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Foreword

This draft European Telecommunication Standard (ETS) has been produced by the Terrestrial Trunked Radio (TETRA) Project of the European Telecommunications Standards Institute (ETSI), and is now submitted for the Public Enquiry phase of the ETSI standards approval procedure.

This ETS is a multi-part standard and will consist of the following parts:

Part 1: "General network design";

Part 2: "Radio aspects";

Part 3: "Mobile Station to Mobile Station (MS-MS) Air Interface (AI) protocol";

Part 4: "Repeater Type 1";

Part 5: "Gateway";

Part 6: "Security";

Part 7: "Repeater Type 2";

Part 8: "Protocol Implementation Conformance Statement proforma specification";

Part 9: "Service and Description Language (SDL) model".

Proposed transposition dates	
Date of latest announcement of this ETS (doa):	3 months after ETSI publication
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	6 months after doa
Date of withdrawal of any conflicting National Standard (dow):	6 months after doa

Introduction

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a telecommunication specification. Such a statement is called an Implementation Conformance Statement (ICS).

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1 Scope

This European Telecommunication Standard (ETS) provides the Protocol Implementation Conformance Statement (PICS) proforma for the TETRA Direct Mode Operation (DMO) Gateway Air Interface (AI) protocol, defined in ETS 300 396-5 [1] in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [7] and ETS 300 406 [5].

2 Normative references

This ETS incorporates by dated and undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

[1] ETS 300 396-5 (1996): "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 5: Gateways".

[2] ETS 300 396-3: "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 3: Mobile Station to Mobile Station (MS-MS) Air Interface (AI) protocol".

[3] ETS 300 392-2: "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 2: Air Interface (AI)".

[4] ETS 300 392-14: "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 14: Protocol Implementation Conformance Statement (PICS) proforma specification".

[5] ETS 300 406 (1995): "Methods for testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

[6] ISO/IEC 9646-1 (1994): "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 1: General concepts".

[7] ISO/IEC 9646-7 (1995): "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this ETS, the following definitions apply:

- terms defined in ETS 300 396-5 [1];
- terms defined in ISO/IEC 9646-1 [6] and in ISO/IEC 9646-7 [7].

In particular, the following terms defined in ISO/IEC 9646-1 [6] apply:

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. The ICS can take several forms: protocol ICS, profile ICS, profile specific ICS, information object ICS, etc.

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

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

3.2 Abbreviations

For the purposes of this ETS, the following abbreviations apply:

AI	Air Interface
CMCE	Circuit Mode Control Entity
CONP	Connection Oriented Network Protocol
DMCC	Direct Mode Call Control
DM-MAC	Direct Mode Medium Access Control
DMMM	Direct Mode Mobility Management
DM-MS	Direct Mode Mobile Station
DMO	Direct Mode Operation
FCS	Frame Check Sequence
ICS	Implementation Conformance Statement
IUT	Implementation Under Test
KSG	Key Stream Generator
LLC	Logical Link Control
MAC	Medium Access Control
MLE	Mobile Link Entity
MM	Mobility management
MNI	Mobile Network Identity
MS	Mobile Station
PDU	Protocol Data Unit
PICS	Protocol Implementation Conformance Statement
SCLNP	Specific ConnectionLess Network Protocol
SCS	System Conformance Statement
SDS	Short Data Service
SSI	Short Subscriber Identity
SUT	System Under Test
SwMI	Switching and Management Infrastructure
TPNI	Transmitting Party Number Identification
TSI	TETRA Subscriber Identity
URT	Usage Restriction Type
V+D	Voice plus Data

4 Conformance to this PICS proforma specification

If it claims to conform to this ETS, the actual PICS proforma to be filled in by a supplier shall be technically equivalent to the text of the PICS proforma given in annex A, and shall preserve the numbering/naming and ordering of the proforma items.

A PICS which conforms to this ETS shall be a conforming PICS proforma completed in accordance with the guidance for completion given in clause A.1.

Annex A (normative): Protocol ICS proforma (PICS) for ETS 300 396-5

A.1 Guidance for completing the PICS proforma

A.1.1 Purposes and structure

The purpose of this PICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in ETS 300 396-5 [1] may provide information about the implementation in a standardized manner.

The PICS proforma is subdivided into subclauses for the following categories of information:

- guidance for completing the PICS proforma;
- identification of the implementation;
- identification of the Protocol;
- global statement of conformance;
- identification of the roles, DM-MS or DM-Gateway;
- DM-MS layer 3 and layer2 protocol part;
- DM-Gateway layer 3 and layer 2 on DM side protocol part;
- DM-MS and DM-Gateway PDUs.

A.1.2 Abbreviations and conventions

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

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?".

Status column: The following notations, defined in ISO/IEC 9646-7 [7], are used for the status column:

m	mandatory - the capability is required to be supported.
o	optional - the capability may be supported or not.
n/a	not applicable - in the given context, it is impossible to use the capability.
x	prohibited (excluded) - there is a requirement not to use this capability in the given context.
o.i	qualified optional - for mutually exclusive or selectable options from a set. "i" is an integer which identifies an unique group of related optional items and the logic of their selection which is defined immediately following the table.
ci	conditional - the requirement on the capability ("m", "o", "x" or "n/a") depends on the support of other optional or conditional items. "i" is an integer identifying an unique conditional status expression which is defined immediately following the table.

Reference column

The reference column makes reference to ETS 300 396-5 [1], except where explicitly stated otherwise.

Support column

The support column shall be filled in by the supplier of the implementation. The following common notations, defined in ISO/IEC 9646-7 [7], are used for the support column:

Y or y	supported by the implementation
N or n	not supported by the implementation
N/A, n/a or -	no answer required (allowed only if the status is n/a, directly or after evaluation of a conditional status)

If this PICS proforma is completed in order to describe a multiple-profile support in a system, it is necessary to be able to answer that a capability is supported for one profile and not supported for another. In that case, the supplier shall enter the unique reference to a conditional expression, preceded by "?" (e.g. ?3). This expression shall be given in the space for comments provided at the bottom of the table. It uses predicates defined in the SCS, each of which refers to a single profile and which takes the value TRUE if and only if that profile is to be used.

EXAMPLE: ?3: IF prof1 THEN Y ELSE N

It is also possible to provide a comment to an answer in the space provided at the bottom of the table.

NOTE: As stated in ISO/IEC 9646-7 [7], support for a received PDU requires the ability to parse all valid parameters of that PDU. Supporting a PDU while having no ability to parse a valid parameter is non-conformant. Support for a parameter on a PDU means that the semantics of that parameter are supported.

Values allowed column

The values allowed column contains the type, the list, the range, or the length of values allowed. The following notations are used:

- range of values: <min value> .. <max value>
  example: 5 .. 20
- list of values: <value1>, <value2>, ..., <valueN>
  example: 2 ,4 ,6 ,8, 9
  example: ‘1101’B, ‘1011’B, ‘1111’B
  example: ‘0A’H, ‘34’H, ‘2F’H
- list of named values: <name1>(<val1>), <name2>(<val2>), ..., <nameN>(<valN>
  example: reject(1), accept(2)
- length: size (<min size> .. <max size>)
  example: size (1 .. 8)

Values supported column

The values supported column shall be filled in by the supplier of the implementation. In this column, the values or the ranges of values supported by the implementation shall be indicated.

References to items

For each possible item answer (answer in the support column) within the PICS proforma a unique reference exists, 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 are discriminated by letters (a, b, etc.), respectively.

EXAMPLE 1: A.5/4 is the reference to the answer of item 4 in table 5 of annex A.

EXAMPLE 2: A.6/3b is the reference to the second answer (i.e. in the second support column) of item 3 in table 6 of annex A.

Pre-requisite line

A Pre-requisite line takes the form: Pre-requisite: <predicate>.

A Pre-requisite line after a clause or table title indicates that the whole clause or the whole table is not required to be completed if the predicate is FALSE.

A.1.3 Instructions for completing the PICS proforma

The supplier of the implementation shall complete the PICS proforma in each of the spaces provided. In particular, an explicit answer shall be entered, in each of the support or supported column boxes provided, using the notation described in subclause A.1.2.

If necessary, the supplier may provide additional comments in space at the bottom of the tables, or separately on sheets of paper.

More detailed instructions are given at the beginning of the different subclauses of the PICS proforma.

A.2 Identification of the implementation

Identification of the Implementation Under Test (IUT) and the system in which it resides (the System Under Test (SUT)) 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 PICS should be named as the contact person.

A.2.1 Date of the statement

A.2.2 Implementation Under Test (IUT) identification

IUT name:

.....

IUT version:

A.2.3 System Under Test (SUT) identification

SUT name:

.....

Hardware configuration:

.....

.....

Operating system:

.....

A.2.4 Product supplier

Name:

Address:

.....

.....

Telephone number:

Facsimile number:

E-mail address:

Additional information:

.....

.....

A.2.5 Client (if different from product supplier)

Name:

Address:

.....

.....

Telephone number:

Facsimile number:

E-mail address:

Additional information:

.....

.....

A.2.6 PICS contact person

(A person to contact if there are any queries concerning the content of the PICS)

Name:

Telephone number:

Facsimile number:

E-mail address:

Additional information:

.....

.....

A.3 Identification of the Protocol

This PICS proforma applies to the following standard:

ETS 300 396-5 (1996): "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 5: Gateways" [1].

This ETS contains two layers of the protocol stack, Direct Mode Call Control (DMCC) at layer 3 and Data Link Layer (DLL) at layer 2 for the DM-MS operating through a gateway, and the DM-Gateway protocol. Each of these parts is addressed in a different section of the present PICS. When submitting an implementation for test, the implementer is required to answer the questions of the section(s) of the proforma pertaining to the part(s) of the protocol submitted to the test, i.e. the DMCC section, the DLL section or a gateway.

A.4 Global statement of conformance

Are all mandatory capabilities of the DM-MS for operation through a DM-Gateway implemented? (Yes/No/(n/a))

Are all mandatory capabilities of the DM-Gateway implemented? (Yes/No/(n/a))

NOTE: Answering "No" to any of these questions indicates non-conformance to the Protocol specification. Non-supported mandatory capabilities are to be identified in the PICS, with an explanation of why the implementation is non-conforming, on pages attached to the PICS proforma. Answering "n/a" to any of these questions indicates that the questions related to that part does not apply.

A.5 Types

The supplier of the implementation shall state the type of the implementation, in table A.1.

Table A.1: Implementation type

Item	Type	Reference	Status	Support
1	DM-MS	6, 9	o.1	
2	Gateway	6, 9	o.1	

o.1: It is mandatory to support at least one of these items

The supplier of the implementation shall state the gateway type of the implementation, in table A.2.

Table A.2: Type of gateway

Pre-requisite: A.1/2 -- Gateway				
Item	**Type**	**Reference**	**Status**	**Support**
1	DM-Gateway (DM-GATE)	4.1	o.2	
1	DM-Gateway with a type 1 Repeater (type 1 DM-REP/GATE)	4.1	o.2	
2	DM-Gateway with a type 2 Repeater (type 2 DM-REP/GATE)	4.1	o.2	

o.2: It is mandatory to support at least one of these items

The supplier of the implementation shall state the DM-MS type of the implementation, in table A.3.

Table A.3: Type of DM-MS

Pre-requisite: A.1/1 -- DM-MS				
Item	**Type**	**Reference**	**Status**	**Support**
1	DM-MS suppporting operation via a DM-Gateway (DM-GATE)	6	o.3	
2	DM-MS suppporting operation via a combined DM-Gateway with a Repeater (DM-REP/GATE)	6	o.3	

o.3: It is mandatory to support at least one of these items

A.6 DM-MS

A.6.1 DM-MS Layer 3

The supplier of the implementation shall state the support of the DM-MS implementation for the following protocols, in table A.4.

Table A.4: DM-MS Layer 3 protocols

Pre-requisite: A.1/1 -- DM-MS				
Item	**Protocol**	**Reference**	**Status**	**Support**
1	Direct Mode Call Control (DMCC)	6.1	m	
2	Direct Mode Mobility Management (DMMM)	6.1	o	

A.6.1.1 Direct Mode Call Control (DMCC)

A.6.1.1.1 DMCC major capabilities

The supplier of the implementation shall state the support of the implementation for each of the following DMCC services, in table A.5.

Table A.5: DMCC services

Pre-requisite: A.4/1 -- DMCC				
Item	**DMCC service**	**Reference**	**Status**	**Support**
1	Circuit mode call	6.2	o.4	
2	Short Data Service (SDS)	6.3	o.4	

o.4: It is mandatory to support at least one of these items

A.6.1.1.2 Circuit mode call

The supplier of the implementation shall state the support of the implementation for each of the following circuit mode call protocol features, in table A.6.

Table A.6: Circuit mode protocol features

Pre-requisite: A.5/1 -- circuit mode call				
Item	**Protocol feature**	**Reference**	**Status**	**Support**
1	Group address call capability	5.2	o.5	
2	Individual address call capability	5.2	o.5	
3	Initiate call set-up without presence check	6.2.1.1	c601	
4	Accept call set-up	6.2.2	m	
5	Master end of call transmission	6.2.4.1	c602	
6	Receive end of call transmission	6.2.4.2	m	
7	Master call termination	6.2.4.1	c602	
8	Receive call termination	6.2.4.2, 6.2.5.2	m	
9	Accept call pre-emption	6.2.4.1	c602	
10	Initiate pre-emption in ongoing call	6.2.4.2	o	
11	Initiate pre-emption for a new call	6.2.6	o	
12	Initiate call change-over	6.2.5.2	o	
13	Late entry by called party	6.2.3	o	
14	Receive TPNI in call set-up	6.2.2.3	m	
15	Suppress TPNI in call set-up	6.2.4.3	o	
16	Address to external user capability (beyond the V+D system)	6.2.1.3.3	o	

o.5: It is mandatory to support at least one of these items

c601: IF A.4/2 -- If Direct Mode Mobility Management supported
THEN o -- then optional
ELSE n/a
c602: IF A.6/3 -- If Initiate call set-up supported
THEN m -- then mandatory
ELSE n/a

A.6.1.1.3 Circuit mode call set-up

The supplier of the implementation shall state the support of the implementation for each of the following circuit mode call set-up procedures, in tables A.7 and A.8.

Table A.7: Circuit mode call set-up procedures

Pre-requisite: A.6/3 -- Initiate call set-up without presence check				
Item	**Call set-up procedure**	**Reference**	**Status**	**Support**
1	Initiate call set-up on group address	6.2.1.1	c701	
2	Initiate call set-up on temporary group address	6.2.1.2	o	
3	Initiate call set-up on individual call address	6.2.1.1	c702	

c701: IF A.6/1 -- If group address call capability supported
THEN m -- then mandatory
ELSE n/a
c702: IF A.6/2 -- If individual address call capability supported
THEN m -- then mandatory
ELSE n/a

Table A.8: Accept circuit mode call procedures

Pre-requisite: A.6/4 -- Accept call set-up				
Item	**Accept call set-up procedure**	**Reference**	**Status**	**Support**
1	Accept call without presence check	6.2.2.1	c801	
2	Accept call with presence check	6.2.2.2	c802	
3	Receive TPNI in call set-up	6.2.1.3.4	m	

c801: IF A.6 /1 -- If group address call capability supported
THEN m -- then mandatory
ELSE n/a
c802: IF A.6 /2 -- If individual address call capability supported
THEN m -- then mandatory
ELSE n/a

A.6.1.1.4 Circuit mode services offered

The supplier of the implementation shall state the support of the implementation for each of the following circuit mode services, in table A.9.

Table A.9: Circuit mode services offered

Pre-requisite: A.5/1 -- circuit mode call				
Item	**Circuit mode service**	**Reference**	**Status**	**Support**
1	Circuit mode speech:	5.4	o.6	
2	Circuit mode data unprotected: 7.2	5.4	o.6	
3	Circuit mode data low protection: 4.8, N=1	5.4	o.6	
4	Circuit mode data low protection: 4.8, N=4	5.4	o.6	
5	Circuit mode data low protection: 4.8, N=8	5.4	o.6	
6	Circuit mode data high protection: 2.4, N=1	5.4	o.6	
7	Circuit mode data high protection: 2.4, N=4	5.4	o.6	
8	Circuit mode data high protection: 2.4, N=8	5.4	o.6	
9	Clear mode transmission	5.2	o.7	
10	End to end encrypted transmission	5.2	o.7	
11	Normal priority call	5.4	m	
12	High priority call	5.4	o.8	
13	Pre-emptive priority call	5.4	o.8	
14	Emergency pre-emptive priority call	5.4	o.8	
15	Recent user priority service	5.4	o	

o.6: It is mandatory to support at least one of these items
o.7: It is mandatory to support at least one of these items
o.8: It is mandatory to support at least one of these items

A.6.1.1.5 Short data services

The supplier of the implementation shall state the support of the implementation for each of the following short data services, in table A.10.

Table A.10: Short Data Services

Pre-requisite: A.5/2 -- Short Data Service				
Item	**Short data service**	**Reference**	**Status**	**Support**
1	Send data (note 1)	6.3.1	o.9	
2	Receive data (note 2)	6.3.2	o.9	
3	Extended error protection (FCS)	6.3.4	m	
NOTE 1: Capability to initiate short data transaction as master. NOTE 2: Capability to receive short data transaction as slave.				

o.9: It is mandatory to support at least one of these items

A.6.1.1.6 Type of short data service

The supplier of the implementation shall state the support of the implementation for each of the following types of SDSs, in tables A.11 to A.15.

Table A.11: Type of short data service

Pre-requisite: A.5/2 -- Short Data Service				
Item	**Type of short data service**	**Reference**	**Status**	**Support**
1	Group address SDS capability	6.3	o.10	
2	Individual address SDS capability	6.3	o.10	
3	Pre-defined short data messages	6.3	o.11	
4	User-defined short data messages	6.3	o.11	
5	OTAR (note)	6.3	o.11	
6	Enable/disable (note)	6.3	o.11	
7	Additional addressing (receive)	6.3.3.2	c1101	
8	Additional addressing (send)	6.3.3.1	c1102	
NOTE: The detailed PICS proforma for DMO security is defined in a separate PICS proforma covering security aspects.				

o.10: It is mandatory to support at least one of these items
o.11: It is mandatory to support at least one of these items

c1101: IF A.10/2 -- If receive SDS supported
THEN m -- then mandatory
ELSE n/a
c1102: IF A.10/1 -- If send SDS supported
THEN o -- then optional
ELSE n/a

Table A.12: Send short data service on group address

Pre-requisite: A.10/1 AND A.11/1 AND A.4/2 -- Send SDS and SDS group address and Mobility Management				
Item	**Send SDS on group address**	**Reference**	**Status**	**Support**
1	Unacknowledged data service	6.3.1	o.12	
2	Acknowledged data service	6.3.1	o.12	
3	Extraction of data included in ACK	6.3.1	c1201	

o.12: It is mandatory to support at least one of these items

c1201: IF A.12/2 -- Acknowledged data service supported
THEN m -- then mandatory

ELSE n/a

Table A.13: Send short data service on individual address

Pre-requisite: A.10/1 AND A.11/2 AND A.4/2 -- Send SDS and SDS individual address and Mobility Management				
Item	**Send SDS on individual address**	**Reference**	**Status**	**Support**
1	Unacknowledged data service	6.3.1	o.13	
2	Acknowledged data service	6.3.1	o.13	
3	Extraction of data included in ACK	6.3.1	c1301	

o.13: It is mandatory to support at least one of these items

c1301: IF A.13/2 -- Acknowledged data service supported
THEN m -- then mandatory
ELSE n/a

Table A.14: Receive short data service on group address

Pre-requisite: A.10/2 AND A.11/1 -- Receive SDS and SDS group address				
Item	**Receive SDS on group address**	**Reference**	**Status**	**Support**
1	Unacknowledged data service	6.3.2.1	m	

Table A.15: Receive short data service on individual address

Pre-requisite: A.10/2 AND A.11/2 -- Receive SDS and SDS individual address				
Item	**Receive SDS on individual address**	**Reference**	**Status**	**Support**
1	Unacknowledged data service	6.3.2.1	o.14	
2	Acknowledged data service	6.3.2.2	o.14	
3	Include data in ACK	6.3.2.2	o	

o.14: It is mandatory to support at least one of these items

A.6.1.1.7 Data transmission

The supplier of the implementation shall state the support of the implementation for each of the following services for sending data, in table A.16.

Table A.16: Sending data services

Pre-requisite: A.10/1 -- SDS Send data				
Item	**Send data**	**Reference**	**Status**	**Support**
1	Send short data on a free channel	6.3.1.1	m	
2	Send short data after pre-emption of a circuit mode call (new call)	6.3.1.2	o	
3	Send short data stealing from circuit mode transmission	6.3.1.3	c1601	
4	Send short data after pre-emption of a circuit mode call (ongoing call)	6.3.1.4.1	c1602	
5	Send short data after changeover of a circuit mode call	6.3.1.4.2	c1602	
6	Send short data as master of a circuit mode call	6.3.1.4.3	c1602	

c1601: IF A. 6/3 -- If initiate call set-up supported
THEN o -- then optional
ELSE n/a
c1602: IF A.5/1 -- If circuit mode call supported
THEN o -- then optional

ELSE n/a

A.6.1.1.8 SDS user defined data

The supplier of the implementation shall state the support of the implementation for each of the following types of short data, in table A.17.

Table A.17: SDS user defined data types

Pre-requisite: A.11/4 -- User defined short data				
Item	**SDS user defined data type**	**Reference**	**Status**	**Support**
1	User defined data 1 (16 bits)	5.4	o.15	
2	User defined data 2 (32 bits)	5.4	o.15	
3	User defined data 3 (64 bits)	5.4	o.15	
4	User defined data 4 (up to 2047 bits)	5.4	o.15	

o.15: It is mandatory to support at least one of these items

A.6.1.1.9 DMCC PDUs

The supplier of the implementation shall state the support of the implementation for each of the following circuit mode and SDS PDUs, in tables A.18 and A.19.

Table A.18: Circuit Mode call PDUs

Item	**PDU**	**Reference**	**Sending**		**Receiving**	
			Status	**Support**	**Status**	**Support**
1	DM-SETUP	14.5, [2] 9.5.1	c1801		c1802	
2	DM-SETUP PRES	14.5, [2] 9.5.2	n/a		c1803	
3	DM-CONNECT	14.5, [2] 9.5.3	c1803		n/a	
4	DM-DISCONNECT	14.5, [2] 9.5.4	c1803		n/a	
5	DM-CONNECT ACK	14.5, [2] 9.5.5	n/a		c1803	
6	DM-OCCUPIED	14.5, [2] 9.5.6	c1801		c1804	
7	DM-RELEASE	14.5, [2] 9.5.7	c1801		c1804	
8	DM-TX CEASED	14.5, [2] 9.5.8	c1801		c1804	
9	DM-TX REQUEST	14.5, [2] 9.5.9	c1809		n/a	
10	DM-TX ACCEPT	14.5, [2] 9.5.10	n/a		m	
11	DM-PREEMPT	14.5, [2] 9.5.11	c1805		c1801	
12	DM-PRE ACCEPT	14.5, [2] 9.5.12	c1801		m	
13	DM-REJECT	14.5, [2] 9.5.13	c1801		c1810	
14	DM-INFO	14.5, [2] 9.5.14	c1806		c1811	
15	DM-GSETUP	14.5.1	c1801		n/a	
16	DM-GCONNECT	14.5.2	n/a		c1801	
17	DM-GACK	14.5.3	n/a		m	
16	DM-GRELEASE	14.5.4	n/a		m	
18	DM-GTX REQUEST	14.5.5	c1809		n/a	
19	DM-GTX ACCEPT	14.5.6	n/a		m	
20	DM-GPREEMPT	14.5.7	c1807		n/a	
21	DM-GPRE ACCEPT	14.5.8	n/a		c1807	
22	DM-GREJECT	14.5.9	n/a		c1807	

c1801: IF A.6/3 -- If initiation of call without presence check supported
THEN m -- then mandatory
ELSE n/a
c1802: IF A.8/1 -- If receipt of call without presence check supported
THEN m -- then mandatory
ELSE n/a
c1803: IF A.8/2 -- If receipt of call with presence check supported

	THEN m	-- then mandatory
	ELSE n/a	
c1804	IF A.5/1	-- If circuit mode call supported
	THEN o	-- then optional
	ELSE n/a	
c1805:	IF A.6/11	-- If initiation of pre-emption for a new call supported
	THEN m	-- then mandatory
	ELSE n/a	
c1806:	IF A.6/12 OR A.	-- If CM or SDS changeover supported then
	THEN m	-- then mandatory
	ELSE n/a	
c1807:	IF A.6/8	-- If initiation of pre-emption for the ongoing call supported
	THEN m	-- then mandatory
	ELSE n/a	
c1808	F A.6/3 OR A.10/1	-- If initiate call set-up or send SDS supported
	THEN m	-- then mandatory
	ELSE n/a	

Table A.19: SDS specific PDUs

Pre-requisite: A.4/2 -- Short Data Service						
Item	**PDU**	**Reference**	**Sending**		**Receiving**	
			Status	**Support**	**Status**	**Support**
1	DM-SDS UDATA	14.5, [2] 9.5.15	c1901		c1902	
2	DM-SDS DATA	14.5, [2] 9.5.16	c1903		c1904	
3	DM-SDS ACK	14.5, [2] 9.5.17	c1904		c1903	

c1901:	IF A.12/1 OR A.13/1	-- If sending of unacknowledged SDS supported
	THEN m	-- then mandatory
	ELSE n/a	
c1902:	IF A.15/1 OR A.14/1	-- If receipt of unacknowledged SDS supported
	THEN m	-- then mandatory
	ELSE n/a	
c1903:	IF A.13/2 OR A.13/3 OR A.12/2 OR A.12/3	-- If sending of acknowledged data service supported
	THEN m	-- then mandatory
	ELSE n/a	
c1904:	IF A.15/2 OR A.15/3	-- If receipt of acknowledged data service supported
	THEN m	-- then mandatory
	ELSE n/a	

A.6.1.2 Direct Mode Mobility Management (DMMM)

A.6.1.2.1 DMMM major capabilities

The supplier of the implementation shall state the support of the implementation for each of the following DMMM protocol services, in table A.20.

Table A.20: DMMM services

Pre-requisite: A.4/2 -- DMMM				
Item	**Service**	**Reference**	**Status**	**Support**
1	Registration by invitation	6.4.1	m	
2	Un-invited registration	6.4.2	o	
3	Registration cancellation	6.4.3	m	

A.6.1.2.2 DMMM PDUs

The supplier of the implementation shall state the support of the implementation for mobility management PDUs, in table A.21.

Table A.21: DMMM PDUs

Pre-requisite: A.4/2 -- DMMM						
Item	**PDU**	**Reference**	**Sending**		**Receiving**	
			Status	**Support**	**Status**	**Support**
1	DM-GREGISTER REQUEST	14.5.10	m		n/a	
2	DM-GREGISTER ACCEPT	14.5.11	n/a		m	
3	DM-GREGISTER REJECT	14.5.12	n/a		m	
4	DM-GREGISTER CANCEL	14.5.13	n/a		m	
5	DM-GCANCEL ACK	14.5.14	m		n/a	

A.6.1.3 Layer 3 constants in DM-MS

The supplier of the implementation shall state the support of the implementation for each of the following Layer 3 constants in DM-MS, in table A.22.

Table A.22: Layer 3 constants in DM-MS

Item	**Constant**		**Reference**	**Status**	**Support**	**Value ranges**	
						Allowed	**Supported**
1	DN301	-- DM-GSETUP -- retries	A.2	c2201			
2	DN302	-- DM-GSETUP -- retries -- after DM-GACK	A.2	c2201			
3	DN314	-- DM-SDS UDATA -- retries	A.2, [2] A.2	c2202		1 .. 6	
4	DN315	-- DM-SDS DATA -- retries on -- negative response	A.2, [2] A.2	c2203		2 .. 6	
5	DN316	-- DM-SDS DATA -- retries on no -- response	A.2, [2] A.2	c2203		1 .. 4	
6	DN326	-- uninvited -- registration retries	A.2	c2204			

c2201: IF A.6/3 -- If call set-up supported
THEN m -- then mandatory
ELSE n/a

c2202: IF A.12/1 OR A.13/1 -- If sending of unacknowledged SDS supported for
THEN m -- group or individual address then mandatory
ELSE n/a

c2203: IF A.13/2 OR A.13/3 -- If sending of acknowledged SDS supported with or without
OR A.12/2 OR A.12/3 -- data in ACK
THEN m -- then mandatory
ELSE n/a

c2204: IF A.20/2 -- If uninvited registration supported
THEN o -- then optional
ELSE n/a

A.6.1.4 Layer 3 timers in DM-MS

The supplier of the implementation shall state the support of the implementation for each of the following layer 3 timers in DM-MS, in table A.23.

Table A.23: Layer 3 timers in DM-MS

Item	Timer	Reference	Status	Support	Values	
					Default	Supported
1	DT301 -- Wait DM- -- GSETUP -- response	A.1	c2301			
2	DT302 -- Wait DM- -- GCONNECT -- after DM- -- GACK	A.1	c2301			
3	DT307 -- Wait DM- -- CONNECT -- ACK	A.1, [2] A.1	c2302		350 -- mSec	
4	DT308 -- Wait DM- -- GPRE -- ACCEPT -- after DM- -- GACK	A.1	c2303			
5	DT309 -- Wait DM- -- GTX -- ACCEPT -- after DM- -- GACK	A.1	m			
6	DT311 -- Call -- transaction -- time	A.1, [2] A.1	c2301		300 -- Sec	
7	DT314 -- SDS failure -- timer	A.1, [2] A.1	c2304		500 -- mSec	
8	DT316 -- Wait DM- -- SDS DATA -- response	A.1, [2] A.1	c2305		400 -- mSec	
9	DT326 -- Wait -- response to -- uninvited -- registration	A.1	c2306			

c2301: IF A.6/3 -- If initiate call set-up supported
THEN m -- then mandatory
ELSE n/a

c2302: IF A.8/2 -- If receipt of call set-up with presence check supported
THEN m -- then mandatory
ELSE n/a

c2303: IF A.6/9 -- If initiation of pre-emption for a new call supported then
THEN m -- mandatory
ELSE n/a

c2304: IF A.10/1 -- If SDS send data supported
THEN m -- then mandatory
ELSE n/a

c2305: IF A.13/2 OR A.13/3 -- If sending of acknowledged SDS supported with or without
OR A.12/2 OR A.12/3 -- data in ACK
THEN m -- then mandatory
ELSE n/a

c2306: IF A.20/2 -- If uninvited registration supported
THEN m -- then mandatory
ELSE n/a

A.6.2 DM-MS MAC Layer

A.6.2.1 DM-MAC features

The supplier of the implementation shall state the support of the implementation for each of the following DM-MAC features, in table A.24.

Table A.24: DM-MAC features

Item	Feature	Reference	Status	Support
1	Scrambling mechanism	8.2	m	
2	PDU error detection	8.2, [2] 8.2.5	m	
3	Stealing mechanism	8.2, [2] 8.2.6.2.2	c2401	
4	DM channel usage with gateway procedures	8.4	m	
5	Signalling messages procedures	8.5	m	
6	Traffic mode procedures	8.6	c2402	

c2401: IF A.6/3 -- If initiation of CM call set-up supported
THEN o -- then mandatory
ELSE n/a
c2402: IF A.5/1 -- If circuit mode call supported
THEN m -- then mandatory
ELSE n/a

A.6.2.2 DM-MAC procedures

The supplier of the implementation shall state the support of the implementation for each of the following MAC procedures, in tables A.25 to A.31.

Table A.25: DM channel usage procedures

Prerequisite: A. 24/4: -- DM channel usage with gateway procedures				
Item	**DM channel procedure**	**Reference**	**Status**	**Support**
1	DM channel operation	8.4.1.2	m	
2	Determination of DM channel state	8.4.2.2	m	
3	DM-MS channel surveillance procedures for registration outside registration phase	8.4.2.2.4	c2501	
4	Master DM-MS channel surveillance procedures	8.4.2.4	c2502	
5	Slave DM-MS channel surveillance procedures	8.4.2.4	m	
6	Transmission of layer 3 messages procedures	8.4.5	c2503	
7	Transmission of layer 2 messages procedures	8.4.6	c2503	
8	SDS time remaining	8.4.7.14	c2504	
9	Accept timing change at changeover or pre-emption	8.4.7.16	m	
10	Accept modification of slot/frame numbering	8.4.7.17	m	
11	Accept modification of channel timing	8.4.7.18	m	

c2501: IF A.20/2 -- If un-invited registration supported
THEN m -- then mandatory
ELSE n/a
c2502: IF A.6/3 OR A.10/2 -- If initiate SDS or CM call
THEN m -- then m
ELSE n/a

c2503: F A.6/3 OR A.10/1 -- If initiate call set-up or send SDS or accept CM call with presence
OR A.15/3 OR A.8/2 -- check or receive acknowledge SDS
THEN m -- then mandatory
ELSE n/a
c2504 IF A.10/1 -- If send SDS supported
THEN m -- then mandatory
ELSE n/a

Table A.26: DM-MS channel monitoring procedures

Item	DM-MS monitoring procedures	Reference	Status	Support
1	DM channel in occupation during call set-up through a gateway	8.4.4.1	c2601	
2	DM channel in occupation during call set-up from a gateway	8.4.4.2	c2602	
3	DM channel in occupation during circuit mode call monitoring as master	8.4.4.3	c2601	
4	DM channel in occupation during circuit mode call monitoring as slave	8.4.4.3	c2602	
5	DM channel in reservation during circuit mode call monitoring as slave	8.4.4.4	c2602	
6	DM channel in occupation during SDS call monitoring as master	8.4.4.5	c2603	
7	DM channel usage during pre-emption signalling monitoring	8.4.4.6	c2604	
8	DM channel monitoring during registration	8.4.4.7	c2605	
9	DM channel monitoring during un-invited registration	8.4.4.8	c2606	

c2601: IF A.6/3 -- If call set-up through a gateway supported
THEN m -- then mandatory
ELSE n/a
c2602: IF A.5/1 -- If accept call circuit mode call procedures supported
THEN m -- then mandatory
ELSE n/a
c2603: IF A.10/1 -- If send SDS supported
THEN m -- then mandatory
ELSE n/a
c2604: IF A.6/10 OR A.6/11 -- If Initiate pre-emption in ongoing call or new call
THEN m -- then mandatory
ELSE n/a
c2605: IF A.20/1 -- If invited registration supported
THEN m -- then mandatory
ELSE n/a
c2606: IF A.20/2 -- If un-invited registration supported
THEN m -- then mandatory
ELSE n/a

Table A.27: DM-MAC signalling messages

Prerequisite: A.24/5: -- Signalling messages procedures				
Item	**Signalling messages procedure**	**Reference**	**Status**	**Support**
1	Addressing in synchronization burst for gateway-specific message	8.5.2.1.1, 8.5.2.1.4	c2701	
2	Addressing in synchronization burst for non-gateway-specific message	8.5.2.1.2, 8.5.2.1.4	c2701	
3	Use of pseudo SSI	8.5.2.1.3	c2702	
4	Addressing in normal burst	8.5.2.1.5	c2701	
5	Air Interface encryption	8.5.3	c2703	
6	Fragmentation started by DMAC-SYNC	8.5.4.1	c2704	
7	Reconstruction started by DMAC-SYNC	8.5.4.2	c2705	
8	Fill bit addition	8.5.5, [2] 8.5.5.1	c2701	
9	Fill bit deletion	8.5.5, [2] 8.5.5.2	m	
10	Null PDU flag use	8.5.5, [2] 8.5.5.3	o	
11	Null PDU flag recognition	8.5.5, [2] 8.5.5.3	m	
12	Transmission of message by layer 2 unacknowledged service	8.5.6.1	c2701	
13	Registration	8.5.8.1	c2706	

c2701: IF A6/3 OR A.10/1 -- If initiate call set-up or send SDS supported
THEN m -- then mandatory
ELSE n/a

c2702: IF A6/3 OR A.10/1 -- If initiate call set-up or send SDS supported
THEN o -- then optional
ELSE n/a

c2703: IF A.11/5 -- If OTAR supported
THEN m -- then mandatory
ELSE n/a

c2704: IF A.10/1 OR A.15/3 -- If send SDS or include data in ACK
THEN o -- then optional
ELSE n/a

c2705: IF A.10/2 OR A.13/3 -- If receive SDS or extract data in ACK
OR A.12/3
THEN m -- then mandatory
ELSE n/a

c2702: IF A.20/1 -- If invited registration supported
THEN m -- then mandatory
ELSE n/a

Table A.28: DM-MAC reception of messages by layer 2 unacknowledged service

Item	Use of frame countdown element in received message	Reference	Status	Support
1	Suppression of duplicate messages	8.5.6.2	m	
2	Delaying switch into traffic mode	8.5.6.2	c2801	
3	Timing of set-up signalling for pre-emption or changeover	8.5.6.2	c2802	
4	Timing of immediate set-up retransmission	8.5.6.2	c2803	
5	Timing of immediate SDS retransmission	8.5.6.2	c2804	
6	Timing of response to message from gateway	8.5.6.2	c2805	
7	Timing of response to fragmented message from gateway	8.5.6.2	c2806	

c2801: IF A.5/1 -- If circuit mode call supported
THEN m -- then mandatory
ELSE n/a

c2802: IF A.6/10 OR A.6/11 -- If Initiate CM or SDS pre-emption in ongoing call or new call or
OR A.6/12 OR A.16/2 -- changeover supported
OR A.16/4OR A.16/5
THEN m -- then mandatory
ELSE n/a

c2803: IF A.6/3 -- If call set-up through a gateway supported
THEN m -- then mandatory
ELSE n/a

c2804: IF A.12/2 OR A.13/2 -- If acknowledged SDS with supported
THEN m -- then mandatory
ELSE n/a

c2805: IF A.6/3 OR A.15/2 OR -- If initiate call set-up through a gateway or receive acknowledged
A.15/2 OR A.15/3 -- SDS with or without data in ACK or accept call with presence
OR A.8/2 -- check supported
THEN m -- then mandatory
ELSE n/a

c2806: IF A.27/7 -- If reconstruction supported
THEN m -- then mandatory
ELSE n/a

Table A.29: DM-MAC random access master MS procedures

Item	Procedure	Reference	Status	Support
1	Indication of frames available for request	8.5.7.2.1	c2901	
2	Monitoring frames available for request	8.5.7.2.2	c2902	
3	Response to pre-emption or changeover request	8.5.7.2.3	c2902	
4	Response to DM-GRELEASE	8.5.7.2.5	c2901	

c2901: IF A.6/3 -- If CM initiate call set-up supported
THEN m -- then mandatory
ELSE n/a

c2902: IF A.6/3 OR A.10/1 -- If CM initiate call set-up or SDS data send supported
THEN m -- then mandatory
ELSE n/a

Table A.30: DM-MAC random access requesting MS procedures

Item	Procedure	Reference	Status	Support
1	Preparation for random access	8.5.7.3, [2] 8.5.7.3.1	c3001	
2	Preparation for random access during registration phase	8.5.8.2.1	c3001	
3	First transmission of request	8.5.7.3, [2] 8.5.7.3.2	c3001	
4	First transmission of request during registration phase	8.5.8.2.3	c3001	
5	Valid access slots	8.5.7.3, [2] 8.5.7.3.3	c3001	
6	Wait for response	8.5.7.3, [2] 8.5.7.3.4	c3001	
7	Wait for response during registration phase	8.5.8.2.4	c3001	
8	Subsequent transmission of request	8.5.7.3, [2] 8.5.7.3.5	c3001	
9	Subsequent transmission of request during registratiojn phase	8.5.8.2.5	c3001	
10	Abandon random access attempt	8.5.7.3, [2] 8.5.7.3.6	c3001	
11	Abandon random access attempt during registration phase	8.5.8.2.6	c3001	

c3001: IF A.6/3 OR A.16/2 -- If CM initiate call set-up or SDS pre-emption or SDS changeover
OR A.16/4 OR A.16/5 -- supported then
THEN m -- mandatory
ELSE n/a

Table A.31: DM-MAC traffic mode procedures

Prerequisite: A.1/1 -- Circuit mode call				
Item	**Feature**	**Reference**	**Status**	**Support**
1	Enter U-plane mode for call set-up - outgoing call	8.6.3.1	c3101	
2	Enter U-plane mode for call set-up without presence check - incoming call	8.6.3.2.1	c3102	
3	Enter U-plane mode for call set-up with presence check - incoming call	8.6.3.2.2	c3101	
4	Leaving U-plane mode - Master MS	8.6.3.4.1	c3101	
5	Leaving U-plane mode - Slave MS	8.6.3.4.2	c3103	
6	Stealing from circuit mode capacity - transmission on STCH	8.6.5.1	c3101	
7	Stealing from circuit mode capacity - reception on STCH	8.6.5.3	c3103	
8	Fragmentation on STCH	8.5.4.1	c3104	
9	Receonstruction on STCH	8.5.4.2	c3105	

c3101: IF A.6/3 -- If initiate call set-up supported
THEN m -- then mandatory
ELSE n/a
c3102: IF A.8/1 -- If accept call set-up without presence check
THEN m -- supported then mandatory
ELSE n/a
c3103: IF A.6/4 -- If accept call set-up with or without presence check

	THEN m	-- supported then mandatory
	ELSE n/a	
c3104:	IF A.6/3	-- If initiate call set-up supported
	THEN o	-- then optional
	ELSE n/a	
c3105:	IF A.6/4	-- If accept call set-up supported
	THEN m	-- then mandatory
	ELSE n/a	

A.6.2.3 DM-MAC PDUs

The supplier of the implementation shall state the support of the implementation for each of the following MAC PDUs, in table A.32.

Table A.32: DM-MAC PDUs

Item	PDU	Reference	Sending		Receiving	
			Status	Support	Status	Suppor
1	DMAC-SYNC	14.1.1, [2] 9.1.1	c3201		m	
2	DMAC-DATA	14.2, [2] 9.2.1	c3201		m	
3	DMAC-FRAG	14.2, [2] 9.2.2	c3202		c3203	
4	DMAC-END	14.2, [2] 9.2.3	c3202		c3203	
5	DMAC-U SIGNAL	14.2, [2] 9.2.4	c3204		c3205	
6	DMAC-TRAFFIC	14.2, [2] 9.2.5	c3204		c3205	
7	DPRES-SYNC	14.1.2	n/a		m	

c3201:	IF A.6/3 OR A.15/2 OR	-- If initiate call set-up through a gateway or receive acknowledged
	A.15/2 OR A.15/3	-- SDS with or without data in ACK or accept call with presence
	OR A.8/2	-- check supported
	THEN m	-- then mandatory
	ELSE n/a	
c3202:	IF A.27/6 OR A.31/8	-- If fragmentation supported
	THEN m	-- then mandatory
	ELSE n/a	
c3203:	IF A.27/7 OR A.31/9	-- If reconstruction supported
	THEN m	-- then mandatory
	ELSE n/a	
c3204:	IF A.6/3 OR A.10/1	-- If initiate CM call set-up supported then
	THEN m	-- mandatory
	ELSE n/a	
c3205:	IF A.5/1	-- If circuit mode call supported
	THEN m	-- then mandatory
	ELSE n/a	

A.6.2.4 DM-MAC generated messages

The supplier of the implementation shall state the support of the implementation for each of the following DM-MAC generated messages, in table A.33.

Table A.33: DM-MAC generated messages

Item	MAC generated message	Reference	Sending		Receiving	
			Status	Support	Status	Support
1	DM-RESERVED	14.4, [2] 9.4.1	n/a		c3301	
2	DM-SDS OCCUPIED	14.4, [2] 9.4.2	c3303		c3302	
3	DM-TIMING ACK	14.4, [2] 9.4.4	n/a		c3304	

c3301:	IF A.5/1	-- If circuit mode call supported
	THEN m	-- then mandatory
	ELSE n/a	
c3302:	IF A.10/2	-- If receive SDS supported

THEN m -- then mandatory
ELSE n/a
c3303: IF A.10/1 -- If send SDS supported
THEN m -- then mandatory
ELSE n/a
c3304: IF A.25/8 -- If timing change procedure supported
THEN m -- then mandatory
ELSE n/a

A.6.2.5 Layer 2 constants in DM-MS

The supplier of the implementation shall state the support of the implementation for each of the following DM-MAC constants, in tables A.34 and A.35.

Table A.34: Layer 2 constants in DM-MS

Item	Constant	Reference	Status	Support	Values	
					Default /Range	Supported
1	DN204 (min)	A.4, [2] A.4	c3401		1	
2	DN205 (max)	A.4, [2] A.4	c3401		8	
3	DN206 (min)	A.4, [2] A.4	c3402		8	
4	DN207 (max)	A.4, [2] A.4	c3402		12	
5	DN209	A.4, [2] A.4	c3403		2 .. 8	
6	DN210	A.4, [2] A.4	c3404		3	
7	DN212	A.4, [2] A.4	c3405		2	
8	DN213	A.4, [2] A.4	c3406		8	
9	DN232	A.4	c3402			
10	DN233	A.4	c3407			
11	DN235 (min)	A.4	c3408			
12	DN236 (max)	A.4	c3408			
13	DN237 (min)	A.4	c3408			
14	DN238 (max)	A.4	c3408			
15	DN240	A.4	c3409			

c3401: IF A.6/3 OR A.10/1 -- If initiate CM call set-up or SDS send data supported
THEN m -- then mandatory
ELSE n/a
c3402: IF A.6/3 -- If initiate CM call set-up
THEN m -- then mandatory
ELSE n/a
c3403: IF A.6/4 OR A.10/2 -- If receive CM call supported or SDS receive data supported
THEN m -- then mandatory
ELSE n/a
c3404: IF A.8/2 OR A.15/2 OR -- If CM call receive with presence check supported or receive
A.15/3 OR A.4/2 -- acknowledged SDS with or without data in ACK
THEN m -- or registration supported then mandatory
ELSE n/a
c3405: IF A.12/2 OR A.12/3 -- If send SDS data with or without data in
OR A. 13/2 OR A.13/3 -- ACK supported
THEN m -- then mandatory
ELSE n/a
c3406: IF A.30/10 OR A. 30/11 -- If MAC abandon random access procedure supported
THEN m -- then mandatory
ELSE n/a
c3407: IF A.10/1 -- If send SDS supported
THEN m -- then mandatory
ELSE n/a
c3408: IF A.20/2 -- If un-invited registration supported
THEN m -- then mandatory
ELSE n/a

c3409: IF A.4/2 -- If registration supported
THEN m -- then mandatory
ELSE n/a

Table A.35: DM-MAC number of frame transmissions

Item	Message type	Reference	Status	Support	Values	
					Allowed	Supported
1	DM-SETUP	A.5	c3501		1 .. 4	
2	DM-CONNECT	A.5	c3502		1 .. DN210	
3	DM-DISCONNECT	A.5	c3502		1 .. DN210	
4	DM-TX CEASED	A.5	c3501		2 .. 4	
5	DM-RELEASE	A.5	c3501		2 .. 4	
6	DM-PRE ACCEPT	A.5	c3503		2 .. 4	
7	DM-REJECT	A.5	c3504		1 .. 4	
8	DM-SDS DATA (DSB) (new call set-up)	A.5	c3505		2 .. 4	
9	DM-SDS DATA (DSB) (continuation of ongoing call)	A.5	c3505		1 .. 4	
10	DM-SDS UDATA (DSB) (new call set-up)	A.5	c3506		2 .. 4	
11	DM-SDS UDATA (DSB) (continuation of ongoing call)	A.5	c3506		1 .. 4	
12	DM-SDS ACK	A.5	c3507		1 .. DN210	
13	DM-GSETUP	A.5	c3501		2 .. 4	
14	DM-GTX REQUEST	A.5	c3501		2 .. 4	
15	DM-GREGISTER REQUEST	A.5	c3508		2 .. 4	
16	DM-GCANCEL ACK	A.5	c3508		1 .. DN210	

c3501: IF A.6/3 -- If initiate CM call set-up
THEN m -- then mandatory
ELSE n/a
c3502: IF A.8/2 -- If CM call receive with presence check supported
THEN m -- then mandatory
ELSE n/a
c3503: IF A.6/3 OR A.10/1 -- If initiate CM call set-up or SDS send data supported
THEN m -- then mandatory
ELSE n/a
c3504: IF A.6/3 -- If initiate CM call
THEN m -- then mandatory
ELSE IF A.15/2 -- If receive acknowledged SDS
THEN o -- then optional
ELSE n/a
c3505: IF A.12/2 OR A.12/3 -- If send acknowledged data service with or without
OR A.13/2 OR A.13/3 -- data in ACK
THEN m -- supported then mandatory
ELSE n/a
c3506: IF A.12/1 OR A.13/1 -- If send unacknowledged data service
THEN m -- supported then mandatory
ELSE n/a
c3507: IF A.15/2 OR A.15/3 -- If receive acknowledged data service
THEN m -- supported then mandatory
ELSE n/a
c3508: IF A.4/2 -- If registration supported
THEN m -- then mandatory
ELSE n/a

A.6.2.6 Layer 2 timers in DM-MS

The supplier of the implementation shall state the support of the implementation for each of the following DM-MAC timers, in table A.36.

Table A.36: DM-MAC timers

Item	Timer	Reference	Status	Support	Values	
					Default	Supported
1	DT205	A.3, [2] A.3	c3601		18	
2	DT207	A.3, [2] A.3	m		90	
3	DT208	A.3	c3603			
4	DT210	A.3, [2] A.3	c3604		4	
5	DT211	A.3, [2] A.3	c3605		3	
6	DT212	A.3, [2] A.3	o		7	
7	DT213	A.3, [2] A.3	c3606		5 .. 60	
8	DT214	A.3, [2] A.3	c3607		36	
9	DT221	A.3, [2] A.3	c3608		90	
10	DT226	A.3	c3609			
11	DT234	A.3	c3610			
12	DT236	A.3	c3611			
13	DT240	A.3	c3611			
14	DT242	A.3	c3612			

c3601: IF A.6/3 OR A.10/1 -- If initiate CM call set-up or SDS send data supported
THEN m -- then mandatory
ELSE n/a

c3602: IF A.6/3 OR A.10/1 -- If CM initiate call set-up or SDS send data supported
THEN m -- then mandatory
ELSE n/a

c3603: IF A.16/6 OR -- If sending of SDS within a CM call or receive SDS within a
(A.10/2 AND A.6/4) -- CM call supported
THEN m -- then mandatory
ELSE n/a

c3604: IF A.12/2 OR A.12/3 -- If acknowledged SDS with or without
OR A.13/2 OR A.13/3 -- data in ACK
THEN m -- supported then mandatory
ELSE n/a

c3605: IF A.30/6 -- If random access wait for response supported
THEN m -- then mandatory
ELSE n/a

c3606: IF A.30/11 -- If abandon random access attempt supported
THEN m -- then mandatory
ELSE n/a

c3607: IF A.30/5 -- If valid access slot supported
THEN m -- then mandatory
ELSE n/a

c3608: IF A.5/1 -- If circuit mode call supported
THEN m -- then mandatory
ELSE n/a

c3609 IF A.6/3 - If CM initiate call set-up supported
THEN m -- then mandatory
ELSE n/a

c3610: IF A.20/2 -- If un-invited registration supported
THEN m -- then mandatory
ELSE n/

c3611: IF A.4/2 -- If registration supported
THEN m -- then mandatory
ELSE n/a

c3612: IF A.30/7 -- If random access wait for response during registration supported
THEN m -- then mandatory
ELSE n/a

A.7 Gateway

A.7.1 Gateway Layer 3

The supplier of the implementation shall state the support of the gateway implementation for the following procedures, in table A.37.

Table A.37: Gateway procedures

Pre-requisite: A.1/2 -- Gateway				
Item	**Gateway procedure**	**Reference**	**Status**	**Support**
1	Call control procedures	9	m	
2	Mobility Management (MM) procedures	10	m	

A.7.1.1 Gateway call control

The supplier of the implementation shall state the support of the gateway implementation for the following call control procedures, in table A.38.

Table A.38: Gateway call control procedures

Pre-requisite: A.1/2 -- Gateway				
Item	**Gateway call control procedure**	**Reference**	**Status**	**Support**
1	Circuit mode call control procedures	9.3	o.16	
2	Short Data Service	9.4	o.16	

o.16: It is mandatory to support at least one of these items

A.7.1.1.1 Gateway circuit mode call control

The supplier of the implementation shall state the support of the implementation for each of the following gateway circuit mode call protocol features, in table A.39.

Table A.39: Gateway circuit mode call protocol features

Pre-requisite: A.38/1-- circuit mode call				
Item	**circuit mode call feature**	**Reference**	**Status**	**Support**
1	Group address call capability	9	o.17	
2	Individual address call capability	9	o.17	
3	Accept incoming call from V+D	9.3.1	o.18	
4	Accept incoming call from DM-MS	9.3.2	o.18	
5	Accept end of call transmission from DM-MS	9.3.3.1.1	c3901	
6	Accept end of call transmission from V+D	9.3.3.1.2	c3902	
7	Initiate end of call transmission	9.3.3.1.3	m	
8	Accept call termination by DM-MS	9.3.3.9.1	c3901	
9	Accept call disconnection by V+D	9.3.3.9.2	m	
10	Accept interruption from V+D	9.3.3.2	m	
11	Accept changeover requested by V+D	9.3.3.3	m	
12	Accept changeover requested by DM-MS	9.3.3.4	m	
13	Accept withdrawn during a call	9.3.3.5	m	
14	Accept continuation with withdrawn call	9.3.3.6	m	
15	Accept V+D call continuation	9.3.3.7	m	
16	Accept V+D call modification	9.3.3.8	m	
17	Accept V+D call restoration	9.3.3.10	m	
18	Accept DM-MS pre-emption for ongoing call	9.3.4.1 9.3.4.2.4	m	
19	Accept DM-MS pre-emption for a new call	9.3.4.1 9.3.4.2.4	m	
20	Initiate pre-emption for ongoing call	9.3.4.2.2	c3903	
21	Initiate pre-emption for a new call	9.3.4.2.3	c3903	
22	Accept transmission interruption from V+D	9.3.4.2.1	c3903	

o.17: It is mandatory to support at least one of these items
o.18: It is mandatory to support at least one of these items

c3901: IF A.39/4 -- If accept incoming call from DM-MS supported
THEN m -- then mandatory
ELSE n/a
c3902: IF A.39/3 -- If accept incoming call from V+D supported
THEN m -- then mandatory
ELSE n/a
c3903: IF A.39/4 -- If accept incoming call from DM-MS supported
THEN o -- then optional
ELSE n/a

A.7.1.1.2 Gateway circuit mode call types

The supplier of the implementation shall state the support of the implementation for each of the following circuit mode call set-up procedures over DM interface, in tables A.40 and A.41.

Table A.40: Circuit mode call type procedures - group call

Pre-requisite: A.39/1 -- group addressing				
Item	**Circuit mode call**	**Reference**	**Status**	**Support**
1	Group call from V+D transmitted without presence check	9.3.1.2	c4001	
2	Group call from DM without presence check	9.3.2.2	c4002	

c4001: IF A.39/3 -- If incoming call from V+D supported
THEN m -- then mandatory
ELSE n/a
c4002: IF A.39/4 -- If incoming call from DM supported
THEN m -- then mandatory
ELSE n/a

Table A.41: Circuit mode call type procedures - individual call

Pre-requisite: A.39/2 -- individual addressing				
Item	**Circuit mode call**	**Reference**	**Status**	**Support**
1	Individual call from V+D transmitted with presence check	9.3.1.2	c4101	
2	Individual call from DM without presence check	9.3.2.2	c4102	

c4101: IF A.39/3 -- If incoming call from V+D supported
THEN m -- then mandatory
ELSE n/a
c4102: IF A.39/4 -- If incoming call from DM supported
THEN m -- then mandatory
ELSE n/a

A.7.1.1.3 Gateway circuit mode services over DMO interface

The supplier of the implementation shall state the support of the implementation for each of the following gateway circuit mode services over DM interface, in table A.42.

Table A.42: Gateway circuit mode services offered over DM interfaces

Pre-requisite: A.38/1 -- gateway circuit mode call				
Item	**Circuit mode service**	**Reference**	**Status**	**Support**
1	Circuit mode speech	9.3.1	o.19	
2	Circuit mode data unprotected: 7.2	9.3.1	o.19	
3	Circuit mode data low protection: 4.8, N=1	9.3.1	o.19	
4	Circuit mode data low protection: 4.8, N=4	9.3.1	o.19	
5	Circuit mode data low protection: 4.8, N=8	9.3.1	o.19	
6	Circuit mode data high protection: 2.4, N=1	9.3.1	o.19	
7	Circuit mode data high protection: 2.4, N=4	9.3.1	o.19	
8	Circuit mode data high protection: 2.4, N=8	9.3.1	o.19	
9	Clear mode transmission	9.3.1	m	
10	End to end encrypted transmission	9.3.1	m	
11	Normal priority call	9.3.1	m	
12	High priority call	9.3.1	m	
13	Pre-emptive priority call	9.3.1	m	
14	Emergency pre-emptive priority call	9.3.1	m	
15	Recent user priority service	9.3.1	m	

o.19: It is mandatory to support at least one of these items

A.7.1.1.4 Gateway short data services

The supplier of the implementation shall state the support of the implementation for each of the following gateway short data services, in table A.43.

Table A.43: Gateway Short Data Services

Pre-requisite: A.38/2 -- Short Data Services				
Item	**Short data service**	**Reference**	**Status**	**Support**
1	Accept incoming SDS from V+D	9.4.1	o.20	
2	Accept incoming SDS from DM	9.4.2	o.20	

o.20: It is mandatory to support at least one of these items

A.7.1.1.5 Gateway type of short data service

The supplier of the implementation shall state the support of the implementation for each of the following types of SDSs, in tables A.44 to A.48.

Table A.44: Addressing type for SDS services

Pre-requisite: A.38/2 -- Short Data Services				
Item	**Addressing type**	**Reference**	**Status**	**Support**
1	Group address SDS capability		o.21	
2	Individual address SDS capability		o.21	

o.21: It is mandatory to support at least one of these items

Table A.45: Send SDS on group address to DM-MS

Pre-requisite: A.44/1 AND A.43/1 -- Group address SDS coming from V+D				
Item	**SDS on group address**	**Reference**	**Status**	**Support**
1	Unacknowledged data service	9.4.1.1	m	

Table A.46: Send SDS on individual address to DM-MS

Pre-requisite: A.44/2 AND A.43/1 -- Individ. address SDS coming from V+D				
Item	**SDS on individual address**	**Reference**	**Status**	**Support**
1	Unacknowledged data service	9.4.1.1	o.22	
2	Acknowledged data service without data in ACK	9.4.1.2	o.22	
3	Extract data in ACK	9.4.1.2	o	

o.22: It is mandatory to support at least one of these items

Table A.47: Receive SDS on group address from DM-MS

Pre-requisite: A.44/1 AND A.43/2 -- Group address SDS coming from DM				
Item	**SDS on group address**	**Reference**	**Status**	**Support**
1	Unacknowledged data service	9.4.2.1.1	m	
2	Acknowledged data service without data in ACk	9.4.2.1.1	m	
3	Include data in ACK	9.4.2.1.1	o	

Table A.48: Receive SDS on individual address from DM-MS

Pre-requisite: A.44/1 AND A.43/2 -- Individ. address SDS coming from DM				
Item	**SDS on individual address**	**Reference**	**Status**	**Support**
1	Unacknowledged data service	9.4.2.1.1	m	
2	Acknowledged data service without data in ACK	9.4.2.1.1	m	
3	Include data in ACK	9.4.2.1.2	o	

A.7.1.1.6 Data transmission

The supplier of the implementation shall state the support of the implementation for each of the following services for sending data over the DM interface, in table A.49.

Table A.49: Sending data services over the DM interface

Pre-requisite: A.43/1 -- Incoming SDS from V+D				
Item	**Send data**	**Reference**	**Status**	**Support**
1	Send short data on a free channel	9.4.1	m	
2	Send short data as master of a circuit mode call during channel occupation	9.4.1.4 9.4.1.5	c4901	
3	Send short data as master of a circuit mode call during channel reservation	9.4.1.4 9.4.1.5	o	

c4901: IF A.39/3 -- If accept incoming call from V+D supported
THEN o -- then optional
ELSE n/a

A.7.1.1.7 Gateway call control PDUs

The supplier of the implementation shall state the support of the implementation for each of the following gateway circuit mode and SDS PDUs, in tables A.50 to A.53.

Table A.50: Gateway circuit mode call PDUs over the DM interface

Pre-requisite: A.38/1 -- Circuit mode call						
Item	**PDU**	**Reference**	**Sending**		**Receiving**	
			Status	**Support**	**Status**	**Support**
1	DM-SETUP	14.5, [2] 9.5.1	c5001		c5002	
2	DM-SETUP PRES	14.5, [2] 9.5.2	c5003		n/a	
3	DM-CONNECT	14.5, [2] 9.5.3	n/a		c5003	
4	DM-DISCONNECT	14.5, [2] 9.5.4	n/a		c5003	
5	DM-CONNECT ACK	14.5, [2] 9.5.5	c5003		n/a	
6	DM-OCCUPIED	14.5, [2] 9.5.6	c5004		c5002	
7	DM-RELEASE	14.5, [2] 9.5.7	m		c5002	
8	DM-TX CEASED	14.5, [2] 9.5.8	m		c5002	
9	DM-TX REQUEST	14.5, [2] 9.5.9	n/a		m	
10	DM-TX ACCEPT	14.5, [2] 9.5.10	m		n/a	
11	DM-PREEMPT	14.5, [2] 9.5.11	m		m	
12	DM-PRE ACCEPT	14.5, [2] 9.5.12	m		m	
13	DM-REJECT	14.5, [2] 9.5.13	m		m	
14	DM-INFO	14.5, [2] 9.5.14	n/a		m	
15	DM-GSETUP	14.5.1	n/a		c5002	
16	DM-GCONNECT	14.5.2	c5002		n/a	
17	DM-GACK	14.5.3	c5002		n/a	
16	DM-GRELEASE	14.5.4	m		m	
18	DM-GTX REQUEST	14.5.5	n/a		m	
19	DM-GTX ACCEPT	14.5.6	m		n/a	
20	DM-GPREEMPT	14.5.7	n/a		m	
21	DM-GPRE ACCEPT	14.5.8	m		n/a	
22	DM-GREJECT	14.5.9	m		n/a	

c5001: IF A.40/1 -- If initiation of DM call without presence check supported
THEN m -- then mandatory
ELSE n/a

c5002: IF A.39/4 -- If receipt of DM call without presence check supported
THEN m -- then mandatory
ELSE n/a

c5003: IF A.41/1 -- If initiation of call with presence check supported
THEN m -- then mandatory
ELSE n/a

c5004 IF A.39/3 -- If initiation of DM call (incoming call from V+D) supported
THEN m -- then mandatory
ELSE n/a

Table A.51: Gateway circuit mode call PDUs over the V+D interface

Pre-requisite: A.38/1 -- Circuit mode call						
Item	**PDU**	**Reference**	**Sending**		**Receiving**	
			Status	**Support**	**Status**	**Support**
1	D-CALL PROCEEDING	[3] 14.7.1.2	n/a		c5101	
2	D-CONNECT	[3] 14.7.1.4	n/a		c5101	
3	D-CONNECT ACK	[3] 14.7.1.5	n/a		c5102	
4	D-RELEASE	[3] 14.7.1.9	n/a		m	
5	D-SETUP	[3] 14.7.1.12	n/a		c5103	
6	D-TX CEASED	[3] 14.7.1.13	n/a		m	
7	D-TX GRANTED	[3] 14.7.1.15	n/a		m	
8	D-TX INTERRUPT	[3] 14.7.1.16	n/a		m	
9	U-CONNECT	[3] 14.7.2.3	c5102		n/a	
10	U-DISCONNECT	[3] 14.7.2.4	m		n/a	
11	U-SETUP	[3] 14.7.2.10	c5101		n/a	
12	U-TX CEASED	[3]14.7.2.11	m		n/a	
13	U-TX DEMAND	[3] 14.7.2.12	m		n/a	

c5101: IF A.39/4 -- If receipt of DM call without presence check supported
THEN m -- then mandatory
ELSE n/a
c5102 IF A.39/3 -- If initiation of DM call (incoming call from V+D) supported
THEN m -- then mandatory
ELSE n/a

Table A.52: SDS PDUs over the DM interface

Pre-requisite: A.38/2 -- Short Data Services						
Item	**PDU**	**Reference**	**Sending**		**Receiving**	
			Status	**Support**	**Status**	**Support**
1	DM-SDS UDATA	14.5, [2] 9.5.15	c5201		c5203	
2	DM-SDS DATA	14.5, [2] 9.5.16	c5202		c5204	
3	DM-SDS ACK	14.5, [2] 9.5.17	c5204		c5202	

c5201: IF A.45/1 OR A.46/1 -- If sending of DM unacknowledged SDS from V+D to DM
THEN m -- supported then mandatory
ELSE n/a
c5202: IF A.46/2 -- If sending of DM acknowledged SDS from V+D to DM supported
THEN m -- then mandatory
ELSE n/a
c5203: IF A.47/1 OR A.48/1 -- If accept incoming unacknowledge SDS from DM
THEN m -- then mandatory
ELSE n/a
c5204: IF A.47/2 OR A.48/2 -- If accept incoming acknowledged SDS from DM
OR A.47/3 OR A.48/3
THEN m -- then mandatory
ELSE n/a

Table A.53: SDS PDUs over the V+D interface

Pre-requisite: A.38/2 -- Short Data Services						
Item	**PDU**	**Reference**	**Sending**		**Receiving**	
			Status	**Support**	**Status**	**Support**
1	D-SDS DATA	[3] 14.7.1.10	n/a		c5301	
2	D-STATUS	[3] 14.7.1.11	n/a		c5301	
3	U-SDS DATA	[3] 14.7.2.7	c5302		n/a	
4	U-STATUS	[3] 14.7.2.8	c5302		n/a	

c5301: IF A.43/1
THEN m -- If accept incoming SDS from V+D
ELSE n/a -- then mandatory
c5302: IF A.43/2
THEN m -- If accept incoming SDS from DM
ELSE n/a -- then mandatory

A.7.1.2 Gateway Mobility Management (MM)

A.7.1.2.1 MM major capabilities

The supplier of the implementation shall state the support of the implementation for each of the following gateway MM protocol services, in tables A.54.

Table A.54: Gateway MM services

Pre-requisite: A.37/2 -- Gateway MM				
Item	**Service**	**Reference**	**Status**	**Support**
1	Gateway registration to V+D	10.3.1, [3]16.3, [3]16.4	m	
2	DM registration	10.3.2	m	

A.7.1.2.2 Gateway DM registration

The supplier of the implementation shall state the support of the implementation for each of the following gateway MM protocol services, in table A.55.

Table A.55: DMMM services

Pre-requisite: A.54/2 -- DM registration				
Item	**Service**	**Reference**	**Status**	**Support**
1	Invite DM registration request	10.3.3.1	o.23	
2	Accept DM uninvited registration request	10.3.3.2	o.23	
3	Forward DM registration to V+D	10.3.3.3	o	
4	Initiate registration cancellation	10.3.3.4	c5501	

o.23: It is mandatory to support at least one of these items

c5501: IF A.55/3 -- If forward registration to V+D supported
THEN m -- then mandatory
ELSE n/a

A.7.1.2.3 Gateway MM PDUs

The supplier of the implementation shall state the support of the implementation for gateway MM PDUs, in tables A.56 and A.57.

Table A.56: Gateway MM PDUs over DM interface

Pre-requisite: A.37/2 -- Gateway MM						
Item	**PDU**	**Reference**	**Sending**		**Receiving**	
			Status	**Support**	**Status**	**Support**
1	DM-GREGISTER REQUEST	14.5.10	n/a		m	
2	DM-GREGISTER ACCEPT	14.5.11	m		n/a	
3	DM-GREGISTER REJECT	14.5.12	m		n/a	
4	DM-GREGISTER CANCEL	14.5.13	c5601		n/a	
5	DM-GCANCEL ACK	14.5.14	n/a		c5601	

c5601: IF A.55/4 -- If registration cancellation supported
THEN m -- then mandatory
ELSE n/a

Table A.57: Gateway MM PDUs over V+D interface

Pre-requisite: A.37/2 -- Gateway MM						
Item	**PDU**	**Reference**	**Sending**		**Receiving**	
			Status	**Support**	**Status**	**Support**
1	D-ATTACH/DETACH DM-MS IDENTITY ACKNOWLEDGEMENT	C.2.2	n/a		c5701	
2	D-LOCATION UPDATE ACCEPT	[2] 16.9.2.7	n/a		m	
3	D-LOCATION UPDATE REJECT	[2] 16.9.2.9	n/a		m	
4	U-LOCATION UPDATE DEMAND	[2] 16.9.3.4	m		n/a	
5	U-ATTACH/DETACH DM-MS IDENTITY	C.2.1	c5701		n/a	

c5701: IF A.55/3 -- If forward registration to V+D supported
THEN m -- then mandatory
ELSE n/a

A.7.1.3 Layer 3 constants in gateway

The supplier of the implementation shall state the support of the implementation for each of the following Layer 3 constants in gateway, in table A.58.

Table A.58: Layer 3 constants in DM-MS

Item	**Constants**	**Reference**	**Status**	**Support**	**Value ranges**	
					Allowed	**Supported**
1	DN361 -- DM-SETUP PRES -- retries	A.7	c5801			
2	DN369 -- DM-SDS DATA -- retries	A.7	c5802			
3	DN375 -- DM-GREGISTER -- CANCEL retries	A.7	m			

c5801: IF A.41/1 -- If accept V+D call to transfer to DM using call set-up with presence
THEN m -- check supported
ELSE n/a -- then mandatory
c5802: IF A.46/2
THEN m -- If sending of DM acknowledged SDS supported
ELSE n/a -- then mandatory

A.7.1.4 Layer 3 DM timers in gateway

The supplier of the implementation shall state the support of the implementation for each of the following layer 3 timers in DM-MS, in table A.59.

Table A.59: Layer 3 DM timers in gateway

Item	Timer	Reference	Status	Support	Values	
					Default	Supported
1	DT361 -- wait DM- -- SETUP -- PRES -- response	A.6	c5901			
2	DT363 -- wait DM- -- GCONNECT -- response	A.6	c5902			
3	DT365 -- wait DM- -- GPRE -- ACCEPT -- response	A.6	m			
4	DT366 -- wait DM- -- PRE -- ACCEPT -- response	A.6	m			
5	DT367 -- wait DM- -- GTX -- ACCEPT -- response	A.6	m			
6	DT368 -- wait DM- -- TX ACCEPT -- response	A.6	m			
7	DT369 -- wait DM- -- SDS DATA -- response	A.6	c5903			
8	DT371 -- call -- transaction -- timer for -- gateway -- operating as -- master	A.6	m			
9	DT375 -- wait DM- -- GREGISTER -- CANCEL -- response	A.6	m			

c5901: IF A.41/1 -- If accept V+D call to transfer to DM using call set-up with presence
THEN m -- check supported
ELSE n/a -- then mandatory
c5902: IF A.39/4 -- If receipt of DM call without presence check supported
THEN m -- then mandatory
ELSE n/a
c5903: IF A.46/2 -- If sending of DM acknowledged SDS supported
THEN m -- then mandatory
ELSE n/a

A.7.2 Gateway DM Layer 2

A.7.2.1 Gateway DM-MAC features

The supplier of the implementation shall state the support of the implementation for each of the following gateway DM-MAC features, in table A.60.

Table A.60: DM-MAC features

Item	Feature	Reference	Status	Support
1	Scrambling mechanism	13.2, [2] 8.2.4	m	
2	PDU error detection	13.2, [2] 8.2.5	m	
3	Stealing mechanism	13.2, [2] 8.2.6.2.2	c6001	
4	DM channel usage procedures	13.4	m	
5	Signalling messages procedures	13.5	m	
6	Traffic mode procedures	13.6	c6002	

c6001: IF A.49/2 -- If send SDS by stealing supported
OR A.49/3
THEN m -- then mandatory
ELSE o -- else optional
c6002: IF A.38/1 -- If circuit mode call supported
THEN m -- then mandatory
ELSE n/a

A.7.2.2 Gateway DM-MAC procedures

The supplier of the implementation shall state the support of the implementation for each of the following gateway MAC procedures, in tables A.61 to A.71.

Table A.61: Gateway DM-channel usage procedures

Prerequisite: A.60/4 -- DM channel usage procedures				
Item	**Gateway channel procedure**	**Reference**	**Status**	**Support**
1	DM-GATE channel operation	13.4.1.1	c6101	
2	DM-REP/GATE channel operation	13.4.1.2	c6102	
3	Determination of gateway channel state	13.4.2.1	m	
4	Transmission of layer 3 messages procedures	13.4.5	m	
5	Transmission of layer 2 messages procedures	13.4.6	m	
6	SDS time remaining	13.4.7.14	c6103	
7	Modification on slot/frame numbering	13.4.7.15	o	
8	Timing change procedure	13.4.7.16	o	
9	DM-REP/GATE retransmission of signalling	13.4.8	c6102	

c6101: IF A.2/1 -- If DM-GATE supported
THEN m -- then mandatory
ELSE n/a
c6102: IF A.2/2 OR A.2/3 -- If type 1 or type 2 DM-REP/GATE supported
THEN m -- then mandatory
ELSE n/a
c6103: IF A.10/1 -- If send SDS supported
THEN m -- then mandatory
ELSE n/a

Table A.62: DM-REP/GATE channel synchronization

Item	DM-REP/GATE channel synchronization	Reference	Status	Support
1	DM carrier in same sub-band as dowlink V+D	13.4.1.2.1	cA.6201	
2	DM carrier in same sub-band as uplink V+D	13.4.1.2.2	cA.6201	
3	DM carrier not in V+D sub-band	13.4.1.2.3	cA.6202	

cA.6201: IF A.2/2 -- If type 1 DM-REP/GATE supported
THEN o -- then optional
ELSE n/a
cA.6202: IF A.2/2 OR A.2/3 -- If type 1 or type 2 DM-REP/GATE supported
THEN m -- then mandatory
ELSE n/a

Table A.63: DM-REP/GATE re-transmission of signalling

Pre-requisite: A.61/9 -- DM-REP/GATE re-transmission of signalling				
Item	**DM-REP/GATE retransmission**	**Reference**	**Status**	**Support**
1	Re-transmission of master DM-MS DM-SETUP message	13.4.8.1.1	cA.6301	
2	Re-transmission of master DM-MS SDS data message	13.4.8.1.2	cA.6302	
3	Re-transmission of master DM-MS registration message	13.4.8.1.3	m	
4	Re-transmission of other master messages without multi-slot regeneration	13.4.8.1.4, 13.4.8.2.1	o.24 ?	
5	Re-transmission of other master messages with multi-slot regeneration	13.4.8.1.5, 13.4.8.2.2	o.24 ?	
6	Regeneration of repetition on slave link	13.4.8.3	m	
7	Re-transmission of slave messages	13.4.8.4	m	

o.24: It is mandatory to support at least one of these items

cA.6301: IF A.39/4 -- If accept incoming call from DM-MS supported
THEN m -- then mandatory
ELSE n/a
cA.6302: IF A.43/2 -- If accept incoming SDS from DM-MS supported
THEN m -- then mandatory
ELSE n/a

Table A.64: Gateway channel surveillance procedures

Item	Gateway channel surveillance	Reference	Status	Support
1	Channel surveillance in idle mode	13.4.2.2.1	m	
2	Channel surveillance at DM-MS call set-up	13.4.2.2.2	cA.6401	
3	Channel surveillance before call set-up by gateway	13.4.2.2.3	cA.6402	
4	Channel surveillance before registration	13.4.2.2.4	m	
5	Channel surveillance before registration cancellation	13.4.2.2.5	m	
6	Chanel surveillance during a call	13.4.2.3	cA.6403	

cA.6401: IF A.39/4 -- If accept incoming call from DM-MS supported
THEN m -- then mandatory

ELSE n/a

cA.6402: IF A.39/3 -- If accept incoming call from V+D supported
THEN m -- then mandatory
ELSE n/a

cA.6403: IF A.38/1 -- If circuit mode call supported
THEN m -- then mandatory
ELSE n/a

Table A.65: Gateway DM-channel monitoring procedures

Item	Channel monitoring procedure	Reference	Status	Support
1	DM-channel during reception of call set-up	13.4.4.1	c6501	
2	DM-channel during call set-up with presence check	13.4.4.2	c6502	
3	DM-channel in reservation during call set-up	13.4.4.3	c6503	
4	DM-channel during call connection	13.4.4.4	c6501	
5	DM-channel in occupation during circuit mode call monitoring as master	13.4.4.5	c6504	
6	DM-channel in occupation during circuit mode call monitoring as slave	13.4.4.6	c6501	
7	DM-channel in reservation during a circuit mode call	13.4.4.7	c6503	
8	DM-channel in occupation during SDS occupation monitoring as master	13.4.4.8	c6505	
9	DM-channel in occupation during SDS occupation monitoring as slave	13.4.4.9	c6506	
10	DM-channel after pre-emption or changeover acceptance	13.4.4.10	c6503	
11	DM-channel after pre-emption	13.4.4.11	c6503	
12	DM-channel after gateway pre-emption	13.4.4.12	c6507	
13	DM-channel in registration	13.4.4.13	m	
14	DM-channel in registration cancellation	13.4.4.14	m	

c6501: IF A.39/4 -- If accept incoming call from DM-MS supported
THEN m -- then mandatory
ELSE n/a

c6502: IF A.41/1 -- If accept individual call from V+D transmitted with presence check
THEN m -- supported then mandatory
ELSE n/a

c6503: IF A.38/1 -- If circuit mode call control supported
THEN m -- then mandatory
ELSE n/a

c6504: IF A.39/3 -- If accept incoming call from V+D supported
THEN m -- then mandatory
ELSE n/a

c6505: IF A.43/1 -- If accept incoming SDS from V+D supported
THEN m -- then mandatory
ELSE n/a

c6506: IF A.43/2 -- If accept incoming SDS from DM-MS supported
THEN m -- then mandatory
ELSE n/a

c6507: IF A.39/20 -- If Initiation of pre-emption (for ongoing or new call) supported
OR A.39/21
THEN m -- then mandatory
ELSE n/a

Table A.66: Gateway DM-MAC transfer of signalling messages

Prerequisite: A.60/5 -- Signalling messages procedures				
Item	**Transfer of signalling messages procedure**	**Reference**	**Status**	**Support**
1	Addressing in synchronization burst for gateway-specific message	13.5.2.1.1, 13.5.2.1.4	m	
2	Addressing in synchronization burst for non gateway-specific message	13.5.2.1.2, 13.5.2.1.4	m	
3	Use of pseudo SSI	13.5.2.1.3	o	
4	Addressing in normal burst	13.5.2.1.5	m	
5	Use of MNI	13.5.2.3	o	
6	Air Interface encryption	13.5.3	m	
7	Fragmentation started by DMAC-SYNC PDU	13.5.4.1	c6601	
8	Reconstruction for DM-GATE started by DMAC-SYNC PDU	13.5.4.2.1	c6602	
9	Reconstruction for DM-REP/GATE started by DMAC-SYNC PDU	13.5.4.2.2, 13.5.2.3	c6603	
10	Fill bit addition	13.5.5, [2] 8.5.5.1	m	
11	Fill bit deletion	13.5.5, [2] 8.5.5.2	m	
12	Null PDU flag use	13.5.5, [2] 8.5.5.3	o	
13	Null PDU flag recognition	13.5.5, [2] 8.5.5.3	m	
14	Transmission of message by layer 2 unacknowledged service	13.5.6.1	m	

c6601: IF A.38/2 -- If short data supported
THEN m -- then mandatory
ELSE n/a

c6602: IF A.2/1 AND A.38/2 -- If DM-GATE and short data supported
THEN m -- then mandatory
ELSE n/a

c6603: IF A.2/2 AND A.38/2 -- if DM-REP/GATE and short data supported
THEN m -- then mandatory optional ?
ELSE n/a

Table A.67: Gateway DM-MAC reception of messages by layer 2 unacknowledged service

Item	**Use of frame countdown element in received message**	**Reference**	**Status**	**Support**
1	Suppression of duplicate messages	13.5.6.2.a), [2] 8.5.6.2.a)	m	
2	Delaying switch into traffic mode	13.5.6.2.b)	c6701	
3	Timing of set-up signalling for pre-emption	13.5.6.2.c)	m	
4	Timing of immediate SDS retransmission	13.5.6.2.d), [2] 8.5.6.2.d)	c6702	
5	Timing of response to message from master	13.5.6.2.e), [2] 8.5.6.2.e)	c6703	
6	Timing of response to fragmented message from master	13.5.6.2.f), [2] 8.5.6.2.f)	c6704	
7	Timing of response to message from slave	13.5.6.2.g)	m	
8	Timing of response to fragmented DM-GSETUP message from slave	13.5.6.2.h)	c6703	

c6701: IF A.38/1 -- If circuit mode call control supported

THEN m -- then mandatory
ELSE n/a

c6702: IF A.46/2 -- If sending of acknowledged SDS on DM side supported
OR A.46/3
THEN m -- then mandatory
ELSE n/a

c6703: IF A.39/4 -- If accept incoming call from DM-MS supported
THEN m -- then mandatory
ELSE n/a

c6704: IF A.39/4 -- If accept incoming call from DM-MS and reconstruction supported
AND A.66/8 OR A.66/9
THEN m -- then mandatory
ELSE n/a

Table A.68: DM-MAC random access master gateway procedures

Pre-requisite: A.38/1 -- circuit mode call control				
Item	**Procedure**	**Reference**	**Status**	**Support**
1	Indication of frames available for request	13.5.7.2.1	m	
2	Monitoring frames available for requests	13.5.7.2.2	m	
3	Response to pre-emption or changeover request	13.5.7.2.3	m	

Table A.69: DM-MAC random acces requesting slave gateway procedures

Item	**Procedure**	**Reference**	**Status**	**Support**
1	Transmission of messages	13.5.7.3.1	c6901	
2	Wait for response	13.5.7.3.2	c6901	
3	Abandon random access attempt	13.5.7.3.3	c6901	

c6901: IF A.39/4 AND A.43/2 -- If accept circuit mode call and SDS from DM supported
THEN m -- then mandatory
ELSE n/a

Table A.70: DM-MAC random acces in registraation phase procedures

Item	**Procedure**	**Reference**	**Status**	**Support**
1	Start registration	13.5.8.1	m	
2	Receive registration request	13.5.8.2	m	
3	Sending response	13.5.8.3	m	
4	Registration maintenance	13.5.8.4	m	
5	Termination of registration	13.5.8.5	m	

Table A.71: Gateway traffic mode procedures

Prerequisite: A.1/1 -- Circuit mode call				
Item	**Feature**	**Reference**	**Status**	**Support**
1	Enter U-plane mode for call set-up from DM	13.6.3.1	c7101	
2	Enter U-plane mode for call set-up from V+D without presence check	13.6.3.2.1	c7102	
3	Enter U-plane mode for call set-up from V+D with presence check	13.6.3.2.2	c7103	
4	Leave U-plane mode - call from DM to V+D	13.6.3.3.1	c7101	
5	Leave U-plane mode - call from V+D to DM	13.6.3.3.2	c7104	
6	Stealing from circuit mode capacity - transmission on STCH	13.6.5.1	c7105	
7	Stealing from circuit mode capacity - reception on STCH	13.6.5.3	c7101	
8	DM-REP/GATE DM retransmission of U-plane traffic	13.6.6	c7106	
9	Fragmentation started by DMAC-DATA PDU	13.5.4.1	m	
10	Reconstruction for DM-GATE started by DMAC-DATA PDU	13.5.4.2.1	c7107	
11	Reconstruction for DM-REP/GATE started by DMAC-DATA PDU	13.5.4.2.2, 13.5.2.3	c7108	

c7101: IF A.39/4 -- If accept incoming call from DM to V+D supported
THEN m -- then mandatory
ELSE n/a
c7102: IF A.40/1 -- If accept incoming call from V+D transmitted without presence check
THEN m -- supported then mandatory
ELSE n/a
c7103: IF A.41/1 -- If accept incoming call from V+D transmitted with presence check
THEN m -- supported then mandatory
ELSE n/a
c7104: IF A.39/3 -- If accept incoming call from V+D to DM supported
THEN m -- then mandatory
ELSE n/a
c7105: IF A.60/3 -- If stealing mechanism supported
THEN m -- then mandatory
ELSE n/a
c7106: IF (A.2/2 OR A.2/3) -- If DM-REP/GATE implementation type supported
THEN m -- then mandatory
ELSE n/a
c7107: IF A.2/1 -- If DM-GATE supported
THEN m -- then mandatory
ELSE n/a
c7108: IF A.2/2 -- if DM-REP/GATE supported
THEN m -- then mandatory
ELSE n/a

A.7.2.3 Gateway DM-MAC PDUs

The supplier of the implementation shall state the support of the implementation for each of the following gateway MAC PDUs, in table A.72.

Table A.72: Gateway MAC PDUs

Item	PDU	Reference	Sending		Receiving	
			Status	Support	Status	Suppor
1	DMAC-SYNC	14.1.1, [2] 9.1.1	m		m	
2	DMAC-DATA	14.2, [2] 9.2.1	m		m	
3	DMAC-FRAG	14.2, [2] 9.2.2	c7201		c7202	
4	DMAC-END	14.2, [2] 9.2.3	c7201		c7202	
5	DMAC-U SIGNAL	14.2, [2] 9.2.4	c7203		c7203	
6	DMAC-TRAFFIC	14.2, [2] 9.2.5	c7203		c7203	
7	DPRES-SYNC	14.1.2	m		n/a	

c7201: IF A.66/7 -- If fragmentation supported
THEN m -- then mandatory
ELSE n/a
c7202: IF A.66/8 OR A.66/8 -- If reconstruction supported
THEN m -- then mandatory
ELSE n/a
c7203: IF A.38/1 -- If circuit mode call control supported
THEN m -- then mandatory
ELSE n/a

A.7.2.4 Gateway MAC generated messages

The supplier of the implementation shall state the support of the implementation for each of the following gateway MAC generated messages, in table A.73.

Table A.73: Gateway MAC generated messages

Item	MAC generated message	Reference	Sending		Receiving	
			Status	Support	Status	Support
1	DM-RESERVED	14.4, [2] 9.4.1	c7301		n/a	
2	DM-SDS OCCUPIED	14.4, [2] 9.4.2	c7302		c7303	
3	DM-TIMING ACK	14.4, [2] 9.4.4	c7304		n/a	

c7301: IF A.38/1 -- If circuit mode call control supported
THEN m -- then mandatory
ELSE n/a
c7302: IF A.43/2 -- If accept SDS from DM supported
THEN m -- then mandatory
ELSE n/a
c7303: IF A.43/1 -- If accept SDS fromV+D supported
THEN m -- then mandatory
ELSE n/a
c7304: IF A.61/8 -- If timing change procedure supported
THEN m -- then mandatory
ELSE n/a

A.7.2.5 Layer 2 DM constants in gateway

The supplier of the implementation shall state the support of the implementation for each of the following gateway DM-MAC constants, in tables A.74 and A.75.

Table A.74: Layer 2 constants in DM-MS

Item	Constant	Reference	Status	Support	Values	
					Default /Range	Supported
1	DN232	A.9	c7401			
2	DN233	A.9	c7402			
3	DN264 (min)	A.9	c7403			
4	DN265 (max)	A.9	c7403			
5	DN266 (min)	A.9	c7404			
6	DN267 (max)	A.9	c7404			
7	DN268	A.9	c7405			
8	DN269	A.9	c7406			
9	DN270	A.9	c7407			
10	DN272	A.9	c7408			
11	DN275 (min)	A.9	c7409			
12	DN276 (max)	A.9	c7409			
13	DN277 (min)	A.9	c7410			
14	DN278 (max)	A.9	c7410			
15	DN279 (min)	A.9	c7411			
16	DN280 (max)	A.9	c7411			

c7401: IF (A.2/2 OR A.2/3) -- If type 1 or 2 DM-REP/GATE and accept incoming call
AND A.39/3 -- from V+D to DM supported
THEN m -- then mandatory
ELSE n/a

c7402: IF (A.2/2 OR A.2/3) -- If type 1 or 2 DM-REP/GATE and accept incoming SDS
AND A.43/1 -- from V+D to DM supported
THEN m -- then mandatory
ELSE n/a

c7403: IF A.39/3 OR A.43/1 -- If accept incoming CM or SDS call from V+D to DM supported
THEN m -- then mandatory
ELSE n/a

c7404: IF A.41/1 OR A.46/2 -- If accept individual call from V+D transmitted with presence
OR A.46/3 -- check or send acknowledged SDS (with or without data in ACK)
-- to DM supported
THEN m -- then mandatory
ELSE n/a

c7405 IF A.38/1 -- If circuit mode call control supported
THEN m -- then mandatory
ELSE n/a

c7406 IF A.39/4 -- If accept incoming call from DM supported
THEN m -- then mandatory
ELSE n/a

c7407 IF A.39/4 OR A.55/2 -- If accept incoming call from DM or un-invited registration
OR A.47/2 OR A.47/3 -- or receive acknowledged SDS from V+D supported
OR A.48/2 OR A.48/3
THEN m -- then mandatory
ELSE n/a

c7408: IF A.46/2 OR A.46/3 -- If send acknowledged SDS (with or without data in ACK)
-- to DM supported
THEN m -- then mandatory
ELSE n/a

c7409 IF A.55/1 -- If invite DM registration request supported
THEN m -- then mandatory
ELSE n/a

c7410 IF A.55/4 -- If registration cancellation supported
THEN m -- then mandatory
ELSE n/a

c7411 IF A.55/3 -- If forward registration to V+D supported
THEN m -- then mandatory

ELSE n/a

Table A.75: Gateway MAC number of frame transmissions

Item	Message type	Reference	Status	Support	Values	
					Allowed	Supported
1	DM-SETUP (new call)	A.10	c7501		2 .. 4	
2	DM-SETUP (ongoing call)	A.10	c7501		1 .. 4	
3	DM-SETUP PRES (new call)	A.10	c7502		2 .. 4	
4	DM-SETUP PRES (ongoing call)	A.10	c7502		1 .. 4	
5	DM-CONNECT ACK	A.10	c7502		1 .. 4	
6	DM-TX CEASED	A.10	c7503		2 .. 4	
7	DM-RELEASE	A.10	c7503		2 .. 4	
8	DM-TX ACCEPT	A.10	m		2 .. 4	
9	DM-PRE ACCEPT	A.10	m		2 .. 4	
10	DM-REJECT	A.10	m		1 .. 4	
11	DM-TIMING ACK	A.10	m		2 .. 4	
12	DM-SDS DATA (new call)	A.10	c7504		2 .. 4	
13	DM-SDS DATA (ongoing call)	A.10	c7505		1 .. 4	
14	DM-SDS UDATA (new call)	A.10	c7506		2 .. 4	
15	DM-SDS UDATA (ongoing call)	A.10	c7507		1 .. 4	
16	DM-SDS ACK	A.10	c7508		1 .. DN270	
17	DM-GACK	A.10	m		1 .. 4	
18	DM-GCONNECT	A.10	c7509		2 .. 4	
19	DM-GTX ACCEPT	A.10	m		2 .. 4	
20	DM-GPRE ACCEPT	A.10	m		2 .. 4	
21	DM-GREJECT	A.10	m		1 .. 4	
22	DM-GREGISTER ACCEPT (registration phase)	A.10	c7510		1 .. 4	
23	DM-GREGISTER ACCEPT (outside registration phase)	A.10	c7511		1 .. DN270	
24	DM-GREGISTER REJECT (registration phase)	A.10	c7510		1 .. 4	
25	DM-GREGISTER REJECT (outside registration phase)	A.10	c7511		1 .. DN270	
26	DM-GREGISTER CANCEL	A.10	m		2 .. 4	

c7501: IF A.40/1 -- If initiation of DM call without presence check supported
THEN m -- then mandatory
ELSE n/a

c7502: IF A.41/1 -- If initiation of call with presence check supported
THEN m -- then mandatory
ELSE n/a

c7503: IF A.39/3 -- If receipt of V+D call without presence check supported
THEN m -- then mandatory
ELSE n/a

c7504: IF A.46/2 -- If sending of DM acknowledged SDS from V+D to DM supported
THEN m -- then mandatory
ELSE n/a

c7505: IF A.46/2 AND (A.49/3 -- If sending of DM acknowledged SDS from V+D to DM during
OR 49/2) -- ongoing call supported
THEN m -- then mandatory
ELSE n/a

c7506: IF A.45/1 OR A.46/1 -- If sending of DM unacknowledged SDS from V+D supported
THEN m -- then mandatory
ELSE n/a

c7507: IF A.45/1 OR A.46/1 -- If sending of DM unacknowledged SDS from V+D to DM during
AND (A.49/3 OR 49/2) -- ongoing call supported
THEN m -- then mandatory
ELSE n/a

c7508: IF A.47/2 OR A.48/2 -- If accept incoming acknowledged SDS from DM
OR A.47/3 OR A.48/3
THEN m -- then mandatory
ELSE n/a
c7509: IF A.39/4 -- If receipt of DM call without presence check supported
THEN m -- then mandatory
ELSE n/a
c7510: IF A.55/1 -- If invited registration supported
THEN m -- then mandatory
ELSE n/a
c7511: IF A.55/2 -- If un-invited registration supported
THEN m -- then mandatory
ELSE n/a

A.7.2.6 Layer 2 DM timers in gateway

The supplier of the implementation shall state the support of the implementation for each of the following layer DM timers in gaetway, in table A.76.

Table A.76: Layer 2 DM timers in gateway

Item	Timer	Reference	Status	Support	Values	
					Default	Supported
1	DT263	A.8	m			
2	DT264	A.8	m			
3	DT265	A.8	c7601			
4	DT266	A.8	c7601			
5	DT267	A.8	m			
6	DT268	A.8	m			
7	DT269	A.8	c7602			
8	DT270	A.8	c7603			
9	DT271	A.8	c7604			
10	DT272	A.8	c7605			
11	DT273	A.8	c7604			
12	DT275	A.8	m			

c7601: IF A.39/3 OR A.43/1 -- If accept incoming CM or SDS call from V+D to DM supported
THEN m -- then mandatory
ELSE n/a
c7602: IF A.43/2 -- If incoming SDS from DM supported
THEN m -- then mandatory
ELSE n/a
c7603: IF A.47/2 OR A.48/2 -- If accept incoming acknowledged SDS from DM
OR A.47/3 OR A.48/3
THEN m -- then mandatory
ELSE n/a
c7605: IF A.38/1 -- If circuit mode call supported
THEN m -- then mandatory
ELSE n/a
c7605: IF A.43/1 -- If incoming SDS from V+D supported
THEN m -- then mandatory
ELSE n/a

A.7.3 Gateway V+D

A.7.3.1 Gateway V+D MLE

The supplier of the implementation shall state the support of the implementation for each of the gateway V+D MLE features. The PICS presented in ETS 300 392-14 [4], in clause A.8 shall apply except that the table 79 in ETS 300 392-14 [4] shall be replace by the following table A.77.

Table A.77: Gateway V+D MLE features

Item	MLE Feature	Reference	Status	Support
1	Cell monitoring	18.3.4.2	m	
2	Cell reselection	18.3.4.7	m	
3	Cell scanning	18.3.4.1	m	
4	Cell surveillance	18.3.4.3	m	
5	Call restoration	18.3.4.7.3	m	
6	Data transfer MM	18.3.5.3.1	m	
7	Data transfer CMCE	18.3.5.3.1	m	
8	Data transfer CONP	18.3.5.3.1	n/a	
9	Data transfer SCLNP	18.3.5.3.1	n/a	
10	Immediate system information reception	18.3.6.2	m	
11	Initial cell selection	18.3.4.6	m	
12	Network broadcast information reception	18.3.6.2	m	
13	Neighbour cell enquiry	18.3.6.5	o	

A.7.3.2 Gateway V+D LLC

The supplier of the implementation shall state the support of the implementation for each of the gateway V+D LLC features. The PICS presented in ETS 300 392-14 [4], clause A.9 shall apply.

A.7.3.3 Gateway V+D MAC

The supplier of the implementation shall state the support of the implementation for each of the gateway V+D MAC features. The PICS presented in ETS 300 392-14 [4], clause A.10 shall apply.

A.8 PDUs

A.8.1 Layer 3 PDUs

A.8.1.1 Circuit mode PDU parameters

The supplier of the implementation shall state the support of the implementation for each of the following PDU elements defined in tables A.78 to A.103.

A.8.1.1.1 DM-SETUP

Table A.78: DM-SETUP PDU contents

Prerequisite: A18./1a OR A18./1b OR A.50/1a OR A.50/1b -- DM-SETUP				
Item	**Elements**	**Reference ETS 300 396-3 [2]**	**Status**	**Support**
Message dependent elements				
1	Timing flag	9.6.22	m	
2	LCH in frame 3 flag	9.6.5	m	
3	Pre-emption flag	9.6.10	m	
4	Power class	9.6.8	m	
5	Power control flag	9.6.9	m	
6	Reserved	9.5.1	m	
7	Circuit mode type	9.6.3	m	
8	Reserved	9.5.1	m	
9	Priority level	9.6.11	m	
DM-SDU elements				
10	End-to-end encryption flag	9.7.8	m	
11	Call type flag	9.7.5	m	
12	External source flag	9.7.9	m	
13	Reserved	9.5.1	m	

A.8.1.1.2 DM-SETUP PRES

Table A.79: DM-SETUP PRES PDU contents

Prerequisite: A.18/2b OR A.50/2a -- DM-SETUP PRES PDU				
Item	**Elements**	**Reference ETS 300 396-3 [2]**	**Status**	**Support**
Message dependent elements				
1	Reserved	9.5.2	m	
2	Power class	9.6.8	m	
3	Power control flag	9.6.9	m	
4	Reserved	9.5.2	m	
5	Circuit mode type	9.6.3	m	
6	Reserved	9.5.2	m	
7	Priority level	9.6.11	m	
DM-SDU elements				
8	End-to-end encryption flag	9.7.8	m	
9	Call type flag	9.7.5	m	
10	External source flag	9.7.9	m	
11	Reserved	9.5.2	m	

A.8.1.1.3 DM-CONNECT

Table A.80: DM-CONNECT PDU contents

Prerequisite: A.18/3a OR A.50/3b -- DM-CONNECT PDU				
Item	**Elements**	**Reference ETS 300 396-3 [2]**	**Status**	**Support**
Message dependent elements				
1	Circuit mode type	9.6.3	m	
2	Reserved	9.5.3	m	
DM-SDU elements				
3	Reserved	9.5.3	m	

A.8.1.1.4 DM-DISCONNECT

Table A.81: DM-DISCONNECT PDU contents

Prerequisite: A.18/4a OR A.50/4b -- DM-DISCONNECT PDU				
Item	**Elements**	**Reference ETS 300 396-3 [2]**	**Status**	**Support**
DM-SDU elements				
1	Disconnect cause	9.7.7	m	

A.8.1.1.5 DM-CONNECT ACK

Table A.82: DM-CONNECT ACK PDU contents

Prerequisite: A.18/5b OR A.50/5a -- DM-CONNECT ACK PDU				
Item	**Elements**	**Reference ETS 300 396-3 [2]**	**Status**	**Support**
Message dependent elements				
1	Timing flag	9.6.22	m	
2	LCH in frame 3 flag	9.6.5	m	
3	Pre-emption flag	9.6.10	m	
4	Power class	9.6.8	m	
5	Power control flag	9.6.9	m	
6	Reserved	9.5.5	m	
7	Circuit mode type	9.6.3	m	
8	Reserved	9.5.5	m	
9	Priority level	9.6.11	m	
DM-SDU elements				
10	End-to-end encryption flag	9.7.8	m	
11	Call type flag	9.7.5	m	
12	External source flag	9.7.9	m	
13	Reserved	9.5.5	m	

A.8.1.1.6 DM-OCCUPIED

Table A.83: DM-OCCUPIED PDU contents

Prerequisite: A.18/6a OR A.18/6b OR A.50/6a OR A.50/6b -- DM-OCCUPIED PDU				
Item	**Elements**	**Reference ETS 300 396-3 [2]**	**Status**	**Support**
	Message dependent elements			
1	Timing flag	9.6.22	m	
2	LCH in frame 3 flag	9.6.5	m	
3	Pre-emption flag	9.6.10	m	
4	Power class	9.6.8	m	
5	Power control flag	9.6.9	m	
6	Reserved	9.5.6	m	
7	Circuit mode type	9.6.3	m	
8	Reserved	9.5.6	m	
9	Priority level	9.6.11	m	
	DM-SDU elements			
10	End-to-end encryption flag	9.7.8	m	
11	Call type flag	9.7.5	m	
12	External source flag	9.7.9	m	
13	Reserved	9.5.6	m	

A.8.1.1.7 DM-RELEASE

Table A.84: DM-RELEASE PDU contents

Prerequisite: A.5/1 OR A.38/1 -- Circuit mode call (DM-MS or gateway)				
Item	**Elements**	**Reference ETS 300 396-3 [2]**	**Status**	**Support**
	DM-SDU elements			
1	Release cause	9.7.15	m	

A.8.1.1.8 DM-TX CEASED

Table A.85: DM-TX CEASED contents

Prerequisite: A.18/8a OR A.18/8b OR A.38/1 -- Gateway circuit mode call or DM-MS DM-TX CEASED supported				
Item	**Elements**	**Reference ETS 300 396-3 [2]**	**Status**	**Support**
	Message dependent elements			
1	Reservation time remaining	9.6.15	m	
2	Timing flag	9.6.22	m	
3	Requests flag	9.6.14	m	
4	Changeover requests flag	9.6.1	m	
5	Requests bitmap	9.6.13	m	
6	Recent user priority flag	9.6.12	m	
7	Timing change announced	9.6.20	m	
8	Timing adjustment	9.6.19	m	
9	Priority level	9.6.11	m	
	DM-SDU elements			
10	Cease cause	9.7.6	m	

A.8.1.1.9 DM-TX REQUEST

Table A.86: DM- TX REQUEST PDU contents

Prerequisite: A.18/9a OR A.38/1 -- DM-TX REQUEST or gateway circuit mode call				
Item	**Elements**	**Reference ETS 300 396-3 [2]**	**Status**	**Support**
	Message dependent elements			
1	Timing change required	9.6.21	m	
2	Timing adjustment	9.6.19	m	
3	Priority level	9.6.11	m	

A.8.1.1.10 DM-TX ACCEPT

Table A.87: DM- TX ACCEPT PDU contents

Prerequisite: A.5/1 OR A.38/1 -- Circuit mode call (DM-MS or gateway)				
Item	**Elements**	**Reference ETS 300 396-3 [2]**	**Status**	**Support**
	Message dependent elements			
1	Timing change announced	9.6.20	m	
2	Timing adjustment	9.6.19	m	

A.8.1.1.11 DM-PREEMPT

Table A.88: DM-PREEMPT PDU contents

Prerequisite: A.18/11a OR A.18/11b OR A.38/1 -- DM-PREEMPT or gateway circuit mode call				
Item	**Elements**	**Reference ETS 300 396-3 [2]**	**Status**	**Support**
	Message dependent elements			
1	Perceived channel state	9.6.7	m	
2	Timing change required	9.6.21	m	
3	Timing adjustment	9.6.19	m	
4	New call pre-emption	9.6.6	m	
5	Type of pre-emption	9.6.23	m	
6	Priority level	9.6.11	m	

A.8.1.1.12 DM-PRE ACCEPT

Table A.89: DM-PRE ACCEPT PDU contents

Prerequisite: A.5/1 OR A.38/1 -- Circuit mode call (DM-MS or gateway)				
Item	**Elements**	**Reference ETS 300 396-3 [2]**	**Status**	**Support**
	Message dependent elements			
1	Timing change announced	9.6.20	m	
2	Timing adjustment	9.6.19	m	
3	New call pre-emption	9.6.6	m	
4	Type of pre-emption	9.6.23	m	

A.8.1.1.13 DM-REJECT

Table A.90: DM-REJECT PDU contents

Prerequisite: A.18/13a OR A.18/13a OR A.38/1 -- DM-REJECT or gateway circuit mode call				
Item	**Elements**	**Reference ETS 300 396-3 [2]**	**Status**	**Support**
DM-SDU elements				
1	Reject cause	9.7.14	m	

A.8.1.1.14 DM-INFO

Table A.91: DM-INFO PDU contents

Prerequisite: A.18/14a OR A.18/14b OR A.38/1 -- DM-INFO or gateway circuit mode call				
Item	**Elements**	**Reference ETS 300 396-3 [2]**	**Status**	**Support**
DM-SDU elements				
1	Information type	9.7.11	m	
2	Calling party TSI	9.7.4	m	

A.8.1.1.15 DM-SDS UDATA

Table A.92: DM-SDS UDATA PDU contents

Prerequisite: A.19/1a OR A.19/1b OR A.52/1a OR A.52/1b -- DM-SDS UDATA				
Item	**Elements**	**Reference**	**Status**	**Support**
Message dependent elements				
1	SDS time remaining	[2] 9.6.16	m	
2	SDS transaction type	[2] 9.6.17	m	
3	Priority level	[2] 9.6.11	m	
4	FCS flag	[2] 9.6.4	m	
DM-SDU elements				
5	Additional addressing flag	[2] 9.7.2	m	
6	Additional address type(s)	14.7	m	
7	Calling party TSI	[2] 9.7.4	m	
8	Area selection	14.7.1	m	
9	External subscriber number	14.7.6	m	
10	Short Data Type Identifier	[2] 9.7.16	m	
11	User defined data 1	[2] 9.7.17	c9201	
12	User defined data 2	[2] 9.7.18	c9202	
13	User defined data 3	[2] 9.7.19	c9203	
14	Length indicator	[2] 9.7.12	c9204	
15	User defined data 4	[2] 9.7.20	c9204	
16	Precoded status	[2] 9.7.13	c9205	
17	OTAR information	[2] 9.5.15	c9206	
18	Enable/disable information	[2] 9.5.15	c9207	
19	FCS	[2] 9.7.10	m	

c9201:IF A.17/1 OR A.38/2 THEN m ELSE n/a -- If user defined data 1 supported then mandatory
c9202:IF A.17/2 OR A.38/2 THEN m ELSE n/a -- If user defined data 2 supported then mandatory
c9203:IF A.17/3 OR A.38/2 THEN m ELSE n/a -- If user defined data 3 supported then mandatory
c9204:IF A.17/4 OR A.38/2 THEN m ELSE n/a -- If user defined data 4 supported then mandatory

c9205:IF A.11/4 OR A.38/2 THEN m ELSE n/a -- If pre-defined data supported then mandatory
c9206:IF A.17/5 OR A.38/2 THEN m ELSE n/a -- If OTAR supported then mandatory
c9207:IF A.17/6 OR A.38/2 THEN m ELSE n/a -- If Enable/Disable entity supported then mandatory

A.8.1.1.16 DM-SDS DATA

Table A.93: DM-SDS DATA

Prerequisite: A.19/2a OR A.19/2b OR A.52/2a OR A.52/2b -- DM-SDS DATA				
Item	**Elements**	**Reference**	**Status**	**Support**
	Message dependent elements			
1	SDS time remaining	[2] 9.6.16	m	
2	SDS transaction type	[2] 9.6.17	m	
3	Priority level	[2] 9.6.11	m	
4	FCS flag	[2] 9.6.4	m	
	DM-SDU elements			
5	Additional addressing flag	[2] 9.7.2	m	
6	Additional address type(s)	14.7	m	
7	Calling party TSI	[2] 9.7.4	m	
8	Area selection	14.7.1	m	
9	External subscriber number	14.7.6	m	
10	Short Data Type Identifier	[2] 9.7.16	m	
11	User defined data 1	[2] 9.7.17	c9301	
12	User defined data 2	[2] 9.7.18	c9302	
13	User defined data 3	[2] 9.7.19	c9303	
14	Length indicator	[2] 9.7.12	c9304	
15	User defined data 4	[2] 9.7.20	c9304	
16	Precoded status	[2] 9.7.13	c9305	
17	OTAR information	[2] 9.5.15	c9306	
18	Enable/disable information	[2] 9.5.15	c9307	
19	FCS	[2] 9.7.10	m	

c9301:IF A.17/1 OR A.38/2 THEN m ELSE n/a -- If user defined data 1 supported then mandatory
c9302:IF A.17/2 OR A.38/2 THEN m ELSE n/a -- If user defined data 2 supported then mandatory
c9303:IF A.17/3 OR A.38/2 THEN m ELSE n/a -- If user defined data 3 supported then mandatory
c9304:IF A.17/4 OR A.38/2 THEN m ELSE n/a -- If user defined data 4 supported then mandatory
c9305:IF A.11/4 OR A.38/2 THEN m ELSE n/a -- If pre-defined data supported then mandatory
c9306:IF A.17/5 OR A.38/2 THEN m ELSE n/a -- If OTAR supported then mandatory
c9307:IF A.17/6 OR A.38/2 THEN m ELSE n/a -- If Enable/Disable entity supported then mandatory

A.8.1.1.17 DM-SDS ACK

Table A.94: DM-SDS ACK PDU contents

Prerequisite: A.19/3a OR A.19/3b OR A.52/3a OR A.52/3b -- DM-SDS ACK				
Item	**Elements**	**Reference ETS 300 396-3 []**	**Status**	**Support**
Message dependent elements				
1	FCS flag	9.6.4	m	
DM-SDU elements				
2	Acknowledgement type	9.7.1	m	
3	Short Data Type Identifier	9.7.16	m	
4	User defined data 1	9.7.17	c9401	
5	User defined data 2	9.7.18	c9402	
6	User defined data 3	9.7.19	c9403	
7	Length indicator	9.7.12	c9404	
8	User defined data 4	9.7.20	c9404	
9	Precoded status	9.7.13	c9405	
10	OTAR information	9.5.17	c9406	
11	Enable/disable information	9.5.17	c9407	
12	FCS	9.7.10	m	

c9401:IF A.17/1 OR A.38/2 THEN m ELSE n/a -- If user defined data 1 supported then mandatory
c9402:IF A.17/2 OR A.38/2 THEN m ELSE n/a -- If user defined data 2 supported then mandatory
c9403:IF A.17/3 OR A.38/2 THEN m ELSE n/a -- If user defined data 3 supported then mandatory
c9404:IF A.17/4 OR A.38/2 THEN m ELSE n/a -- If user defined data 4 supported then mandatory
c9405:IF A.11/4 OR A.38/2 THEN m ELSE n/a -- If pre-defined data supported then mandatory
c9406:IF A.17/5 OR A.38/2 THEN m ELSE n/a -- If OTAR supported then mandatory
c9407:IF A.17/6 OR A.38/2 THEN m ELSE n/a -- If Enable/Disable entity supported then mandatory

A.8.1.1.18 DM-GSETUP

Table A.95: DM-GSETUP PDU contents

Prerequisite: A.18/15a OR A.50/15b -- DM-GSETUP PDU				
Item	**Elements**	**Reference**	**Status**	**Support**
Message dependent elements				
1	Gateway message subtype	14.6.1	m	
2	Circuit mode type	[2] 9.6.3	m	
3	Reserved	14.5.1	m	
4	Priority level	[2] 9.6.11	m	
DM-SDU elements				
5	End-to-end encryption flag	[2] 9.7.8	m	
6	Call type flag	[2] 9.7.5	m	
7	Reserved	14.5.1	m	
8	Request label	14.7.11	m	
9	Called party address type flag	14.7.2	m	
10	Called party SSI	14.7.4	m	
11	Called party MNI	14.7.3	m	
12	Area selection	14.7.1	m	
13	Additional addressing flag	[2] 9.7.2	m	
14	Additional address type(s)	14.7	m	
15	Calling party TSI	[2] 9.7.4	m	
16	External subscriber number	14.7.6	m	

A.8.1.1.19 DM-GCONNECT

Table A.96: DM-GCONNECT PDU contents

Prerequisite: A.18/16b OR A.50/16a -- DM-GCONNECT PDU				
Item	**Elements**	**Reference**	**Status**	**Support**
	Message dependent elements			
1	Gateway message subtype	14.6.1	m	
2	Power class	[2] 9.6.8	m	
3	Power control flag	[2] 9.6.9	m	
4	Circuit mode type	[2] 9.6.3	m	
5	Reserved	14.5.2	m	
	DM-SDU elements			
6	End-to-end encryption flag	[2] 9.7.8	m	
7	Call type flag	[2] 9.7.5	m	
8	Request label	14.7.11	m	
9	Reserved	14.5.2	m	

A.8.1.1.20 DM-GACK

Table A.97: DM-GACK PDU contents

Prerequisite: A.18/17b OR A.50/17a -- DM-GACK PDU				
Item	**Elements**	**Reference**	**Status**	**Support**
	Message dependent elements			
1	Gateway message subtype	14.6.1	m	
2	Timing change announced	[2] 9.6.20	m	
3	Timing adjustment	[2] 9.6.19	m	
4	Reservation announced	14.6.3	m	
5	Channel reservation type	[2] 9.6.2	m	
6	Reservation time remaining	[2] 9.6.15	m	
7	Requests flag	[2] 9.6.14	m	
8	Changeover requests flag	[2] 9.6.1	m	
9	Requests bitmap	[2] 9.6.13	m	
10	Power class	[2] 9.6.8	m	
11	Power control flag	[2] 9.6.9	m	
12	Priority level	[2] 9.6.11	m	
13	Reserved	14.5.3	m	
	DM-SDU elements			
14	Type of DM-GACK	14.7.14	m	
15	Value of DM-MS waiting timer	14.7.15	m	

A.8.1.1.21 DM-GRELEASE

Table A.98: DM-GRELEASE PDU contents

Prerequisite: A.5/1 OR A.38/1 -- Circuit mode call (DM-MS or gateway)				
Item	**Elements**	**Reference**	**Status**	**Support**
	Message dependent elements			
1	Gateway message subtype	14.6.1	m	
	DM-SDU elements			
2	Gateway release cause	14.7.8	m	

A.8.1.1.22 DM-GTX REQUEST

Table A.99: DM-GTX REQUEST PDU contents

Prerequisite: A.18/18a OR A.38/1 DM-GTX REQUEST or gateway circuit mode call				
Item	**Elements**	**Reference**	**Status**	**Support**
	Message dependent elements			
1	Gateway message subtype	14.6.1	m	
2	Type of DM-GTX REQUEST	14.6.4	m	
3	Reserved	14.5.5	m	
4	Circuit mode type	[2] 9.6.3	m	
5	Reserved	14.5.5	m	
6	Priority level	[2] 9.6.11	m	
	DM-SDU elements			
7	End-to-end encryption flag	[2] 9.7.8	m	
8	Call type flag	[2] 9.7.5	m	
9	Reserved	14.5.5	m	
10	Calling party TSI flag	14.7.5	m	
11	Calling party TSI	[2] 9.7.4	m	

A.8.1.1.23 DM-GTX ACCEPT

Table A.100: DM-GTX ACCEPT PDU contents

Prerequisite: A.5/1 OR A.38/1 -- Circuit mode call (DM-MS or gateway)				
Item	**Elements**	**Reference**	**Status**	**Support**
	Message dependent elements			
1	Gateway message subtype	14.6.1	m	
2	Power class	[2] 9.6.8	m	
3	Power control flag	[2] 9.6.9	m	
4	Circuit mode type	[2] 9.6.3	m	
5	Reserved	14.5.6	m	
	DM-SDU elements			
6	End-to-end encryption flag	[2] 9.7.8	m	
7	Call type flag	[2] 9.7.5	m	
8	Reserved	14.5.6	m	

A.8.1.1.24 DM-GPREEMPT

Table A.101: DM-GPREEMPT PDU contents

Prerequisite: A.18/20a OR A.38/1 -- DM-GPREEMPT or gateway circuit mode call				
Item	**Elements**	**Reference**	**Status**	**Support**
	Message dependent elements			
1	Gateway message subtype	14.6.1	m	
2	Perceived channel state	[2] 9.6.7	m	
3	Reserved	14.5.7	m	
4	Circuit mode type	[2] 9.6.3	m	
5	Reserved	14.5.7	m	
6	Priority level	[2] 9.6.11		
	DM-SDU elements			
7	End-to-end encryption flag	[2] 9.7.8	m	
8	Call type flag	[2] 9.7.5	m	
9	Reserved	14.5.7	m	
10	Calling party TSI flag	14.7.5	m	
11	Calling party TSI	[2] 9.7.4	m	

A.8.1.1.25 DM-GPRE ACCEPT

Table A.102: DM-GPRE ACCEPT PDU contents

Prerequisite: A.18/21b OR A.38/1 -- DM-GPRE ACCEPT or gateway circuit mode call				
Item	**Elements**	**Reference**	**Status**	**Support**
	Message dependent elements			
1	Gateway message subtype	14.6.1	m	
2	Power class	[2] 9.6.8	m	
3	Power control flag	[2] 9.6.9	m	
4	Circuit mode type	[2] 9.6.3	m	
5	Reserved	14.5.6	m	
	DM-SDU elements			
6	End-to-end encryption flag	[2] 9.7.8	m	
7	Call type flag	[2] 9.7.5	m	
8	Reserved	14.5.6	m	

A.8.1.1.26 DM-GREJECT

Table A.103: DM-GREJECT PDU contents

Prerequisite: A.18/22b OR A.38/2 -- DM-GREJECT or gateway circuit mode call				
Item	**Elements**	**Reference**	**Status**	**Support**
	Message dependent elements			
1	Gateway message subtype	14.6.1	m	
	DM-SDU elements			
2	Gateway reject cause	14.7.7	m	

A.8.1.2 Mobility management PDU parameters

The supplier of the implementation shall state the support of the implementation for each of the following DMCC PDU elements defined in tables A.104 to A.108.

A.8.1.2.1 DM-GREGISTER REQUEST

Table A.104: DM-GREGISTER REQUEST PDU contents

Prerequisite: A.4/2 OR A.56/1a -- DM-GREGISTER REQUEST or DM MM				
Item	**Elements**	**Reference**	**Status**	**Support**
	Message dependent elements			
1	Gateway message subtype	14.6.1	m	
2	Type of registration request	14.6.5	m	
3	Registration transaction time remaining	14.6.2	m	
4	Reserved	14.5.10	m	
	DM-SDU elements			
5	Calling party TSI flag	14.7.5	m	
6	Calling party TSI	[2] 9.7.4	m	
7	Serviced GSSI flag	14.7.13	m	
8	Serviced GSSI	14.7.12	m	

A.8.1.2.2 DM-GREGISTER ACCEPT

Table A.105: DM-GREGISTER ACCEPT PDU contents

Prerequisite: A.4/2 OR A.56/2b -- DM-GREGISTER ACCEPT or DM MM				
Item	**Elements**	**Reference**	**Status**	**Support**
	Message dependent elements			
1	Gateway message subtype	14.6.1	m	
2	Type of registration request	14.6.5	m	
3	Reserved	14.5.11	m	
	DM-SDU elements			
4	Registration label	14.7.11	m	
5	Reserved	14.5.11	m	

A.8.1.2.3 DM-GREGISTER REJECT

Table A.106: DM- GREGISTER REJECT PDU contents

Prerequisite: A.4/2 OR A.56/3b -- DM-GREGISTER REJECT or DM MM				
Item	**Elements**	**Reference**	**Status**	**Support**
	Message dependent elements			
1	Gateway message subtype	14.6.1	m	
2	Type of registration request	14.6.5	m	
3	Reserved	14.5.11	m	
	DM-SDU elements			
4	Registration label	14.7.11	m	
5	Registration reject cause	14.7.10	m	

A.8.1.2.4 DM-GREGISTER CANCEL

Table A.107: DM- GREGISTER CANCEL PDU contents

Prerequisite: A.4/2 OR A.56/4a -- DM-GREGISTER CANCEL or DM MM				
Item	**Elements**	**Reference**	**Status**	**Support**
	Message dependent elements			
1	Gateway message subtype	14.6.1	m	
2	Registration transaction time remaining	14.6.2	m	
3	Reserved	14.5.13	m	
	DM-SDU elements			
4	Registration label	14.7.9	m	
5	Registration reject cause	14.7.10	m	

A.8.1.2.5 DM-GCANCEL ACK

Table A.108: DM-GCANCEL ACK PDU contents

Prerequisite: A.4/2 OR A.56/5b -- DM-GREGISTER CANCEL or DM MM				
Item	**Elements**	**Reference**	**Status**	**Support**
	Message dependent elements			
1	Gateway message subtype	14.6.1	m	
2	Reserved	14.5.14	m	
	DM-SDU elements			
3	Registration label	14.7.9	m	

A.8.1.3 Specifics gateway PDU parameters over V+D

The supplier of the implementation shall state the support of the implementation for each of the following specific gateway - V+D PDU elements defined in tables A.109 to A.130.

A.8.1.3.1 D-ATTACH/DETACH DM-MS IDENTITY ACKNOWLEDGEMENT

Table A.109: D-ATTACH/DETACH DM-MS IDENTITY ACKNOWLEDGEMENT PDU contents

Prerequisite: A.57/1b -- D-ATTACH/DETACH DM-MS IDENTITY ACKNOWLEDGEMENT				
Item	**Element**	**Reference**	**Status**	**Support**
1	PDU type	C.3.10	m	
2	DM-MS identity accept/reject	C.3.2	m	
3	DM-MS identity attach/detach mode	C.3.3	m	
4	DM-MS identity downlink	C.3.5	o	

A.8.1.3.2 D-CALL PROCEEDING

Table A.110: D-CALL PROCEEDING PDU contents

Prerequisite: A.51/1b -- D-CALL PROCEEDING				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	14.7.1.2	m	
2	Call identifier	14.7.1.2	m	
3	Call time-out, set-up phase	14.7.1.2	m	
4	Hook method selection	14.7.1.2	m	
5	Simplex/duplex selection	14.7.1.2	m	
6	Basic service information	14.7.1.2	m	
7	Call status	14.7.1.2	m	
8	Notification indicator	14.7.1.2	o	
9	Facility	14.7.1.2	o	
10	Proprietary	14.7.1.2	o	

A.8.1.3.3 D-CONNECT

Table A.111: D-CONNECT PDU contents

Prerequisite: A.51/2b -- D-CONNECT				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	14.7.1.4	m	
2	Call identifier	14.7.1.4	m	
3	Call time-out	14.7.1.4	m	
4	Hook method selection	14.7.1.4	m	
5	Simplex/duplex selection	14.7.1.4	m	
6	Transmission grant	14.7.1.4	m	
7	Transmission request permission	14.7.1.4	m	
8	Call ownership	14.7.1.4	m	
9	Call priority	14.7.1.4	m	
10	Basic service information	14.7.1.4	m	
11	Temporary address	14.7.1.4	m	
12	Notification indicator	14.7.1.4	o	
13	Facility	14.7.1.4	o	
14	Proprietary	14.7.1.4	o	

A.8.1.3.4 D-CONNECT ACK

Table A.112: D-CONNECT ACK PDU contents

Prerequisite: A.51/3b -- D-CONNECT ACK				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	14.7.1.5	m	
2	Call identifier	14.7.1.5	m	
3	Call time-out	14.7.1.5	m	
4	Transmission grant	14.7.1.5	m	
5	Transmission request permission	14.7.1.5	m	
6	Notification indicator	14.7.1.5	o	
7	Facility	14.7.1.5	o	
8	Proprietary	14.7.1.5	o	

A.8.1.3.5 D-LOCATION UPDATE ACCEPT

Table A.113: D-LOCATION UPDATE ACCEPT PDU contents

Prerequisite: A.37/2 -- Gateway MM procedure				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	16.9.2.7	m	
2	Location update type	16.9.2.7	m	
3	SSI	16.9.2.7	m	
4	Address extension	16.9.2.7	m	
5	Subscriber class	16.9.2.7	m	
6	Energy saving information	16.9.2.7	m	
7	SCCH information and distribution on 18th frame	16.9.2.7	m	
8	New registered area	16.9.2.7	m	
9	Proprietary	16.9.2.7	o	
10	Group identity location accept	16.9.2.7	m	

A.8.1.3.6 D-LOCATION UPDATE REJECT

Table A.114: D-LOCATION UPDATE REJECT PDU contents

Prerequisite: A.37/2 -- Gateway MM procedure				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	16.9.2.9	m	
2	Location update type	16.9.2.9	m	
3	Reject cause	16.9.2.9	m	
4	Cipher control	16.9.2.9	m	
5	Ciphering parameters	16.9.2.9	o	
6	Address extension	16.9.2.9	m	
7	Proprietary	16.9.2.9	o	

A.8.1.3.7 D-RELEASE

Table A.115: D-RELEASE PDU contents

Prerequisite: A.37/1 -- Gateway circuit mode call				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	14.7.1.9	m	
2	Call identifier	14.7.1.9	m	
3	Disconnect cause	14.7.1.9	m	
4	Notification indicator	14.7.1.9	o	
5	Facility	14.7.1.9	o	
6	Proprietary	14.7.1.9	o	

A.8.1.3.8 D-SETUP

Table A.116: D-SETUP PDU contents

Prerequisite: A.51/5b -- D-SETUP				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	14.7.1.12	m	
2	Call identifier	14.7.1.12	m	
3	Call time-out	14.7.1.12	m	
4	Hook method selection	14.7.1.12	m	
5	Simplex/duplex selection	14.7.1.12	m	
6	Basic service information	14.7.1.12	m	
7	Transmission grant	14.7.1.12	m	
8	Transmission request permission	14.7.1.12	m	
9	Call priority	14.7.1.12	m	
10	Notification indicator	14.7.1.12	o	
11	Temporary address	14.7.1.12	m	
12	Calling party type identifier	14.7.1.12	m	
13	Calling party address SSI	14.7.1.12	m	
14	Calling party extension	14.7.1.12	o	
15	External subscriber number	14.7.1.12	o	
16	Facility	14.7.1.12	o	
17	Proprietary	14.7.1.12	o	

A.8.1.3.9 D-SDS DATA

Table A.117: D-SDS DATA PDU contents

Prerequisite: A.53/1b -- D-SDS DATA				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	14.7.1.10	m	
2	Calling party type identifier	14.7.1.10	m	
3	Calling party address SSI	14.7.1.10	m	
4	Calling party extension	14.7.1.10	o	
5	Short data type identifier	14.7.1.10	m	
6	User defined data-1	14.7.1.10	o	
7	User defined data-2	14.7.1.10	o	
8	User defined data-3	14.7.1.10	o	
9	Length indicator	14.7.1.10	o	
10	User defined data-4	14.7.1.10	o	
11	Facility	14.7.1.10	o	

A.8.1.3.10 D-STATUS

Table A.118: D-STATUS PDU contents

Prerequisite: A.53/2b -- D-STATUS				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	14.7.1.11	m	
2	Calling party type identifier	14.7.1.11	m	
3	Calling party address SSI	14.7.1.11	m	
4	Calling party extension	14.7.1.11	o	
5	Pre-coded status	14.7.1.11	m	
6	Facility	14.7.1.11	o	

A.8.1.3.11 D-TX CEASED

Table A.119: D-TX CEASED PDU contents

Prerequisite: A.38/1 -- Gateway circuit mode call				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	14.7.1.13	m	
2	Call identifier	14.7.1.13	m	
3	Transmission request permission	14.7.1.13	m	
4	Notification indicator	14.7.1.13	o	
5	Facility	14.7.1.13	o	
6	Proprietary	14.7.1.13	m	

A.8.1.3.12 D-TX GRANTED

Table A.120: D-TX GRANTED PDU contents

Prerequisite: A.38/1 -- Gateway circuit mode call				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	14.7.1.15	m	
2	Call identifier	14.7.1.15	m	
3	Transmission grant	14.7.1.15	m	
4	Transmission request permission	14.7.1.15	m	
5	Encryption control	14.7.1.15	m	
6	Speech service	14.7.1.15	m	
7	Notification indicator	14.7.1.15	o	
8	Transmitting party type identifier	14.7.1.15	m	
9	Transmitting party address SSI	14.7.1.15	m	
10	Transmitting party extension	14.7.1.15	o	
11	Facility	14.7.1.15	o	
12	Proprietary	14.7.1.15	o	

A.8.1.3.13 D-TX INTERRUPT

Table A.121: D-TX INTERRUPT PDU contents

Prerequisite: A.38/1 -- Gateway circuit mode call				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	14.7.1.16	m	
2	Call identifier	14.7.1.16	m	
3	Transmission grant	14.7.1.16	m	
4	Transmission request permission	14.7.1.16	m	
5	Encryption control	14.7.1.16	m	
6	Speech service	14.7.1.16	m	
7	Notification indicator	14.7.1.16	o	
8	Transmitting party type identifier	14.7.1.16	m	
9	Transmitting party address SSI	14.7.1.16	m	
10	Transmitting party extension	14.7.1.16	o	
11	Facility	14.7.1.16	o	
12	Proprietary	14.7.1.16	o	

A.8.1.3.14 U-ATTACH/DETACH DM-MS IDENTITY

Table A.122: U-ATTACH/DETACH DM-MS IDENTITY PDU contents

Prerequisite: A.57/5a -- U-ATTACH/DETACH DM-MS IDENTITY				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	16.9.3.1	m	
2	Group identity report	16.9.3.1	m	
3	Group identity attach/detach mode	16.9.3.1	m	
4	Proprietary	16.9.3.1	o	
5	Group identity uplink	16.9.3.1	m	

A.8.1.3.15 U-CONNECT

Table A.123: U-CONNECT PDU contents

Prerequisite: A.51/9a -- U-CONNECT				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	14.7.2.3	m	
2	Call identifier	14.7.2.3	m	
3	Hook method selection	14.7.2.3	m	
4	Simplex/duplex selection	14.7.2.3	m	
5	Basic service information	14.7.2.3	m	
6	Facility	14.7.2.3	o	
7	Proprietary	14.7.2.3	o	

A.8.1.3.16 U-LOCATION UPDATE DEMAND

Table A.124: U-LOCATION UPDATE DEMAND PDU contents

Prerequisite: A.37/2 -- Gateway MM procedure				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	16.9.3.4	m	
2	Location update type	16.9.3.4	m	
3	Request to append location area	16.9.3.4	m	
4	Cipher control	16.9.3.4	m	
5	Ciphering parameters	16.9.3.4	o	
6	Class of MS	16.9.3.4	m	
7	Energy saving mode	16.4.2	o	
8	Location area information	16.9.3.4	m	
9	SSI	16.9.3.4	m	
10	Address extension	16.9.3.4	m	
11	Group identity location demand ack	16.9.3.4	m	
12	Group identity location demand	16.4.2	o	
13	Proprietary	16.9.3.4	o	

A.8.1.3.17 U-DISCONNECT

Table A.125: U-DISCONNECT PDU contents

Prerequisite: A.38/1 -- Gateway circuit mode call				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	14.7.2.4	m	
2	Call identifier	14.7.2.4	m	
3	Disconnect cause	14.7.2.4	m	
4	Facility	14.7.2.4	o	
5	Proprietary	14.7.2.4	o	

A.8.1.3.18 U-SDS DATA

Table A.126: U-SDS DATA PDU contents

Prerequisite: A.53/3a -- U-SDS DATA				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	14.7.2.8	m	
2	Area selection	14.7.2.8	m	
3	Called party type identifier	14.7.2.8	m	
4	Called party short number address	14.7.2.8	o	
5	Called party SSI	14.7.2.8	m	
6	Called party extension	14.7.2.8	o	
7	Short data type identifier	14.7.2.8	m	
8	User defined data-1	14.7.2.8	o	
9	User defined data-2	14.7.2.8	o	
10	User defined data-3	14.7.2.8	o	
11	Length indicator	14.7.2.8	o	
12	User defined data-4	14.7.2.8	o	
13	External subscriber number	14.7.2.8	o	
14	Facility	14.7.2.8	o	

A.8.1.3.19 U-SETUP

Table A.127: U-SETUP PDU contents

Prerequisite: A.51/11a -- U-SETUP				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	14.7.2.10	m	
2	Area selection	14.7.2.10	m	
3	Hook method selection	14.7.2.10	m	
4	Simplex/duplex selection	14.7.2.10	m	
5	Basic service information	14.7.2.10	m	
6	Request to transmit/send data	14.7.2.10	m	
7	Call priority	14.7.2.10	m	
8	Reserved	14.7.2.10	m	
9	Called party type identifier	14.7.2.10	m	
10	Called party short number address	14.7.2.10	o	
11	Called party SSI	14.7.2.10	m	
12	Called party extension	14.7.2.10	o	
13	External subscriber number	14.7.2.10	o	
14	Facility	14.7.2.10	o	
15	Proprietary	14.7.2.10	o	

A.8.1.3.20 U-STATUS

Table A.128: U-STATUS PDU contents

Prerequisite: A.53/4a -- U-STATUS				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	14.7.2.7	m	
2	Area selection	14.7.2.7	m	
3	Called party type identifier	14.7.2.7	m	
4	Called party short number address	14.7.2.7	o	
5	Called party SSI	14.7.2.7	m	
6	Called party extension	14.7.2.7	o	
7	Pre-coded status	14.7.2.7	m	
8	External subscriber number	14.7.2.7	o	
9	Facility	14.7.2.7	o	

A.8.1.3.21 U-TX CEASED

Table A.129: U-TX CEASED PDU contents

Prerequisite: A.38/1 -- Gateway circuit mode call				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	14.7.2.11	m	
2	Call identifier	14.7.2.11	m	
3	Facility	14.7.2.11	o	
4	Proprietary	14.7.2.11	o	

A.8.1.3.22 U-TX DEMAND

Table A.130: U-TX DEMAND PDU contents

Prerequisite: A.38/1 -- Gateway circuit mode call				
Item	**Element**	**Reference ETS 300 392-2 []**	**Status**	**Support**
1	PDU type	14.7.2.12	m	
2	Call identifier	14.7.2.12	m	
3	TX demand priority	14.7.2.12	m	
4	Encryption control	14.7.2.12	m	
5	Speech service	14.7.2.12	m	
6	Facility	14.7.2.12	o	
7	Proprietary	14.7.2.12	o	

A.8.2 Layer 2 PDUs

A.8.2.1 DM-MAC PDU parameters

The supplier of the implementation shall state the support of the implementation for each of the following MAC PDU parameters, in tables A.131 to A.138.

A.8.2.1.1 DMAC-SYNC in SCH/S

Table A.131: Information elements for DMAC-SYNC PDU in SCH/S

Item	Information element	Reference	Status	Support
1	System code	9.3.29	m	
2	SYNC PDU type	9.3.28	m	
3	Communication type	9.3.3	m	
4	Master/slave link flag	9.3.17	m	
5	Reserved	9.1.1	m	
6	Gateway master flag	9.3.13	m	
7	Reserved	9.1.1	m	
8	A/B channel usage	9.3.1	m	
9	Slot number	9.3.25	m	
10	Frame number	9.3.11	m	
11	AI encryption state	9.3.2	m	
12	Time Variant Parameter	9.3.30	c13101	
13	Timestamp flag	9.3.31	c13101	
14	KSG number	9.3.14	c13101	
15	Encryption key number	9.3.7	c13101	
16	Reserved	9.1.1	m	

c13101: IF A.27/5 OR A.66/6 -- If Air Interface encryption supported
THEN m -- then mandatory
ELSE n/a

A.8.2.1.2 DMAC-SYNC in SCH/H

Table A.132: Information elements for DMAC-SYNC PDU in SCH/H

Pre-requisite: A.				
Item	**Information element**	**Reference**	**Status**	**Support**
1	Repeater address	9.3.23	m	
2	Gateway address	9.3.12	m	
3	Reserved	9.1.1	m	
4	Fill bit indication	9.3.8	m	
5	Fragmentation flag	9.3.9	m	
6	Number of SCH/F slots	9.3.22	c13201	
7	Frame countdown	9.3.10	m	
8	Destination address type	9.3.5	m	
9	Destination address	9.3.4	m	
10	Source address type	9.3.27	m	
11	Source address	9.3.26	m	
12	Mobile Network Identity	9.3.20	m	
13	Message type	9.3.19	m	
14	Message dependent elements	9.3.18	m	
15	DM SDU	9.3.6	m	

c13201: IF A.27/6 OR A.66/7 -- If fragmentation supported
THEN m -- then mandatory
ELSE n/a

A.8.2.1.3 DMAC-DATA

Table A.133: Information elements for DMAC-DATA PDU

Pre-requisite sending or receving of DMAC-DATA:			A.32/2a OR A.72/2a		A.32/2b OR A.72/2b	
Item	**Information element**	**Reference**	**Sending**		**Receiving**	
			Status	**Support**	**Status**	**Support**
1	MAC PDU type	9.3.16	m		m	
2	Fill bit indication	9.3.8	m		m	
3	Second half slot stolen flag	9.3.24	m		m	
4	Fragmentation flag	9.3.9	m		m	
5	Null PDU flag	9.3.21	m		m	
6	Frame countdown	9.3.10	m		m	
7	AI encryption state	9.3.2	m		m	
8	Destination address type	9.3.5	m		m	
9	Destination address	9.3.4	m		m	
10	Source address type	9.3.27	m		m	
11	Source address	9.3.26	o		m	
12	Mobile Network Identity	9.3.20	m		m	
13	Message type	9.3.19	m		m	
14	Message dependent elements	9.3.18	m		m	
15	DM-SDU	9.3.6	m		m	

A.8.2.1.4 DMAC-FRAG

Table A.134: Information elements for DMAC-FRAG PDU

Pre-requisite: A.32/3a OR A.32/3b OR A. 72/3a OR A. 72/3b --DMAC-FRAG				
Item	**Information element**	**Reference**	**Status**	**Support**
1	MAC PDU type	9.3.16	m	
2	MAC PDU subtype	9.3.15	m	
3	Fill bit indication	9.3.8	m	
4	DM-SDU	9.3.6	m	

A.8.2.1.5 DMAC-END

Table A.135: Information elements for DMAC-END PDU

Pre-requisite: A.32/4a OR A.32/4b OR A. 72/4a OR A. 72/4b -- DMAC-END				
Item	**Information element**	**Reference**	**Status**	**Support**
1	MAC PDU type	9.3.16	m	
2	MAC PDU subtype	9.3.15	m	
3	Fill bit indication	9.3.8	m	
4	DM-SDU	9.3.6	m	

A.8.2.1.6 DMAC-U SIGNAL

Table A.136: Information elements for DMAC-U SIGNAL PDU

Pre-requisite: A.32/5a OR A.32/5b OR A. 72/5a OR A. 72/5b -- DMAC-U SIGNAL PDU				
Item	**Information element**	**Reference**	**Status**	**Support**
1	MAC PDU type	9.3.16	m	
2	Second half slot stolen flag	9.3.24	m	
3	U-plane DM-SDU	9.3.32	m	

A.8.2.1.7 DPRES-SYNC in SCH/S

Table A.137: Information elements for DPRES-SYNC PDU in SCH/S

Item	Information element	Reference	Status	Support
1	System code	[2] 9.3.29	m	
2	SYNC PDU type	[2] 9.3.28	m	
3	Communication type	[2] 9.3.3	m	
4	Type 2 repeater flag	14.3.16	m	
5	Reserved	14.1.2	m	
6	DM-REP function flag	14.3.7	m	
7	Frequency efficient DM-REP	14.3.8	m	
8	Reserved	14.1.2	m	
9	Spacing of carrier f1	14.3.14	m	
10	Reserved	14.1.2	m	
11	Master/slave link flag	[2] 9.3.17	m	
12	Reservedf	14.1.2	m	
13	A/B channel usage	[2] 9.3.1	m	
14	Slot number	[2] 9.3.25	m	
15	Frame number	[2] 9.3.11	m	
16	Gateway address	[2] 9.3.12	m	
17	Power class	[2] 9.6.8	m	
18	Power control flag	[2] 9.6.9	m	
19	Channel state	14.3.6	m	
20	Frame countdown	[2] 9.3.10	m	
21	SwMI availlability flag	14.3.15	m	
22	Reserved	14.1.2	m	
23	Priority level	[2] 9.6.11	m	
24	Registrations permitted	14.3.13	m	
25	Registration label	14.3.11	m	
26	Registration phase time remaining	14.3.12	m	
27	Values of DN232 and DN233	14.3.19	m	
28	Reserved	14.1.2	m	
29	Registration access parameter	14.3.10	m	
30	Value of DT307	14.3.18	m	
31	Reserved	14.1.2	m	

A.8.2.1.8 DPRES-SYNC in SCH/H

Table A.138: Information elements for DPRES-SYNC PDU in SCH/H

Item	Information element	Reference	Status	Support
1	MNI of SwMI	14.3.9	m	
2	Usage restriction type (URT)	14.3.17	m	
3	Addressing for URT=0010_2	14.3.1	m	
4	Addressing for URT=0011_2	14.3.2	m	
5	Addressing for URT=0100_2	14.3.3	m	
6	Addressing for URT=0101_2 or 0110_2 or 0111_2	14.3.4	m	
7	Addressing for URT=1000_2	14.3.5	m	
8	Proprietary	14.1.2	m	
9	Reserved	14.1.2	m	
10	Reserved	14.1.2	m	
11	Reserved	14.1.2	m	

A.8.2.2 DM-MAC generated message parameters

The supplier of the implementation shall state the support of the implementation for each of the following DM-MAC generated message parameters, in tables A.139 to A.141.

A.8.2.2.1 DM-RESERVED

Table A.139: Information elements for DM-RESERVED

Pre-requisite: A.33/1b OR A.73/1a -- DM-RESERVED PDU				
Item	**Information element**	**Reference**	**Status**	**Support**
1	All elements	9.4.1	m	

A.8.2.2.2 DM-SDS OCCUPIED

Table A.140: Information elements for DM-SDS OCCUPIED

Pre-requisite: A.33/2a OR A. 33/2b OR A.73/2a OR A.73/2b -- DM-SDS OCCUPIED PDU				
Item	**Information element**	**Reference**	**Status**	**Support**
1	All elements	9.4.2	m	

A.8.2.2.3 DM-TIMING ACK

Table A.141: Information elements for DM-TIMING ACK

Pre-requisite: A.33/3b OR A.73/3a -- DM-TIMING ACK PDU				
Item	**Information element**	**Reference**	**Status**	**Support**
1	All elements	9.4.4	m	

History

Document history			
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