

# ETSI TS 123 282 V16.6.1 (2020-10)



**LTE;**  
**Functional architecture and information flows to support**  
**Mission Critical Data (MCData);**  
**Stage 2**  
**(3GPP TS 23.282 version 16.6.1 Release 16)**



## Reference

---

RTS/TSGS-0623282vg61

## 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 - NAF 742 C  
Association à but non lucratif enregistrée à la  
Sous-Préfecture de Grasse (06) N° 7803/88

---

**Important notice**

---

The present document can be downloaded from:  
<http://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](http://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/CommiteeSupportStaff.aspx>

---

**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 2020.  
All rights reserved.

**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.

---

# Intellectual Property Rights

## Essential patents

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

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

## 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.

---

# 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 <http://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.....	12
1 Scope .....	13
2 References .....	13
3 Definitions, symbols and abbreviations .....	14
3.1 Definitions .....	14
3.2 Abbreviations .....	16
4 Introduction .....	16
5 Architectural requirements .....	16
5.1 Transmission control .....	16
5.2 Reception control .....	17
5.3 Short Data Service capability .....	17
5.4 File distribution capability.....	17
5.5 Data streaming capability.....	18
5.6 MCDATA group affiliation and MCDATA group de-affiliation.....	19
5.7 Conversation management .....	19
5.8 Bearer management.....	19
5.8.1 General.....	19
5.8.2 EPS bearer considerations .....	19
5.8.3 EPS unicast bearer considerations for MCDATA.....	19
5.8.4 MBMS bearer management .....	20
5.9 Disposition .....	20
5.10 MCDATA message store .....	20
5.11 IP connectivity (IPcon) capability .....	21
5.12 MBMS user service architecture requirements.....	22
6 Functional model .....	22
6.1 General .....	22
6.2 Description of the planes .....	22
6.3 Transmission and reception control aspects .....	22
6.3.1 General.....	22
6.4 Generic functional model .....	23
6.4.1 On-network functional model .....	23
6.4.2 Off-network functional model .....	23
6.4.3 Functional entities description .....	23
6.4.3.1 Application plane .....	23
6.4.3.1.1 MCDATA client .....	23
6.4.3.1.2 MCDATA server.....	24
6.4.3.1.3 MCDATA user database .....	24
6.4.3.1.4 Interworking function to LMR system .....	25
6.4.3.1.5 MC gateway server.....	25
6.4.3.2 Signalling control plane .....	25
6.4.3.3 MCDATA message store.....	25
6.4.3.4 Message store client .....	25
6.4.4 Reference points .....	25
6.4.4.1 Application plane .....	25
6.4.4.1.1 General .....	25
6.4.4.1.2 Reference point MCDATA-2 (between the MCDATA server and the MCDATA user database).....	25
6.4.4.1.3 Reference point MCDATA-3 (between the MCDATA server and the MCDATA server).....	25
6.4.4.1.3A Reference point MCDATA-5 (between the MCDATA capability function and the EPS).....	26
6.4.4.1.4 Reference point MCDATA-6 (between the MCDATA server and the EPS) .....	26

6.4.4.1.5	Reference point IWF-2 (between the interworking function to LMR system and the MCDa server).....	26
6.4.4.1.6	Reference point MCDa-7 (between the Message store client and MCDa message store).....	26
6.4.4.1.7	Reference point MCDa-8 (between the MCDa message store and MCDa server).....	26
6.4.4.1.8	Reference point MCDa-9 (between the MC gateway server and the MC gateway server in a different MCDa system).....	26
6.5	Functional model for short data service .....	26
6.5.1	On-network functional model.....	26
6.5.2	Off-network functional model.....	27
6.5.3	Functional entities description.....	28
6.5.3.1	Application plane.....	28
6.5.3.1.1	SDS function.....	28
6.5.3.1.2	SDS distribution function.....	28
6.5.3.1.3	Transmission/Reception control.....	28
6.5.3.2	Signalling control plane.....	28
6.5.4	Reference points.....	29
6.5.4.1	Application plane.....	29
6.5.4.1.1	Reference point MCDa-SDS-1 (between the SDS distribution function and the SDS function).....	29
6.5.4.1.2	Reference point MCDa-SDS-2 (unicast between the SDS distribution function and the SDS function).....	29
6.5.4.1.3	Reference point MCDa-SDS-3 (multicast between the SDS distribution function and the SDS function).....	29
6.5.4.2	Signalling control plane.....	29
6.6	Functional model for file distribution.....	29
6.6.1	On-network functional model.....	29
6.6.1a	On-network functional model for interconnection.....	31
6.6.2	Off-network functional model.....	31
6.6.3	Functional entities description.....	32
6.6.3.1	Application plane.....	32
6.6.3.1.1	FD function.....	32
6.6.3.1.2	Media storage client.....	32
6.6.3.1.3	Transmission/Reception control.....	32
6.6.3.1.4	Media storage function.....	33
6.6.3.2	Signalling control plane.....	33
6.6.4	Reference points.....	33
6.6.4.1	Application plane.....	33
6.6.4.1.1	Reference point MCDa-FD-1 (between the FD functions of the MCDa client and the MCDa server).....	33
6.6.4.1.2	Reference point MCDa-FD-2 (unicast between the FD functions of the MCDa client and the MCDa server).....	33
6.6.4.1.3	Reference point MCDa-FD-3 (multicast between the FD functions of the MCDa client and the MCDa server).....	34
6.6.4.1.4	Reference point MCDa-FD-4 (media storage function and media storage client).....	34
6.6.4.1.5	Reference point MCDa-FD-5 (FD function and media storage function).....	34
6.6.4.2	Signalling control plane.....	34
6.7	Functional model for data streaming.....	34
6.7.1	On-network functional model.....	34
6.7.2	Off-network functional model.....	35
6.7.3	Functional entities description.....	35
6.7.3.1	Application plane.....	35
6.7.3.1.1	DS function.....	35
6.7.3.1.2	Data streaming and distribution function.....	35
6.7.3.1.3	Transmission/Reception control.....	35
6.7.3.2	Signalling control plane.....	35
6.7.4	Reference points.....	35
6.7.4.1	Application plane.....	35
6.7.4.1.1	Reference point MCDa-DS-1 (between the data streaming and distribution function and the DS function).....	35
6.7.4.1.2	Reference point MCDa-DS-2 (unicast between the data streaming and distribution function and the DS function).....	36

6.7.4.1.3	Reference point MCDData-DS-3 (multicast between the data streaming and distribution function and the DS function) .....	36
6.7.4.2	Signalling control plane .....	36
6.8	Functional model for IP connectivity .....	36
6.8.1	On-network functional model .....	36
6.8.2	Off-network functional model .....	37
6.8.3	Functional entities description .....	37
6.8.3.1	Application plane .....	37
6.8.3.1.1	IP connectivity function .....	37
6.8.3.1.2	IPcon distribution function .....	37
6.8.3.1.3	Transmission/Reception control .....	38
6.8.3.2	Signalling control plane .....	38
6.8.4	Reference points .....	38
6.8.4.1	Application plane .....	38
6.8.4.1.1	Reference point MCDData-IPcon-1 (between the IPcon distribution function and the U-IPcon function) .....	38
6.8.4.1.2	Reference point MCDData-IPcon-2 (unicast between the U-IPcon distribution function and the U-IPcon function) .....	38
6.8.4.1.3	Reference point MCDData-IPcon-3 (multicast between the IPcon distribution function and the IPcon function) .....	38
6.8.4.2	Signalling control plane .....	38
7	Procedures and information flows .....	39
7.1	MCDData service configuration .....	39
7.2	Affiliation and de-affiliation to/from MCDData group(s) .....	39
7.3	Use of MBMS transmission (on-network) .....	39
7.3.1	Information flows for MBMS Transmission .....	39
7.3.2	Use of pre-established MBMS bearers .....	39
7.3.3	Use of dynamic MBMS bearer establishment .....	40
7.3.4	Switching from MBMS bearer to unicast bearer .....	40
7.3.5	Use of MBMS user services for file distribution .....	40
7.3.5.1	General .....	40
7.3.5.2	Information flows for MBMS user service usage .....	40
7.3.5.2.1	MBMS user service announcement .....	40
7.3.5.3	Procedures for MBMS user service usage .....	41
7.3.5.3.1	Use of pre-established MBMS user services .....	41
7.3.5.3.1.1	General .....	41
7.3.5.3.1.2	Procedure .....	41
7.3.5.3.2	Use of dynamic MBMS user service establishment .....	43
7.4	Short data service .....	44
7.4.1	General .....	44
7.4.2	Short data service for on-network .....	44
7.4.2.1	Information flows for short data service .....	44
7.4.2.1.1	MCDData standalone data request .....	44
7.4.2.1.2	MCDData data disposition notification .....	45
7.4.2.1.3	MCDData standalone session data request .....	45
7.4.2.1.4	MCDData standalone session data response .....	46
7.4.2.1.5	MCDData session data request .....	46
7.4.2.1.6	MCDData session data response .....	47
7.4.2.1.7	MCDData group standalone data request (MCDData client – MCDData server) .....	47
7.4.2.1.8	MCDData group standalone data request (MCDData server – MCDData client) .....	48
7.4.2.1.9	MCDData data disposition notification(s) (MCDData server – MCDData client) .....	49
7.4.2.1.10	MCDData group session standalone data request (MCDData client – MCDData server) .....	49
7.4.2.1.11	MCDData group session standalone data request (MCDData server – MCDData client) .....	50
7.4.2.1.12	MCDData group session standalone data response .....	51
7.4.2.1.13	MCDData group data request (MCDData client – MCDData server) .....	51
7.4.2.1.14	MCDData group data request (MCDData server – MCDData client) .....	52
7.4.2.1.15	MCDData group data response .....	53
7.4.2.1.16	MCDData one-to-one SDS communication upgrade request .....	53
7.4.2.1.17	MCDData one-to-one SDS communication upgrade response .....	54
7.4.2.1.18	MCDData group SDS communication upgrade request .....	54
7.4.2.1.19	MCDData group SDS communication upgrade response .....	54



7.4.2.1.20	MCDATA group SDS communication in-progress priority state cancel request .....	55
7.4.2.1.21	MCDATA group SDS communication in-progress priority state cancel response .....	55
7.4.2.2	One-to-one standalone short data service using signalling control plane .....	55
7.4.2.2.1	General .....	55
7.4.2.2.2	Procedure .....	55
7.4.2.3	One-to-one standalone short data service using media plane .....	57
7.4.2.3.1	General .....	57
7.4.2.3.2	Procedure .....	57
7.4.2.4	One-to-one short data service session .....	59
7.4.2.4.1	General .....	59
7.4.2.4.2	Procedure .....	59
7.4.2.5	Group standalone short data service using signalling control plane .....	61
7.4.2.5.1	General .....	61
7.4.2.5.2	Procedure .....	61
7.4.2.6	Group standalone short data service using media plane .....	63
7.4.2.6.1	General .....	63
7.4.2.6.2	Procedure .....	64
7.4.2.7	Group short data service session .....	66
7.4.2.7.1	General .....	66
7.4.2.7.2	Procedure .....	66
7.4.2.8	One-to-one SDS communication upgrade to an emergency one-to-one SDS communication .....	69
7.4.2.8.1	General .....	69
7.4.2.8.2	Procedure .....	69
7.4.2.9	Group SDS communication upgrade to an group emergency SDS communication .....	70
7.4.2.9.1	General .....	70
7.4.2.9.2	Procedure .....	70
7.4.2.10	Group SDS communication in-progress emergency group state cancel .....	72
7.4.2.10.1	General .....	72
7.4.2.10.2	Procedure .....	72
7.4.2.11	Group SDS communication upgrade to an imminent peril group SDS communication .....	74
7.4.2.11.1	General .....	74
7.4.2.11.2	Procedure .....	74
7.4.2.12	Group SDS communication in-progress imminent peril group state cancel .....	74
7.4.2.12.1	General .....	74
7.4.2.12.2	Procedure .....	74
7.4.3	Short data service for off-network .....	74
7.4.3.1	General .....	74
7.4.3.2	Information flows for short data service .....	74
7.4.3.2.1	MCDATA standalone data request .....	74
7.4.3.2.2	MCDATA data disposition notification .....	75
7.4.3.2.3	MCDATA group standalone data request .....	75
7.4.3.3	One-to-one standalone short data service using signalling control plane .....	76
7.4.3.3.1	General .....	76
7.4.3.3.2	Procedure .....	76
7.4.3.4	Group standalone short data service using signalling control plane .....	77
7.4.3.4.1	General .....	77
7.4.3.4.2	Procedure .....	78
7.4.3.5	Providing data for a user entering an ongoing MCDATA group conversation .....	79
7.4.3.5.1	General .....	79
7.4.3.5.2	Procedure .....	79
7.4.3.6	Group standalone short data service with MCDATA message store .....	80
7.4.3.6.1	General .....	80
7.4.3.6.2	Procedure .....	80
7.5	File distribution .....	81
7.5.1	General .....	81
7.5.2	File distribution for on-network .....	81
7.5.2.1	Information flows for file distribution .....	81
7.5.2.1.1	MCDATA upload data request .....	81
7.5.2.1.2	MCDATA upload data response .....	82
7.5.2.1.3	MCDATA download data request .....	82
7.5.2.1.4	MCDATA download data response .....	82
7.5.2.1.5	MCDATA FD request (using HTTP) .....	83

7.5.2.1.6	MCDData FD response (using HTTP) .....	83
7.5.2.1.7	MCDData download completed report.....	83
7.5.2.1.8	MCDData FD request (using media plane) .....	83
7.5.2.1.9	MCDData FD response (using media plane).....	84
7.5.2.1.10	MCDData group standalone FD request (using HTTP) .....	84
7.5.2.1.11	MCDData group standalone FD response (using HTTP or MBMS download delivery method) .....	85
7.5.2.1.12	MCDData group standalone FD request (using media plane) .....	85
7.5.2.1.13	MCDData group standalone FD response (using media plane).....	86
7.5.2.1.14	MCDData remove file request by user.....	86
7.5.2.1.15	MCDData remove file response by user.....	87
7.5.2.1.16	Void.....	87
7.5.2.1.17	Void.....	87
7.5.2.1.18	MCDData remove file notify.....	87
7.5.2.1.19	MCDData file retrieve request .....	87
7.5.2.1.20	MCDData file retrieve response .....	87
7.5.2.1.21	MCDData group standalone FD over MBMS request.....	88
7.5.2.1.22	MCDData one-to-one FD upgrade request.....	88
7.5.2.1.23	MCDData one-to-one FD upgrade response .....	88
7.5.2.1.24	MCDData group FD upgrade request.....	88
7.5.2.1.25	MCDData group FD upgrade response .....	89
7.5.2.1.26	MCDData group FD in-progress priority state cancel request .....	89
7.5.2.1.27	MCDData group FD in-progress priority state cancel response .....	89
7.5.2.2	File upload using HTTP .....	90
7.5.2.2.1	General .....	90
7.5.2.2.2	Procedure.....	90
7.5.2.3	File download using HTTP .....	90
7.5.2.3.1	General .....	90
7.5.2.3.2	Procedure.....	91
7.5.2.4	One-to-one file distribution using HTTP.....	91
7.5.2.4.1	General .....	91
7.5.2.4.2	Procedure for single MCDData system .....	91
7.5.2.4.3	Procedure with interconnection between MCDData systems.....	93
7.5.2.5	One-to-one file distribution using media plane .....	95
7.5.2.5.1	General .....	95
7.5.2.5.2	Procedure.....	95
7.5.2.6	Group standalone file distribution using HTTP .....	97
7.5.2.6.1	General .....	97
7.5.2.6.2	Procedure.....	97
7.5.2.7	Group standalone file distribution using media plane .....	100
7.5.2.7.1	General .....	100
7.5.2.7.2	Procedure.....	100
7.5.2.8	File removal using HTTP by authorized user.....	102
7.5.2.8.1	General .....	102
7.5.2.8.2	Procedure for single MCDData system .....	102
7.5.2.8.3	Procedure for interconnection between MCDData systems .....	103
7.5.2.9	Void.....	104
7.5.2.10	Group standalone file distribution using the MBMS download delivery method .....	104
7.5.2.10.1	General .....	104
7.5.2.10.2	Procedure.....	104
7.5.2.11	One-to-one FD communication upgrade to an emergency FD communication .....	106
7.5.2.11.1	General .....	106
7.5.2.11.2	Procedure.....	106
7.5.2.12	Group FD communication upgrade to an emergency group FD communication.....	107
7.5.2.12.1	General .....	107
7.5.2.12.2	Procedure.....	108
7.5.2.13	Group FD communication in-progress emergency group state cancel.....	109
7.5.2.13.1	General .....	109
7.5.2.13.2	Procedure.....	109
7.5.2.14	Group FD communication upgrade to an imminent peril group FD communication.....	111
7.5.2.14.1	General .....	111
7.5.2.14.2	Procedure.....	111
7.5.2.15	Group FD communication in-progress imminent peril group state cancel.....	111



7.5.2.15.1	General .....	111
7.5.2.15.2	Procedure.....	111
7.5.3	File distribution for off-network .....	111
7.5.3.2	Information flows for file distribution.....	111
7.5.3.2.1	MCDData FD request (using media plane).....	111
7.5.3.2.2	MCDData FD response (using media plane).....	112
7.5.3.2.3	MCDData download completed report.....	112
7.5.3.2.4	MCDData group standalone FD request (using media plane).....	112
7.5.3.2.5	MCDData group standalone FD response (using media plane).....	113
7.5.3.3	One-to-one standalone file distribution using media plane .....	113
7.5.3.3.1	General .....	113
7.5.3.3.2	Procedure.....	113
7.5.3.4	Group standalone file distribution using media plane .....	114
7.5.3.4.1	General .....	114
7.5.3.4.2	Procedure.....	114
7.6	Transmission and reception control.....	116
7.6.1	General.....	116
7.6.2	Transmission and reception control for on-network .....	116
7.6.2.1	Information flows for transmission and reception control .....	116
7.6.2.1.1	MCDData control indication .....	116
7.6.2.1.2	MCDData indication .....	116
7.6.2.1.3	MCDData get deferred list request.....	116
7.6.2.1.4	MCDData get deferred list response .....	117
7.6.2.2	Automatic transmission for SDS.....	117
7.6.2.2.1	General .....	117
7.6.2.2.2	Procedure.....	117
7.6.2.3	Send data with mandatory download .....	118
7.6.2.3.1	General .....	118
7.6.2.3.2	Procedure.....	118
7.6.2.4	Send data without mandatory download .....	120
7.6.2.4.1	General .....	120
7.6.2.4.2	Procedure.....	120
7.6.2.5	Accessing list of deferred data group communications.....	121
7.6.2.5.1	General .....	121
7.6.2.5.2	Procedure.....	121
7.7	Communication release .....	122
7.7.1	General.....	122
7.7.2	Communication release for on-network.....	122
7.7.2.1	Information flows for communication release .....	122
7.7.2.1.1	MCDData communication release request (one-to-one communication using media plane).....	122
7.7.2.1.2	MCDData communication release response (one-to-one communication using media plane) .....	122
7.7.2.1.3	MCDData communication release request (group communication using media plane).....	123
7.7.2.1.4	MCDData communication release response (group communication using media plane) .....	123
7.7.2.1.5	.....	123
7.7.2.1.6	.....	123
7.7.2.1.7	.....	123
7.7.2.1.8	MCDData server communication release request (one-to-one communication using media plane).....	123
7.7.2.1.9	MCDData server communication release response (one-to-one communication using media plane).....	124
7.7.2.1.10	MCDData server communication release request (group communication using media plane).....	124
7.7.2.1.11	MCDData server communication release response (group communication using media plane) .....	124
7.7.2.1.12	124	
7.7.2.1.13	MCDData release intent request (one-to-one communication using media plane) .....	125
7.7.2.1.14	MCDData more information response (one-to-one communication using media plane).....	125
7.7.2.1.15	MCDData release intent request (group communication using media plane) .....	125
7.7.2.1.16	MCDData more information response (group communication using media plane).....	125
7.7.2.1.17	MCDData auth user communication release request (one-to-one communication using media plane).....	126
7.7.2.1.18	MCDData auth user communication release response (one-to-one communication using media plane).....	126
7.7.2.1.19	MCDData auth user communication release request (group communication using media plane) .....	126

7.7.2.1.20	MCDData auth user communication release response (group communication using media plane).....	127
7.7.2.1.21	MCDData request for extension.....	127
7.7.2.1.22	MCDData response for extension.....	127
7.7.2.2	MCDData user initiated communication release.....	127
7.7.2.2.1	General.....	127
7.7.2.2.2	Release of MCDData communication using media plane.....	127
7.7.2.2.2.1	General.....	127
7.7.2.2.2.2	Procedure.....	128
7.7.2.2.3	Release of MCDData communication using HTTP.....	128
7.7.2.3	MCDData server initiated communication release without prior indication.....	129
7.7.2.3.1	General.....	129
7.7.2.3.2	Release of MCDData communication using media plane.....	129
7.7.2.3.2.1	General.....	129
7.7.2.3.2.2	Procedure.....	129
7.7.2.3.3	Release of MCDData communication using HTTP.....	130
7.7.2.4	MCDData server initiated communication release with prior indication.....	131
7.7.2.4.1	General.....	131
7.7.2.4.2	Procedure.....	131
7.7.2.5	Authorized MCDData user initiated communication release without prior indication.....	132
7.7.2.5.1	General.....	132
7.7.2.5.2	Procedure.....	132
7.7.2.6	Authorized MCDData user initiated communication release with prior indication.....	133
7.7.2.6.1	General.....	133
7.7.2.6.2	Procedure.....	133
7.8	Conversation management.....	135
7.8.1	General.....	135
7.8.2	Conversation management for on-network.....	135
7.8.2.1	Information flows for conversation management.....	135
7.8.2.2	One-to-one conversation management.....	135
7.8.2.2.1	Procedure.....	135
7.8.2.3	Group conversation management.....	136
7.8.2.3.1	Procedure.....	136
7.8.3	Conversation management for off-network.....	136
7.8.3.1	One-to-one conversation management.....	136
7.8.3.1.1	Procedure.....	136
7.8.3.2	Group conversation management.....	137
7.8.3.2.1	Procedure.....	137
7.9	Enhanced status.....	138
7.9.1	General.....	138
7.9.2	Preset values for enhanced status.....	138
7.9.3	Enhanced status for on-network.....	138
7.9.3.1	Sharing enhanced status information.....	138
7.9.3.1.1	Procedure.....	138
7.9.4	Enhanced status for off-network.....	139
7.9.4.1	Sharing enhanced status information.....	139
7.9.4.1.1	Procedure.....	139
7.10	MCDData emergency alert (on-network and off-network).....	140
7.11	User authentication and authorization for MCDData service.....	140
7.12	MCDData resource management (on-network).....	140
7.12.1	General.....	140
7.12.2	MCDData services not handled by SIP core.....	140
7.13	Operations on MCDData message store.....	141
7.13.1	MCDData message store structure.....	141
7.13.2	Authentication and authorization.....	142
7.13.3	Manage MCDData message store.....	142
7.13.3.1	Information flows for managing MCDData message store.....	142
7.13.3.1.1	MCDData retrieve a stored object request.....	142
7.13.3.1.2	MCDData retrieve a stored object response.....	142
7.13.3.1.3	MCDData search stored objects request.....	142
7.13.3.1.4	MCDData search stored objects response.....	143
7.13.3.1.5	MCDData update a stored object request.....	143

7.13.3.1.6	MCDATA update a stored object response.....	143
7.13.3.1.7	MCDATA delete a stored object request.....	143
7.13.3.1.8	MCDATA delete a stored object response.....	144
7.13.3.1.9	MCDATA synchronization request.....	144
7.13.3.1.10	MCDATA synchronization response.....	144
7.13.3.1.11	MCDATA create a user account request.....	144
7.13.3.1.12	MCDATA create a user account response.....	145
7.13.3.1.13	MCDATA deposit an object request.....	145
7.13.3.1.14	MCDATA deposit an object response.....	145
7.13.3.1.15	MCDATA copy a stored object request.....	145
7.13.3.1.16	MCDATA copy a stored object response.....	145
7.13.3.1.17	MCDATA move a stored object request.....	146
7.13.3.1.18	MCDATA move a stored object response.....	146
7.13.3.1.19	MCDATA create folder request.....	146
7.13.3.1.20	MCDATA create folder response.....	146
7.13.3.1.21	MCDATA delete folder request.....	146
7.13.3.1.22	MCDATA delete folder response.....	147
7.13.3.1.23	MCDATA copy folder request.....	147
7.13.3.1.24	MCDATA copy folder response.....	147
7.13.3.1.25	MCDATA move folder request.....	147
7.13.3.1.26	MCDATA move folder response.....	148
7.13.3.1.27	MCDATA list folder request.....	148
7.13.3.1.28	MCDATA list folder response.....	148
7.13.3.1.29	MCDATA upload objects request.....	148
7.13.3.1.30	MCDATA upload objects response.....	148
7.13.3.1.31	MCDATA synchronization notification.....	149
7.13.3.2	Retrieve a stored object.....	149
7.13.3.2.1	General.....	149
7.13.3.2.2	Procedure.....	149
7.13.3.3	Search stored objects.....	150
7.13.3.3.1	General.....	150
7.13.3.3.2	Procedure.....	150
7.13.3.4	Update a stored object.....	150
7.13.3.4.1	General.....	150
7.13.3.4.2	Procedure.....	150
7.13.3.5	Delete a stored object.....	151
7.13.3.5.1	General.....	151
7.13.3.5.2	Procedure.....	151
7.13.3.6	Synchronization.....	152
7.13.3.6.1	General.....	152
7.13.3.6.2	Procedure.....	152
7.13.3.7	Create a user account.....	153
7.13.3.7.1	General.....	153
7.13.3.7.2	Procedure.....	153
7.13.3.8	Deposit an object.....	154
7.13.3.8.1	General.....	154
7.13.3.8.2	Procedure.....	154
7.13.3.9	Copy a stored object.....	155
7.13.3.9.1	General.....	155
7.13.3.9.2	Procedure.....	155
7.13.3.10	Move a stored object.....	156
7.13.3.10.1	General.....	156
7.13.3.10.2	Procedure.....	156
7.13.3.11	Folder create operation.....	157
7.13.3.11.1	General.....	157
7.13.3.11.2	Procedure.....	157
7.13.3.12	Folder delete operation.....	158
7.13.3.12.1	General.....	158
7.13.3.12.2	Procedure.....	158
7.13.3.13	Folder copy operation.....	159
7.13.3.13.1	General.....	159
7.13.3.13.2	Procedure.....	159

7.13.3.14	Folder move operation .....	160
7.13.3.14.1	General .....	160
7.13.3.14.2	Procedure.....	160
7.13.3.15	Folder list operation .....	161
7.13.3.15.1	General .....	161
7.13.3.15.2	Procedure.....	161
7.13.3.16	Upload objects.....	162
7.13.3.16.1	General .....	162
7.13.3.16.2	Procedure.....	162
7.13.3.17	Notify client to synchronize .....	163
7.13.3.17.1	General .....	163
7.13.3.17.2	Procedure.....	163
7.13.4	Generic outgoing SDS procedure with MCDData message store .....	164
7.13.4.1	General .....	164
7.13.4.2	Procedure .....	164
7.13.5	Generic incoming SDS procedure with MCDData message store.....	165
7.13.5.1	General .....	165
7.13.5.2	Procedure .....	165
7.13.6	Interconnection and migration with MCDData message store .....	166
7.13.6.1	Interconnection.....	166
7.13.6.2	Migration.....	166
7.14	IP connectivity.....	166
7.14.1	General.....	166
7.14.2	IP connectivity for on-network .....	167
7.14.2.1	Information flows for IP connectivity .....	167
7.14.2.1.1	MCDData IPcon point-to-point request .....	167
7.14.2.1.2	MCDData IPcon point-to-point response .....	167
7.14.2.2	IP connectivity point-to-point MCDData transport service .....	167
7.14.2.2.1	General .....	167
7.14.2.2.2	Procedure.....	167
7.15	Location information (on-network).....	169
<b>Annex A (normative):</b>	<b>MCDData related configuration data .....</b>	<b>170</b>
A.1	General .....	170
A.2	MCDData UE configuration data.....	170
A.3	MCDData user profile configuration data.....	171
A.4	MCDData related Group configuration data .....	179
A.5	MCDData service configuration data.....	181
<b>Annex B (informative):</b>	<b>Transmission control for MCDData .....</b>	<b>183</b>
B.1	Overview of transmission control process .....	183
B.2	Transmission control arbitration .....	183
<b>Annex C</b>	<b>VOID.....</b>	<b>185</b>
<b>Annex D (informative):</b>	<b>Example of a User Message Storage Area .....</b>	<b>186</b>
<b>Annex E (informative):</b>	<b>Change history .....</b>	<b>187</b>
History .....		192

---

# Foreword

This Technical Specification has been produced by the 3<sup>rd</sup> 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.

**PREVIEW**  
**STANDARD**  
**ETSI**  
**(standards.iteh.ai)**  
Full standard:  
<https://standards.iteh.ai/catalog/standards/sist/dfcb83e1-79d1-4cbb-9ea5-b622baad/etsi-ts-123-282-v16.6.1-2020-10>