Enabler Test Specification for IMPS CSP Conformance

Candidate Version 1.3 – 14 Nov 2006

Open Mobile Alliance

OMA-ETS-IMPS_CSP_CON-V1_3-20061114-C

Contents

1. Scope

The purpose of this document is to define the sets of test cases for each sevice element of OMA IMPS Client-Server Protocol version 1.3.

The test cases are split in two categories, one for Client and other for Server. These test cases are aimed to verify the adherence to normative requirements described in the technical specifications.

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

[RD] "IMPS Requirements Document Version 1.3", OMA-RD_IMPSDelta-V1_3. Open Mobile Alliance™ URL: http://www.openmobilealliance.org

[Arch] "IMPS Architecture Version 1.3", OMA-AD-IMPS-Architecture-V1_3. Open Mobile Alliance™ URL: http://www.openmobilealliance.org

[CSP] "Client-Server Protocol Session and Transactions Version 1.3", OMA-TS-IMPS-CSP-V1_3. Open Mobile Alliance™. URL: http://www.openmobilealliance.org

[CSP DataType] "Client-Server Protocol Data Types Version 1.3", OMA-TS-IMPS-CSP_Data_Types-V1_3. Open Mobile Alliance™. URL: http://www.openmobilealliance.org

[CSP Trans] "Client-Server Protocol Transport Bindings Version 1.3", OMA-TS-IMPS-CSP_Transport-V1_3. Open Mobile Alliance™. URL: http://www.openmobilealliance.org

[CSP PTS] "Client-Server Protocol Plain Text Syntax Version 1.3", OMA-TS-IMPS-CSP_PTS-V1_3. Open Mobile Alliance™. URL: http://www.openmobilealliance.org

[CSP XMLS] "Client-Server Protocol XML Syntax Version 1.3", OMA-TS-IMPS-CSP-XMLS-V1_3. Open Mobile Alliance™. URL: http://www.openmobilealliance.org

[CSP WBXML] "Client-Server Protocol Binary XML Definition and Examples Version 1.3", OMA-TS-IMPS-CSP_WBXML-V1_3. Open Mobile Alliance™. URL: http://www.openmobilealliance.org

[PA] "Presence Attributes Version 1.3", OMA-TS-IMPS-PA-V1_3. Open Mobile Alliance™. URL: http://www.openmobilealliance.org

[PA XMLS] "Presence Attributes XML Syntax Version 1.3", OMA-TS-IMPS-PA_XMLS-V1_3. Open Mobile Alliance™. URL:http://www.openmobilealliance.org

[AppChar] "Application Characteristic for IMPS", OMA-TS-wA-Application-Characteristic-for-IMPS-V1_0. Open Mobile Alliance™. URL:http://www.openmobilealliance.org

[MO] "OMA IMPS Management Object Version 1.0", OMA-TS-IMPS-MO-V1_0. Open Mobile Alliance™. URL: http://www.openmobilealliance.org

[SSP] "Server-Server Protocol Semantics Document Version 1.3", OMA-TS-IMPS-SSP-V1_3. Open Mobile Alliance™. URL: http://www.openmobilealliance.org

[SSP XMLS] "Server-Server Protocol XML Syntax Document Version 1.3", OMA-TS-IMPS-SSP_XMLS-V1_3. Open Mobile Alliance™. URL: http://www.openmobilealliance.org

[SSP Trans] "Server-Server Protocol Transport Binding Version 1.3", OMA-TS-IMPS-SSP_Transport-V1_3. Open Mobile Alliance™. URL: http://www.openmobilealliance.org

2.2 Informative References

[ERELD] "Enabler Release Definition for IMPS Version 1.3", OMA-ERELD-IMPS-V1_3. Open Mobile Alliance™. URL: http://www.openmobilealliance.org

[ETR] "Enabler Test Requirements for IMPS Version 1.3", OMA-ETR-IMPS-V1_3. Open Mobile Alliance™. URL: http://www.openmobilealliance.org

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 Test Case ID’s include the indication of Client (C) or Server (S) and are based on the associated IMPS Service Element (e.g. IMSE, PRSE, GRSE, etc.) followed by a sequential number given to the specific case. For example, the first Conformance Test Case for Client repated to SAP is indicated with the ID “IMPS-1.3-con-C-SAP-1”.

3.2 Definitions

None	None

3.3 Abbreviations

CIR	Communication Initiation Request
COSE	Shared Content Service Element
C-Req	Client Requirement
CSP	Client-Server Protocol
GRSE	Group Service Element
IMPS	Instant Messaging and Presence Services
IMSE	Instant Messaging Service Element
OMA	Open Mobile Alliance
PR	Problem Report
PRSE	Presence Service Element
SAP	Service Access Point
SCR	Static Conformance Requirement
S-Req	Server Requirement
SSP	Server-Server Protocol
TZ	Trusted Zone

4. Introduction

This document defines the conformance functional tests for the OMA IMPS Client-Server Protocol (CSP) version 1.3. The SSP test cases are not included in the present version of the ETS and are left for further study.

The test cases address all the Mandatory functional features and some Optional features of the Service Access Point (SAP), Presence (PRSE), Groups (GRSE), Instant Messaging (IMSE) and Shared Content (COSE) service elements.

4.1 Test Structure

The cases are organized into test suites, distinguished by service element, client/server, i.e. PRESENCE-CLIENT. Reference [CSP] identifies requirements as applicable to the client and/or the server. Some cases pertain to both client and server, and are therefore contained in multiple suites.

Generally, each case tests one or many functions defined in the [CSP], but some cases test multiple features.

Each case contains a description of the purpose of the case, and details the function tested by the case, necessary test preconditions, actions required by the case and the pass conditions of the case.

The case ID's are based on the associated service element followed by a sequential number given to the specific case. For example, the first case related to the presence service element is case with ID "IMPS-1.3-con-PRSE-1".

In all test cases with more than one client, the second client must be from a different vendor to the first client. Where there are three clients involved, the third client may be from the same vendor as one of the first two clients.

Any client or server behavior not mentioned in the Pass Conditions section of a test does not cause failure to pass unless it prevents from successful completion of this test.

If a client is required to perform a task, which is not an SCR requirement as part of the test case, it should not be counted against it.

Preconditions for each test case include support for the SCR items tested.

NOTE. "Client SCR items tested" and "Server SCR items tested" sections of each test cases do not contain information on the pre-requisite optional requirements.

To avoid interference between some test cases, server and client must be initialised after execution of some test cases. In most cases, instead of the full initialisation client can log off after execution of each test case and log in again in preparation for the next test case.

5. IMPS 1.3 Conformance Test Cases

5.1 IMPS-1.3-con-Client

5.1.1 IMPS-1.3-con-C-SAP

5.1.1.1 Verify the 2-way Login functionality with a fully qualified UserID

Test Case Id	**IMPS-1.3-con-C-SAP-001**
Test Purpose	Verify the Login functionality with a fully qualified UserID
Test Object	Client
Test Case Description	The purpose is to verify that the login functionality works when the user types a fully qualified UserID on his client
Specification Reference	[CSP]: 6.4.1
SCR Reference	**Client SCR Items Tested** IMPS-CSP-SAP-C-001 Support for 2-way Login transaction O IMPS-CSP-ADDR-C-002 Support for fully qualified addressing M
Tool	IMPS Conformance tool
Test code	Validated test code for test case IMPS-1.3-con-C-SAP-001
Preconditions	- Note: Network-based authentication and automatic-registration are out of the scope of this Test Case
Test Procedure	1- Client enters UserID using fully qualified addressing scheme 2- Client performs the login procedure (LoginRequest) toward the test tool (acting as Server) using the Fully Qualified User ID and password specified during account creation 3- Test Tool responds with proper LoginResponse consisting of the following: • Client-ID • Session-ID • Result (status code 200) • Keep-Alive-Time Client-Capability-Request
Pass-Criteria	LoginRequest from client consist of at least: • User-ID • Client-ID • Password-String

	• Session-Cookie The test tool confirms a successful login and Client A displays a visual confirmation.

5.1.1.2 Verify the 4-way Login functionality with a fully qualified UserID

Test Case Id	**IMPS-1.3-con-C-SAP-002**
Test Purpose	Verify the Login functionality with a fully qualified UserID
Test Object	Client
Test Case Description	The purpose is to verify that the login functionality works when the user types a fully qualified UserID on his client
Specification Reference	[CSP]: 6.4.2
SCR Reference	**Client SCR Items Tested** IMPS-CSP-SAP-C-007 Support for 4-way Login transaction O IMPS-CSP-ADDR-C-002 Support for fully qualified addressing M
Tool	IMPS Conformance tool
Test code	Validated test code for test case IMPS-1.3-con-C-SAP-002
Preconditions	- Note: Network-based authentication and automatic-registration are out of the scope of this Test Case - Client and Test tool support the same Digest Schema
Test Procedure	1- Client enters UserID using fully qualified addressing scheme 2- Client performs the login procedure (LoginRequest) toward the test tool (acting as Server) using the Fully Qualified User ID and password specified during account creation 3- Test Tool responds with proper LoginResponse consisting of the following: • Client-ID • Nonce • Digest-Schema • Result (status code 200) 4. Client sends the second LoginRequest of the 4-way login. 5. Test Tool responds with the proper second LoginResponse of the 4-way login consisting of the following: • Client-ID • Session-ID • Result (status code 200)

	• Keep-Alive-Time • Client-Capability-Request
Pass-Criteria	The 1st LoginRequest from client consist of at least: • User-ID • Client-ID • Supported-Digest-Schema • Session-Cookie After the server send the 1st LoginResponse, the client sends the 2nd LoginRequest consisting of at least the following: • User-ID • Client-ID • Digest-Bytes • Session-Cookie The test tool confirms a successful login and Client A displays a visual confirmation. If the client changes the Transaction-ID between the two LoginRequest, the test case FAILS

5.1.1.3 Verify System Message functionality with List of answer options

Test Case Id	**IMPS-1.3-con-C-SAP-003**
Test Purpose	Verify System Message functionality with List of answer options
Test Object	Client A
Test Case Description	The Test Tool sends to Client A a SystemMessage-Request containing one SystemMessage. This SystemMessage proposes two answer options to the user, which SHALL be displayed by Client A. ClientA selects the second answer option. The Test Tool verifies that the answer corresponds to the second answer option and that the SystemMessage-ID sent by the client is correct.
Specification Reference	[CSP]: 5, 6.1, 7, 7.1
SCR Reference	**Client SCR Items Tested** IMPS-CSP-SERV-C-001 Support of Service Access Point functionality M IMPS-CSP-SAP-C-017 Support for System Message transactions O
Tool	IMPS Conformance tool
Test code	Validated test code for test case IMPS-1.3-con-C-SAP-003

Preconditions	- Client A is logged in.
Test Procedure	1. Test Tool sends a SystemMessage-Request to Client A. The System Message contains: - SystemMessageText: "You have to choose a UserID. Please select one from the list" - A first answer option with "john1.smith@there.com" for the AnswerOptionText and "1" for the AnswerOptionID - A second answer option with "john2.smith@there.com" for the AnswerOptionText and "2" for the AnswerOptionID 2. Client A selects the second answer option
Pass-Criteria	- Test Tool first receives a Status primitive from ClientA - Client A prompts the user with the SystemMessageText and the answer options - Client A gives to the user the ability to reply with one of the two answers options - Test Tool verifies that the SystemMessage element of the response matches the SystemMessage-ID of the SystemMessage notification - Test Tool verifies that the ChosenOptionID is "2"

5.1.1.4 Verify System Message functionality with InText verification mechanism

Test Case Id	**IMPS-1.3-con-C-SAP-004**
Test Purpose	Verify System Message functionality (InText verification mechanism)
Test Object	Client A
Test Case Description	The Test Tool sends to Client A a SystemMessage-Request containing one SystemMessage, which requires an InText verification mechanism. Client A displays the SystemMessage to the user, and gives him the ability to enter a text. The Test Tool verifies that the answer corresponds to the text entered by the user and that the SystemMessage-ID sent by the client is correct.
Specification Reference	[CSP]: 5, 6.1, 7, 7.1
SCR Reference	**Client SCR Items Tested** IMPS-CSP-SERV-C-001 Support of Service Access Point functionality M IMPS-CSP-SAP-C-017 Support for System Message transactions O
Tool	IMPS Conformance tool
Test code	Validated test code for test case IMPS-1.3-con-C-SAP-004
Preconditions	- Client A is logged in.
Test Procedure	1. Test Tool sends a SystemMessage-Request to Client A. The System Message contains:

	- SystemMessageText: "You must agree with the conditions of the service before using it" - InText (used for verification mechanism): "To confirm, please enter the last four digits of your social security number" 2. Client A enters "1234" for the verification text
Pass-Criteria	- Test Tool first receives a Status primitive from ClientA - Client A prompts the user with the SystemMessageText, and with the InText - Client A gives the user the ability to reply by entering a text. - Test Tool verifies that the SystemMessage element of the response matches the SystemMessage-ID of the SystemMessage notification - Test Tool verifies that the VerificationKey element sent by ClientA contains the string "1234"

5.1.1.5 Verify System Message functionality with List of System Messages

Test Case Id	**IMPS-1.3-con-C-SAP-005**
Test Purpose	Verify System Message functionality (List of System Messages)
Test Object	Client A
Test Case Description	The Test Tool sends to Client A a SystemMessage-Request containing two SystemMessages. Client A displays both SystemMessages to the user, in the order they appear in the SystemMessage-Request.
Specification Reference	[CSP]: 5, 6.1, 7, 7.1
SCR Reference	**Client SCR Items Tested** IMPS-CSP-SERV-C-001 Support of Service Access Point functionality M IMPS-CSP-SAP-C-017 Support for System Message transactions O
Tool	IMPS Conformance tool
Test code	Validated test code for test case IMPS-1.3-con-C-SAP-005
Preconditions	- Client A is logged in.
Test Procedure	1. Test Tool sends to Client A a SystemMessage-Request which contains two System Messages. - The first one includes a SystemMessageText : "This is the first message" as a SystemMessageText - The second one includes a SystemMessageText: "This is the second message" 2. ClientA displays the System Messages
Pass-Criteria	- Test Tool receives a Status primitive from ClientA - Client A first prompts the user with the first SystemMessage - Then, Client A prompts the user with the second SystemMessage

5.1.1.6 Verify System Message functionality with Response required

Test Case Id	**IMPS-1.3-con-C-SAP-006**
Test Purpose	Verify System Message functionality (Response is required)
Test Object	Client A
Test Case Description	Test tool sends to Client A a System Message which requires a response from the user. Client A sends any other transaction (e.g. GetPublicProfile request on UserA) to the Test Tool Test Tool rejects the request by sending a Status primitive that includes the Result element with error code 436, and verifies that this error code is well managed by the client.
Specification Reference	[CSP]: 5, 6.1, 7, 7.1
SCR Reference	**Client SCR Items Tested** IMPS-CSP-SERV-C-001 Support of Service Access Point functionality M IMPS-CSP-SAP-C-017 Support for System Message transactions O
Tool	IMPS Conformance tool
Test code	Validated test code for test case IMPS-1.3-con-C-SAP-006
Preconditions	- Client A is logged in as User A.
Test Procedure	1. Test Tool sends to Client A a System Message which requires a response from the user. This System Message includes: o SystemMessageText: "You must agree with the conditions of the service before using it" o InText (used for verification mechanism): "To confirm, please enter the last four digits of your social security number" 2. Client A sends to Test Tool any other transaction. (e.g. GetPublicProfileRequest on User A) 3. Test Tool rejects the request by sending a Status primitive that includes the Result element with error code 436
Pass-Criteria	- Client A still requires an answer from User A. - Client A optionally displays a message to the user, saying that he first has to provide an answer.

5.1.1.7 Verify KeepAlive functionality

Test Case Id	**IMPS-1.3-con-C-SAP-007**
Test Purpose	Verify KeepAlive functionality
Test Object	Client

Test Case Description	Verify that the KeepAlive mechanism prevents a session to expire because of lack of other traffic between Client and Server (Test Tool).
Specification Reference	[CSP] 6.7
SCR Reference	**Client SCR Items Tested** IMPS-CSP-SERV-C-001 Support of Service Access Point functionality M IMPS-CSP-SAP-C-011 Support for Keep-Alive transaction O
Tool	IMPS Conformance Tool
Test code	Validated test code for test case IMPS-1.3-con-C-SAP-007
Preconditions	Equipment: 1 Client Prerequisites: Time-to-Live timer can be manually set on the Test Tool to a very short time (NOTE - the shorter the Time-to-Live the better, because the goal is to make such that - during a Time-to-Live period - no other traffic flows between Client and Server (Test Tool) except the KeepAlive transaction)
Test Procedure	Client performs a Login into the Test Tool. Client stays idle, i.e. no activity is requested by the User via the UI, for a period of time that is greater than the Time-to-Live period set manually set on Server (Test Tool).
Pass-Criteria	The Test Tool receives KeepAliveRequest from Client and the session is not disconnected even if no other activity happens on the CSP.

5.1.1.8 Verify Version Discovery

Test Case Id	**IMPS-1.3-con-C-SAP-008**
Test Purpose	Verify VersionDiscovery
Test Object	Client device
Test Case Description	Client performs Version Discovery transaction towards the Test Tool (Server role).
Specification Reference	[CSP]
SCR Reference	**Client SCR Items Tested** IMPS-CSP-SAP-C-004 Support for version discovery transaction O
Tool	IMPS Conformance Tool
Test code	Validated test code for test case IMPS-1.3-con-C-SAP-008
Preconditions	Equipment: 1 client

	Prerequisites: Client supports VersionDiscovery transaction
Test Procedure	Client sends a Version Discovery transaction to theTest Tool (Server) containing either a list of versions supported by the client or an empty list
Pass-Criteria	Test Tool (Server) returns a list of versions supported by the Server OR an empty list if the Server does not support any of the versions indicated by the Client.

5.1.2 IMPS-1.3-con-C-CIR

5.1.2.1 Verify Communication Initiation Request (CIR) using WAP Push over SMS

Test Case Id	**IMPS-1.3-con-C-CIR-001**
Test Purpose	Verify Communication Initiation Request (CIR) using WAP Push over SMS
Test Object	Client device
Test Case Description	The purpose is to verify that the CIR notification using WAP Push over SMS binding is responded to correctly by the IMPS Client. Verification is done by sending a CIR from the test tool as User2 to the Client A (User1). The test tool will then verify that the CIR is sent and responded to correctly.
Specification Reference	[CSP]: 6.9.1 [CSP Transport]: 8.1, 8.1.1
SCR Reference	IMPS-CSP-SAP-C-003 — Support for Communications Initiation Request and PollingRequest primitive — O IMPS-CSP-TRANSP-C-008 — Support for WAP push SMS binding in CIR channel — O IMPS-CSP-TRANSP-C-012 — With WSP 1.2 or WSP 2.0 bindings for data channel, only WAP SMS binding or WAP UDP binding is used in CIR channel. — O IMPS-CSP-TRANSP-C-014 — Sending of Poll request when CIR is received — O
Tool	IMPS Conformance Tool
Test code	Validated test code for test case IMPS-1.3-con-C-CIR-001
Preconditions	Equipment: IMPS client (A) Test Tool functioning as SAP with at least 2 user accounts existing on it. Test Tool either has WAP PPG functionality or is connected to a WAP PPG Prerequisites:

	Client A supports CIR using WAP Push over SMS Client A and Test tool have negotiated CIR using WAP Push over SMS Client A is logged into the Test tool with UserA credentials [Optional] Client A is able to leave the IMPS application without ending IMPS session
Test Procedure	[Optional] Client A remains logged into Server, and leaves the IMPS application Test tool sends a CIR to Client A Test tool responds to PollingRequest by sending message (content is "CIR) via SendMessageResponse
Pass-Criteria	[Optional] Client A prompts user to restart the IMPS application Test tool verifies Client A sends a PollingRequest in response to the CIR Client A retrieves and shows the message with content "CIR"

5.1.2.2 Verify Communication Initiation Request (CIR) using WAP Push over UDP/IP

Test Case Id	**IMPS-1.3-con-C-CIR-002**		
Test Purpose	Verify Communication Initiation Request (CIR) using WAP Push over UDP/IP		
Test Object	Client device		
Test Case Description	The purpose is to verify that the CIR notification using WAP Push over UDP/IP binding is responded to correctly by the IMPS Client. Verification is done by sending a CIR from the test tool as User2 to the Client A (User1). The test tool will then verify that the CIR is sent and responded to correctly.		
Specification Reference	[CSP]: 6.9.1 [CSP Transport]: 8.1, 8.1.1		
SCR Reference	IMPS-CSP-SAP-C-003	Support for Communications Initiation Request and PollingRequest primitive	O
	IMPS-CSP-TRANSP-C-009	Support for WAP push UDP/IP binding in CIR channel	O
	IMPS-CSP-TRANSP-C-012	With WSP 1.2 or WSP 2.0 bindings for data channel, only WAP SMS binding or WAP UDP binding is used in CIR channel.	O
	IMPS-CSP-TRANSP-C-014	Sending of Poll request when CIR is received	O
Tool	IMPS Conformance Tool		
Test code	Validated test code for test case IMPS-1.3-con-C-CIR-002		
Preconditions	Equipment: IMPS client (A)		

	Test Tool functioning as SAP with at least 2 user accounts existing on it. Prerequisites: Client A supports CIR using WAP Push over UDP/IP Client A and Test tool have negotiated CIR using WAP Push over UDP/IP Test Tool either has WAP PPG functionality or is connected to a WAP PPG Client A is logged into the Test tool with UserA credentials [Optional] Client A is able to leave the IMPS application without ending IMPS session
Test Procedure	[Optional] Client A remains logged into Server, and leaves the IMPS application Test tool sends a CIR to Client A Test tool responds to PollingRequest by sending message (content is "CIR) via SendMessageResponse
Pass-Criteria	[Optional] Client A prompts user to restart the IMPS application Test tool verifies Client A sends a PollingRequest in response to the CIR Client A retrieves and shows the message with content "CIR"

5.1.2.3 Verify Communication Initiation Request (CIR) using Standalone UDP/IP

Test Case Id	**IMPS-1.3-con-C-CIR-003**		
Test Purpose	Verify Communication Initiation Request (CIR) using Standalone UDP/IP		
Test Object	Client device		
Test Case Description	The purpose is to verify that the CIR notification using Standalone UDP/IP binding is responded to correctly by the IMPS Client. Verification is done by sending a CIR from the test tool as User2 to the Client A (User1). The test tool will then verify that the CIR is sent and responded to correctly.		
Specification Reference	[CSP]: 6.9.1 [CSP Transport]: 8.1, 8.1.2		
SCR Reference	IMPS-CSP-SAP-C-003	Support for Communications Initiation Request and PollingRequest primitive	O
	IMPS-CSP-TRANSP-C-010	Support for standalone UDP/IP binding in CIR channel	O
	IMPS-CSP-TRANSP-C-014	Sending of Poll request when CIR is received	O
Tool	IMPS Conformance Tool		
Test code	Validated test code for test case IMPS-1.3-con-C-CIR-003		

Preconditions	Equipment: IMPS client (A) Test Tool functioning as SAP with at least 2 user accounts existing on it. Prerequisites: Client A supports CIR over Standalone UDP/IP Client A and Test tool have negotiated CIR over Standalone UDP/IP by sending the "HELO" message exchange and, if needed, a PING exchange Client A is logged into the Test tool with UserA credentials [Optional] Client A is able to leave the IMPS application without ending IMPS session
Test Procedure	[Optional] Client A remains logged into Server, and leaves the IMPS application Test tool sends a CIR to Client A Test tool responds to PollingRequest by sending message (content is "CIR) via SendMessageResponse
Pass-Criteria	[Optional] Client A prompts user to restart the IMPS application Test tool verifies Client A sends a PollingRequest in response to the CIR Client A retrieves and shows the message with content "CIR"

5.1.2.4 Verify Communication Initiation Request (CIR) using Standalone TCP/IP

Test Case Id	**IMPS-1.3-con-C-CIR-004**		
Test Purpose	Verify Communication Initiation Request (CIR) using Standalone TCP/IP		
Test Object	Client device		
Test Case Description	The purpose is to verify that the CIR notification using Standalone TCP/IP binding is responded to correctly by the IMPS Client. Verification is done by sending a CIR from the test tool as User2 to the Client A (User1). The test tool will then verify that the CIR is sent and responded to correctly.		
Specification Reference	[CSP]: 6.9.1 [CSP Transport]: 8.1, 8.1.3		
SCR Reference	IMPS-CSP-SAP-C-003	Support for Communications Initiation Request and PollingRequest primitive	O
	IMPS-CSP-TRANSP-C-011	Support for standalone TCP/IP binding in CIR channel	O
	IMPS-CSP-TRANSP-C-014	Sending of Poll request when CIR is received	O
Tool	IMPS Conformance Tool		

Test code	Validated test code for test case IMPS-1.3-con-C-CIR-004
Preconditions	Equipment: IMPS client (A) Test Tool functioning as SAP with at least 2 user accounts existing on it. Prerequisites: Client A supports CIR over Standalone TCP/IP Client A and Test tool have negotiated CIR over Standalone TCP/IP by sending the "HELO" message exchange and, if needed, a PING exchange Client A is logged into the Test tool with UserA credentials [Optional] Client A is able to leave the IMPS application without ending IMPS session
Test Procedure	[Optional] Client A remains logged into Server, and leaves the IMPS application Test tool sends a CIR to Client A Test tool responds to PollingRequest by sending message (content is "CIR) via SendMessageResponse
Pass-Criteria	[Optional] Client A prompts user to restart the IMPS client interface Test tool verifies Client A sends a PollingRequest in response to the CIR Client A retrieves and shows the message with content "CIR"

5.1.2.5 Verify Communication Initiation Request (CIR) using Standalone SMS

Test Case Id	**IMPS-1.3-con-C-CIR-005**		
Test Purpose	Verify Communication Initiation Request (CIR) using Standalone SMS		
Test Object	Client device		
Test Case Description	The purpose is to verify that the CIR notification using Standalone SMS binding is responded to correctly by the IMPS Client. Verification is done by sending a CIR from the test tool as User2 to the Client A (User1). The test tool will then verify that the CIR is sent and responded to correctly.		
Specification Reference	[CSP]: 6.9.1 [CSP Transport]: 8.1, 8.1.4		
SCR Reference	IMPS-CSP-SAP-C-003	Support for Communications Initiation Request and PollingRequest primitive	O
	IMPS-CSP-TRANSP-C-015	Support for Standalone SMS binding in CIR channel	O
	IMPS-CSP-TRANSP-C-014	Sending of Poll request when CIR is received	O

Tool	IMPS Conformance Tool
Test code	Validated test code for test case IMPS-1.3-con-C-CIR-005
Preconditions	Equipment: IMPS client (A) Test Tool functioning as SAP with at least 2 user accounts existing on it. Prerequisites: Client A supports CIR over Standalone SMS Client A and Test tool have negotiated CIR over Standalone SMS by sending the "HELO" message exchange Client A is logged into the Test tool with UserA credentials [Optional] Client A is able to leave the IMPS application without ending IMPS session
Test Procedure	[Optional] Client A remains logged into Server, and leaves the IMPS application Test tool sends a CIR to Client A Test tool responds to PollingRequest by sending message (content is "CIR) via SendMessageResponse
Pass-Criteria	[Optional] Client A prompts user to restart the IMPS application Test tool verifies Client A sends a PollingRequest in response to the CIR Client A polls the server transaction and retrieves message with content "CIR"

5.1.2.6 Verify Communication Initiation Request (CIR) using Standalone HTTP

Test Case Id	**IMPS-1.3-con-C-CIR-006**		
Test Purpose	Verify Communication Initiation Request (CIR) using Standalone HTTP		
Test Object	Client device		
Test Case Description	The purpose is to verify that the CIR notification using Standalone HTTP binding is responded to correctly by the IMPS Client. Verification is done by sending a CIR from the test tool as User2 to the Client A (User1). The test tool will then verify that the CIR is sent and responded to correctly.		
Specification Reference	[CSP]: 6.9.1 [CSP Transport]: 8.1, 8.1.5		
SCR Reference	IMPS-CSP-SAP-C-003	Support for Communications Initiation Request and PollingRequest primitive	O
	IMPS-CSP-TRANSP-C-016	Support for standalone HTTP binding in CIR channel	O
	IMPS-CSP-TRANSP-C-014	Sending of Poll request when CIR is received	O

Tool	IMPS Conformance Tool
Test code	Validated test code for test case IMPS-1.3-con-C-CIR-006
Preconditions	Equipment: IMPS client (A) Test Tool functioning as SAP with at least 2 user accounts existing on it. Prerequisites: Client A supports CIR over Standalone HTTP Client A and Test tool have negotiated CIR over Standalone HTTP Test Tool provide a proper CIR URL for the client (e.g. MyServiceProvider.com/poll?pc=1234567). Client A is logged into the Test tool with UserA credentials [Optional] Client A is able to leave the IMPS application without ending IMPS session
Test Procedure	[Optional] Client A remains logged into Server, and leaves the IMPS application Test tool waits for Client to HTTP poll the server, then sends a response 204 No Content When client sends next HTTP Poll, Test tool sends a response 200 OK Test tool responds to PollingRequest by sending message (content is "CIR) via SendMessageResponse
Pass-Criteria	Test tool verifies a HTTP Poll via the CIR URL is received from the client [Optional] After the second HTTP poll, Client A prompts user to restart the IMPS application Test tool verifies Client A sends a PollingRequest in response to 200 OK Client A retrieves and shows the message with content "CIR" after 200 OK from test tool.

5.1.3 IMPS-1.3-con-C-OTHER

5.1.3.1 Verify protocol extension framework - Client originated

Test Case Id	**IMPS-1.3-con-C-Other-001**
Test Purpose	Verify protocol extension framework – Client originated
Test Object	Server device
Test Case Description	Server successfully handles protocol extensions originated by Client (Test Tool).
Specification Reference	[CSP]
SCR Reference	**Server SCR Items Tested**

	Note : No SCR items exist for SMS encoding – tolerating protocol extension is however also mandatory for SMS encoding as specified in CSP Session and Transaction document.
Tool	IMPS Conformance Tool
Test code	Validated test code for test case IMPS-1.3-con-C-Other-001
Preconditions	Equipment: 1 server Prerequisites: Test Tool (Client) can generate primitives with extended blocks that are designated with namespaces that are not supported by the Server
Test Procedure	Test Tool (Client) sends a request to the server containing an extended block from namespace N1
Pass-Criteria	The Test Tool (Client) request does not result in an error in the Server. If error is generated, test case is FAILED.

5.2 IMPS-1.3-con-Server

5.2.1 IMPS-1.3-con-S-SAP

5.2.1.1 Verify 2-way Login functionality with a fully qualified UserID

Test Case Id	**IMPS-1.3-con-S-SAP-001**
Test Purpose	Verify the Login functionality with a fully qualified UserID
Test Object	Server
Test Case Description	The purpose is to verify that the login functionality works with a fully qualified UserID
Specification Reference	[CSP]: 5
SCR Reference	**Server SCR Items Tested** IMPS-CSP-SAP-S-006 Support for 2-way Login transaction M IMPS-CSP-ADDR-S-002 Support for fully qualified addressing M
Tool	IMPS Conformance tool
Test code	Validated test code for test case IMPS-1.3-con-S-SAP-001
Preconditions	- The server has at least 1 user account existing on it - User A is already registered, but he/she is currently logged off. Note: Network-based authentication and automatic-registration are out of the scope of this Test Case
Test Procedure	1- The test tool (acting as Client) performs a 2-way login using the UserID and password specified during account creation. The test tool must use the fully qualified addressing scheme for the UserID (e.g. "wv:john@smith.com"). The LoginRequest contains the following: • User-ID • Client-ID • Password-String • Session-Cookie 2. The server responds to the login request that was sent from the test tool.
Pass-Criteria	Server respondes to the login by sending a LoginResponse to the test tool with at least the following: • Client-ID • Session-ID • Result (status code 200) • Keep-Alive-Time

	• Client-Capability-Request The test tool confirms a successful login

5.2.1.2 Verify 4-way Login functionality with a fully qualified UserID

Test Case Id	**IMPS-1.3-con-S-SAP-002**
Test Purpose	Verify the Login functionality with a fully qualified UserID
Test Object	Client
Test Case Description	The purpose is to verify that the login functionality works when the user types a fully qualified UserID on his client
Specification Reference	[CSP]: 6.4.2
SCR Reference	**Client SCR Items Tested** IMPS-CSP-SAP-S-007 Support for 4-way Login transaction M IMPS-CSP-ADDR-S-002 Support for fully qualified addressing M
Tool	IMPS Conformance tool
Test code	Validated test code for test case IMPS-1.3-con-C-SAP-002
Preconditions	- Note: Network-based authentication and automatic-registration are out of the scope of this Test Case - The server has at least 1 user account existing on it - Server and Test tool support the same Digest Schema
Test Procedure	1- Test ToolClient performs the login procedure (LoginRequest) toward the Server using the Fully Qualified User ID and password specified during account creation. The 1st LoginRequest consists of the following: • User-ID • Client-ID • Supported-Digest-Schema • Session-Cookie 2. Server sends 1st LoginResponse to the Test tool (acting as client) 3. Test tool sends the second LoginRequest of the 4-way login consisting of the following: • User-ID • Client-ID • Digest-Bytes • Session-Cookie

Pass-Criteria	The server's 1st LoginResponse consists of at least the following: • Client-ID • Nonce • Digest-Schema • Result (status code 200) The server's 2nd LoginResponce consists of at least the following: • Client-ID • Session-ID • Result (status code 200) • Keep-Alive-Time • Client-Capability-Request Test Tool verifies successful login If the Server changes the Transaction-ID between the two LoginRequest, the test case FAILS

5.2.1.3 Verify System Message functionality with Response required

Test Case Id	**IMPS-1.3-con-S-SAP-003**
Test Purpose	Verify System Message functionality (Response is required)
Test Object	Server A
Test Case Description	Server A sends to the Test Tool a System Message which requires a response from the user. Test Tool sends a GetPublicProfile request to Server A (this feature is mandatory). Test Tool verifies that server rejects the request by sending a Status primitive that includes the Result element with error code 436.
Specification Reference	[CSP]: 5, 6.1, 7, 7.1
SCR Reference	**Server SCR Items Tested** IMPS-CSP-SERV-S-001 Support of Service Access Point functionality M IMPS-CSP-SAP-S-017 Support for System Message transactions O
Tool	IMPS Conformance tool
Test code	Validated test code for test case IMPS-1.3-con-S-SAP-003
Preconditions	- Server A has at least 1 user account (User A) existing on it. - Test Tool is logged in as User A. - Server has the ability to send a System Message which requires a response from the user.

Test Procedure	1. Server A sends to User A (Test Tool) a System Message which requires a response from the user 2. Test Tool sends to Server A a GetPublicProfileRequest on User A
Pass-Criteria	- Test Tool verifies that Server A rejects the request by sending a Status primitive that includes the Result element with error code 436 - Test Tool verifies that Server A does not send GetPublicProfileResponse to the Test Tool

5.2.1.4 Verify Version Discovery

Test Case Id	**IMPS-1.3-con-S-SAP-004**
Test Purpose	Verify VersionDiscovery
Test Object	Server device
Test Case Description	Server responds to Version Discovery transaction coming from the Test Tool (Client role).
Specification Reference	[CSP]
SCR Reference	**Server SCR Items Tested** IMPS-CSP-SAP-S-004 Support for version discovery transaction O
Tool	IMPS Conformance Tool
Test code	Validated test code for test case IMPS-1.3-con-S-SAP-004
Preconditions	Equipment: 1 server Prerequisites: -
Test Procedure	Test Tool (Client) sends a Version Discovery transaction to the Server containing either a list of versions supported by the client or an empty list
Pass-Criteria	The Server returns a list of versions supported by the Server OR an empty list, if the Server does not support any of the versions indicated by the Client (Test Tool).

5.2.1.5 Verify Public Profile Update

Test Case ID	IMPS-1.3-con-S-SAP-005
Test Purpose	Verify the support of public profile update and retrieval
Test Object	Server
Test Case Description	The purpose is to verify the update and retrieval or the public profile by the server.

Specification Reference	CSP: B.1.2, B.5.1.2
OMA SCR Reference	**Server SCR Items Tested** IMPS-CSP-SERV-S-001 Support of Service Access Point functionality M IMPS-CSP-SAP-S-020 Support for clearing/updating the public profile O
Tool	IMPS Conformance tool
Test code	Validated test code for test case IMPS-1.3-CON-S-SAP-005
Preconditions	• The server has at least one user registered • The test tool is logged in as this user
Test Procedure	• 1. The test tool sends an UpdatePublicProfile request with at least all the mandatory fields filled-in e.g.: a. Friendly name (mandatory field) b. Age (mandatory field) c. Country (mandatory field) d. City e. Gender … • 2. The test tool sends a GetPublicProfile request containing its UserId
Pass-Criteria	After action #1, the test tool receives a Status primitive After action #2, the test tool confirms that the GetPublicProfile Response contains all the fields updated in the UpdatePublicProfileRequest

5.2.1.6 Verify Server Notification

Test Case ID	IMPS-1.3-con-S-SAP-006
Test Purpose	Verify the support of notification (Authorization-Needed-User)
Test Object	Server
Test Case Description	The purpose is to verify the notification (Authorization-Needed-User) is well managed by the server.
Specification Reference	CSP: B.1.2, B.5.1.2
OMA SCR Reference	**Server SCR Items Tested** IMPS-CSP-SERV-S-001 Support of Service Access Point functionality M IMPS-CSP-SAP-S-018 Support for General Notification transactions O
Tool	IMPS conformance tool

Test Code	Validated test code for test case IMPS-1.3-con-S-SAP-006
Preconditions	• The server has at least 2 user accounts existing on it (UserA & UserB) • UserB has not proactively authorized UserA • The test tool and the server support "Authorization-Needed-User" notifications • The test tool is logged in as UserA and has subscribed to notifications including "Authorization-Needed-User" notifications (SubscribeNotificationRequest transaction). • Reactive authorization model is used (User-Notify set to True in the create attribute list request)
Test Procedure	• The test tool as UserA sends a SubscribePresenceRequest primitive to UserB
Pass-Criteria	The test tool as UserB receives a NotificationRequest that contains UserA's UserId and the notification type "ANU".

5.2.1.7 Verify Private Profile Search

Test Case ID	IMPS-1.3-con-S-SAP-007
Test Purpose	Verify private profile-based user search
Test Object	Server
Test Case Description	The purpose is to verify that the private profile-based search feature is well managed by the server. Verification is done by the test tool which initiates a search on a private profile-based element (e.g. USER_MOBILE_NUMBER). The test tool will then verify if the SearchResponse is correct.
Specification Reference	CSP: B.1.2, B.5.1.2
SCR Reference	Server SCR Items Tested IMPS-CSP-SERV-S-001 Support of Service Access Point functionality M IMPS-CSP-SAP-S-023 Support for searching based on various private profile properties O
Tool	IMPS Conformance tool
Test code	Validated test code for test cases IMPS-1.3-con-S-SAP-007
Preconditions	1. The server has at least 2 user accounts (UserA and UserB) existing on it. 2. The service provider has authorized searches based on USER_MOBILE_NUMBER

	3. UserB's private profile elements are filled in (e.g. USER_MOBILE_NUMBER='33612345678') 4. The test tool is logged in as UserA and the Search feature has been negotiated
Test Procedure	*1.* The test tool as UserA searches users based on a private profile-based criterion (e.g. USER_MOBILE_NUMBER) with the relevant substring (e.g. "33612345678")
Pass-Criteria	The test tool verifies that the SearchResponse format is correct and that it indicates UserB in the SearchResult part.

5.2.2 IMPS-1.3-con-S-PRSE

5.2.2.1 Verify ClientInfo

Test Case ID	**IMPS-1.3-con-S-PRSE-001**
Test Purpose	Verify that the negotiated ClientInfo is sent by the server in the GetPresenceResponse
Test Object	Server
Test Case Description	The purpose is to verify that the negotiated ClientInfo is sent by the server in the GetPresenceResponse. Verification is done by the test tool which sends a GetPresenceRequest primitive to the server to retrieve the ClientInfo presence attribute of a provisioned user. The test tool will then verify if the GetPresenceResponse is correctly formed.
Specification Reference	CSP: B.1.2, B.6.1.2
OMA SCR Reference	Server SCR Items Tested IMPS-CSP-SERV-S-003 Support of Presence Service Element functionality O IMPS-CSP-PRSE-S-013 Support for get presence transaction O IMPS-PA-C-1 Support for ClientInfo presence attribute M IMPS-PA-C-2 The ClientInfo attribute includes ClientContentLimit M
Tool	IMPS Conformance Tool
Test code	Validated test code for test case IMPS-1.3-con-S-PRSE-001
Preconditions	Equipment: - 1 server - The server has 2 user accounts existing on it (UserA and UserB) Prerequisites: Clients (Test Tool): - UserA has subscribed to UserB's ClientInfo presence attribute

	- UserB is in the UserA's contact list - UserB has negotiated several accepted content types during the client capability negotiation with the server (including content type, accepted length, policy limit, content policy limit for each accepted content type) The test tool is logged in twice (as UserA & UserB)
Test Procedure	The test tool as UserA sends a GetPresenceRequest to retrieve the UserB's ClientInfo
Pass-Criteria	The test tool confirms that the received ClientInfo in the GetPresenceResponse includes all UserB's accepted content types previously negotiated.

5.2.3 IMPS-1.3-con-S-IMSE

5.2.3.1 Verify Server Online end-to-end messaging Handling FORKALL using User-ID Recipient

Test Case Id	**IMPS-1.3-con-S-IMSE-001**
Test Purpose	Verify Server Online end-to-end messaging Handling FORKALL using User-ID Recipient.
Test Object	Server
Test Case Description	An IM sent to a User, who is online with two Clients simultaneously, is correctly delivered to both Clients.
Specification Reference	[CSP] 5.5
SCR Reference	Server SCR Items Tested SERV-S-006 Routing M
Tool	IMPS Conformance tool
Test code	Validated test code for test case IMPS-1.3-con-S-IMSE-001
Preconditions	Equipment: - Test Tool acting as 3 Client instances A, B and C - 1 Server - Functioning SAP with at least 2 user accounts U1 and U2 existing on it Prerequisites: Clients (Test Tool) - Clients send OnlineETEMHandling value of DETECT in initial ClientCapabilityRequest. Server - Server must be able to set OnlineETEMHandling default value.
Test Procedure	Server sets OnlineETEMHandling default value to FORKALL. User U1 logs in on A and B.

	User U2 logs in on C. User U2 sends a message to U1.
Pass-Criteria	U1 receives the message on devices A and B.

5.2.3.2 Verify Server Online end-to-end messaging Handling SERVERLOGIC using User-ID Recipient.

Test Case Id	**IMPS-1.3-con-S-IMSE-002**
Test Purpose	Verify Server Online end-to-end messaging Handling SERVERLOGIC using User-ID Recipient.
Test Object	Server
Test Case Description	An IM sent to a User, who is simultaneously online with two Clients but with different Session Priorities, is correctly delivered only to the one Client that was given the highest Session Priority.
Specification Reference	[CSP] 5.5
SCR Reference	Server SCR Items Tested SERV-S-006 Routing M
Tool	IMPS Conformance tool
Test code	Validated test code for test case IMPS-1.3-con-S-IMSE-002
Preconditions	Equipment: - Test Tool acting as 3 Client instances A, B and C - 1 Server - Functioning SAP with at least 2 user accounts U1 and U2 existing on it. Prerequisites: Clients (Test Tool): - Clients can send OnlineETEMHandling value of DETECT in initial ClientCapabilityRequest. - Clients A and B can set their SessionPriority. Server: - Server must be able to set OnlineETEMHandling default value. - SERVERLOGIC is based on SessionPriority.
Test Procedure	Server sets OnlineETEMHandling default value to SERVERLOGIC. User U1 logs in on A and B. User U1 sets SessionPriority to 0 (lowest) on client A.

	User U1 sets SessionPriority to 10 (highest) on client B. User U2 logs in on C. User U2 sends a message to U1.
Pass-Criteria	U1 receives the message only on device B.

5.2.3.3 Verify Server Offline end-to-end messaging Handling SENDSTORE using User-ID Recipient

Test Case Id	**IMPS-1.3-con-S-IMSE-003**
Test Purpose	Verify Server Offline end-to-end messaging Handling SENDSTORE using User-ID Recipient.
Test Object	Server
Test Case Description	An IM sent to an offline User is not dropped by Server until the (Client requested or default Server implementation specific) Validity period has expired.
Specification Reference	[CSP] 5.5; 5.6.4.2
SCR Reference	Server SCR Items Tested SERV-S-006 Routing M
Tool	IMPS Conformance tool
Test code	Validated test code for test case IMPS-1.3-con-S-IMSE-003
Preconditions	Equipment: - Test Tool acting as 2 Client instances A and B - 1 server - Functioning SAP with at least 2 user accounts existing on it.
Test Procedure	- All Clients (Test Tool instances) set OfflineETEMHandling to SENDSTORE. - All Clients (Test Tool instances) log in. - User on Client B logs off. - User on Client A sends a message to User on Client B. - User on Client B logs in again before the (Client requested or default Server implementation specific) Validity period has expired.
Pass-Criteria	User on Client B receives the message.

5.2.3.4 Verify Server Offline end-to-end messaging Handling PRIORITYSTORE using User-ID Recipient

Test Case Id	**IMPS-1.3-con-S-IMSE-004**

Test Purpose	Verify Server Offline end-to-end messaging Handling PRIORITYSTORE using User-ID Recipient.
Test Object	Server
Test Case Description	A message sent to a specific Client, which results as logged off, is delivered to another online Client of the same User, even if this Client was set at a lower Session Priority.
Specification Reference	[CSP] 5.5
SCR Reference	Server SCR Items Tested SERV-S-006 Routing M
Tool	IMPS Conformance tool
Test code	Validated test code for test case IMPS-1.3-con-S-IMSE-004
Preconditions	Equipment: - Test Tool acting as 3 Client intances A, B and C - 1 server - Functioning SAP with at least 2 User accounts existing on it, U1 and U2. Prerequisites: Server: - Different SessionPriority values can be set for Clients A and B. - Client C (Test Tool) can specify a User-ID/Client-ID Recipient and the Server supports that.
Test Procedure	- Clients (Test Tool) set OfflineETEMHandling to PRIORITYSTORE. - User U1 logs in with Client A and Client B (Test Tool instances). - User U1 sets SessionPriority to 0 (lowest) on Client A. - User U1 sets SessionPriority to 10 (highest) on Client B. - User U2 logs in on C. - User U1's Client B logs off (but Client A remains logged in). - User U2 sends a message to User U1, but specifically addressed to Client B.
Pass-Criteria	User U1 receives the message on Client A.

5.2.3.5 Verify Block List Addition

Test Case ID	IMPS-1.3-con-S-IMSE-005
Test Purpose	Verify that when a client blocks a user, this user is in the BlockList
Test Object	Server

Test Case Description	The test tool adds a user in the BlockList and retrieves it Test Tool verifies that the blocked user is in the block-list.
Specification Reference	CSP: B.7.1.2, B.7.7.1
OMA SCR Reference	**Server SCR Items Tested** IMPS-CSP-SERV-S-002 Support of Instant Messaging Service Element functionality O IMPS-CSP-IMSE-S-012 Support for block entity transaction O
Tool	IMPS conformance tool
Test Code	Validated test code for test case IMPS-1.3-con-S-IMSE-005
Preconditions	- Functioning SAP with at least 2 accounts (UserA and UserB) - Test Tool logged as UserA
Test Procedure	• Test Tool as UserA blocks User B by sending a BlockEntityRequest containing UserB's USER_ID • Test Tool sends a GetBlockedListRequest to the server
Pass-Criteria	- After Step 1, the test tool as User A receives a Status message - After Step 2: the test tool as User A receives a GetBlockedListResponse which contains UserB

5.2.3.6 Verify that appropriate UserAvailability status is sent in the PresenceNotificationRequest when modified

Test Case ID	**IMPS-1.3-con-S-PRSE-001**
Test Purpose	Verify that appropriate UserAvailability status is sent in the PresenceNotificationRequest when modified
Test Object	Server
Test Case Description	The purpose is to verify that the appropriate UserAvailability status is sent in the PresenceNotificationRequest when modified. Verification is done by the test tool (UserA) which sends an UpdatePresenceRequest primitive to the server for each Availability status. The test tool will then verify that the PresenceNotificationRequest primitives are correctly formed.
Specification Reference	CSP: B.1.2, B.6.1.2
OMA SCR Reference	Server SCR Items Tested

	IMPS-CSP-SERV-S-003	Support of Presence Service Element functionality	O
	IMPS-CSP-PRSE-S-012	Support for presence notification transaction	O
	IMPS-CSP-PRSE- S-014	Support for update presence transaction	O
Tool	IMPS Conformance Tool		
Test code	Validated test code for test case IMPS-1.3-con-S-PRSE-001		
Preconditions	Equipment: - 1 server - The server has 2 user accounts existing on it (UserA and UserB) Prerequisites: Clients (Test Tool): - UserB has subscribed to UserA's UserAvailability presence attribute. - UserA is in the UserB's contact list The test tool is logged in twice (as UserA and as UserB)		
Test Procedure	1. The test tool as UserA updates its UserAvailability status to "Available" 2. The test tool as UserB polls the server 3. The test tool as UserA updates its UserAvailability status to "Not available" 4. The test tool as UserB polls the server 5. The test tool as UserA updates its UserAvailability status to "Discreet" 6. The test tool as UserB polls the server		
Pass-Criteria	*After action #1*, the test tool confirms the server has responded by a status message (code 200) *After action #2*, the test tool confirms the server has sent back a PresenceNotificationRequest with the PresenceValue set to AVAILABLE for UserA *After action #3*, the test tool confirms the server has responded by a status message (code 200) *After action #4*, the test tool confirms the server has sent back a PresenceNotificationRequest with the PresenceValue set to NOT_AVAILABLE for UserA *After action #5*, the test tool confirms the server has responded by a status message (code 200) *After action #6*, the test tool confirms the server has sent back a PresenceNotificationRequest with the PresenceValue set to DISCREET for UserA		

5.2.4 IMPS-1.3-con-S-CIR

5.2.4.1 Verify Communication Initiation Request (CIR) using WAP Push over SMS binding is formatted correctly by the server

Test Case ID	**IMPS-1.3-con-S-CIR-001**
Test Purpose	Verify Communication Initiation Request (CIR) using WAP Push over SMS binding is formatted correctly by the server
Test Object	Server
Test Case Description	The purpose is to verify that the CIR notification using WAP Push over SMS binding is formatted correctly by the server. Verification is done by sending an IM from the test tool as UserA to the server with UserB (test tool) as the recipient. The test tool will then verify that the CIR notification message is well initiated.
Specification Reference	[CSP]: 6.9.1 [CSP Transport]: 8.1, 8.1.1
OMA SCR Reference	IMPS-CSP-SAP-S-003 — Support for Communication Initiation Request and PollingRequest primitives — O IMPS-CSP-TRANSP-S-008 — Support for WAP push SMS binding in CIR channel — O IMPS-CSP-TRANSP-S-012 — With WSP 1.2 or WSP 2.0 bindings for data channel, only WAP SMS binding or WAP UDP binding is used in CIR channel. — O
Test Tool	IMPS Conformance Tool
Test code	Validated test code for test case IMPS-1.3-con-S-CIR-001
Preconditions	Equipment: - 1 server - The server has 2 user accounts existing on it (UserA and UserB) Prerequisites: Clients (Test Tool): - The test tool is logged in twice (as UserA and as UserB) - The test tool as UserB has negotiated the WAPSMS binding during the ClientCapability negotiation - The test tool as UserB has provided its MSISDN (e.g. "33612345678") in its Client-ID The server is configured to send push message to the test tool If the server does not have WAP PPG functionality, the server uses the test tool as its PPG
Test Procedure	The test tool as UserA sends an IM to UserB

Pass-Criteria	The Test Tool verifies the server sends either a WAP Push message to UserB or a PAP message to the test tool.

5.2.4.2 Verify Communication Initiation Request (CIR) using WAP Push over UDP/IP binding is formatted correctly by the server

Test Case ID	**IMPS-1.3-con-S-CIR-002**
Test Purpose	Verify Communication Initiation Request (CIR) using WAP Push over UDP/IP binding is formatted correctly by the server
Test Object	Server
Test Case Description	The purpose is to verify that the CIR notification using WAP Push over UDP/IP binding is formatted correctly by the server. Verification is done by sending an IM from the test tool as UserA to the server with UserB (test tool) as the recipient. The test tool will then verify that the CIR notification message is well initiated.
Specification Reference	[CSP]: 6.9.1 [CSP Transport]: 8.1, 8.1.1
OMA SCR Reference	IMPS-CSP-SAP-S-003: Support for Communication Initiation Request and PollingRequest primitives — O IMPS-CSP-TRANSP-S-009: Support for WAP push UDP/IP binding in CIR channel — O IMPS-CSP-TRANSP-S-012: With WSP 1.2 or WSP 2.0 bindings for data channel, only WAP SMS binding or WAP UDP binding is used in CIR channel. — O
Test Tool	IMPS Conformance Tool
Test code	Validated test code for test case IMPS-1.3-con-S-CIR-002
Preconditions	Equipment: - 1 server - The server has 2 user accounts existing on it (UserA and UserB) Prerequisites: Clients (Test Tool): - The test tool is logged in twice (as UserA and as UserB) - The test tool as UserB has negotiated the WAPUDP binding during the ClientCapability negotiation - The test tool as UserB has provided its IP address (e.g. "192.0.0.1") in its Client-ID The server is configured to send push message to the test tool If the server does not have WAP PPG functionality, the server uses the test tool as its PPG

Test Procedure	The test tool as UserA sends an IM to UserB
Pass-Criteria	The Test Tool verifies the server sends either a WAP Push message to UserB or a PAP message to the test tool

5.2.4.3 Verify Communication Initiation Request (CIR) over Standalone UDP/IP binding is formatted correctly by the server

Test Case ID	**IMPS-1.3-con-S-CIR-003**
Test Purpose	Verify Communication Initiation Request (CIR) over Standalone UDP/IP binding is formatted correctly by the server
Test Object	Server
Test Case Description	The purpose is to verify that the CIR notification over Standalone UDP/IP binding is formatted correctly by the server. Verification is done by sending an IM from the test tool as UserA to the server with UserB (test tool) as the recipient. The test tool will then verify that the CIR notification message is well initiated.
Specification Reference	[CSP]: 6.9.1 [CSP Transport]: 8.1, 8.1.2
OMA SCR Reference	IMPS-CSP-SAP-S-003 — Support for Communication Initiation Request and PollingRequest primitives — O IMPS-CSP-TRANSP-S-010 — Support for standalone UDP/IP binding in CIR channel — O
Test Tool	IMPS Conformance Tool
Test code	Validated test code for test case IMPS-1.3-con-S-CIR-003
Preconditions	Equipment: - 1 server - The server has 2 user accounts existing on it (UserA and UserB) Prerequisites: Clients (Test Tool): - The test tool is logged in twice (as UserA and as UserB) - The test tool as UserB has negotiated the SUDP binding during the ClientCapability negotiation - The test tool as UserB has provided its IP address (e.g. "192.0.0.1") by sending the “HELO” message exchange and, if needed, a PING exchange The server is configured to send CIR message to UserB.
Test Procedure	Test tool as UserB tears down the PDP context but remains logged in to the server. The test tool as UserA sends an IM to UserB
Pass-Criteria	The Test Tool verified the server sends a Standalone UDP/IP CIR message to the test tool

	(UserB).

5.2.4.4 Verify Communication Initiation Request (CIR) over Standalone TCP/IP binding is formatted correctly by the server

Test Case ID	**IMPS-1.3-con-S-CIR-004**
Test Purpose	Verify Communication Initiation Request (CIR) over Standalone TCP/IP binding is formatted correctly by the server
Test Object	Server
Test Case Description	The purpose is to verify that the CIR notification over Standalone TCP/IP binding is formatted correctly by the server. Verification is done by sending an IM from the test tool as UserA to the server with UserB (test tool) as the recipient. The test tool will then verify that the CIR notification message is well initiated.
Specification Reference	[CSP]: 6.9.1 [CSP Transport]: 8.1, 8.1.3
OMA SCR Reference	IMPS-CSP-SAP-S-003 — Support for Communication Initiation Request and PollingRequest primitives — O IMPS-CSP-TRANSP-S-011 — Support for standalone TCP/IP binding in CIR channel — O
Test Tool	IMPS Conformance Tool
Test code	Validated test code for test case IMPS-1.3-con-S-CIR-004
Preconditions	Equipment: - 1 server - The server has 2 user accounts existing on it (UserA and UserB) Prerequisites: Clients (Test Tool): - The test tool is logged in twice (as UserA and as UserB) - The test tool as UserB has negotiated the STCP binding during the ClientCapability negotiation including the CIR Port number. - The test tool as UserB has provided its IP address (e.g. "192.0.0.1") by sending the “HELO” message exchange and, if needed, a PING exchange The server is configured to send CIR message to UserB.
Test Procedure	Test tool as UserB tears down the PDP context but remains logged in to the server. The test tool as UserA sends an IM to UserB
Pass-Criteria	The Test Tool verifies the server sends a Standalone TCP/IP CIR message to the test tool

	(UserB).

5.2.4.5 Verify Communication Initiation Request (CIR) over Standalone SMS binding is formatted correctly by the server

Test Case ID	**IMPS-1.3-con-S-CIR-005**
Test Purpose	Verify Communication Initiation Request (CIR) over Standalone SMS binding is formatted correctly by the server
Test Object	Server
Test Case Description	The purpose is to verify that the CIR notification over Standalone SMS binding is formatted correctly by the server. Verification is done by sending an IM from the test tool as UserA to the server with UserB (test tool) as the recipient. The test tool will then verify that the CIR notification message is well initiated.
Specification Reference	[CSP]: 6.9.1 [CSP Transport]: 8.1, 8.1.4
OMA SCR Reference	IMPS-CSP-SAP-S-003 — Support for Communication Initiation Request and PollingRequest primitives — O IMPS-CSP-TRANSP-S-015 — Support for Standalone SMS binding in CIR channel — O
Test Tool	IMPS Conformance Tool
Test code	Validated test code for test case IMPS-1.3-con-S-CIR-005
Preconditions	Equipment: - 1 server - The server has 2 user accounts existing on it (UserA and UserB) Prerequisites: Clients (Test Tool): - The test tool is logged in twice (as UserA and as UserB) - The test tool as UserB has negotiated the SMS binding for CIR during the ClientCapability negotiation - The test tool as UserB has provided its MSISDN (e.g. "33612345678") by sending the “HELO” message exchange The server is configured to send CIR message to UserB.
Test Procedure	The test tool as UserA sends an IM to UserB
Pass-Criteria	The Test Tool verifies the server sends a Standalone SMS CIR message to the test tool (UserB).

5.2.4.6 Verify Communication Initiation Request (CIR) over Standalone HTTP binding is formatted correctly by the server

Test Case ID	**IMPS-1.3-con-S-CIR-006**
Test Purpose	Verify Communication Initiation Request (CIR) over Standalone HTTP binding is formatted correctly by the server
Test Object	Server
Test Case Description	The purpose is to verify that the CIR notification over Standalone HTTP binding is formatted correctly by the server. Verification is done by sending an IM from the test tool as UserA to the server with UserB (test tool) as the recipient. The test tool will then verify that the CIR notification message is well initiated.
Specification Reference	[CSP]: 6.9.1 [CSP Transport]: 8.1, 8.1.5
OMA SCR Reference	IMPS-CSP-SAP-S-003 — Support for Communication Initiation Request and PollingRequest primitives — O IMPS-CSP-TRANSP-S-016 — Support for standalone HTTP binding in CIR channel — O
Test Tool	IMPS Conformance Tool
Test code	Validated test code for test case IMPS-1.3-con-S-CIR-006
Preconditions	Equipment: - 1 server - The server has 2 user accounts existing on it (UserA and UserB) Prerequisites: Clients (Test Tool): - The test tool is logged in twice (as UserA and as UserB) - The test tool as UserB has negotiated the HTTP binding for CIR during the ClientCapability negotiation Server has proved the CIR URL to UserB (e.g. MyServiceProvider.com/poll?pc=1234567)
Test Procedure	The test tool as UserB tears down the PDP context but remains logged in to the server. The test tool, as UserB, HTTP Polls the server using the CIR URL provided The test tool as UserA sends an IM to UserB The test tool, as UserB, HTTP Polls the server using the CIR URL provided
Pass-Criteria	The Test Tool verifies the server responds to the first UserB HTTP Poll with 204 No Content The Test Tool verifies the server responds to the second UserB HTTP Poll with 200 OK

5.2.5 IMPS-1.3-con-OTHER

5.2.5.1 Verify protocol extension framework - Server originated

Test Case Id	**IMPS-1.3-con-S-Other-001**
Test Purpose	Verify protocol extension framework – Server originated
Test Object	Client device
Test Case Description	Client successfully handles protocol extensions originated by Sever (Test Tool).
Specification Reference	[CSP]
SCR Reference	**Client SCR Items Tested** Note : No SCR items exist for SMS encoding – tolerating protocol extension is however also mandatory for SMS encoding as specified in CSP Session and Transaction document.
Tool	IMPS Conformance Tool
Test code	Validated test code for test case IMPS-1.3-con-C-Other-001
Preconditions	Equipment: 1 client Prerequisites: Test Toll (Server) can generate primitives with extended blocks that are designated with namespaces that are not supported by the Client
Test Procedure	Test Tool (Server) sends a primitive (reponse or notification) to the client containing an extended block from namespace N2
Pass-Criteria	The Test Tool (Server) originated primitive does not result in an error in the Client. If error is generated, test case is FAILED.

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 1.3 History

Document Identifier	Date	Sections	Description
Draft Versions OMA-ETS-IMPS_CSP_CON-V1_3	17 Apr 2006	n/a	The initial version of this document.
	7 Jul 2006	n/a	Second revision
	5 Sep 2006	n/a	Third revision
	28 Sep 2006	n/a	Fourth revision
	20 Oct 2006	n/a	IOP WG agreed
Candidate Version OMA-ETS-IMPS_CSP_CON-V1_3	14 Nov 2006	n/a	Status changed to Candidate, TP R&A 2006-11-01 to 2006-11-14 OMA-TP-2006-0406- INP_OMA_ETS_IMPS_CSP_CON_V1_3_for_approval_as_candidate