

Enabler Test Specification for RCS-e interoperability

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1. Scope

This document for RCSe describes in detail the interoperability test cases for RCS-e Version 1.2.2, as detailed in [RCS-e] together with the RCS-e Implementation Guidelines [RIG].

The test cases are split into two categories, conformance and interoperability test cases. The conformance test cases are in a separate conformance ETS.

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

2. References

2.1 Normative References

[OMA_IM_TS] "Instant Messaging Requirements", Version 1.0, Open Mobile Alliance™, OMA-RD-IM-V1_0,

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

[OMA_IM_XDM] "IM XDM Specification", Version 1.0, Open Mobile Alliance™, OMA-TS-IM_XDM-V1_0,

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

2.2 Informative References

[OMADICT] "Dictionary for OMA Specifications", Version 2.9, Open Mobile Alliance™,

OMA-ORG-Dictionary-V2_9,

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

[RCS-e] "RCS-e – Advanced Communications: Services and Client Specification", v1.2.2, July 2012, GSM

Association, RCS_e_Specification_Document_1_2_2,

URL: http://www.gsma.com/rcs/wp-content/uploads/2012/03/rcs-

e advanced comms specification v1 2 2 approved.pdf

[RIG] "GSMA RCS IOT RCS-e Implementation Guidelines", Version 3.1, 21 August 2012, URL:

http://www.gsma.com/rcs/wp-content/uploads/2012/11/RCS-

e Implementation guidelines v3 1 clean.pdf

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

Auto-Configuration A component of RCS-e functionality that provides an interoperable way to provision RCS-e configuration

Server information from a Service Provider to an RCS-e Client.

Client Uses definition from [OMADICT].

Component Uses definition from [OMADICT].

RCS-e Client A Client which adheres and conforms to GSMA RCS-e specifications and is capable to receive RCS-e

service.

Service Uses definition from [OMADICT].
Service Provider Uses definition from [OMADICT].

3.3 Abbreviations

2G Second generation (i.e. mobile/wireless telephony)

3G Third generation (i.e. 3rd Generation mobile/wireless telephony)

HSPA High Speed Packet Access
RAN Radio Access Network

RCS-e Rich Communications Suite-enhanced

SIM Subscriber Identity Module

USIM Universal Subscriber Identity Module

UX User eXperience

4. Introduction

The purpose of this document is to provide interoperability test cases for RCS-e version 1.2.2.

The implementation of some features is optional for the Clients and/or the Servers in the RCS-e Enabler. The tests associated with these optional features are marked as "(Includes Optional Features)" in the test specification.

5. RCS-e Conformance Test Cases

Conformance test cases can be found in the OMA-ETS-RCS-e-CON-V1_2 document.

6. RCS-e Interoperability Test Cases

6.1 RCS-e-1.2-int-001 - First-time configuration

Test Case Id	RCS-e-1.2-int-001
Test Object	Client/server
Test Case Description	Verifies successful first-time configuration and registration
Specification Reference	RCS-e 2.2.2
Preconditions	Auto-Configuration Server ready
	User A NOT IMS registered for RCS-e
	RCS-e services have not been previously configured on the phone/(U)SIM pair
Test Procedure	1. User A's handset is powered on
	The RCS-e client (running on the handset) contacts the Auto- Configuration Server
	The Auto-Configuration Server validates the (U)SIM/phone, provisions User A and sends back a valid configuration to User A's client
	4. Once the configuration is successfully received from the Auto-Configuration Server and processed by User A's client, User A's RCS-e service is enabled
Pass-Criteria	Configuration takes places seamlessly to User A
	2) At step 4, if applicable, an RCS-e welcome message is displayed and User A accepts
	3) At step 4 RCS-e services are enabled

6.2 RCS-e-1.2-int-010 - User discovery in address book: initial check of capabilities

Test Case Id	RCS-e-1.2-int-010
Test Object	Client/server
Test Case Description	Verifies correct operation for RCS-e users discovery in address book when the initial check of capabilities is performed.
Specification Reference	RCS-e 2.4
Preconditions	RCS-e capable handset initially registered following a successful RCS-e first-time configuration
	Some (i.e. a subset) of the contacts in User A's address book are IMS registered and configured for RCS-e services (e.g. User B and C)

Test Procedure	Following a successful RCS-e first-time registration, the RCS-e client (running on the handset) performs a capability exchange for the contacts available in User A's address book
	 Contacts are identified as RCS-e users if they are currently IMS registered (e.g. a capabilities exchange with a contact indicates support of RCS-e IM 1-to-1 chat)
	3. The identified contacts (e.g. User B and C) are identified as RCS-e users on User A's handset. For example, they may be added to a list of RCS-e users accessible to User A's handset.
Pass-Criteria	1) At step 3 the list of RCS-e users (e.g. User B and C) are identified as RCS-e users on User A's handset
	2) Capabilities discovery (i.e. operating as a background activity) does not impact UX

6.3 RCS-e-1.2-int-011 - User discovery in address book: adding an RCS-e contact

Test Case Id	RCS-e-1.2-int-011
Test Object	Client/server
Test Case Description	Verifies correct operation for User discovery in address book: Adding an RCS-e contact who is currently RCS-e registered
Specification Reference	RCS-e 2.4
Preconditions	RCS-e services have been successfully configured on the phone/(U)SIM pair
	User A and B are IMS registered for RCS-e and the registration timer for each user is far from expiration
Test Procedure	User A manually enters a new contact (User B) with a valid telephone number (e.g. a TEL-URI) to his contact list
	2. The RCS-e client on User A's handset performs capability discovery with User B (e.g., P2P OPTIONS exchange between User A and B occurs)
	3. As a result, the RCS-e client on User A's handset determines that User B is RCS-e capable and identifies User B as an RCS-e user on User A's handset
Pass-Criteria	1) At step 3 User B is identified as an RCS-e user on User A's handset.

6.4 RCS-e-1.2-int-021 - Capability query: network coverage limitation

Test Case Id	RCS-e-1.2-int-021
Test Object	Client/server
Test Case Description	Verifies successful capability query when file transfer is not available due to network coverage.
Specification Reference	RCS-e 2.7

Preconditions	RCS-e services have been successfully configured on the phone/(U)SIM pair for both User A and B
	 User A and B are IMS registered and the registration timer for each user is far from expiration
	User A and B handset's both normally support image and video share capability
	• At least one handset (i.e., User A or B) is operating in 2G mode, the other could have a 2G, 3G, HSPA or Wi-Fi network connection.
	• The operator network does not support file transfer over 2G*
	*Note: Operators might support file transfer also in 2G networks, in which case this test would not apply.
Test Procedure	1. User A selects User B's from the list of active RCS-e contacts.
	 An RCS-e capability exchange takes place and User B's corresponding supported RCS-e capabilities/services are displayed and updated on User A's handset
Pass-Criteria	1) At step 2 User A's RCS-e client shows supported RCS-e capabilities/services of User B and file transfer is not available due to 2G coverage.

6.5 RCS-e-1.2-int-030 - 1-to-1 Chat

Test Case Id	RCS-e-1.2-int-030
Test Object	Client/server
Test Case Description	Verifies successful 1-to-1Chat, including "Is Composing ", "Delivery" and "Display" notifications.
Specification Reference	RCS-e 3.2.4.1, 3.2.4.2, 3.2.4.6
Preconditions	User A and B are IMS registered and the registration timer for each user is far from expiration
	RCS-e services have been successfully configured on the phone/(U)SIM pair for both User A and B
	Display notifications are not switched off.
Test Procedure	1. User A selects User B to engage in a 1-to-1 chat
	2. User A types a chat message to User B in the message composer
	3. User A initiates transmission of the first 1-to-1 chat message (e.g. by pushing the 'send' button next to message composer UX element)
	4. A 1-to-1chat invitation is sent from User A to B
	5. User B sees and accepts the chat invitation from User A by opening the chat window
	6. User A types additional chat message to User B (but not sent yet)
	7. After 15 seconds wait, User A sends the chat message to User B
	8. User B sees the message from User A and starts to reply back to User A (but not sent yet)
	9. After 15 seconds, User B removes the reply text (before it is sent to User A)

Pass-Criteria	1) At step 5 User B sees an incoming message notification from User A on his handset (e.g. notification bar)
	2) At step 5 User A sees that the first message was delivered and displayed to User B
	3) At step 5 User B sees User A's first chat message
	4) At step 6 User B's UI elements displays User A typing via the "Is Composing" notification
	5) At step 7 User A sees the second message was delivered and displayed to User B
	6) At step 7 User B sees User A's second chat message
	7) At step 8 User A's UI elements displays User B typing via the "Is Composing" notification
	8) At step 9 User A's UI elements removes the "Is Composing" notification

6.6 CS-e-1.2-int-031 - 1-to-1 Chat – Receiver Offline (Network Store and Forward) – (Includes Optional Features)

Test Case Id	RCS-e-1.2-int-031
Test Object	Client/server
Test Case Description	Verifies successful 1-to-1 Chat, and Store and Forward functionality
Specification Reference	RCS-e 2.7.2, 3,2,2,2, 3.2.2.3, 3.2.2.4, 3.2.3, 3.2.4.11. 3.2.4.19, Annex B
Preconditions	 User A is IMS registered and the registration timer is far from expiration
	• User B is offline (i.e., device is turned off)
	 RCS-e services have been successfully configured on the phone/(U)SIM pair for both Users A and B
	 Display notifications are switched on.
	 Mobile Network Operator (MNO) supports Store and Forward functionality and display Store and Forward notification is switched on for both Users A and B.
Test Procedure	1. User A selects User B to engage in a 1-to-1 chat.
	2. User A types a chat message to User B in the message composer.
	3. User A initiates transmission of the first 1-to-1 chat message (e.g., by pushing the 'send' button next to message composer UX element)
	4. User A sends additional chat message to User B.
	5. After waiting few mins (say 3-5 mins), User B turns on the device. (User A is still online and its registration timer is far from expiration.)
	• IMS registration is done for User B.
	6. User B opens the chat window
	7. User B sends a reply message to User A.

Pass-Criteria	1) At step 3, User A is made aware that User B is offline
	2) At step 5, User B sees an incoming message notifications from User A on his handset (e.g., notification bar)
	3) At step 5, User A sees that his two messages were delivered to User B.
	4) At step 6, User B sees User A's two chat messages
	5) At step 6, User A sees that his two messages were displayed to User B.
	6) At step 7, User A's UI elements displays User B typing via the "Is Composing" notification
	7) At step 7, User A sees User B's reply chat message
	8) At step 7, User B sees the reply message was delivered and displayed to User A

6.7 RCS-e-1.2-int-032 - Closing chat window

Test Case Id	RCS-e-1.2-int-032
Test Object	Client/server
Test Case Description	Verifies correct operation when closing chat window
Specification Reference	RCS-e 3.2.4.7, 3.2.4.20.4
Preconditions	RCS-e services have been successfully configured on the phone/(U)SIM pair for both User A and B
	User A and B are IMS registered and the registration timer for each user is far from expiration
	User A and B already engaged in a 1-to-1 chat
Test Procedure	1. User A terminates the chat (e.g., closing the chat composing window or the IM/1-to-1 chat application)
	2. User B continues to keep his chat window open
	3. User B composes a message and sends it to User A
Pass-Criteria	1) At step 3 User A sees an incoming message notification from User B on his handset

6.8 RCS-e-1.2-int-033 - Change 1-to-1 chat to group chat (Includes Optional Features)

Test Case Id	RCS-e-1.2-int-033
Test Object	Client/server
Test Case Description	Verifies correct operation when changing from 1-to-1 chat to 1-to-many (group chat)
Specification Reference	RCS-e 3.2.4.13
Preconditions	RCS-e services have been successfully configured on the phone/(U)SIM pair for User A, B and C
	All users are IMS registered and the registration timer for each user is far from expiration
	User A and B are already engaged in a 1-to-1 chat

Test Procedure	User A invites User C to join the active chat session between User A and B, by sending an invitation message to User C
	2. User C receives the notification that he has been invited to a group chat with User A and B and accepts the invitation
	3. User A sends a chat message from the group chat session.
Pass-Criteria	1) At step 2 for User A a new group chat window will be established between Users A, B and C.
	2) At step 2 for Users B and C a new group chat composing window will be created.
	3) At step 3 User B and C receive User A's chat message. User A can be identified as the message sender.

6.9 RCS-e-1.2-int-035 - Group Chat: New Participant (Includes Optional Features)

Test Case Id	RCS-e-1.2-int-035
Test Object	Client/server
Test Case Description	Verifies successful Group Chat including "Is Composing" notification and
	adding new participants.
Specification Reference	RCS-e 3.2.5.1, 3.2.5.2, 3.2.5.3
Preconditions	Users A, B, C and D are IMS registered and the registration timer for each user is far from expiration
	RCS-e services have been successfully configured on the phone/(U)SIM pair for Users A, B, C and D.
Test Procedure	1. User A invites Users B and C into a group chat.
	2. Users B and C accept the group chat invitation.
	3. User A types a message and sends it to the group.
	4. User A invites User D to join the group chat.
	5. User D accepts the group chat invitation.
	6. User A types a message and sends it to the group.
	7. User D types a message and sends it to the group.
	8. User D leaves the group chat.
Pass-Criteria	1) At step 1 Users B and C receive a group chat invitation.
	2) At step 2 A new group chat session is established for Users A, B and C.
	3) At step 3 Users B and C can see the "Is Composing" notification first and then the message from User A.
	4) At step 4 User D receives a group chat invitation.
	5) At step 5 Users A, B and C see a notification that User D has joined the group chat.
	6) At step 6 Users B, C and D can see the "Is Composing" notification and the message from User A.
	7) At step 7 Users A, B and C can see the "Is Composing" notification and the message from User D.
	8) At step 8 Users A, B and C receive a notification that User D has left the group chat. The group chat remains active for Users A, B and C.

6.10 RCS-e-1.2-int-036 - Group Chat: Initiator leaving (Includes Optional Features)

Test Case Id	RCS-e-1.2-int-036
Test Object	Client/server
Test Case Description	Verifies successful closing of Group Chat by the initiator.
Specification Reference	RCS-e 3.2.5.3
Preconditions	Users A, B and C are IMS registered and the registration timer for each user is far from expiration
	 RCS-e services have been successfully configured on the phone/(U)SIM pair for Users A, B and C.
	There is an on-going group chat between Users A, B and C. User A was the initiator of the group chat.
Test Procedure	User A terminates the group chat (e.g. closing the group chat composing window or the IM application).
Pass-Criteria	Users B and C receive a notification that User A has left the conversation.
	2) Depending on Service Provider policy the IM session may still be open for users B and C or it might be closed.

6.11 RCS-e-1.2-int-037 - Group Chat: Non-Initiating User Goes Offline (Includes Optional Features)

Test Case Id	RCS-e-1.2-int-037
Test Object	Server
Test Case Description	Verifies the group chat continues after one of users (non-initiator) goes offline
Specification Reference	RCS-e 3.2.5, 3.2.5.3
Preconditions	Users A, B, C and D are IMS registered and the registration timer for each user is far from expiration
	RCS-e services have been successfully configured on the phone/(U)SIM pair for Users A, B, C and D.
	There is an on-going group chat between Users A, B, C and D. User A was the initiator of the group chat.
Test Procedure	User D losses coverage or his/her device is shutdown due (e.g., the empty battery).
	2. User A types a message and sends it to the group.
Pass-Criteria	1) At step 1, Users A, B and C receive a notification that User D has left the conversation and the participant list is updated.
	2) At step 1, User A, B and C will continue the group chat session.
	3) At step 2, Users B and C can see the "Is Composing" notification and the message from User A.

6.12 RCS-e-1.2-int-038 - Group Chat: Rejoin to Group Chat (Includes Optional Features)

Test Case Id	RCS-e-1.2-int-038
Test Object	Client/server
Test Case Description	Verifies successful ability to rejoin to group chat.
Specification Reference	RCS-e 3.2.5; RIG ID_4_21
Preconditions	Users A, B and C are IMS registered and the registration timer for each user is far from expiration
	RCS-e services have been successfully configured on the phone/(U)SIM pair for Users A, B and C.
	There is an on-going group chat between Users A, B and C. User A was the initiator of the group chat.
Test Procedure	1. User C leaves the group chat (e.g. closing the group chat composing window or the IM application).
	2. After waiting 5 mins, User A invites User C into a group chat.
	3. User C accepts the group chat invitation.
	4. User A types a message and sends it to the group.
Pass-Criteria	1) At step 1, Users A and B receive a notification that User C has left the conversation and the participant list is updated.
	2) At step 1, User A and B will continue the group chat session; however, file transfer as well as display notification are not available.
	3) At step 2, User C receives a group chat invitation.
	4) At step 3, User C has joined the group chat. A group chat window is established for User C. Participant list is updated on User A and B.
	5) At step 4, Users B and C can see the "Is Composing" notification and the message from User A.

6.13 CS-e-1.2-int-040 - File Transfer – Multiple Files (if supported) and Multiple Recipients (if supported) (Includes Optional Features)

Test Case Id	RCS-e-1.2-int-040
Test Object	Client/server
Test Case Description	Verifies successful file transfer
Specification Reference	RCS-e 3.2.4.14

Preconditions	RCS-e services have been successfully configured on the phone/(U)SIM pair for Users A, B, C and D
	Users A, B, C and D are IMS registered and the registration timer for each user is far from expiration
	User A, B, C and D handset clients are operating with data coverage over the following RANs:
	o 3G; or
	o HSPA; or
	o Wi-Fi.
	All users have enough free storage space to receive file/s
	File size being transferred is smaller than the warning file size (part of the configuration)
Test Procedure	If the selection of multiple files and multiple recipients is supported:
	User A selects three files from the local storage and then selects the file transfer option.
	2. User A selects User B, User C and User D from the list of active RCS-e contacts and selects to share.
	3. User B, User C and User D review and then accept the invitation.
	4. The files are transferred to User B, User C and User D.
	If the selection of multiple files and single recipient is supported:
	User A selects three files from the local storage and then selects the file transfer option.
	2. User A selects User B from the list of active RCS-e contacts and selects to share.
	3. User B reviews and then accepts the invitation.
	4. The files are transferred to User B.
	If the selection of single file and multiple recipients is supported:
	User A selects one file from the local storage and then selects the file transfer option
	2. User A selects User B, User C and User D from the list of active RCS-e contacts and selects to share.
	3. User B, User C and User D review and then accept the invitation.
	4. The file is transferred to User B, User C and User D.
	If the selection of single file and single recipient is supported:
	User A selects one file from the local storage and then selects the file transfer option
	User A selects User B from the list of active RCS-e contacts and selects to share.
	3. User B reviews and then accepts the invitation.
	4. The file is transferred to User B.

Pass-Criteria

Pass-Criteria for the selection of multiple files and multiple recipients is supported:

- 1) At step 2, RCS-e capability exchange takes place and User A sees that file transfer is available for User B, User C and User D.
- 2) At step 3, User B, User C and User D receive file transfer invitation.
 - User B, User C and User D should see the size of the file and an indication of the file type (e.g. MIME icon or mini-preview).
- 3) At step 4, upon User B, User C and User D accepting the file transfer invitation, they receive the file.
- 4) At step 4, User B, User C and User D can access the file (e.g. from storage on their handsets).

Pass-Criteria for the selection of multiple files and single recipient is supported:

- 1) At step 2, RCS-e capability exchange takes place and User A sees that file transfer is available for User B.
- 2) At step 3, User B receives file transfer invitation.
 - User B should see the size of the file and an indication of the file type (e.g. MIME icon or mini-preview).
- 3) At step 4, upon User B accepting the file transfer invitation, User B receives the file.
- 4) At step 4, User B can access the file (e.g. from storage on his handset).

Pass-Criteria for the selection of single file and multiple recipients is supported:

- 1) At step 2, RCS-e capability exchange takes place and User A sees that file transfer is available for User B, User C and User D.
- 2) At step 3, User B, User C and User D receive file transfer invitation.
 - User B, User C and User D should see the size of the file and an indication of the file type (e.g. MIME icon or mini-preview).
- 3) At step 4, upon User B, User C and User D accepting the file transfer invitation, they receive the file.
- 4) At step 4, User B, User C and User D can access the file (e.g. from storage on their handsets).

Pass-Criteria for the selection of single file and single recipient is supported:

- 1) At step 2, RCS-e capability exchange takes place and User A sees that file transfer is available for User B.
- 2) At step 3, User B receives file transfer invitation.
 - User B should see the size of the file and an indication of the file type (e.g. MIME icon or mini-preview).
- 3) At step 4, upon User B accepting the file transfer invitation, he receives the file.
- 4) At step 4, User B can access the file (e.g. from storage on his handset).

6.14 RCS-e-1.2-int-042 - File transfer: rejected (Includes Optional Features)

Test Case Id RCS-e-1.2-int-042

Test Object	Client/server
Test Case Description	Verifies correct operation when file transfer is rejected
Specification Reference	RCS-e 3.4.3
Preconditions	RCS-e services have been successfully configured on the phone/(U)SIM pair for User A and B
	User A and B are IMS registered and the registration timer for each user is far from expiration
	User A and B handset clients are operating with data coverage over the following RANs:
	o 3G; or
	o HSPA; or
	o Wi-Fi.
	User A has contacts in his address book, including User B
Test Procedure	User A selects User B from the list of active RCS-e users
	2. User A selects file transfer option
	3. User A selects a file from storage on his handset, and selects to share it with User B
	4. User B rejects the invitation
Pass-Criteria	1) At step 3 User B receives the file transfer invitation
	2) At step 4 the file is not received by User B
	3) At step 4 User A is notified that User B has rejected the file transfer request

6.15 RCS-e-1.2-int-043- File transfer: Cancelled by the sender (Includes Optional Features)

Test Case Id	RCS-e-1.2-int-043
Test Object	Client/server
Test Case Description	Verifies correct operation when file transfer is cancelled by the sender.
Specification Reference	RCS-e 3.4.4
Preconditions	RCS-e services have been successfully configured on the phone/(U)SIM pair for Users A and B
	Users A and B are IMS registered and the registration timer for each user is far from expiration
	 Users A and B handset clients are operating with data coverage over the following RANs:
	o 3G; or
	o HSPA; or
	o Wi-Fi.
	All users have enough free storage space to receive file/s
	• File size being transferred in this test case is smaller than the warning file size (part of the configuration)

Test Procedure	User A selects User B from the list of active RCS-e contacts.
	2. User A selects file transfer option
	3. User A selects a file from storage on his handset, and selects to share it with User B (i.e. file transfer invitation is sent to User B).
	4. User B accepts the invitation
	5. User A cancels the file transfer while the file is being transferred to User B.
Pass-Criteria	1) At step 1 RCS-e capability exchange takes place and User A sees file transfer capability available for User B.
	2) At step 3 User B receives file transfer invitation from User A.
	 User B should see the size of the file and an indication of the file type (e.g. MIME icon or mini-preview).
	3) At step 4 File transfer from User A to User B begins and the status of the file transfer is shown to both Users A and B.
	4) At step 5 User B receives an error message that User A has cancelled the file transfer.

6.16 RCS-e-1.2-int-050 - Video share: one-way (Includes Optional Features)

Test Case Id	RCS-e-1.2-int-050
Test Object	Client/server
Test Case Description	Verifies successful one-way video share
Specification Reference	RCS-e 3.3.5
Preconditions	RCS-e services have been successfully configured on the phone/(U)SIM pair for User A and B
	User A and B are IMS registered and the registration timer for each user is far from expiration
	User A and B handset clients are operating with data coverage over the following RANs:
	o 3G; or
	o HSPA; or
	o Wi-Fi.
Test Procedure	1. There is an on-going voice call between Users A and B.
	2. User A invites User B to share a video. The video may be a pre-stored or a video taken with the phone camera.
	3. User B accepts the video share invitation from User A.
	4. User B cancels the video share while the video is being transferred.

Pass-Criteria	1) At step 1, RCS-e capability exchange takes place and Users A and B are able to see each other's supported capabilities (including video share).
	2) At step 2, User B receives video share invitation.
	3) At step 3, Video transfer from User A to User B begins.
	4) At step 4, User A is notified that User B has cancelled the video share. Video is not available for User B.
	5) At step 4, The voice call is still active and supported capabilities (including video share) are still available for Users A and B.
	6) Capability discovery initiated by User A.

6.17 RCS-e-1.2-int-051 - Video share: Two simultaneous video share sessions (Includes Optional Features)

Test Case Id	DCG - 10 1 4 051
Test Case Id	RCS-e-1.2-int-051
Test Object	Client/server
Test Case Description	Verifies successful capability query during an on-going video share session and establishment of two simultaneous video share sessions.
Specification Reference	RCS-e 3.3, 3.3.1, 3.3.3
Preconditions	RCS-e services have been successfully configured on the phone/(U)SIM pair for User A and B
	User A and B are IMS registered and the registration timer for each user is far from expiration
	User A and B handset clients are operating with data coverage over the following RANs:
	o HSPA; or
	o Wi-Fi.
	Both clients (i.e. User A and B) support two simultaneous video/image share sessions.
	Video source may be pre-stored video or from live camera.
Test Procedure	1. There is an on-going voice call between Users A and B.
	2. User A initiates video sharing with User B for the selected video source.
	3. User B accepts the video share invitation request from User A.
	4. User B initiates video sharing with User A for the selected video source.
	5. User A accepts the video share invitation request from User B
	6. User A ends the video share session.

Pass-Criteria	1) At step 1 RCS-e capability exchange takes place and Users A and B are able to see each other's supported capabilities (e.g. video and image share).
	2) At step 2 User B receives a video share invitation from User A
	3) At step 3 User B receives the video shared by User A
	4) At step 3 RCS-e capability exchange takes place and Users A and B are able to see each other's supported capabilities (e.g. video and image share).
	5) At step 4 User A receives the video share invitation from User B
	6) At step 5 User A receives the video shared by User B
	7) At step 6 User B is notified that the video share session has ended. The voice call remains active.

6.18 RCS-e-1.2-int-052 - Video share: rejected (Includes Optional Features)

Test Case Id	RCS-e-1.2-int-052
Test Object	Client/server
Test Case Description	Verifies correct operation when a request for video share is rejected
Specification Reference	RCS-e 3.3.11
Preconditions	RCS-e services have been successfully configured on the phone/(U)SIM pair for User A and B
	User A and B are IMS registered and the registration timer for each user is far from expiration
	User A and B handset clients are operating with data coverage over the following RANs:
	o 3G; or
	o HSPA; or
	o Wi-Fi.
Test Procedure	1. There is an on-going voice call between Users A and B
	2. User A initiates video sharing with User B
	3. User B rejects the video share invitation request from User A
Pass-Criteria	1) At step 1 RCS-e capability exchange takes place and Users A and B are able to see each other's supported capabilities (e.g. video and image share).
	2) At step 2 User B receives the video share invitation
	3) At step 3 the call remains without video share
	4) At step 3 User A is notified that User B has rejected the video share request

6.19 RCS-e-1.2-int-053 - Video share – Sender on hold (Includes Optional Features)

	,
Test Case Id	RCS-e-1.2-int-053
Test Object	Client/server
Test Case Description	Verifies successful in-call video share session as while voice call on-hold
Specification Reference	RCS-e 3.3.15
Preconditions	RCS-e services have been successfully configured on the phone/(U)SIM pair for User A and B
	Users A and B are IMS registered and the registration timer for each user is far from expiration
	Users A and B handset clients are operating with data coverage over the following RANs:
	o 3G; or
	o HSPA; or
	o Wi-Fi.
	Video source may be pre-stored image or a video taken with the phone camera.
Test Procedure	1. There is an on-going voice call between Users A and B.
	2. User A invites User B to video share.
	3. User B accepts the video share invitation from User A.
	4. User A puts User B on hold.
	5. User A retrieves call with User B.
	6. User A invites User B to video share.
	7. User B accepts the video share invitation from User A.
Pass-Criteria	1) At step 1, RCS-e capability exchange takes place and Users A and B are able to see each other's supported capabilities (including video share).
	2) At step 2, User B receives an video share invitation from User A.
	3) At step 3, the video transfer begins from User A to User B. The video can be seen on User B's device.
	4) At step 4, the video is no longer shown on User B's device.
	5) At step 4, User B sees that video share is no longer available to be supported with User A.
	 New capability discovery between Users A and B is done once the call is put on the hold.
	6) At step 5, User B sees that video share is available to be supported with User A.
	7) At step 6, User B receives a video share invitation from User A.
	8) At step 7, the video transfer begins from User A to User B. The video can be seen on User B's device.

6.20 RCS-e-1.2-int-054 - Video share – Multi-party (Includes Optional Features)

Test Case Id	RCS-e-1.2-int-054
Test Object	Client/server
Test Case Description	Verifies successful video share behaviour when two party call is extended to multi-party
Specification Reference	RCS-e 3.3.14
Preconditions	RCS-e services have been successfully configured on the phone/(U)SIM pair for User A, B and C Head A B and C and IMS are it and a data are it action of the phone in the
	Users A, B and C are IMS registered and the registration timer for each user is far from expiration
	Users A, B and C handset clients are operating with data coverage over the following RANs:
	o 3G; or
	o HSPA; or
	o Wi-Fi.
	Video source may be pre-stored image or a video taken with the phone camera.
Test Procedure	1. There is an on-going voice call between Users A and B.
	2. User A invites User B to video share.
	3. User B accepts the video share invitation from User A.
	4. User A invites User C to the call.
	5. User A sets up three-way call with User B and User C.
Pass-Criteria	1) At step 1, RCS-e capability exchange takes place and Users A and B are able to see each other's supported capabilities (including video share).
	2) At step 2, User B receives an video share invitation from User A.
	3) At step 3, the video transfer begins from User A to User B. The video can be seen on User B's device.
	4) At step 4, the video is no longer shown on User B's device.
	5) At step 4, User A sees that video share is not available with Users B and C. User B sees that video share is not available for Users A and C. And User C sees that video share is not available for Users A and B.
	New capability discovery among Users A, B and C is done once the three-way call is established.

6.21 RCS-e-1.2-int-060 - Image share (Includes Optional Features)

Test Case Id	RCS-e-1.2-int-060
Test Object	Client/server
Test Case Description	Verifies successful in-call image share session
Specification Reference	RCS-e 3.3.7

Preconditions	 RCS-e services have been successfully configured on the phone/(U)SIM pair for User A and B
	Users A and B are IMS registered and the registration timer for each user is far from expiration
	 Users A and B handset clients are operating with data coverage over the following RANs:
	o 3G; or
	o HSPA; or
	o Wi-Fi.
	Image source may be pre-stored image or a picture taken with the phone camera.
	Image being transferred in this test case is smaller than the warning file size (part of the configuration)
Test Procedure	1. There is an on-going voice call between Users A and B.
	2. User A invites User B to share an image.
	3. User B accepts the image share invitation from User A.
	4. User B opens the shared image.
	5. User B closes the shared image.
Pass-Criteria	1) At step 1 RCS-e capability exchange takes place and Users A and B are able to see each other's supported capabilities (including image share).
	2) At step 2 User B receives an image share invitation from User A.
	 User B should see the size of the file and an indication of the file type (e.g. MIME icon or mini-preview).
	3) At step 3 the image transfer begins and the image is transferred successfully from User A to User B.
	4) At step 4 the image can be seen on User B's device.
	5) At step 5 the voice call is still active and supported capabilities (including image share) are still available for Users A and B.

6.22 RCS-e-1.2-int-061 - Image share not answered (Includes Optional Features)

Test Case Id	RCS-e-1.2-int-061
Test Object	Client/server
Test Case Description	Verifies an in-call image share which is not answered
Specification Reference	RCS-e 3.3.7

Preconditions	RCS-e services have been successfully configured on the phone/(U)SIM pair for User A and B
	User A and B are IMS registered and the registration timer for each user is far from expiration
	User A and B handset clients are operating with data coverage over the following RANs:
	o 3G; or
	o HSPA; or
	o Wi-Fi.
	 Image source may be pre-stored image or a picture taken with the phone camera.
	 Image being transferred is smaller than the warning file size (part of the configuration)
Test Procedure	1. There is an on-going voice call between Users A and B.
	2. User A invites User B to share an image.
	3. User B does not accepts the image share invitation from User A.
Pass-Criteria	1) At step 1, RCS-e capability exchange takes place and Users A and B are able to see each other's supported capabilities (including image share).
	2) At step 2, User B receives an image share invitation from User A.
	 User B should see the size of the file and an indication of the file type (e.g. MIME icon or mini-preview).
	3) At step 3, the image transfer does not begin from User A to User B.
	4) At step 3, User A receives a message indicating "No answer" or similar after the answer timeout expires

6.23 RCS-e-1.2-int-062 - Image share: Rejected (Includes Optional Features)

Test Case Id	RCS-e-1.2-int-062
Test Object	Client/server
Test Case Description	Verifies operation when in-call image share session is rejected by the receiver.
Specification Reference	RCS-e 3.3.11

Preconditions	RCS-e services have been successfully configured on the phone/(U)SIM pair for Users A and B
	Users A and B are IMS registered and the registration timer for each user is far from expiration
	Users A and B handset clients are operating with data coverage over the following RANs:
	o 3G; or
	o HSPA; or
	o Wi-Fi.
	Image source may be pre-stored image or a picture taken with the phone camera.
	Image being transferred in this test case is smaller than the warning file size (part of the configuration)
Test Procedure	1. There is an on-going voice call between Users A and B.
	2. User A invites User B to share an image.
	3. User B rejects the image share invitation from User A.
Pass-Criteria	1) At step 1 RCS-e capability exchange takes place and Users A and B are able to see each other's supported capabilities (including image share).
	2) At step 2 User B receives an image share invitation from User A.
	 User B should see the size of the file and an indication of the file type (e.g. MIME icon or mini-preview).
	3) At step 3 User A is notified that User B rejected the image share invitation. Image transfer does not start.
	4) At step 3 The voice call is still active and supported capabilities (including image share) are still available for Users A and B.

6.24 RCS-e-1.2-int-064 - Image share: Cancelled by the receiver (Includes Optional Features)

Test Case Id	RCS-e-1.2-int-064		
Test Object	Client/server		
Test Case Description	Verifies operation when in-call image share session is cancelled by the		
	receiver.		
Specification Reference	RCS-e 3.3.9		

Preconditions	RCS-e services have been successfully configured on the				
	phone/(U)SIM pair for Users A and B				
	Users A and B are IMS registered and the registration timer for each user is far from expiration				
	Users A and B handset clients are operating with data coverage over the following RANs:				
	o 3G; or				
	o HSPA; or				
	o Wi-Fi.				
	 Image being transferred in this test case is smaller than the warning file size (part of the configuration) 				
Test Procedure	There is an on-going voice call between Users A and B.				
	2. User A invites User B to share an image. The image may be a prestored image or a picture taken with the phone camera.				
	3. User B accepts the image share invitation from User A.				
	4. User B cancels the image share while the image file is being transferred.				
Pass-Criteria	1) At step 1 RCS-e capability exchange takes place and Users A and B are able to see each other's supported capabilities (including image share).				
	2) At step 2 User B receives image share invitation				
	 User B should see the size of the file and an indication of the file type (e.g. MIME icon or mini-preview). 				
	3) At step 3 Image transfer from User A to User B begins.				
	4) At step 4 User A is notified that User B cancelled the image share. Image is not available for User B.				
	5) At step 4 The voice call is still active and supported capabilities (including image share) are still available for Users A and B.				

Appendix A. Change History

(Informative)

A.1 Approved Version History

Reference	Date	Description	
n/a	n/a	No prior version	

A.2 Draft/Candidate Version 1.2 History

Document Identifier	Date	Sections	Description
Draft Versions	07 Feb 2012	n/a	No previous version within OMA
OMA-ETS-RCS-e-V1_0	10 Feb 2012	IOP	Basic set of test cases that cover main RCS-e features
	14 Feb 2012	IOP	Basic test case list updated
	16 Apr 2012	CON	Conformance test cases added (0019R02 and 0020R02) and 12 new
			conformance test cases
	19 Jul 2012	5	Updated according to:
			OMA-IOP-MEC-2012-0071R01-
			INP_RCS_e_capability_exchange_for_video_image_share
			OMA-IOP-MEC-2012-0072- INP_RCS_e_video_share_call_establishment
			Re-numbering of tables in the whole document
	28 Aug 2012	All	Updated according to:
	26 Aug 2012	All	OMA-IOP-MEC-2012-0082-CR_RCSe_conformance_fixes
			OMA-IOF-MEC-2012-0085-CR_RCSe_fixes
	05 Sep 2012	3.2, 5.25 to	Updated according to:
	03 Sep 2012	5.29 (new)	OMA-IOP-MEC-2012-0081R02-CR_RCSe_addDefinition
		6.25 (new)	OMA-IOP-MEC-2012-0061R02-CR_RCSe_daaDermitton
		0.20 ()	OMA-IOP-MEC-2012-0063R01-CR_RCSe_usable_Rcsusel OMA-IOP-MEC-2012-0092-CR_RCSe_IOP_new_conformance_tests,
			combined with and superseding OMA-IOP-MEC-2012-0086-
			CR_RCSe_additional_conformance_tests
Draft Versions	19 Sep 2012	CON	Conformance test cases were taken out to separate conformance ETS.
OMA-ETS-RCS-e-INT-V1_0			IOP test cases were renumbered., as agreed in OMA-IOP-MEC-2012-
	20.5. 2012		0106R01-CR_RCS_e_INT_ETS
	20 Sep 2012	All	Incorporated agreed CR:
	00.24 2012	A 11	OMA-IOP-MEC-2012-0111R01-CR_RCS_e_INT_ETS_update
	08 Nov 2012	All	Incorporated agreed CR used as baseline as per IOP MEC agreement in Los Angeles F2F meeting, superseding CR OMA-IOP-MEC-2012-
			0111R01:
			OMA-IOP-MEC-2012-0125R03-CR_RCS_e_INT_ETS_update3
	20 Nov 2012	All	Incorporated agreed CRs:
			OMA-IOP-MEC-2012-0138-CR_RCS_e_INT_ETS_new_tests
			OMA-IOP-MEC-2012-0139R02-CR_RCS_e_INT_ETS_impro
			OMA-IOP-MEC-2012-0144R02-CR_New_INT_Test_Cases
			OMA-IOP-MEC-2012-0149-CR_RCS_e_INT_ETS_addition
			Language set to English UK
			Cover page updated to match the ETS template
	21 Nov 2012	All	Renumbering of bullets
			Re-application of CR OMA-IOP-MEC-2012-0144R02 in INT-050
	18 Jan 2013	All	Incorporated agreed CRs:
			OMA-IOP-MEC-2012-0154R02-CR_RCSe_Test_Cases_Corrections
			OMA-IOP-MEC-2012-0162R03-
			CR_RCSe_INT_Update_Mandatory_Optional
	21 Jan 2013	6.13	Re-applied CR:
			OMA-IOP-MEC-2012-0154R02-CR_RCSe_Test_Cases_Corrections
			Re-numbering of one bullet

Document Identifier	Date	Sections	Description
	31 Jan 3013	All	Incorporated agreed CR:
			OMA-IOP-MEC-2013-0014-
			CR_RCS_e_INT_ETS_optional_test_cases
			Sorting of normative references in alphabetical order
Draft Version	05 Feb 2013	All	Renaming of the ETS: now OMA-ETS-RCS-e-INT-V1_2
OMA-ETS-RCS-e-INT-V1_2			According to Action Item IOP-2013-A003
Candidate Version	12 Feb 2012	n/a	Status changed to Candidate by TP
OMA-ETS-RCS-e-INT-V1_2			Ref # OMA-TP-2013-0035-
			INP_RCS_e_V1_2_INT_ETS_for_Candidate_approval