

ETSI TS 136 579-4 V16.0.0 (2023-04)



LTE;
Mission Critical (MC) services over LTE;
Part 4: Test Applicability and Implementation Conformance
Statement (ICS) proforma specification
(3GPP TS 36.579-4 version 16.0.0 Release 16)



Reference

RTS/TSGR-0536579-4vg00

Keywords

LTE

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - APE 7112B
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° w061004871

Important notice

The present document can be downloaded from:

<https://www.etsi.org/standards-search>

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the prevailing version of an ETSI deliverable is the one made publicly available in PDF format at www.etsi.org/deliver.

Users of the present document should be aware that the document may be subject to revision or change of status.

Information on the current status of this and other ETSI documents is available at

<https://portal.etsi.org/TB/ETSIDeliverableStatus.aspx>

If you find errors in the present document, please send your comment to one of the following services:

<https://portal.etsi.org/People/CommitteeSupportStaff.aspx>

If you find a security vulnerability in the present document, please report it through our
Coordinated Vulnerability Disclosure Program:

<https://www.etsi.org/standards/coordinated-vulnerability-disclosure>

Notice of disclaimer & limitation of liability

The information provided in the present deliverable is directed solely to professionals who have the appropriate degree of experience to understand and interpret its content in accordance with generally accepted engineering or other professional standard and applicable regulations.

No recommendation as to products and services or vendors is made or should be implied.

No representation or warranty is made that this deliverable is technically accurate or sufficient or conforms to any law and/or governmental rule and/or regulation and further, no representation or warranty is made of merchantability or fitness for any particular purpose or against infringement of intellectual property rights.

In no event shall ETSI be held liable for loss of profits or any other incidental or consequential damages.

Any software contained in this deliverable is provided "AS IS" with no warranties, express or implied, including but not limited to, the warranties of merchantability, fitness for a particular purpose and non-infringement of intellectual property rights and ETSI shall not be held liable in any event for any damages whatsoever (including, without limitation, damages for loss of profits, business interruption, loss of information, or any other pecuniary loss) arising out of or related to the use of or inability to use the software.

Copyright Notification

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.

The content of the PDF version shall not be modified without the written authorization of ETSI.

The copyright and the foregoing restriction extend to reproduction in all media.

© ETSI 2023.
All rights reserved.

Intellectual Property Rights

Essential patents

IPRs essential or potentially essential to normative deliverables may have been declared to ETSI. The declarations pertaining to these essential IPRs, if any, are publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "*Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards*", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<https://ipr.etsi.org/>).

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

Trademarks

The present document may include trademarks and/or tradenames which are asserted and/or registered by their owners. ETSI claims no ownership of these except for any which are indicated as being the property of ETSI, and conveys no right to use or reproduce any trademark and/or tradename. Mention of those trademarks in the present document does not constitute an endorsement by ETSI of products, services or organizations associated with those trademarks.

DECT™, **PLUGTESTS™**, **UMTS™** and the ETSI logo are trademarks of ETSI registered for the benefit of its Members. **3GPP™** and **LTE™** are trademarks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners. **oneM2M™** logo is a trademark of ETSI registered for the benefit of its Members and of the oneM2M Partners. **GSM®** and the GSM logo are trademarks registered and owned by the GSM Association.

Legal Notice

This Technical Specification (TS) has been produced by ETSI 3rd Generation Partnership Project (3GPP).

The present document may refer to technical specifications or reports using their 3GPP identities. These shall be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between 3GPP and ETSI identities can be found under <https://webapp.etsi.org/key/queryform.asp>.

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

Contents

Intellectual Property Rights	2
Legal Notice	2
Modal verbs terminology.....	2
Foreword.....	4
1 Scope	5
2 References	5
3 Definitions, symbols and abbreviations	6
3.1 Definitions	6
3.2 Symbols.....	7
3.3 Abbreviations	7
4 Recommended Test Case Applicability	7
Annex A (normative): ICS proforma for Mission Critical Services over LTE Client/Server.....	26
A.1 Guidance for completing the ICS proforma	26
A.1.1 Purposes and structure.....	26
A.1.2 Abbreviations and conventions	26
A.1.3 Instructions for completing the ICS proforma.....	27
A.2 Identification of the MCPTT Client/Server Equipment	27
A.2.1 Date of the statement	27
A.2.2 MCPTT Client/Server Under Test (CUT/SUT) identification	27
A.2.3 Product supplier.....	28
A.2.4 The Organisation responsible for the Product testing.....	28
A.2.5 ICS contact person.....	29
A.3 Identification of the protocol.....	29
A.4 ICS proforma tables.....	29
A.4.1 Implementation Types	29
A.4.2 Additional information	30
Annex B (informative): Change history	31
History	32

Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
 - 1 presented to TSG for information;
 - 2 presented to TSG for approval;
 - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

The present document is part 1 of a multi-part deliverable covering conformance test specification for Mission Critical Services over LTE consisting of:

3GPP TS 36.579-1 [2]: "Mission Critical (MC) services over LTE protocol conformance testing; Part 1: Common test environment"

3GPP TS 36.579-2 [3]: "Mission Critical (MC) services over LTE conformance testing; Part 2: Mission Critical Push To Talk (MCPTT) User Equipment (UE) Protocol conformance specification"

3GPP TS 36.579-3 [4]: "Mission Critical (MC) services over LTE conformance testing; Part 3: Mission Critical Push To Talk (MCPTT) Server Application test specification"

3GPP TS 36.579-4: "Mission Critical (MC) services over LTE conformance testing; Part 4: Test Applicability and Implementation Conformance Statement (ICS) proforma specification" (the present document)

3GPP TS 36.579-5 [5]: "Mission Critical (MC) services over LTE conformance testing; Part 5: Abstract test suite (ATS)"

3GPP TS 36.579-6 [11]: "Mission Critical (MC) services over LTE; Part 6: Mission Critical Video (MCVideo) User Equipment (UE) Protocol conformance specification".

3GPP TS 36.579-7 [12]: "Mission Critical (MC) services over LTE; Part 7: Mission Critical Data (MCDATA) User Equipment (UE) Protocol conformance specification".

1 Scope

The present document provides the Implementation Conformance Statement (ICS) proforma for testing Client or Server implementations for compliance to the Mission Critical Services over LTE protocol requirements defined by 3GPP, and in accordance with the relevant guidance given in ISO/IEC 9646-1 [7] and ISO/IEC 9646-7 [8].

The present document specifies the recommended applicability statement for the test cases included in 3GPP TS 36.579-2 [3] and 3GPP TS 36.579-3 [4], as well as, TS 36.579-6 [3] and 3GPP TS 36.579-7 [4]. These applicability statements are based on the features implemented in the Client or the Server respectively.

The present document is valid for Mission Critical Services Servers and Clients implemented according to 3GPP releases starting from Release 13 up to the Release indicated on the cover page of the present document.

The present document is valid for Mission Critical Video (MCVideo) and Mission Critical Data (MCData) Clients implemented according to 3GPP releases starting from Release 14 up to the Release indicated on the cover page of the present document.

The present document does not specify applicability or ICS for protocol conformance testing for the EPS (LTE) bearers which carry the Mission Critical Services data sent or received by the Client and/or the Server. These are defined in TS 36.523-2 [6].

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 36.579-1: "Mission Critical (MC) services over LTE; Part 1: Common test environment".
- [3] 3GPP TS 36.579-2: "Mission Critical (MC) services over LTE; Part 2: Mission Critical Push To Talk (MCPTT) User Equipment (UE) Protocol conformance specification".
- [4] 3GPP TS 36.579-3: "Mission Critical (MC) services over LTE; Part 3: Mission Critical Push To Talk (MCPTT) Server Application test specification".
- [5] 3GPP TS 36.579-5: "Mission Critical (MC) services over LTE; Part 5: Abstract test suite (ATS)".
- [6] 3GPP TS 36.523-2: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification".
- [7] ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [8] ISO/IEC 9646-7: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".
- [9] 3GPP TS 23.179: "Functional architecture and information flows to support mission critical communication services; Stage 2".
- [10] 3GPP TS 23.401: "3GPP System Architecture Evolution; GPRS enhancements for E-UTRAN access".

- [11] 3GPP TS 36.579-6: "Mission Critical (MC) services over LTE; Part 6: Mission Critical Video (MCVideo) User Equipment (UE) Protocol conformance specification".
- [12] 3GPP TS 36.579-7: "Mission Critical (MC) services over LTE; Part 7: Mission Critical Data (MCData) User Equipment (UE) Protocol conformance specification".
- [13] 3GPP TS 23.379: "Functional architecture and information flows to support Mission Critical Push To Talk (MCPTT); Stage 2".
- [14] 3GPP TS 33.180: "Security of the mission critical service".
- [15] 3GPP TS 24.379: "Mission Critical Push To Talk (MCPTT) call control; Protocol specification".
- [16] 3GPP TS 24.380: "Mission Critical Push To Talk (MCPTT) floor control; Protocol specification".
- [17] 3GPP TS 24.581: "Mission Critical Video (MCVideo) media plane control; Protocol specification".
- [18] 3GPP TS 24.282: "Mission Critical Data (MCData) signalling control; Protocol specification".
- [19] 3GPP TS 24.281: "Mission Critical Video (MCVideo) signalling control; Protocol specification".

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

In addition for the purposes of the present document, the following terms, definitions, symbols and abbreviations apply:

- such given in ISO/IEC 9646-1 [7] and ISO/IEC 9646-7 [8].

NOTE: Some terms and abbreviations defined in [7] and [8] are explicitly included below with small modification to reflect the terminology used in 3GPP.

Implementation Conformance Statement (ICS): A statement made by the supplier of an implementation or system claimed to conform to a given specification, stating which capabilities have been implemented.

ICS proforma: A document, in the form of a questionnaire, which when completed for an implementation or system becomes an ICS.

Implementation eXtra Information for Testing (IXIT): A statement made by a supplier or implementer of an UEUT which contains or references all of the information (in addition to that given in the ICS) related to the UEUT and its testing environment, which will enable the test laboratory to run an appropriate test suite against the UEUT.

IUT containing MCX Client: A statement identifying which entity, and associated requirements, from the MCX service architecture is subject of testing. Depending on the TS 36.579-5[5] test model being used, the LTE UE (with the MCX Client installed) is considered as the IUT (MCX EUTRA test model), or, only the MCX Client is considered as the IUT (MCX IPCAN test model).

IXIT proforma: A document, in the form of a questionnaire, which when completed for an UEUT becomes an IXIT.

Protocol Implementation Conformance Statement (PICS): An ICS for an implementation or system claimed to conform to a given protocol specification.

Protocol Implementation eXtra Information for Testing (PIXIT): An IXIT related to testing for conformance to a given protocol specification.

static conformance review: A review of the extent to which the static conformance requirements are claimed to be supported by the UEUT, by comparing the answers in the ICS(s) with the static conformance requirements expressed in the relevant specification(s).

3.2 Symbols

Void

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

CUT	Client Under Test
FFS	For Further Study
ICS	Implementation Conformance Statement
IUT	Implementation Under Test
IXIT	Implementation eXtra Information for Testing
MC	Mission Critical
MCDATA	Mission Critical Data
MCPTT	Mission Critical Push To Talk
MCVideo	Mission Critical Video
MCX	Mission Critical X, with X = PTT or X= Video or X= Data
SCS	System Conformance Statement
SS	System Simulator
SUT	Server Under Test
TC	Test Case

4 Recommended Test Case Applicability

The applicability of each individual test is identified in Table 4-1 (MCPTT Client), Table 4-2 (MCPTT Server), Table 4-3 (MCVideo Client), Table 4-4 (MCDATA Client). This is just a recommendation based on the purpose for which the test case was written.

The applicability of every test is formally expressed by the use of Boolean expression that are based on parameters (ICS) included in annex A of the present document.

Additional information related to the Test Case (TC), e.g. affecting its dynamic behaviour or its execution may be provided as well

The columns in Table 4-1, Table 4-2, Table 4-3, Table 4-4 have the following meaning:

Clause

The clause column indicates the clause number in TS 36.579-2 [3] or TS 36.579-3 [4] or TS 36.579-6 [11] or TS 36.579-7 [12] respectively which contains the test body.

Title

The title column describes the name of the test and contains the clause title of the clause in TS 36.579-2 [3] or TS 36.579-3 [4] or TS 36.579-6 [11] or TS 36.579-7 [12] respectively which contains the test body.

Release

The release column indicates the earliest release from which the test case is applicable. In some specific cases it may indicate the release(s) for which the TC is **only** applicable.

Note: Some exceptions to this interpretation may be indicated in Notes in column 'Number of TC Executions'.

Applicability - Condition

The following notations are used for the applicability column:

R	recommended - the test case is recommended
O	optional – the test case is optional
N/A	not applicable - in the given context, the test case is not recommended.
Ci	conditional - the test is recommended ("R") or not ("N/A") depending on the support of other items. "i" is an integer identifying a unique conditional status expression which is defined immediately following the table. For nested conditional expressions, the syntax "IF ... THEN (IF ... THEN ... ELSE...) ELSE ..." is used to avoid ambiguities.

NOTE: The conditions are defined in Table 4-1a (MCPTT Client), Table 4-2a (MCPTT Server), Table 4-3a (MCVideo Client), Table 4-4a (MCData Client) respectively. To avoid ambiguity for the MCPTT Server testing conditions the notation of CCI is used.

Applicability - Comments

This column contains a verbal description of the condition.

Additional Information - Specific ICS

This column contains the mnemonics of ICS(s) affecting the dynamic behaviour of the TC.

NOTE: ICS items specified in other test specifications can be referred, to avoid redundant definitions.

Additional Information - Specific IXIT

This column contains the mnemonics of IXIT(s) affecting the dynamic behaviour of the TC. IXITs are defined in TS 36.579-5 [6]

Additional Information - Number of TC Executions

This column contains, wherever applicable, the recommended for certification purposes number of TC executions. It may contain also other information e.g. exceptions to the release applicable to the test. Clarifying notes when available are listed in dedicated tables with table numbers having the suffix "b" e.g. Table 4-1b (MCPTT Client).

Release RAT

The Release RAT column indicates the earliest release of the RAT bearer over which the test should be conducted. In the present specification the RAT is E-UTRA. Note that the release of the MC functionality does not have to align with that of the E-UTRA bearer. In case the Release RAT column is empty, the release version specified in the Release column (release of the MC functionality) applies.

Table 4-1: Applicability of MCPTT Client tests and additional information for testing

Clause	TC Title	Release MCPTT	Applicability		Additional Information			
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions	Release RAT
5	MCPTT Client Configuration							
5.1	Configuration / Authentication / User Authorisation / UE Configuration / User Profile / Key Generation	Rel-14	C01	IUT containing MCPTT Client				Rel-12
5.2	Configuration / Group Creation / Group Regroup Creation / Group Regroup Teardown	Rel-14	C01	IUT containing MCPTT Client				Rel-12
5.3	Configuration / Group Affiliation / Remote change / De-affiliation / Home MCPTT system	Rel-14	C01	IUT containing MCPTT Client				Rel-12
5.4	Configuration / Pre-established Session Establishment / Pre-established Session Modification / Pre-established Session Release	Rel-14	C01	IUT containing MCPTT Client				Rel-12
5.5	Configuration / Determination of MCPTT Service Settings / Current Active MCPTT Settings / De-subscribe	Rel-14	C01	IUT containing MCPTT Client				Rel-12
5.6	Configuration / Download CSK	Rel-15	C01	IUT containing MCPTT Client				Rel-12
5.7	Configuration / Subscription to group dynamic data / De-subscribe	Rel-15	C01	IUT containing MCPTT Client				Rel-12
5.8	Configuration / Functional Alias / Functional alias status determination / Activate functional alias / Deactivate functional alias	Rel-15	C01	IUT containing MCPTT Client				Rel-12
5.9	Configuration / Functional Alias / Location based functional alias status change	Rel-15	C01	IUT containing MCPTT Client				Rel-12
6	MCPTT Client on-network operation							
6.1	Group Calls							
6.1.1	Pre-arranged Group Call							
6.1.1.1	On-network / On-demand Pre-arranged Group Call / Automatic Commencement Mode / End-to-end communication security / Floor Control / Upgrade to Emergency Group Call / Cancel Emergency State / Upgrade to Imminent Peril Group Call / Cancel Imminent Peril State / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.1.2	On-network / On-demand Pre-arranged Group Call / Automatic Commencement Mode / Floor Control / Upgrade to Emergency Group Call / Cancel Emergency State / Upgrade to Imminent Peril Group Call / Cancel Imminent Peril State / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.1.3	On-network / On-demand Pre-arranged Group Call / Manual Commencement Mode / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.1.4	On-network / On-demand Pre-arranged Group Call / Manual Commencement Mode / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12

Clause	TC Title	Release MCPTT	Applicability		Additional Information			
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions	Release RAT
6.1.1.5	On-network / Pre-arranged Group Call using pre-established session / Client originated Pre-established Session Release with associated MCPTT session / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.1.6	On-network / Pre-arranged Group Call using pre-established session / Automatic Commencement Mode / Server originated Pre-established Session Release with associated MCPTT session / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.1.7	On-network / Pre-arranged Group Call using pre-established session / Manual Commencement Mode / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.1.8	On-network / Pre-arranged Broadcast Group Call / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.1.9	On-network / Pre-arranged Broadcast Group Call / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.1.10	On-network / Broadcast Group Call with Temporary Group / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.1.11	On-network / Pre-arranged Emergency Group Call / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.1.12	On-network / Pre-arranged Emergency Group Call / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.1.13	On-network / Pre-Arranged Imminent Peril Group Call / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.1.14	On-network / Pre-Arranged Imminent Peril Group Call / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.1.15	On-network / Emergency Alert / Cancel Emergency Alert / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.1.16	On-network / Emergency Alert / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.1.17	On-network / Broadcast Group Call using pre-established session / Client originated Pre-established Session Release with associated MCPTT session / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.1.18	On-network / Broadcast Group Call using pre-established session / Automatic Commencement Mode / Server originated Pre-established Session Release with associated MCPTT session / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.1.19	On-network / On-demand Pre-arranged Group Call / Active functional alias / Client Originated (CO)	Rel-15	C01	IUT containing MCPTT Client				Rel-12
6.1.1.20	On-network / On-demand Pre-arranged Group Call / Multi Talker	Rel-15	C01	IUT containing MCPTT Client				Rel-12
6.1.1.21	On-network / On-demand Pre-arranged Group Call / No Implicit Floor Control / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.2	Chat Group Calls							

Clause	TC Title	Release MCPTT	Applicability		Additional Information			
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions	Release RAT
6.1.2.1	Void							
6.1.2.2	On-network / Chat Group Call Using Pre-established Session Including Emergency and Imminent Peril Calls / Client Server originated Pre-established Session Release with associated MCPTT session / Client Origination (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.2.3	Void							
6.1.2.4	Void							
6.1.2.5	Void							
6.1.2.6	Void							
6.1.2.7	On-network / Chat Group Call / Emergency Group Call / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.2.8	On-network / Chat Group Call / Emergency Group Call / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.2.9	On-network / Chat Group Call / Imminent Peril Group Call / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.2.10	On-network / Chat Group Call / Imminent Peril Group Call / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.2.11	On-network / Chat Group Call / Join Chat Group Session / Upgrade to Emergency / Cancel Emergency / Upgrade to Imminent Peril / Cancel Imminent Peril / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.2.12	On-network / Chat Group Call / Join Chat Group Session / Upgrade to Emergency / Cancel Emergency / Upgrade to Imminent Peril / Cancel Imminent Peril / Client Originated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.1.2.13	On-network / Chat Group Call / Join Chat Group Session / Active functional alias / Client Originated (CO)	Rel-15	C01	IUT containing MCPTT Client				Rel-12
6.1.2.14	On-network / Chat Group Call / Chat Group Call Using Pre-established Session / Active functional alias / Client Originated (CO)	Rel-15	C01	IUT containing MCPTT Client				Rel-12
6.1.3	Conference Event Package							
6.1.3.1	On-network / Conference Event Package / Subscription to Conference Event Package / Termination of subscription	Rel-15	C01	IUT containing MCPTT Client				Rel-12
6.1.4	Remote Change of Selected Group							
6.1.4.1	On-network / Remote Change of Selected Group / Selected Group Change of Targeted User / Client Originated (CO)	Rel-15	C01	IUT containing MCPTT Client				Rel-12
6.1.4.2	On-network / Remote Change of Selected Group / Selected Group Change of Targeted User / Client Terminated (CT)	Rel-15	C01	IUT containing MCPTT Client				Rel-12
6.1.5	Remotely initiated group call							
6.1.5.1	On-network / Remotely initiated group call / Client Originated (CO)	Rel-15	C01	IUT containing MCPTT Client				Rel-12
6.1.5.2	On-network / Remotely initiated group call / Client Terminated (CT)	Rel-15	C01	IUT containing MCPTT Client				Rel-12

Clause	TC Title	Release MCPTT	Applicability		Additional Information			
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions	Release RAT
6.2	Private Calls							
6.2.1	On-network / Private Call / On-demand / Automatic Commencement Mode / With Floor Control / Upgrade to Emergency Call / Cancellation of Emergency on User request / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.2.2	On-network / Private Call / On-demand / Automatic Commencement Mode / With Floor Control / Upgrade to Emergency Call / Cancellation of Emergency on User request / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.2.3	On-network / Private Call / On-demand / Automatic Commencement Mode / Without Floor Control / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.2.4	On-network / Private Call / On-demand / Automatic Commencement Mode / Without Floor Control / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.2.5	On-network / Private Call / Emergency Private Call / On-demand / Automatic Commencement Mode / Force of automatic commencement mode / Without Floor Control / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.2.6	On-network / Private Call / Emergency Private Call / On-demand / Automatic Commencement Mode / Force of automatic commencement mode / Without Floor Control / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.2.7	On-network / Private Call / On-demand / Manual Commencement Mode / Without Floor Control / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.2.8	On-network / Private Call / On-demand / Manual Commencement Mode / Without Floor Control / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.2.9	On-network / Private Call / Within a pre-established session / Automatic Commencement Mode / Without Floor Control / Client Originated (CO)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.2.10	On-network / Private Call / Within a pre-established session / Automatic Commencement Mode / Without Floor Control / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.2.11	On-network / Private Call / Within a pre-established session / Manual Commencement Mode / Without Floor Control / Release of the Call and the pre-established session / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.2.12	On-network / Private Call / Private Call Call-Back Request / Private Call Call-Back Cancel Request / Client Originated (CO) / Private call call-back fulfilment	Rel-14	C01	IUT containing MCPTT Client				Rel-12

Clause	TC Title	Release MCPTT	Applicability		Additional Information			
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions	Release RAT
6.2.13	On-network / Private Call / Private Call Call-Back Request / Private Call Call-Back Cancel Request / Client Terminated (CT) / Private call call-back fulfilment	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.2.14	On-network / Private Call / Ambient listening call / Remotely initiated Ambient listening call / Remotely initiated ambient listening call release / Success / Client Originated (CO) / Server initiated ambient call release	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.2.15	On-network / Private Call / Ambient listening call / Remotely initiated Ambient listening call / Remotely initiated ambient listening call release / Success / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.2.16	On-network / Private Call / Ambient listening call / Locally initiated Ambient listening call / Locally initiated ambient listening call release / Success / Client Originated (CO) / Server initiated ambient call release	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.2.17	On-network / Private Call / Ambient listening call / Locally initiated Ambient listening call / Locally initiated ambient listening call release / Success / Client Terminated (CT)	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.2.18	On-network / Private call / Ambient listening call / Remote initiated ambient listening call / Pre-established session / Ambient listening call release / Client Originated (CO)	Rel-15	C01	IUT containing MCPTT Client				Rel-12
6.2.19	On-network / Private call / Ambient listening call / Remote initiated ambient listening call / Pre-established session / Ambient listening call release / Client Terminated (CT)	Rel-15	C01	IUT containing MCPTT Client				Rel-12
6.2.20	On-network / First-to-answer call / On-demand session / Client Originated (CO)	Rel-15	C04	IUT containing MCPTT Client and the UE uses on-demand sessions for initiating First-to-answer calls				Rel-12
6.2.21	On-network / First-to-answer call / On-demand session / Client Terminated (CT)	Rel-15	C01	IUT containing MCPTT Client				Rel-12
6.2.22	On-network / First-to-answer call / Pre-established session / Client Originated (CO)	Rel-15	C05	IUT containing MCPTT Client and the UE uses pre-established sessions for initiating First-to-answer calls				Rel-12
6.2.23	On-network / First-to-answer call / Pre-established session / Client Terminated (CT)	Rel-15	C01	IUT containing MCPTT Client				Rel-12
6.2.24	On-network / Private call / Remotely initiated private call / Client Originated (CO)	Rel-15	C01	IUT containing MCPTT Client				Rel-12
6.2.25	On-network / Private call / Remotely initiated private call / On-demand session / Client Terminated (CT)	Rel-15	C02	IUT containing MCPTT Client and the UE uses on-demand sessions for Remotely initiated Private calls				Rel-12
6.2.26	On-network / Private call / Remotely initiated private call / Pre-established session / Client Terminated (CT)	Rel-15	C03	IUT containing MCPTT Client and the UE uses pre-established sessions for Remotely initiated Private calls				Rel-12

Clause	TC Title	Release MCPTT	Applicability		Additional Information			
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions	Release RAT
6.3	Location							
6.3.1	On-network / Location / Event Triggered Location Information Report	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.3.2	On-network / Location / On-demand Location Information Request	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.4	MBMS							
6.4.1	On-network / MBMS / MBMS Bearer Announcement / MBMS Bearer Listening Status / Transition to MBMS from Unicast / MBMS Floor Control / Transition to Unicast from MBMS	Rel-14	C01	IUT containing MCPTT Client				Rel-12
6.4.2	On-network / MBMS / Multi Talker	Rel-15	C01	IUT containing MCPTT Client				Rel-12
7	MCPTT Client off-network operation							
7.1	Off network Group Calls							
7.1.1	Off-network / Group Call / Floor Control / Upgrade to Emergency Call / Downgrade from Emergency / Upgrade to Imminent Peril / Downgrade from Imminent Peril / Release Call / Client Originated (CO)	Rel-13	C01	IUT containing MCPTT Client NOTE 1				
7.1.2	Off-network / Group Call / Floor Control / Upgrade to Emergency Call / Downgrade from Emergency / Upgrade to Imminent Peril / Downgrade from Imminent Peril / Release Call / Client Terminated (CT)	Rel-13	C01	IUT containing MCPTT Client NOTE 1				
7.1.3	Off-network / Group Call / Leave Group Call when GROUP CALL PROBE sent / Initiate Group Call for Released Call / Receive GROUP CALL ACCOUCEMENT for Released call / No GROUP CALL ACCOUCEMENT for Released Call / Receive Response to GROUP CALL PROBE	Rel-13	C01	IUT containing MCPTT Client NOTE 1				
7.1.4	Off-network / Group Call / MCPTT User Acknowledgement Required / With Confirm Indication / MCPTT User Reject / MCPTT User Accept / Client Terminated (CT)	Rel-13	C01	IUT containing MCPTT Client NOTE 1				
7.1.5	Off-network / Group Call / MCPTT User Acknowledgement Required / Without Confirm Indication / MCPTT User Reject / MCPTT User Accept / Client Terminated (CT)	Rel-13	C01	IUT containing MCPTT Client NOTE 1				
7.1.6	Off-network / Group Call / Merge Two Calls	Rel-13	C01	IUT containing MCPTT Client NOTE 1				
7.1.7	Off-network / Group Call / Emergency Call / Imminent Peril Call / Client Originated (CO)	Rel-13	C01	IUT containing MCPTT Client NOTE 1				
7.1.8	Off-network / Group Call / Emergency Call / Imminent Peril Call / Client Terminated (CT)	Rel-13	C01	IUT containing MCPTT Client NOTE 1				
7.1.9	Off-network / Group Call / Emergency Alert / Emergency Alert Retransmission / Cancel Emergency Alert / Client Originated (CO)	Rel-13	C01	IUT containing MCPTT Client NOTE 1				

Clause	TC Title	Release MCPTT	Applicability		Additional Information			
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions	Release RAT
7.1.10	Off-network / Group Call / Emergency Alert / Emergency Alert Retransmission / Cancel Emergency Alert / Client Terminated (CT)	Rel-13	C01	IUT containing MCPTT Client NOTE 1				
7.1.11	Off-network / Group Call / Broadcast Group Call / Broadcast Group Call Retransmitting / Broadcast Group Call Release / Client Originated (CO)	Rel-13	C01	IUT containing MCPTT Client NOTE 1				
7.1.12	Off-network / Group Call / Broadcast Group Call / MCPTT User Ack Not Required / Originator Releases Call / Client Terminated (CT)	Rel-13	C01	IUT containing MCPTT Client NOTE 1				
7.1.13	Off-network / Group Call / Broadcast Group Call / MCPTT User Ack Required / MCPTT User Reject / MCPTT User Accept / MCPTT User Releases Call / Client Terminated (CT)	Rel-13	C01	IUT containing MCPTT Client NOTE 1				
7.2	Off-network Private Calls							
7.2.1	Off-network / Private Call / On-demand / Automatic Commencement Mode / No Response to Private Call Setup Request / Private call setup success / With Floor Control / Upgrade to Emergency Call / Cancellation of Emergency on User request / Client Originated (CO)	Rel-13	C01	IUT containing MCPTT Client NOTE 1				
7.2.2	Off-network / Private Call / On-demand / Automatic Commencement Mode / No Response to Private Call Setup Accept / Private call setup success / With Floor Control / Upgrade to Emergency Call / Cancellation of Emergency on User request / Client Terminated (CT)	Rel-13	C01	IUT containing MCPTT Client NOTE 1				
7.2.3	Off-network / Private Call / On-demand / Automatic Commencement Mode / Upgrade to Emergency Call Reject / Downgrade from Emergency Call Failure / Client Originated (CO)	Rel-13	C01	IUT containing MCPTT Client NOTE 1				
7.2.4	Off-network / Private Call / On-demand / Manual Commencement Mode / Call Released before establishment completion / Call request Rejected / Call establishment successful / Client Originated (CO)	Rel-13	C01	IUT containing MCPTT Client NOTE 1				
7.2.5	Off-network / Private Call / On-demand / Manual Commencement Mode / Call Released before establishment completion / User does not answer to Ringing / User Rejects call request / Call establishment successful / Client Terminated (CT)	Rel-13	C01	IUT containing MCPTT Client NOTE 1				
NOTE 1: Due to lack of industry interest in deployment of the feature, RAN5 is not pursuing update of these TCs to comply with Rel-14 and they will not be used for TTCN development as part of the TTCN-3 test suite, which can be used for validating the conformance of MCS Clients compliant with the Rel-14 requirements. These TCs may be considered for update and developed and used in future releases for FFS.								

Table 4-1a: Applicability of tests Conditions MCPTT Client

C01	IF A.4.1-1/1 THEN R ELSE N/A
C02	IF A.4.1-1/1 AND A.4.1-2/4 THEN R ELSE N/A
C03	IF A.4.1-1/1 AND A.4.1-2/5 THEN R ELSE N/A
C04	IF A.4.1-1/1 AND A.4.1-2/6 THEN R ELSE N/A
C05	IF A.4.1-1/1 AND A.4.1-2/7 THEN R ELSE N/A

Table 4-2: Applicability of MCPTT Server tests and additional information for testing

Clause	TC Title	Release	Applicability		Additional Information		
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions
5	MCVideo Client Configuration						
5.1	MCPTT Server - MCPTT Client / Configuration / Authentication / User Authorisation / UE Configuration / User Profile	Rel-13	CC01	IUT is MCPTT Server			
6	Server - Client operation						
6.1	MCPTT Server - MCPTT Client / On-demand Pre-arranged Group Call / Automatic Commencement Mode / Floor Control	Rel-13	CC01	IUT is MCPTT Server			
7	Server - Server operation						
7.1	MCPTT Server - MCPTT Server / On-demand Pre-arranged Group Call / Automatic Commencement Mode / Floor Control / Controlling Server	Rel-13	CC01	IUT is MCPTT Server			
7.2	MCPTT Server - MCPTT Server / On-demand Pre-arranged Group Call / Automatic Commencement Mode / Floor Control / Participating Server	Rel-13	CC01	IUT is MCPTT Server			

Table 4-2a: Applicability of tests Conditions MCPTT Server

CC01	IF A.4.1-1/2 THEN R ELSE N/A
------	------------------------------

Table 4-3: Applicability of MCVideo Client tests and additional information for testing

Clause	TC Title	Release	Applicability		Additional Information		
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions
5	MCVideo Client Configuration						
5.1	Configuration / Authentication / User Authorization / UE Configuration / User Profile / Key Generation	Rel-14	CV01	IUT is MCVideo Client			
5.2	Configuration / Group Creation / Group ReGroup Creation / Group ReGroup Teardown	Rel-14	CV01	IUT is MCVideo Client			
5.3	Configuration / Group Affiliation / Remote change / De-affiliation / Home MCVideo system	Rel-14	CV01	IUT is MCVideo Client			
5.4	Configuration / Determination of MCVideo Service Settings / Current Active MCVideo Settings / De-subscribe	Rel-14	CV01	IUT is MCVideo Client			
6	On-Network Test Scenarios						
6.1	Group Calls						
6.1.1	Pre-Arranged Group Call						

Clause	TC Title	Release	Applicability		Additional Information		
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions
6.1.1.1	On-network / On-demand Pre-arranged Group Call / Automatic Commencement Mode / Transmission Control / Upgrade to Emergency Group Call / Cancel Emergency State / Upgrade to Imminent Peril Group Call / Cancel Imminent Peril State / Client Originated (CO)	Rel-14	CV01	IUT is MCVideo Client			
6.1.1.2	On-network / On-demand Pre-arranged Group Call / Automatic Commencement Mode / Reception Control / Upgrade to Emergency Group Call / Cancel Emergency State / Upgrade to Imminent Peril Group Call / Cancel Imminent Peril State / Client Terminated (CT)	Rel-14	CV01	IUT is MCVideo Client			
6.1.1.3	On-network / On-demand Pre-arranged Group Call / Manual Commencement Mode / Client Originated (CO)	Rel-14	CV01	IUT is MCVideo Client			
6.1.1.4	On-network / On-demand Pre-arranged Group Call / Manual Commencement Mode / Client Terminated (CT)	Rel-14	CV01	IUT is MCVideo Client			
6.1.1.5	On-network / On-demand Pre-arranged Group Call / Emergency Group Call / Client Originated (CO)	Rel-14	CV01	IUT is MCVideo Client			
6.1.1.6	On-network / On-demand Pre-arranged Group Call / Emergency Group Call / Client Terminated (CT)	Rel-14	CV01	IUT is MCVideo Client			
6.1.1.7	On-network / On-demand Pre-arranged Group Call / Broadcast Group Call / Client Originated (CO)	Rel-14	CV01	IUT is MCVideo Client			
6.1.1.8	On-network / On-demand Pre-arranged Group Call / Broadcast Group Call / Client Terminated (CT)	Rel-14	CV01	IUT is MCVideo Client			
6.1.1.9	On-network / On-demand Pre-arranged Group Call / Broadcast Group Call with Temporary Group / Client Originated (CO)	Rel-14	CV01	IUT is MCVideo Client			
6.1.1.10	On-network / On-demand Pre-arranged Group Call / Imminent Peril Group Call / Client Originated (CO)	Rel-14	CV01	IUT is MCVideo Client			
6.1.1.11	On-network / On-demand Pre-arranged Group Call / Imminent Peril Group Call / Client Terminated (CT)	Rel-14	CV01	IUT is MCVideo Client			
6.1.1.12	On-network / On-demand Pre-arranged Group Call / Transmission Control State Transitions / Client Originated (CO)	Rel-15	CV01	IUT is MCVideo Client			
6.1.1.13	On-network / On-demand Pre-arranged Group Call / Reception Control State Transitions / Client Terminated (CT)	Rel-15	CV01	IUT is MCVideo Client			
6.1.2	Chat Group Call						

Clause	TC Title	Release	Applicability		Additional Information		
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions
6.1.2.1	On-network / Chat Group Call / Join Chat Group Session / End Chat Group Call / Client Originated (CO)	Rel-14	CV01	IUT is MCVideo Client			
6.1.2.2	On-network / Chat Group Call / Upgrade to Emergency Chat Group Call / Cancel Emergency Chat Group Call / Upgrade to Imminent Peril Chat Group Call / Cancel Imminent Peril Chat Group Call / Client Origination (CO)	Rel-14	CV01	IUT is MCVideo Client			
6.1.2.3	On-network / Chat Group Call / Upgrade to Emergency Chat Group Call / Cancel Emergency Chat Group Call / Upgrade to Imminent Peril Chat Group Call / Cancel Imminent Peril Chat Group Call / Client Terminated (CT)	Rel-14	CV01	IUT is MCVideo Client			
6.1.2.4	On-network / Chat Group Call / Emergency Call / Imminent Peril Call / Client Terminated (CT)	Rel-14	CV01	IUT is MCVideo Client			
6.1.2.5	On-network / Chat Group Call / Emergency Call / Imminent Peril Call / Client Originated (CO)	Rel-15	CV01	IUT is MCVideo Client			
6.1.3	Subscription to Conference Event Package						
6.1.3.1	On-network / Conference Event Package / Subscription to Conference Event Package / Termination of subscription	Rel-15	CV01	IUT is MCVideo Client			
6.1.4	Remote Change of selected Group						
6.1.4.1	On-network / Remote Change of Selected Group / Selected Group Change of Targeted User / Client Originated (CO)	Rel-15	CV01	IUT is MCVideo Client			
6.1.4.2	On-network / Remote Change of Selected Group / Selected Group Change of Targeted User / Client Terminated (CT)	Rel-15	CV01	IUT is MCVideo Client			
6.2	Private Calls						
6.2.1	On-network / Private Call / On-demand / Automatic Commencement Mode / With Transmission Control / Upgrade to Emergency Call / Cancellation of Emergency on User Request / Client Originated (CO)	Rel-14	CV01	IUT is MCVideo Client			
6.2.2	On-network / Private Call / On-demand / Automatic Commencement Mode / With Transmission Control / Upgrade to Emergency Call / Cancellation of Emergency on User request / Client Terminated (CT)	Rel-14	CV01	IUT is MCVideo Client			

Clause	TC Title	Release	Applicability		Additional Information		
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions
6.2.3	On-network / Private Call / On-demand / Automatic Commencement Mode / Without Transmission Control / Client Originated (CO)	Rel-14	CV01	IUT is MCVideo Client			
6.2.4	On-network / Private Call / On-demand / Automatic Commencement Mode / Without Transmission Control / Client Terminated (CT)	Rel-14	CV01	IUT is MCVideo Client			
6.2.5	On-network / Private Call / Emergency Private Call / On-demand / Automatic Commencement Mode / Force of Automatic Commencement Mode / Without Transmission Control / Client Originated (CO)	Rel-14	CV01	IUT is MCVideo Client			
6.2.6	On-network / Private Call / Emergency Private Call / On-demand / Manual Commencement Mode / Force of automatic commencement mode / Without Transmission Control / Client Terminated (CT)	Rel-14	CV01	IUT is MCVideo Client			
6.2.7	On-network / Private Call / On-demand / Manual Commencement Mode / Without Transmission Control / Client Originated (CO)	Rel-14	CV01	IUT is MCVideo Client			
6.2.8	On-network / Private Call / On-demand / Manual Commencement Mode / Without Transmission Control / Client Terminated (CT)	Rel-14	CV01	IUT is MCVideo Client			
6.3	Emergency Alert						
6.3.1	On-network / Emergency Alert / Cancel Emergency alert / Client Originated (CO)	Rel-15	CV01	IUT is MCVideo Client			
6.3.2	On-network / Emergency Alert / Emergency alert origination / Emergency alert cancellation / Client Terminated (CT)	Rel-15	CV01	IUT is MCVideo Client			
6.4	Video Pull						
6.4.1	On-network / Video Pull call / One-to-one video pull call / Client Originated (CO)	Rel-15	CV01	IUT is MCVideo Client			
6.4.2	On-network / Video pull call / One-to-one video pull call / Client Terminated (CT)	Rel-16	CV01	IUT is MCVideo Client			
6.5	Video Push						
6.5.1	On-network / Video push call / One-to-one video push call / Client Originated (CO)	Rel-15	CV01	IUT is MCVideo Client			
6.7	Ambient viewing call						
6.7.1	On-network / On-demand ambient viewing call / Remote initiated ambient viewing call / Client Originated (CO)	Rel-15	CV01	IUT is MCVideo Client			
6.7.2	On-network / On-demand ambient viewing call / Remote initiated ambient viewing call / Client Terminated (CT)	Rel-15	CV01	IUT is MCVideo Client			
6.8	Use of MBMS transmission						
6.8.1	On-network / MBMS / MBMS Bearer Announcement / MBMS Bearer Listening Status / Transition to MBMS from Unicast /	Rel-15	CV01	IUT is MCVideo Client			

Clause	TC Title	Release	Applicability		Additional Information		
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions
	MBMS Transmission Control / Transition to Unicast from MBMS						
7	Off-network Test Scenarios						
7.1	Group Calls						
7.1.1	Basic Group Calls						
7.1.1.1	Off-network / Group Call / Basic Group Call / Transmission Control / Upgrade to Emergency Call / Downgrade from Emergency Call / Upgrade to Imminent Peril Call / Downgrade from Imminent Peril Call / Release call / Client Originated (CO)	Rel-15	CV01	IUT is MCVideo Client NOTE 1			
7.1.1.2	Off-network / Group Call / Transmission Control / Upgrade to Emergency Call / Downgrade from Emergency Call / Upgrade to Imminent Peril Call / Downgrade from Imminent Peril Call / Release call / Client Terminated (CT)	Rel-15	CV01	IUT is MCVideo Client NOTE 1			
7.1.1.3	Off-network / Group Call / Emergency Call / Client Originated (CO)	Rel-15	CV01	IUT is MCVideo Client NOTE 1			
7.1.1.4	Off-network / Group Call / Emergency Call / Client Terminated (CT)	Rel-15	CV01	IUT is MCVideo Client NOTE 1			
7.1.1.5	Off-network / Group Call / Imminent Peril Call / Client Originated (CO)	Rel-15	CV01	IUT is MCVideo Client NOTE 1			
7.1.1.6	Off-network / Group Call / Imminent Peril Call / Client Terminated (CT)	Rel-15	CV01	IUT is MCVideo Client NOTE 1			
7.1.2	Broadcast Group Calls						
7.1.2.1	Off-network / Group Call / Broadcast Group Call / Broadcast Group Call Retransmitting / Broadcast Group Call Release / Client Originated (CO)	Rel-15	CV01	IUT is MCVideo Client NOTE 1			
7.1.2.2	Off-network / Group Call / Broadcast Group Call / Originator Releases Call / Client Terminated (CT)	Rel-15	CV01	IUT is MCVideo Client NOTE 1			
7.2	Private Calls						
7.2.1	Off-network / Private Call / Automatic Commencement Mode / No response to private call setup request / Private call setup request accepted / Release call / Client Originated (CO)	Rel-15	CV01	IUT is MCVideo Client NOTE 1			
7.2.2	Off-network / Private Call / Automatic Commencement Mode / Client Terminated (CT)	Rel-15	CV01	IUT is MCVideo Client NOTE 1			
7.2.3	Off-network / Private Call / Manual Commencement Mode / Call Released before establishment completion / Call request rejected / Call establishment successful / Client Originated (CO)	Rel-15	CV01	IUT is MCVideo Client NOTE 1			
7.2.4	Off-network / Private Call / Manual Commencement Mode / Client Terminated (CT)	Rel-15	CV01	IUT is MCVideo Client NOTE 1			
7.3	Emergency Alert						
7.3.1	Off-network / Emergency Alert / Client Originated (CO)	Rel-15	CV01	IUT is MCVideo Client NOTE 1			

Clause	TC Title	Release	Applicability		Additional Information		
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions
7.3.2	Off-network / Emergency Alert / Client Terminated (CO)	Rel-15	CV01	IUT is MCVideo Client NOTE 1			
NOTE 1: Due to lack of industry interest in deployment of the feature, these TCs will not be used for TTCN development as part of the TTCN-3 test suite, which can be used for validating the conformance of MCS Clients compliant with the Rel-15 requirements. These TCs may be considered for update and developed and used in future releases for FFS.							

Table 4-3a: Applicability of tests Conditions MCVideo Client

CV01	IF A.4.1-1/3 THEN R ELSE N/A
------	------------------------------

Table 4-4: Applicability of MCDData Client tests and additional information for testing

Clause	TC Title	Release	Applicability		Additional Information		
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions
5	MCDData Client Configuration						
5.1	Configuration / Authentication / User Authorization / UE Configuration / User Profile / Key Generation	Rel-14	CD01	IUT is MCDData Client			
5.2	Configuration / Group Creation / Group ReGroup Creation / Group ReGroup Teardown	Rel-14	CD01	IUT is MCDData Client			
5.3	Configuration / Group Affiliation / Remote Change / De-affiliation / Home MCDData system	Rel-14	CD01	IUT is MCDData Client			
5.4	Configuration / Determination of MCDData Service Settings / Current Active MCDData Settings / De-subscribe	Rel-14	CD01	IUT is MCDData Client			
6	On-Network Test Scenarios						
6.1	Short Data Service						
6.1.1	On-network / Short Data Service (SDS) / Standalone SDS Using Signalling Control Plane / One-to-one Standalone SDS / Client Originated (CO)	Rel-14	CD01	IUT is MCDData Client			
6.1.2	On-network / Short Data Service (SDS) / Standalone SDS Using Signalling Control Plane / One-to-one Standalone SDS / Client Terminated (CT)	Rel-14	CD01	IUT is MCDData Client			
6.1.3	On-network / Short Data Service (SDS) / Standalone SDS Using Signalling Control Plane / Group Standalone SDS / Client Originated (CO)	Rel-14	CD01	IUT is MCDData Client			
6.1.4	On-network / Short Data Service (SDS) / Standalone SDS Using Signalling Control Plane / Group Standalone SDS / Client Terminated (CT)	Rel-14	CD01	IUT is MCDData Client			

Clause	TC Title	Release	Applicability		Additional Information		
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions
6.1.5	On-network / Short Data Service (SDS) / Standalone SDS Using Media Plane / One-to-one Standalone SDS / Client Originated (CO)	Rel-14	CD01	IUT is MCDData Client			
6.1.6	On-network / Short Data Service (SDS) / Standalone SDS Using Media Plane / One-to-one Standalone SDS / Client Terminated (CT)	Rel-14	CD01	IUT is MCDData Client			
6.1.7	On-network / Short Data Service (SDS) / Standalone SDS Using Media Plane / Group Standalone SDS / Client Originated (CO)	Rel-14	CD01	IUT is MCDData Client			
6.1.8	On-network / Short Data Service (SDS) / Standalone SDS Using Media Plane / Group Standalone SDS / Client Terminated (CT)	Rel-14	CD01	IUT is MCDData Client			
6.1.9	On-network / Short Data Service (SDS) / SDS Session / One-to-one SDS Session / Client Originated (CO)	Rel-14	CD01	IUT is MCDData Client			
6.1.10	On-network / Short Data Service (SDS) / SDS Session / One-to-one SDS Session / Client Terminated (CT)	Rel-14	CD01	IUT is MCDData Client			
6.1.11	On-network / Short Data Service (SDS) / SDS Session / Group SDS Session / Client Originated (CO)	Rel-14	CD01	IUT is MCDData Client			
6.1.12	On-network / Short Data Service (SDS) / SDS Session / Group SDS Session / Client Terminated (CT)	Rel-14	CD01	IUT is MCDData Client			
6.2	File Distribution						
6.2.1	On-network / File Distribution (FD) / FD Using HTTP / One-to-one Standalone FD / Non-Mandatory Download / FILE DOWNLOAD REQUEST ACCEPTED / FILE DOWNLOAD COMPLETED / FILE DOWNLOAD REQUEST REJECTED / FILE DOWNLOAD DEFERRED / Client Originated (CO)	Rel-14	CD01	IUT is MCDData Client			
6.2.2	On-network / File Distribution (FD) / FD Using HTTP / One-to-one Standalone FD / Non-Mandatory Download / Before TDU2 Timers Expires / FILE DOWNLOAD REQUEST ACCEPTED / FILE DOWNLOAD COMPLETED / FILE DOWNLOAD REQUEST REJECTED / FILE DOWNLOAD DEFERRED / Client Terminated (CT)	Rel-14	CD01	IUT is MCDData Client			
6.2.3	On-network / File Distribution (FD) / FD Using HTTP / Group Standalone FD / Non-Mandatory Download / FILE DOWNLOAD REQUEST ACCEPTED / FILE DOWNLOAD COMPLETED / FILE DOWNLOAD REQUEST REJECTED / Client Originated (CO)	Rel-14	CD01	IUT is MCDData Client			
6.2.4	On-network / File Distribution (FD) / FD Using HTTP / Group Standalone FD / Non-Mandatory Download / After TDU2 Timers Expires / FILE	Rel-14	CD01	IUT is MCDData Client			

Clause	TC Title	Release	Applicability		Additional Information		
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions
	DOWNLOAD REQUEST ACCEPTED / FILE DOWNLOAD COMPLETED / FILE DOWNLOAD REQUEST REJECTED / Client Terminated (CT)						
6.2.5	On-network / File Distribution (FD) / FD Using HTTP / One-to-one Standalone FD / Mandatory Download / With Disposition Request / Client Originated (CO)	Rel-14	CD01	IUT is MCDData Client			
6.2.6	On-network / File Distribution (FD) / FD Using HTTP / One-to-one Standalone FD / Mandatory Download / With Disposition Request / Client Terminated (CT)	Rel-14	CD01	IUT is MCDData Client			
6.2.7	On-network / File Distribution (FD) / FD Using HTTP / Group Standalone FD / Mandatory Download / Without Disposition Request / Client Originated (CO)	Rel-14	CD01	IUT is MCDData Client			
6.2.8	On-network / File Distribution (FD) / FD Using HTTP / Group Standalone FD / Mandatory Download / Without Disposition Request / Client Terminated (CT)	Rel-14	CD01	IUT is MCDData Client			
6.2.9	On-network / File Distribution (FD) / FD Using Media Plane / One-to-one Standalone FD / Client Originated (CO)	Rel-14	CD01	IUT is MCDData Client			
6.2.10	On-network / File Distribution (FD) / FD Using Media Plane / One-to-one Standalone FD / Client Terminated (CT)	Rel-14	CD01	IUT is MCDData Client			
6.2.11	On-network / File Distribution (FD) / FD Using Media Plane / Group Standalone FD / Client Originated (CO)	Rel-14	CD01	IUT is MCDData Client			
6.2.12	On-network / File Distribution (FD) / FD Using Media Plane / Group Standalone FD / Client Terminated (CT)	Rel-14	CD01	IUT is MCDData Client			
6.2.13	On-network / File Distribution (FD) / Accessing list of deferred data group communications / Client Originated (CO)	Rel-15	CD01	IUT is MCDData Client			
6.3	Enhanced Status (ES)						
6.3.1	On-network / Enhanced Status (ES) / Client Originated (CO)	Rel-15	CD01	IUT is MCDData Client			
6.3.2	On-network / Enhanced Status (ES) / Client Terminated (CT)	Rel-15	CD01	IUT is MCDData Client			
7	Off-Network Test Scenarios						
7.1	Short Data Service (SDS)						
7.1.1	Off-network / Short Data Service (SDS) / Standalone SDS using signalling control plane / One-to-one SDS message / Client Originated (CO)	Rel-15	CD01	IUT is MCDData Client NOTE 1			
7.1.2	Off-network / Short Data Service (SDS) / Standalone SDS using signalling control plane /	Rel-15	CD01	IUT is MCDData Client NOTE 1			

Clause	TC Title	Release	Applicability		Additional Information		
			Condition	Comment	Specific ICS	Specific IXIT	Number of TC Executions
	One-to-one SDS message / Client Terminated (CT)						
7.1.3	Off-network / Short Data Service (SDS) / Standalone SDS using signalling control plane / Group SDS message / Client Originated (CO)	Rel-15	CD01	IUT is MCDData Client NOTE 1			
7.1.4	Off-network / Short Data Service (SDS) / Standalone SDS using signalling control plane / Group SDS message / Client Terminated (CT)	Rel-15	CD01	IUT is MCDData Client NOTE 1			
7.2	Enhanced Status (ES)						
7.2.1	Off-network / Enhanced Status (ES) / Client Originated (CO)	Rel-15	CD01	IUT is MCDData Client NOTE 1			
7.2.2	Off-network / Enhanced Status (ES) / Client Terminated (CT)	Rel-15	CD01	IUT is MCDData Client NOTE 1			
NOTE 1: Due to lack of industry interest in deployment of the feature, these TCs will not be used for TTCN development as part of the TTCN-3 test suite, which can be used for validating the conformance of MCS Clients compliant with the Rel-15 requirements. These TCs may be considered for update and developed and used in future releases for FFS.							

Table 4-4a: Applicability of tests Conditions MCDData Client

CD01	IF A.4.1-1/4 THEN R ELSE N/A
------	------------------------------

Annex A (normative): ICS proforma for Mission Critical Services over LTE Client/Server

Notwithstanding the provisions of the copyright clause related to the text of the present document, The Organizational Partners of 3GPP grant that users of the present document may freely reproduce the ICS proforma in this annex so that it can be used for its intended purposes and may further publish the completed ICS.

A.1 Guidance for completing the ICS proforma

A.1.1 Purposes and structure

The purpose of this ICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in relevant specifications may provide information about the implementation in a standardised manner.

The ICS proforma is subdivided into clauses for the following categories of information:

- instructions for completing the ICS proforma;
- identification of the implementation;
- identification of the protocol;
- ICS proforma tables (for example: Client implementation, Server implementation, etc).

When completing the proforma the supplier need to indicate if this is for a MCPTT Client or a MCPTT Server.

A.1.2 Abbreviations and conventions

The ICS proforma contained in this annex is comprised of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [8].

Item column

The item column contains a number which identifies the item in the table.

Item description column

The item description column describes in free text each respective item (e.g. parameters, timers, etc.). It implicitly means "is <item description> supported by the implementation?".

Reference column

The reference column gives reference to the relevant 3GPP core specifications.

Release column

The release column indicates the earliest release from which the capability or option is relevant.

Mnemonic column

The Mnemonic column contains mnemonic identifiers for each item.

Comments column

This column is left blank for particular use by the reader of the present document.

References to items

For each possible item answer (answer in the support column) within the ICS proforma there exists a unique reference, used, for example, in the conditional expressions. It is defined as the table identifier, followed by a solidus character "/", followed by the item number in the table. If there is more than one support column in a table, the columns shall be discriminated by letters (a, b, etc.), respectively.

A.1.3 Instructions for completing the ICS proforma

The supplier of the implementation may complete the ICS proforma in each of the spaces provided. More detailed instructions are given at the beginning of the different clauses of the ICS proforma.

A.2 Identification of the MCPTT Client/Server Equipment

Identification of the MCPTT Client/Server should be filled in so as to provide as much detail as possible regarding version numbers and configuration options.

The product supplier information and client information should both be filled in if they are different.

A person who can answer queries regarding information supplied in the ICS should be named as the contact person.

A.2.1 Date of the statement

.....

A.2.2 MCPTT Client/Server Under Test (CUT/SUT) identification

MCPTT CUT/SUT name:

.....
.....

Hardware configuration:

.....
.....
.....

Software configuration:

.....
.....
.....

A.2.3 Product supplier

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

A.2.4 The Organisation responsible for the Product testing

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

A.2.5 ICS contact person

Name:

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

A.3 Identification of the protocol

This ICS proforma applies to the 3GPP standards listed in the normative references clause of the present document.

A.4 ICS proforma tables

A.4.1 Implementation Types

Table A.4.1-1: Mission Critical Services general functionality

Item	Functionality	Ref.	Release	Mnemonic	Comments
1	MCPTT Client	TS 23.179 [9]	Rel-13	pc_MCPTTClient	IUT containing MCPTT Client
2	MCPTT Server	TS 23.179 [9]	Rel-13	pc_MCPTTServer	
3	MCVideo Client	TS 23.281 [13]	Rel-14	pc_MCVideoClient	IUT containing MCVideo Client
4	MCDData Client	TS 23.282 [14]	Rel-14	pc_MCDDataClient	IUT containing MCDData Client

NOTE 1: TS 23.179 [9] has been superseded from Release 14 by TS 23.379 [15]

Table A.4.1-2: Mission Critical Services supplementary functionality

Item	Functionality	Ref.	Release	Mnemonic	Comments
1	Void				

A.4.2 Additional information

Table A.4.2-1: Additional information

Item	Additional information	Ref.	Release	Mnemonic	Comments
1	Support of KMS request security	TS 33.180 [14] Annex D.2.2	N/A	pc_MCX_KMS_RequestSecurity	KMS request security is applied
2	The UE is capable of displaying emergency call information to the user	TS 24.379 [15]	N/A	pc_MCX_DisplayInfoEmergencyCall	
3	The UE is capable of letting the user change a pre-established session by MMI		N/A	pc_MCX_UserInitiatedPreestablishedSessionModification	
4	The UE will use on-demand sessions when it is requested to remotely initiate a private call	TS 24.379 [15]	Rel-15	pc_MCPTT_OnDemandSeRemotePrivCall	NOTE 1
5	The UE will use pre-established sessions when it is requested to remotely initiate a private call	TS 24.379 [15]	Rel-15	pc_MCPTT_PreEstablishedSeRemotePrivCall	NOTE 1
6	The UE will use on-demand session for initiating a first-to-answer call	TS 24.379 [15]	Rel-15	pc_MCPTT_OnDemandSeFirstToAnswerCall	NOTE 1
7	The UE will use pre-established session for initiating a first-to-answer call	TS 24.379 [15]	Rel-15	pc_MCPTT_PreEstablishedSeFirstToAnswerCall	NOTE 1
8	The UE automatically initiates emergency alert for emergency calls		N/A	pc_MCX_EmergencyIndWithAlertInd	In case of an emergency call in addition to the <emergency-ind> the UE automatically sets the <alert-ind> in the mcptt-info to true
9	The UE supports floor request queueing	TS 24.380 [16]	Rel-14	pc_MCPTT_FloorRequestQueueing	The UE applies Floor Request Queueing
10	The UE supports transmission request queueing	TS 24.581 [17]	Rel-14	pc_MCVideo_TransmissionRequestQueueing	The UE applies Transmission Request Queueing
11	Support of MCDData Short Data Service (SDS)	TS 23.282 [14]	Rel-14	pc_MCDData_SDS	
12	Support of MCDData File Distribution (FD)	TS 23.282 [14]	Rel-14	pc_MCDData_FD	
13	The UE uses the procedure for Discovery of the Absolute URI of the media storage function	TS 24.282 [18] clause 10.2.1.3.2	Rel-15 and below	pc_MCDData_MSFDiscoversignalling	To be set to true if the UE does not retrieve the absolute URI of the media storage function from the user profile but needs SIP signalling; shall be set to false for Rel-16 and above
14	In case of an incoming emergency alert or emergency alert cancellation the UE provides an indication and associated information.	TS 24.379 [15] clause 12.1.1.3 TS 24.281 [19] clause 11.2.1.3 TS 24.282 [18] clause 16.2.1.3	Rel-14	pc_MCX_DisplayInfoEmergencyAlert	

NOTE 1: If the UE behaviour will depend on the availability or not of a pre-established session then both ICS shall be set to TRUE. This applies for ICS pairs 4 and 5, 6 and 7.

Annex B (informative): Change history

Change history							
Date	Meeting	TDoc	CR	R ev	Cat	Subject/Comment	New version
2017-02	R5#74	R5-171301	-	-	-	Introduction of TS 36.579-4.	0.0.1
2017-12	R5#77	R5-177038	-	-	-	Adding applicability for all Client tests	0.2.0
2017-12	RAN#78	RP-172184	-	-	-	Draft version for information purposes to the RAN Plenary	1.0.0
2018-03	R5#78	R5-180656	-	-	-	Various updates	1.1.0
2018-03	RAN#79	RP-180129	-	-	-	Draft version for approval to move the spec under revision control to the RAN Plenary	2.0.0
2018-03	RAN#79	-	-	-	-	Editorial changes and promoted to v13.0.0	13.0.0
2018-06	RAN#80	R5-182435	0001	-	F	Updates of 36.579-4 for MCPTT APN and more	13.1.0
2018-09	RAN#81	R5-184693	0002	-	F	Adding applicability for new MCPTT Rel-14 TCs	14.0.0
2019-09	RAN#85	R5-196356	0003	-	F	Updates to Table 4-1	14.1.0
2019-12	RAN#86	R5-198129	0005		F	Adding applicability for MCVideo TCs	14.2.0
2019-12	RAN#86	R5-198130	0006		F	Adding applicability for MCDData TCs	14.2.0
2019-12	RAN#86	R5-198166	0007		F	Removal of px_MCPTT_APN_Default	14.2.0
2019-12	RAN#86	R5-199058	0004	1	F	Update for MCVideo and MCDData Clients test applicability	14.2.0
2020-06	RAN#88	R5-203112	0009	3	F	Update to applicability	14.3.0
2020-09	RAN#89	R5-204369	0010	1	F	Corrections to MCVideo and MCDData tables	14.4.0
2020-09	RAN#89	R5-204370	0011	-	F	Update of test case applicability to Rel-14	14.4.0
2020-09	RAN#89	R5-204370	0011	-	F	corrected wrong values to Rel-14 for 6.1.1.17-18	14.4.1
2021-03	RAN#91	R5-211254	0013	-	F	Adding an MCPTT test case to the applicability table	14.5.0
2021-03	RAN#91	R5-211545	0012	1	F	Addition of missing MCX PICS	14.5.0
2021-06	RAN#92	R5-213669	0015	1	F	Update to ICS proforma tables	14.6.0
2021-06	RAN#92	R5-212154	0014	-	F	Addition of applicability for new MCPTT Rel-15 test cases	15.0.0
2021-09	RAN#93	R5-215492	0017	-	F	Misc. updates to test case applicability and PICS	15.1.0
2021-12	RAN#94	R5-216752	0018	-	F	Misc. updates to test case applicability and PICS	15.2.0
2021-12	RAN#94	R5-217975	0020	1	F	Update of Clause 4 Test Applicability	15.2.0
2022-03	RAN#95	R5-221101	0022	-	F	Misc. updates to MC client test cases	15.3.0
2022-03	RAN#95	R5-222031	0021	1	F	Addition of PICS	15.3.0
2022-06	RAN#96	R5-223384	0023	1	F	Update of 36.579-4 Applicability for New MCVideo and MCDData Test Cases	15.4.0
2023-03	RAN#99	R5-230146	0025	-	F	Correction of annex A.4 - ICS proforma tables	15.5.0
2023-03	RAN#99	R5-230147	0026	-	F	Correction of clause 2 - References	15.5.0
2023-03	RAN#99	R5-231919	0027	1	F	Addition of applicability for new Rel-16 test cases	16.0.0

History

Document history		
V16.0.0	April 2023	Publication