is idle.
	  o The SET's position is known.
	  o H-SLP has access to cell data from the Home PLMN.
	  o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	  o The H-SLP and/or SET are configured to use the SET-based A-GPS positioning method.
	• Continuation of / Can be tested at the same time as:
	  o None
	• Prerequisite for this test:
	  o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP: • The qoP->horacc parameter is set to 127 • The qoP->maxLocAge parameter is set to 0 2. The H-SLP returns ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.1.4 SUPL-1.0-int-602 - Autonomous GPS

Test Case Id	SUPL-1.0-int-602
Test Object	H-SLP and SET
Test Case Description	To test Autonomous GPS positioning method when SET is not roaming.
Specification Reference	AD 6.9.1, 6.9.2
SCR Reference	ULP-A-S-009, ULP-A-S-010, ULP-A-S-014 ULP-A-C-009, ULP-A-C-010, ULP-A-C-014
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	  o 1 SET, 1 H-SLP, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	  o 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	  o SET is attached to the home PLMN.
	  o SET is idle.
	  o The SET's position is known.
	  o H-SLP has access to cell data from the Home PLMN.
	  o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	  o The H-SLP and/or SET are configured to use the Autonomous GPS positioning method.
	• Continuation of / Can be tested at the same time as:
	  o None
	• Prerequisite for this test:
	  o The SET supports other positioning methods than just Autonomous GPS. In the case the SET only supports Autonomous GPS this test case is not applicable since the SET calculates its own position without connecting to the H-SLP.

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP: • The qoP->horacc parameter is set to 127 • The qoP->maxLocAge parameter is set to 0 2. The H-SLP returns ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. This shall include a SUPL POS session with no Assistance Data. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.1.5   SUPL-1.0-int-603 - AFLT

Test Case Id	SUPL-1.0-int-603
Test Object	H-SLP and SET
Test Case Description	To test AFLT positioning method when SET is not roaming.
Specification Reference	AD 6.9.1, 6.9.2
SCR Reference	ULP-A-S-009, ULP-A-S-010, ULP-A-S-015 ULP-A-C-009, ULP-A-C-010, ULP-A-C-015
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for CDMA implementations:
	    o 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	    o SET is attached to the home PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	    o The H-SLP and/or SET are configured to use the AFLT positioning method.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	    • The qoP->horacc parameter is set to 127
	    • The qoP->maxLocAge parameter is set to 0
	2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.

Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.1.6   SUPL-1.0-int-604 - Enhanced Cell ID

Test Case Id	SUPL-1.0-int-604
Test Object	H-SLP and SET
Test Case Description	To test Enhanced Cell ID positioning method when SET is not roaming.
Specification Reference	AD 6.9.1, 6.9.2
SCR Reference	ULP-A-S-009, ULP-A-S-010, ULP-A-S-016 ULP-A-C-009, ULP-A-C-010, ULP-A-C-016
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	  o 1 SET, 1 H-SLP, Home PLMN with either GSM or WCDMA access network, or both.
	• State:
	  o SET is attached to the home PLMN.
	  o SET is idle.
	  o The SET's position is known.
	  o H-SLP has access to cell data from the Home PLMN.
	  o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	  o The H-SLP and/or SET are configured to use the Enhanced Cell ID positioning method.
	• Continuation of / Can be tested at the same time as:
	  o None
	• Prerequisite for this test:
	  o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	  • The qoP->horacc parameter is set to 127
	  • The qoP->maxLocAge parameter is set to 0
	2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.

Pass-Criteria	3. Check that correct positioning method is used and that relevant signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.1.7 SUPL-1.0-int-605 - E-OTD

Test Case Id	SUPL-1.0-int-605
Test Object	H-SLP and SET
Test Case Description	To test E-OTD positioning method when SET is not roaming.
Specification Reference	AD 6.9.1, 6.9.2
SCR Reference	ULP-A-S-009, ULP-A-S-010, ULP-A-S-017 ULP-A-C-009, ULP-A-C-010, ULP-A-C-017
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-
Preconditions	• Equipment for GSM/WCDMA implementations: o 1 SET, 1 H-SLP, Home PLMN with either GSM or WCDMA access network, or both. • State: o SET is attached to the home PLMN. o SET is idle. o The SET's position is known. o H-SLP has access to cell data from the Home PLMN. o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy. o The H-SLP and/or SET are configured to use the E-OTD positioning method. • Continuation of / Can be tested at the same time as: o None • Prerequisite for this test: o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	  • The qoP->horacc parameter is set to 127
	  • The qoP->maxLocAge parameter is set to 0
	2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.

Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.1.8   SUPL-1.0-int-606 – OTDOA

Test Case Id	SUPL-1.0-int-606
Test Object	H-SLP and SET
Test Case Description	To test OTDOA positioning method when SET is not roaming.
Specification Reference	AD 6.9.1, 6.9.2
SCR Reference	ULP-A-S-009, ULP-A-S-010, ULP-A-S-018 ULP-A-C-009, ULP-A-C-010, ULP-A-C-018
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 SET, 1 H-SLP, Home PLMN with either GSM or WCDMA access network, or both.
	• State:
	    o SET is attached to the home PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o H-SLP has access to cell data from the Home PLMN.
	    o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	    o The H-SLP and/or SET are configured to use the OTDOA positioning method.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	    • The qoP->horacc parameter is set to 127
	    • The qoP->maxLocAge parameter is set to 0
	2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.

Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.2 Authentication

### 6.2.2.1	SUPL-1.0-int-510 - Alternative authentication model for GSM/WCDMA

Test Case Id	SUPL-1.0-int-510
Test Object	H-SLP and SET
Test Case Description	To test SET and H-SLP mutual authentication when H-SLP does not support PSK-TLS authentication.
Specification Reference	AD 7
SCR Reference	ULP-A-S-005 ULP-A-C-005
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	  o 1 SET, 1 H-SLP, RADIUS Server, Home PLMN with either GSM or WCDMA access network, or both.
	• State:
	  o SET is attached to the home PLMN.
	  o SET is idle.
	  o The SET's position is known.
	  o H-SLP has access to cell data from the Home PLMN.
	  o SET and H-SLP support Proxy mode of operation.
	  o H-SLP has access to a RADIUS server for SET authentication.
	  o H-SLP is configured with a server side TLS certificate.
	  o SET is configured with a root certificate of the H-SLP.
	  o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	• Continuation of / Can be tested at the same time as:
	  o None
	• Prerequisite for this test:
	  o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	  • The qoP->horacc parameter is set to 127
	  • The qoP->maxLocAge parameter is set to 0
	2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.

Pass-Criteria	1. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 2. At step 2, before the H-SLP returns ULP-SUPL RESPONSE the H-SLP interrogates the RADIUS server to authenticate the SET. The authentication procedure is successful. 3. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.3 Quality of Position

6.2.3.1 SUPL-1.0-int-610 - Horizontal accuracy

Test Case Id	SUPL-1.0-int-610
Test Object	H-SLP and SET
Test Case Description	To test that the returned position fulfills the requested horizontal accuracy. SET is not roaming.
Specification Reference	AD 6.9.1, 6.9.2
SCR Reference	ULP-F-S-002 ULP-D-C-002
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 SET, 1 H-SLP, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	    o 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	    o SET is attached to the home PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o H-SLP has access to cell data from the Home PLMN.
	    o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	    o The H-SLP and/or SET support one or more positioning methods that give better horizontal accuracy than the Cell ID positioning method.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o SUPL-1.0-int-500

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	    • The qoP->horacc parameter is set to a value that gives a better horizontal accuracy than the one obtained in SUPL-1.0-int-500
	    • The qoP->maxLocAge parameter is set to 0
	2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.

Pass-Criteria	3. Check that a positioning method that gives better accuracy than the one obtained in SUPL-1.0-int-500 is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position fulfills the requested horizontal accuracy and that the timestamp indicates that the current position of the SET has been calculated.

6.2.3.2   SUPL-1.0-int-611 - Response time

Test Case Id	SUPL-1.0-int-611
Test Object	H-SLP and SET
Test Case Description	To test that a position is returned within the specified response time. SET is not roaming
Specification Reference	AD 6.9.1, 6.9.2
SCR Reference	ULP-F-S-002 ULP-D-C-002
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 SET, 1 H-SLP, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	    o 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	    o SET is attached to the home PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o H-SLP has access to cell data from the Home PLMN.
	    o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	    o The H-SLP and/or SET support one or more positioning methods that give longer response times than the Cell ID positioning method.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o SUPL-1.0-int-500
	    o SUPL-1.0-int-610

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	    • The qoP->horacc parameter is set to 127
	    • The qoP->maxLocAge parameter is set to 0
	    • The qoP->delay is set to a value that gives a shorter response time than the response time in SUPL-1.0-int-610
	2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.

Pass-Criteria	3. Check that a positioning method that gives shorter response time than the response time obtained in SUPL-1.0-int-610 is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that ULP-SUPL END is returned within specified response time. Also check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.3.3 SUPL-1.0-int-612 - Vertical accuracy (Altitude)

Test Case Id	SUPL-1.0-int-612
Test Object	H-SLP and SET
Test Case Description	To test that altitude is returned. SET is not roaming
Specification Reference	AD 6.9.1, 6.9.2
SCR Reference	ULP-F-S-002 ULP-D-C-002
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 SET, 1 H-SLP, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position and altitude are known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET support a positioning method that calculates altitude.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	  • The qoP->horacc parameter is set to 127
	  • The qoP->maxLocAge parameter is set to 0
	  • The eqop->veracc parameter is set to a reasonable value
	2. The H-SLP returns position, timestamp and altitude in ULP-SUPL END to the SUPL Agent, which in turn returns position, timestamp and altitude to the SET resident MLS application.

Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated. Also check that the returned altitude fulfills the requested accuracy.

6.2.3.4   SUPL-1.0-int-613 - Max location age, previously computed position returned

Test Case Id	SUPL-1.0-int-613
Test Object	H-SLP and SET
Test Case Description	To test that the previously computed position is returned when the previously computed position fulfils the specified age limit. SET is not roaming.
Specification Reference	AD 6.9.1, 6.9.2
SCR Reference	ULP-F-S-002 ULP-D-C-002
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 SET, 1 H-SLP, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o SUPL-1.0-int-500

Test Procedure	1. Run through test case SUPL-1.0-int-500.
	2. The SET resident MLS application requests the last known position of the SET and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	   • The qoP->horacc parameter is set to 127
	   • The qoP->maxLocAge parameter is set to an age that admits the position computed in SUPL-1.0-int-500 to be returned
	3. The H-SLP returns the previously computed position in ULP-SUPL END to the SUPL Agent, which in turn returns the previously computed position to the SET resident MLS application.

Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 3, check that the returned position and timestamp is the same as in SUPL-1.0-int-500.

6.2.3.5 SUPL-1.0-int-614 - Max location age, current position returned

Test Case Id	SUPL-1.0-int-614
Test Object	H-SLP and SET
Test Case Description	To test that the current position is returned when a previously computed position does not fulfil the specified age limit. SET is not roaming.
Specification Reference	AD 6.9.1, 6.9.2
SCR Reference	ULP-F-S-002 ULP-D-C-002
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 SET, 1 H-SLP, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	   o SET is attached to the home PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o H-SLP has access to cell data from the Home PLMN.
	   o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	   o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o SUPL-1.0-int-500

Test Procedure	1. The SET resident MLS application requests the current position of the SET and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	  • The qoP->horacc parameter is set to 127
	  • The qoP->maxLocAge parameter is set to an age that does not admit the position computed in SUPL-1.0-int-500 to be returned
	2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.

Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the current position and timestamp are returned.

6.2.4 Velocity

6.2.4.1   SUPL-1.0-int-630 - SET-assisted A-GPS

Test Case Id	SUPL-1.0-int-630
Test Object	H-SLP and SET
Test Case Description	To test that the velocity of the SET can be returned when the SET-assisted A-GPS positioning method is used. SET is not roaming
Specification Reference	AD 6.9.1, 6.9.2
SCR Reference	ULP-F-S-006 ULP-D-C-005
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 SET, 1 H-SLP, Home PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	    o 1 SET, 1 H-SLP, Home PLMN with CDMA access network.
	• State:
	    o SET is attached to the home PLMN.
	    o SET is idle.
	    o The SET's position and velocity are known.
	    o H-SLP has access to cell data from the Home PLMN.
	    o SET and H-SLP support the same mode of operation: Proxy or Non-Proxy.
	    o The H-SLP and/or SET are configured to use the SET-assisted A-GPS positioning method.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP: • The qoP->horacc parameter is set to 127 • The qoP->maxLocAge parameter is set to 0 2. The H-SLP returns position and timestamp and velocity in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp and velocity to the SET resident MLS application.
Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position and velocity are acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.5 Roaming – Proxy Mode, Position Calculation in H-SLP

6.2.5.1   SUPL-1.0-int-520 - Cell ID Positioning Method

Test Case Id	SUPL-1.0-int-520
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test Cell ID positioning method when SET is roaming and position calculation is done by H-SLP (Proxy Mode).
Specification Reference	AD 6.9.5
SCR Reference	ULP-B-S-001, ULP-C-S-001, ULP-A-S-011 ULP-A-C-009, ULP-A-C-011
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	   o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network.
	• State:
	   o SET is attached to the visited PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o V-SLP has access to cell data from the Visited PLMN.
	   o H-SLP has no access to cell data from the Visited PLMN.
	   o SET, H-SLP, and V-SLP support Proxy mode of operation.
	   o H-SLP and V-SLP support roaming with position calculation in H-SLP.
	   o The H-SLP and/or SET are configured to use the Cell ID positioning method.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	   • The qoP->horacc parameter is set to 127
	   • The qoP->maxLocAge parameter is set to 0
	2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.

Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.5.2 SUPL-1.0-int-640 - SET-assisted A-GPS Positioning Method

Test Case Id	SUPL-1.0-int-640
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test SET-assisted A-GPS Positioning Method when SET is roaming and position calculation is done by H-SLP (Proxy Mode).
Specification Reference	AD 6.9.5
SCR Reference	ULP-B-S-001, ULP-C-S-001, ULP-A-S-012 ULP-A-C-009, ULP-A-C-012
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	    o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network.
	• State:
	    o SET is attached to the visited PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o V-SLP has access to cell data from the Visited PLMN.
	    o H-SLP has no access to cell data from the Visited PLMN.
	    o SET, H-SLP, and V-SLP support Proxy mode of operation.
	    o H-SLP and V-SLP support roaming with position calculation in H-SLP.
	    o The H-SLP and/or SET are configured to use the SET-assisted A-GPS positioning method.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP: • The qoP->horacc parameter is set to 127 • The qoP->maxLocAge parameter is set to 0 2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.
Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.5.3   SUPL-1.0-int-641 - SET-based A-GPS Positioning Method

Test Case Id	SUPL-1.0-int-641
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test SET-based A-GPS Positioning Method when SET is roaming and position calculation is done by H-SLP (Proxy Mode).
Specification Reference	AD 6.9.5
SCR Reference	ULP-B-S-001, ULP-C-S-001, ULP-A-S-013 ULP-A-C-009, ULP-A-C-013
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-
Preconditions	• Equipment for GSM/WCDMA implementations: 　o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with either GSM or WCDMA access network, or both. • Equipment for CDMA implementations: 　o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network. • State: 　o SET is attached to the visited PLMN. 　o SET is idle. 　o The SET's position is known. 　o V-SLP has access to cell data from the Visited PLMN. 　o H-SLP has no access to cell data from the Visited PLMN. 　o SET, H-SLP, and V-SLP support Proxy mode of operation. 　o H-SLP and V-SLP support roaming with position calculation in H-SLP. 　o The H-SLP and/or SET are configured to use the SET-based A-GPS positioning method. • Continuation of / Can be tested at the same time as: 　o None • Prerequisite for this test: 　o None
Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP: 　• The qoP->horacc parameter is set to 127 　• The qoP->maxLocAge parameter is set to 0 2. The H-SLP returns ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.
Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.5.4   SUPL-1.0-int-642 - Autonomous GPS Positioning Method

Test Case Id	SUPL-1.0-int-642
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test Autonomous GPS Positioning Method when SET is roaming and position calculation is done by H-SLP (Proxy Mode).
Specification Reference	AD 6.9.5
SCR Reference	ULP-B-S-001, ULP-C-S-001, ULP-A-S-014 ULP-A-C-009, ULP-A-C-014
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	  o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	  o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network.
	• State:
	  o SET is attached to the visited PLMN.
	  o SET is idle.
	  o The SET's position is known.
	  o V-SLP has access to cell data from the Visited PLMN.
	  o H-SLP has no access to cell data from the Visited PLMN.
	  o SET, H-SLP, and V-SLP support Proxy mode of operation.
	  o H-SLP and V-SLP support roaming with position calculation in H-SLP.
	  o The H-SLP and/or SET are configured to use the Autonomous GPS positioning method.
	• Continuation of / Can be tested at the same time as:
	  o None
	• Prerequisite for this test:
	  o The SET supports other positioning methods than just Autonomous GPS. In the case the SET only supports Autonomous GPS this test case is not applicable since the SET calculates its own position without connecting to the H-SLP.

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP: • The qoP->horacc parameter is set to 127 • The qoP->maxLocAge parameter is set to 0 2. The H-SLP returns ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. This shall include a SUPL POS session with no Assistance Data. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.5.5   SUPL-1.0-int-643 - AFLT Positioning Method

Test Case Id	SUPL-1.0-int-643
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test AFLT Positioning Method when SET is roaming and position calculation is done by H-SLP (Proxy Mode).
Specification Reference	AD 6.9.5
SCR Reference	ULP-B-S-001, ULP-C-S-001, ULP-A-S-015 ULP-A-C-009, ULP-A-C-015
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for CDMA implementations:
	    o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network.
	• State:
	    o SET is attached to the visited PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o V-SLP has access to cell data from the Visited PLMN.
	    o H-SLP has no access to cell data from the Visited PLMN.
	    o SET, H-SLP, and V-SLP support Proxy mode of operation.
	    o H-SLP and V-SLP support roaming with position calculation in H-SLP.
	    o The H-SLP and/or SET are configured to use the AFLT positioning method.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP: • The qoP->horacc parameter is set to 127 • The qoP->maxLocAge parameter is set to 0 2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.
Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.5.6   SUPL-1.0-int-644 - Enhanced Cell ID Positioning Method

Test Case Id	SUPL-1.0-int-644
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test Enhanced Cell ID Positioning Method when SET is roaming and position calculation is done by H-SLP (Proxy Mode).
Specification Reference	AD 6.9.5
SCR Reference	ULP-B-S-001, ULP-C-S-001, ULP-A-S-016 ULP-A-C-009, ULP-A-C-016
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-
Preconditions	• Equipment for GSM/WCDMA implementations: 　　o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with either GSM or WCDMA access network, or both. • State: 　　o SET is attached to the visited PLMN. 　　o SET is idle. 　　o The SET's position is known. 　　o V-SLP has access to cell data from the Visited PLMN. 　　o H-SLP has no access to cell data from the Visited PLMN. 　　o SET, H-SLP, and V-SLP support Proxy mode of operation. 　　o H-SLP and V-SLP support roaming with position calculation in H-SLP. 　　o The H-SLP and/or SET are configured to use the Enhanced Cell ID positioning method. • Continuation of / Can be tested at the same time as: 　　o None • Prerequisite for this test: 　　o None
Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP: • The qoP->horacc parameter is set to 127 • The qoP->maxLocAge parameter is set to 0 2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.
Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.5.7   SUPL-1.0-int-645 - E-OTD Positioning Method

Test Case Id	SUPL-1.0-int-645
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test E-OTD Positioning Method when SET is roaming and position calculation is done by H-SLP (Proxy Mode).
Specification Reference	AD 6.9.5
SCR Reference	ULP-B-S-001, ULP-C-S-001, ULP-A-S-017 ULP-A-C-009, ULP-A-C-017
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• State:
	    o SET is attached to the visited PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o V-SLP has access to cell data from the Visited PLMN.
	    o H-SLP has no access to cell data from the Visited PLMN.
	    o SET, H-SLP, and V-SLP support Proxy mode of operation.
	    o H-SLP and V-SLP support roaming with position calculation in H-SLP.
	    o The H-SLP and/or SET are configured to use the E-OTD positioning method.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	   • The qoP->horacc parameter is set to 127
	   • The qoP->maxLocAge parameter is set to 0
	2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.

Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.5.8   SUPL-1.0-int-646 - OTDOA Positioning Method

Test Case Id	SUPL-1.0-int-646
Test Object	H-SLP, V-SLP, and SET

Test Case Description	To test OTDOA Positioning Method when SET is roaming and position calculation is done by H-SLP (Proxy Mode).
Specification Reference	AD 6.9.5
SCR Reference	ULP-B-S-001, ULP-C-S-001, ULP-A-S-018 ULP-A-C-009, ULP-A-C-018
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	  o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• State:
	  o SET is attached to the visited PLMN.
	  o SET is idle.
	  o The SET's position is known.
	  o V-SLP has access to cell data from the Visited PLMN.
	  o H-SLP has no access to cell data from the Visited PLMN.
	  o SET, H-SLP, and V-SLP support Proxy mode of operation.
	  o H-SLP and V-SLP support roaming with position calculation in H-SLP.
	  o The H-SLP and/or SET are configured to use the OTDOA positioning method.
	• Continuation of / Can be tested at the same time as:
	  o None
	• Prerequisite for this test:
	  o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	  • The qoP->horacc parameter is set to 127
	  • The qoP->maxLocAge parameter is set to 0
	2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.

Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.6 Roaming – Proxy Mode, Position Calculation in V-SLP

6.2.6.1 SUPL-1.0-int-530 - Cell ID Positioning Method

Test Case Id	SUPL-1.0-int-530
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test Cell ID positioning method when SET is roaming and position calculation is done by V-SLP (Proxy Mode).

Specification Reference	AD 6.9.3
SCR Reference	ULP-B-S-003, ULP-C-S-003, ULP-A-S-011 ULP-A-C-009, ULP-A-C-011
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	 • Equipment for CDMA implementations:
	    o 1 SET, 1 H-SLP 1 V-SLP, Home and Visited PLMN with CDMA access network.
	 • State:
	    o SET is attached to the visited PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o V-SLP has access to cell data from the Visited PLMN.
	    o H-SLP has no access to cell data from the Visited PLMN.
	    o SET, H-SLP, and V-SLP support Proxy mode of operation.
	    o H-SLP and V-SLP support roaming with position calculation in V-SLP.
	    o The V-SLP and/or SET are configured to use the Cell ID positioning method.
	 • Continuation of / Can be tested at the same time as:
	    o None
	 • Prerequisite for this test:
	    o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	    • The qoP->horacc parameter is set to 127
	    • The qoP->maxLocAge parameter is set to 0
	 2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.

Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.6.2 SUPL-1.0-int-650 - SET-assisted A-GPS Positioning Method

Test Case Id	SUPL-1.0-int-650
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test SET-assisted A-GPS Positioning Method when SET is roaming and position calculation is done by V-SLP (Proxy Mode).
Specification Reference	AD 6.9.3

SCR Reference	ULP-B-S-003, ULP-C-S-003, ULP-A-S-012 ULP-A-C-009, ULP-A-C-012
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	    o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network.
	• State:
	    o SET is attached to the visited PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o V-SLP has access to cell data from the Visited PLMN.
	    o H-SLP has no access to cell data from the Visited PLMN.
	    o SET, H-SLP, and V-SLP support Proxy mode of operation.
	    o H-SLP and V-SLP support roaming with position calculation in V-SLP.
	    o The V-SLP and/or SET are configured to use the SET-assisted A-GPS positioning method.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	    • The qoP->horacc parameter is set to 127
	    • The qoP->maxLocAge parameter is set to 0
	2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.

Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.6.3   SUPL-1.0-int-651 - SET-based A-GPS Positioning Method

Test Case Id	SUPL-1.0-int-651
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test SET-based A-GPS Positioning Method when SET is roaming and position calculation is done by V-SLP (Proxy Mode).
Specification Reference	AD 6.9.3
SCR Reference	ULP-B-S-003, ULP-C-S-003, ULP-A-S-013 ULP-A-C-009, ULP-A-C-013

Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	
	   o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	
	• Equipment for CDMA implementations:
	
	   o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network.
	
	• State:
	
	   o SET is attached to the visited PLMN.
	
	   o SET is idle.
	
	   o The SET's position is known.
	
	   o V-SLP has access to cell data from the Visited PLMN.
	
	   o H-SLP has no access to cell data from the Visited PLMN.
	
	   o SET, H-SLP, and V-SLP support Proxy mode of operation.
	
	   o H-SLP and V-SLP support roaming with position calculation in V-SLP.
	
	   o The V-SLP and/or SET are configured to use the SET-based A-GPS positioning method.
	
	• Continuation of / Can be tested at the same time as:
	
	   o None
	
	• Prerequisite for this test:
	
	   o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP: • The qoP->horacc parameter is set to 127 • The qoP->maxLocAge parameter is set to 0 2. The H-SLP returns ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.
Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.6.4 SUPL-1.0-int-652 - Autonomous GPS Positioning Method

Test Case Id	SUPL-1.0-int-652
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test Autonomous GPS Positioning Method when SET is roaming and position calculation is done by V-SLP (Proxy Mode).
Specification Reference	AD 6.9.3
SCR Reference	ULP-B-S-003, ULP-C-S-003, ULP-A-S-014 ULP-A-C-009, ULP-A-C-014
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	    o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• Equipment for CDMA implementations:
	    o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network.
	• State:
	    o SET is attached to the visited PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o V-SLP has access to cell data from the Visited PLMN.
	    o H-SLP has no access to cell data from the Visited PLMN.
	    o SET, H-SLP, and V-SLP support Proxy mode of operation.
	    o H-SLP and V-SLP support roaming with position calculation in V-SLP.
	    o The V-SLP and/or SET are configured to use the Autonomous GPS positioning method.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o The SET supports other positioning methods than just Autonomous GPS. In the case the SET only supports Autonomous GPS this test case is not applicable since the SET calculates its own position without connecting to the H-SLP.

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP: • The qoP->horacc parameter is set to 127 • The qoP->maxLocAge parameter is set to 0 2. The H-SLP returns ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.
Pass-Criteria	1. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. This shall include a SUPL POS session with no Assistance Data. 2. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.6.5   SUPL-1.0-int-653 - AFLT Positioning Method

Test Case Id	SUPL-1.0-int-653
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test AFLT Positioning Method when SET is roaming and position calculation is done by V-SLP (Proxy Mode).
Specification Reference	AD 6.9.3
SCR Reference	ULP-B-S-003, ULP-C-S-003, ULP-A-S-015 ULP-A-C-009, ULP-A-C-015
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for CDMA implementations:
	    o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with CDMA access network.
	• State:
	    o SET is attached to the visited PLMN.
	    o SET is idle.
	    o The SET's position is known.
	    o V-SLP has access to cell data from the Visited PLMN.
	    o H-SLP has no access to cell data from the Visited PLMN.
	    o SET, H-SLP, and V-SLP support Proxy mode of operation.
	    o H-SLP and V-SLP support roaming with position calculation in V-SLP.
	    o The V-SLP and/or SET are configured to use the AFLT positioning method.
	• Continuation of / Can be tested at the same time as:
	    o None
	• Prerequisite for this test:
	    o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	    • The qoP->horacc parameter is set to 127
	    • The qoP->maxLocAge parameter is set to 0
	2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.

Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.6.6   SUPL-1.0-int-654 - Enhanced Cell ID Positioning Method

Test Case Id	SUPL-1.0-int-654
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test Enhanced Cell ID Positioning Method when SET is roaming and position calculation is done by V-SLP (Proxy Mode).
Specification Reference	AD 6.9.3
SCR Reference	ULP-B-S-003, ULP-C-S-003, ULP-A-S-016 ULP-A-C-009, ULP-A-C-016
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	   o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• State:
	   o SET is attached to the visited PLMN.
	   o SET is idle.
	   o The SET's position is known.
	   o V-SLP has access to cell data from the Visited PLMN.
	   o H-SLP has no access to cell data from the Visited PLMN.
	   o SET, H-SLP, and V-SLP support Proxy mode of operation.
	   o H-SLP and V-SLP support roaming with position calculation in V-SLP.
	   o The V-SLP and/or SET are configured to use the Enhanced Cell ID positioning method.
	• Continuation of / Can be tested at the same time as:
	   o None
	• Prerequisite for this test:
	   o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP: • The qoP->horacc parameter is set to 127 • The qoP->maxLocAge parameter is set to 0 2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.
Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.6.7   SUPL-1.0-int-655 - E-OTD Positioning Method

Test Case Id	SUPL-1.0-int-655
Test Object	H-SLP, V-SLP, and SET
Test Case Description	To test E-OTD Positioning Method when SET is roaming and position calculation is done by V-SLP (Proxy Mode).
Specification Reference	AD 6.9.3
SCR Reference	ULP-B-S-003, ULP-C-S-003, ULP-A-S-017 ULP-A-C-009, ULP-A-C-017
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	     o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• State:
	     o SET is attached to the visited PLMN.
	     o SET is idle.
	     o The SET's position is known.
	     o V-SLP has access to cell data from the Visited PLMN.
	     o H-SLP has no access to cell data from the Visited PLMN.
	     o SET, H-SLP, and V-SLP support Proxy mode of operation.
	     o H-SLP and V-SLP support roaming with position calculation in V-SLP.
	     o The V-SLP and/or SET are configured to use the E-OTD positioning method.
	• Continuation of / Can be tested at the same time as:
	     o None
	• Prerequisite for this test:
	     o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP:
	    • The qoP->horacc parameter is set to 127
	    • The qoP->maxLocAge parameter is set to 0
	2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.

Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

6.2.6.8   SUPL-1.0-int-656 - OTDOA Positioning Method

Test Case Id	SUPL-1.0-int-656
Test Object	H-SLP, V-SLP, and SET

Test Case Description	To test OTDOA Positioning Method when SET is roaming and position calculation is done by V-SLP (Proxy Mode).
Specification Reference	AD 6.9.3
SCR Reference	ULP-B-S-003, ULP-C-S-003, ULP-A-S-018 ULP-A-C-009, ULP-A-C-018
Tool	Protocol analyser to monitor signalling between SET and SLP. If a protocol analyser is not available log files in SLP and SET can be used instead.
Test code	-

Preconditions	• Equipment for GSM/WCDMA implementations:
	  o 1 SET, 1 H-SLP, 1 V-SLP, Home and Visited PLMN with either GSM or WCDMA access network, or both.
	• State:
	  o SET is attached to the visited PLMN.
	  o SET is idle.
	  o The SET's position is known.
	  o V-SLP has access to cell data from the Visited PLMN.
	  o H-SLP has no access to cell data from the Visited PLMN.
	  o SET, H-SLP, and V-SLP support Proxy mode of operation.
	  o H-SLP and V-SLP support roaming with position calculation in V-SLP.
	  o The V-SLP and/or SET are configured to use the OTDOA positioning method.
	• Continuation of / Can be tested at the same time as:
	  o None
	• Prerequisite for this test:
	  o None

Test Procedure	1. The SET resident MLS application requests its current position and the SUPL Agent issues an ULP-SUPL START message containing the following optional parameters to the H-SLP: • The qoP->horacc parameter is set to 127 • The qoP->maxLocAge parameter is set to 0 2. The H-SLP returns position and timestamp in ULP-SUPL END to the SUPL Agent, which in turn returns position and timestamp to the SET resident MLS application.
Pass-Criteria	3. Check that correct positioning method is used and that all signaling between H-SLP and SET is sent over a secure IP connection. 4. At step 2, check that the returned position is acceptable and that the timestamp indicates that the current position of the SET has been calculated.

Appendix A.   Change History   (Informative)

A.1   Approved Version History

Reference	Date	Description
n/a	n/a	No prior version –or- No previous version within OMA

A.2   Draft/Candidate Version 1.0 History

Document Identifier	Date	Sections	Description
Draft Versions OMA-ETS-SUPL-V1_0	23 May 2005	All	Initial skeleton
	22 Jul 2005	All	Proposed Chapter headings added
	15 Aug 2005	All	Conformance test cases added: Version test cases from: OMA-IOP-LOC-2005-0037-SUPL-Version-test-cases Positioning Method test cases from: OMA-IOP-LOC-2005-0041-SUPL-Positioning-method-test-cases Notification and Verification test cases from: OMA-IOP-LOC-2005-0036-SUPL-SUPL-Notification-and-verification-test-cases
	01 Sep 2005	All	Conformance test cases added: Timeout test cases from: OMA-IOP-LOC-2005-0046-SUPL-Timeout-test-cases Error test cases from: OMA-IOP-LOC-2005-0051-SUPL-Error-test-cases Interoperability test cases added from: OMA-IOP-LOC-2005-0049-CR_for_SUPL-1_0_ETS Appendix B added from: OMA-IOP-LOC-2005-0047-SUPL-ETS-Test-case-list Minor editorial corrections made.
	26 Sep 2005	Appendix B	Appendix B deleted and kept as a working document only.
	03 Oct 2005	All	Following CRs implemented: OMA-IOP-LOC-2005-0058-CR-Add-MLP-SLIA-check-in-pass-criteria-for-NI OMA-IOP-LOC-2005-0059-CR-SLP-need-not-send-SUPL-END-on-ST2-expiry OMA-IOP-LOC-2005-0060R01-CR-Incorrect-specification-reference-in-version-test-cases OMA-IOP-LOC-2005-0061-CR--Replace-QoS-with-QoP-in-the-pass-criteria. OMA-IOP-LOC-2005-0062-CR--Incorrect-timer-in-test-procedure-of-UT2-timer-test. OMA-IOP-LOC-2005-0065-SUPL-ETS-Roaming- Test cases added from: OMA-IOP-LOC-2005-0064R01-SUPL-Session-ID-test-cases-R1 OMA-IOP-LOC-2005-0067R01-SUPL-Proxy-Non-proxy-mode-test-cases OMA-IOP-LOC-2005-0068R01-SUPL-WAP-Push-and-MT-SMS-test-cases
	01 Nov 2005	All	Following CRs implemented: OMA-IOP-LOC-2005-0070R01-SUPL-ETS-Set-Initiated-Roaming-test-cases OMA-IOP-LOC-2005-0074-SUPL-ETS-change-of-roaming-section-name OMA-IOP-LOC-2005-0075-SUPL-deletion-of-unsuitable-IOT-test-cases OMA-IOP-LOC-2005-0078-SUPL-WAP-Push-MT-SMS-error-test-cases OMA-IOP-LOC-2005-0079-SUPL-ETS-Proxy-Mode-with-V-SLP-positioning OMA-IOP-LOC-2005-0080-SUPL-ETS-Removal-of-duplicated-roaming-test-cases OMA-IOP-LOC-2005-0081-SUPL-ETS-Clarification-of-int-506-and-int-507

Document Identifier	Date	Sections	Description
	25 Nov 2005	All	Following CRs implemented: OMA-IOP-LOC-2005-0084R01-SUPL-ETS-SET-Initiated-Proxy-Mode-with-V-SLP OMA-IOP-LOC-2005-0085R01-SUPL-ETS-Incorrect-Ver-test-case OMA-IOP-LOC-2005-0086R01-SUPL-ETS-MAC-and-KI-test-cases OMA-IOP-LOC-2005-0090-Addition-of-Ver-to-con-test-cases OMA-IOP-LOC-2005-0091-Timeout-ST2 OMA-IOP-LOC-2005-0092-SUPL-ETS-Incorrect-Ver-in-SUPL-END-test-case OMA-IOP-LOC-2005-0093-SUPL-ETS-Requested-Assistance-data-test-cases OMA-IOP-LOC-2005-0094R01-SUPL-ETS-Support-of-Location-ID-test-cases
	21 Dec 2005	All	Following CRs implemented: OMA-IOP-LOC-2005-0098R02-SUPL-ETS-Restructure-of-Network-Initiated-IOP-test-cases OMA-IOP-LOC-2005-0101-CR-Correction-of-timeout-error-codes OMA-IOP-LOC-2005-0104-CR-Additional-changes-to-CR-91 OMA-IOP-LOC-2005-0110-SUPL-ETS-improvements-of-conformance-test-cases-for-NI-roaming-scenarios OMA-IOP-LOC-2005-0111-SUPL-ETS-improvements-of-conformance-test-cases-for-SI-roaming-scenarios OMA-IOP-LOC-2005-0112R01-SUPL-ETS-QoP-in-SUPL-INIT-test-cases OMA-IOP-LOC-2005-0113R01-SUPL-ETS-QoP-in-SUPL-START-test-cases
	13 Jan 2006	All	Following CRs implemented: OMA-IOP-MEC-2005-0017R01-SUPL-ETS-Restructure-of-SET-Initiated-IOP-test-cases OMA-IOP-MEC-2005-0019-SUPL-ETS-Requesting-SLP-IOP-test-cases OMA-IOP-MEC-2005-0021R01-SUPL-ETS-IOP-test-cases-to-test-position-in-SUPL-POS-INIT
	16 Jan 2006	All	Updated to latest template. Optional test cases moved into same sections as mandatory test cases.
	06 Apr 2006	All	Following CRs implemented: OMA-IOP-MEC-2006-0172-SUPL-ETS-Optional-parameters-not-supported-test-cases OMA-IOP-MEC-2006-0171R01-CR-SUPL-ETS-new-version-con-432-test OMA-IOP-MEC-2006-0170-CR-SUPL-ETS-Errors-Positioning-tests OMA-IOP-MEC-2006-0168-CR-SUPL-ETS-References-abbreviations-update OMA-IOP-MEC-2006-0157R01-SUPL-ETS-3D-position-and-velocity-test-cases OMA-IOP-MEC-2006-0156-CR-Additions-No-common-Positioning-method-Con-032 OMA-IOP-MEC-2006-0154R01-CR-SUPL-ETS-Notification-test-addition OMA-IOP-MEC-2006-0147R02-Updated-SUPL-Conformance-Test-Case-32 OMA-IOP-MEC-2006-0151R01-CR-SUPL-ETS-multi-part-tests-clarifications
	18 Apr 2006	All	Following CRs implemented: OMA-IOP-MEC-2006-0221R01-CR-SUPL-ETS-minor-updates-and-editoria
	20 Apr 2006	n/a	The document approved by the IOP WG. Table of tables and tables numbering added.
Candidate version OMA-ETS-SUPL-V1_0	09 May 2006	n/a	Approved as Candidate on TP R&A TP ref # OMA-TP-2006-0157R01-OMA-ETS-SUPL-V1_0_for_Approval.doc.

Document Identifier	Date	Sections	Description
Draft versions OMA-ETS-SUPL-V1_0	13 Dec 2006	All	Incorporated CRs (Class 1 and 2): OMA-IOP-MEC-2006-0184R01 OMA-IOP-MEC-2006-0222R01 OMA-IOP-MEC-2006-0223 OMA-IOP-MEC-2006-0251 OMA-IOP-MEC-2006-0261 OMA-IOP-MEC-2006-0365 OMA-IOP-MEC-2006-0366 OMA-IOP-MEC-2006-0465 OMA-IOP-MEC-2006-0466
	14 Dec 2006	n/a	Agreed in IOP WG
Candidate version OMA-ETS-SUPL-V1_0	16 Jan 2007	n/a	Re-approved as Candidate on TP R&A (2007-01-03 to 2007-01-16) TP ref # OMA-TP-2006-0457- INP_OMA_ETS_SUPL_V1_0_for_reapproval_as_candidate