**3GPP TSG-CT WG6 Meeting #89-Bis *C6-180388***

**Sophia Antipolis, France, 10th July – 13th July 2018**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v11.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **31.102** | **CR** | **0808** | **rev** | **1** | **Current version:** | **15.1.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps | **X** | ME | **X** | Radio Access Network |  | Core Network |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Mission Critical Services configuration data update | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Gemalto, G+D MS | | | | | | | | | |
| ***Source to TSG:*** | C6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI15 | | | | |  | | ***Date:*** | | 2018-07-12 |
|  |  | | | |  | | |  | |  |
| ***Category:*** | **B** |  | | | | | | ***Release:*** | | Rel-15 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) Rel-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | New Management Object has been defined for Mission Critical Services in TS 24.483, that need be stored whether in the ME or the USIM.  TS 31.102 has not been updated to support the new Mission Critical Service configuration data. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Correct the name of the DF to MCS (Mission Critical Services) to be aligned with TS 24.483  Change MCPTT to MCS when applicable.  Add new configuration data to store the new MO in the USIM:  - MCS UE initial configuration  - MCData UE configuration  - MCData user profile  - MCData service configuration  - MCVideo UE configuration  - MCVideo user profile  - MCVideo service configuration | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The procedure as defined in MCS specifications cannot be fully implemented. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 2, 3.3, 4.2, 4.6.0, 4.6.4, 4.7, 5.12, Annex A, Annex E, H.7 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | |  | | | |
| ***Other specs*** | |  | **X** | Other core specifications | | |  | | | |
| ***affected:*** | |  | **x** | Test specifications | | |  | | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | |  | | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |

\*\*\*\*\* Next change \*\*\*\*\*

# 2 References

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

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

[1] 3GPP TS 21.111: "USIM and IC Card Requirements".

[…]

[89] 3GPP TS 24.483: "Mission Critical Services(MCS) Management Object (MO)".

[90] void

[91] 3GPP TS 24.117: "TV service configuration Management Object (MO)"

[…]

\*\*\*\*\* Next change \*\*\*\*\*

## 3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

3GPP 3rd Generation Partnership Project

5GCN 5G Core Network

AC Access Condition

ACDC Application specific Congestion control for Data Communication

ACL APN Control List

ADF Application Dedicated File

AID Application Identifier

AK Anonymity key

ALW ALWays

AMF Authentication Management Field

AoC Advice of Charge

APN Access Point Name

ASME Access Security Management Entity

ASN.1 Abstract Syntax Notation One

AuC Authentication Centre

AUTN Authentication token

BDN Barred Dialling Number

BER-TLV Basic Encoding Rule - TLV

B-TID Bootstrapping Transaction Identifier

CCP Capability Configuration Parameter

CK Cipher key

CLI Calling Line Identifier

CNL Co-operative Network List

CPBCCH COMPACT Packet BCCH

CS Circuit switched

DCK Depersonalisation Control Keys

DF Dedicated File

DO Data Object

EC-GSM-IoT Extended coverage in GSM for IoT

DUCK Discovery User Confidentiality Key

DUIK Discovery User Integrity Key

DUSK Discovery User Scrambling Key

eDRX Extended Discontinuous Reception

EARFCN Evolved Absolute Radio Frequency Channel Number

EF Elementary File

EPC Evolved Packet Core

ePDG Evolved Packet Data Gateway

EPS Evolved Packet System

FCP File Control Parameters

FFS For Further Study

FQDN Full Qualified Domain Name

GSM Global System for Mobile communications

HE Home Environment

HNB Home NodeB

HeNB Home eNodeB

IARI IMS Application Reference Identifier

ICC Integrated Circuit Card

ICE In Case of Emergency

ICI Incoming Call Information

ICT Incoming Call Timer

ID Identifier

Idi Identity of the initiator

Idr Identity of the responder

IEI Information Element Identifier

IK Integrity key

IMSI International Mobile Subscriber Identity

K USIM Individual key

KC Cryptographic key used by the cipher A5

KSI Key Set Identifier

LI Language Indication

LSB Least Significant Bit

MAC Message authentication code

MAC-A MAC used for authentication and key agreement

MAC-I MAC used for data integrity of signalling messages

MBMS Multimedia Broadcast/Multicast Service

MCC Mobile Country Code

MCData Mission Critical Data

MCPTT Mission Critical Push To Talk

MCS Mission Critical Services

MCVideo Mission Critical Video

MexE Mobile Execution Environment

MF Master File

[…]

\*\*\*\*\* Next change \*\*\*\*\*

### 4.2.8 EFUST (USIM Service Table)

This EF indicates which services are available. If a service is not indicated as available in the USIM, the ME shall not select this service.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Identifier: '6F38' | | Structure: transparent | | | Mandatory | |
| SFI: '04' | | |  | | | |
| File size: X bytes, (X ≥ 1) | | | Update activity: low | | | |
| Access Conditions:  READ PIN  UPDATE ADM  DEACTIVATE ADM  ACTIVATE ADM | | | | | | |
| Bytes | Description | | | M/O | | Length |
| 1 | Services n1 to n8 | | | M | | 1 byte |
| 2 | Services n9 to n16 | | | O | | 1 byte |
| 3 | Services n17 to n24 | | | O | | 1 byte |
| 4 | Services n25 to n32 | | | O | | 1 byte |
| etc. |  | | |  | |  |
| X | Services n(8X‑7) to n(8X) | | | O | | 1 byte |

|  |  |  |
| --- | --- | --- |
| ‑Services |  |  |
| Contents: | Service n°1: | Local Phone Book |

[…]

|  |  |  |
| --- | --- | --- |
|  | Service n°108 | ACDC support |
|  | Service n°109 | Mission Critical Services |
|  | Service n°110 | ePDG configuration Information for Emergency Service support |
|  | Service n°111 | ePDG configuration Information for Emergency Service configured |

[…]

\*\*\*\*\* Next change \*\*\*\*\*

## 4.6 Contents of DFs at the TELECOM level

### 4.6.0 List of DFs at the TELECOM level

DFs may be present as child directories of DFTELECOM. The following DFs have been defined:

- DFGRAPHICS '5F50'.

- DFPHONEBOOK '5F3A'.

(DF for public phone book. This DF has the same structure as DFPHONEBOOK under ADF USIM).

- DFMULTIMEDIA '5F3B'.

- DFMMSS '5F3C'

(The contents of DF for MMSS are defined in C.S0074-A [53]. This DF for MMSS is not applicable to 3GPP only terminals).

- DFMCS  '5F3D'.

- DFV2X  '5F3E'.

\*\*\*\*\* Next change \*\*\*\*\*

### 4.6.4 Contents of files at the DFMCS level

The EFs in the Dedicated File DFMCS contain management objects related to Mission Critical Services (including MCPTT, MCS, MCData, MCVideo), as specified in 3GPP TS 24.483 [89].

#### 4.6.4.1 EFMST (MCS Service Table)

If service n°109 is "available" in the USIM Service Table or service n°15 is "available" in the ISIM Service Table, this file shall be present. This EF indicates the coding of the MCS management objects and which MCPTT, MCS, MCData or MCVideo services are available. If a service is not indicated as available in the MCS Service Table, the ME shall not select this service.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Identifier: '4F01' | | Structure: transparent | | | Optional | |
| SFI: '01' | | |  | | | |
| File size: X bytes, (X ≥ 2) | | | Update activity: low | | | |
| Access Conditions:  READ PIN  UPDATE ADM  DEACTIVATE ADM  ACTIVATE ADM | | | | | | |
| Bytes | Description | | | M/O | | Length |
| 1 | Coding of the MCS management objects | | | M | | 1 byte |
| 2 | Services n°1 to n°8 | | | M | | 1 byte |
| 3 | Services n°9 to n°16 | | | O | | 1 byte |
| etc. |  | | |  | |  |
| X | Services n°(8X‑7) to n°(8X) | | | O | | 1 byte |

Coding of the MCS management objects

Contents:

Indicates the coding used for all the MCS management objects stored in the DFMCS.

Coding:

A value of '00' indicates the XML format described in TS 24.483 [89]. All other values are reserved.

The EF shall contain at least one byte for services. Further bytes may be included, but if the EF includes an optional byte, then it is mandatory for the EF to also contain all bytes before that byte. Other services are possible in the future and will be coded on further bytes in the EF.

|  |  |  |
| --- | --- | --- |
| ‑Services |  |  |
| Contents: | Service n°1: | MCPTT UE configuration data |
|  | Service n°2: | MCPTT User profile data |
|  | Service n°3: | MCS Group configuration data |
|  | Service n°4: | MCPTT Service configuration data |
|  | Service n°5: | MCS UE initial configuration data |
|  | Service n°6: | MCData UE configuration data |
|  | Service n°7: | MCData user profile data |
|  | Service n°8: | MCData service configuration data |
|  | Service n°9: | MCVideo UE configuration data |
|  | Service n°10: | MCVideo user profile data |
|  | Service n°11: | MCVideo service configuration data |

Coding:

Same as coding of USIM Service Table.

#### 4.6.4.2 EFMCS\_ CONFIG (MCS configuration data)

If at least one of the services is "available" in the MCS Service Table, this file shall be present.

This EF contains zero, one or more configuration data objects, as specified in 3GPP TS 24.483 [89].

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Identifier: '4F02' | | Structure: BER-TLV | | | Optional | |
| SFI: '02' | | |  | | | |
| File size: X bytes | | | Update activity: low | | | |
| Access Conditions:  READ PIN  UPDATE ADM  DEACTIVATE ADM  ACTIVATE ADM | | | | | | |
| Bytes | Description | | | M/O | | Length |
| 1 to Y | Mission Critical Services configuration data object | | | O | | Y bytes |

The MCS configuration data is encoded as specified in the MCS Service Table.

Unused bytes shall be set to 'FF'.

Mission Critical Services configuration data object tag:

|  |  |  |
| --- | --- | --- |
| MCPTT configuration data objects | Tag Values | Condition |
| MCPTT UE configuration data | '80' | Shall be present if service n°1 is "available" in the MCS service table |
| MCPTT user profile data | '81' | Shall be present if service n°2 is "available" in the MCS service table |
| MCS Group configuration data | '82' | Shall be present if service n°3 is "available" in the MCS service table |
| MCPTT Service configuration data | '83' | Shall be present if service n°4 is "available" in the MCS service table |
| MCS UE initial configuration data | '84' | Shall be present if service n°5 is "available" in the MCS service table |
| MCData UE configuration data | '85' | Shall be present if service n°6 is "available" in the MCS service table |
| MCData user profile data | '86' | Shall be present if service n°7 is "available" in the MCS service table |
| MCData service configuration data | '87' | Shall be present if service n°8 is "available" in the MCS service table |
| MCVideo UE configuration data | '88' | Shall be present if service n°9 is "available" in the MCS service table |
| MCVideo user profile data | '89' | Shall be present if service n°10 is "available" in the MCS service table |
| MCVideo service configuration data | '8A' | Shall be present if service n°11 is "available" in the MCS service table |

#### 4.6.4.3 Void

#### 4.6.4.4 Void

#### 4.6.4.5 Void

\*\*\*\*\* Next change \*\*\*\*\*

## 4.7 Files of USIM

This clause contains two figures depicting the file structure of the UICC and the ADFUSIM. ADFUSIM shall be selected using the AID and information in EFDIR.

[…]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | DFMCS | |  |  | |  |  | |  |  | |  |  | |  |  | |
|  |  |  |  |  | '5F3D' | |  |  | |  |  | |  |  | |  |  | |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |
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|  |  |  |  |  |  |  |  | EFMST | |  | EFMCS\_CONFIG | |  |  | |  |  | |  |  | |
|  |  |  |  |  |  |  |  | '4F01' | |  | '4F02' | |  |  | |  |  | |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |
|  |  |  |  |  | DFV2X | |  |  | |  |  | |  |  | |  |  | |  |  | |
|  |  |  |  |  | '5F3E' | |  |  | |  |  | |  |  | |  |  | |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |
|  |  |  |  |  |  |  |  | EFVST | |  | EFV2X\_CONFIG | |  |  | |  |  | |  |  | |
|  |  |  |  |  |  |  |  | '4F01' | |  | '4F02' | |  |  | |  |  | |  |  | |

NOTE 1: Files under DFTELECOM with shaded background are defined in 3GPP TS 51.011 [18].

NOTE 2: Void.

NOTE 3: Files under DFMMSS are defined in C.S0074-A [53].

NOTE 4: The values '4F03', '4F04' and '4F05' under DFMCS were used in earlier versions of this specification, and should not be re-assigned in future versions.

Figure 4.1: File identifiers and directory structures of UICC

\*\*\*\*\* Next change \*\*\*\*\*

## 5.12 MCS related procedures

### 5.12.1 MCS configuration

Requirement: At least one of the services is "available" in the MCS Service Table.

Request: The ME performs the reading procedure with EFMCS\_CONFIG.

### 5.12.2 Void

### 5.12.3 Void

### 5.12.4 Void

\*\*\*\*\* Next change \*\*\*\*\*

Annex A (informative):  
EF changes via Data Download or USAT applications

This annex defines if changing the content of an EF by the network (e.g. by sending an SMS), or by a USAT Application, is advisable. Updating of certain EFs "over the air" such as EFACC could result in unpredictable behaviour of the UE; these are marked "Caution" in the table below. Certain EFs are marked "No"; under no circumstances should "over the air" changes of these EFs be considered.

| File identification | Description | Change advised |
| --- | --- | --- |
| '2F00' | Application directory | Caution |
| '2F05' | Preferred languages | Yes |
| '2F06' | Access rule reference | Caution |
| '2F08' | UICC Maximum Power Consumption | No |
| '2FE2' | ICC identification | No |
| '4F01' | ProSe Monitoring Parameters | Yes |
| '4F01' | ACDC List | Yes |
| '4F01' | MCS Service Table | Yes |
| '4F01' | V2X Service Table | Yes |
| '4F02' | V2X configuration data | Yes |
| '4F02' | ProSe Announcing Parameters | Yes |
| '4F02' | MCS configuration data | Yes |
| '4F03' | HPLMN ProSe Function | Yes |

[…]

\*\*\*\*\* Next change \*\*\*\*\*

Annex E (informative):  
Suggested contents of the EFs at pre‑personalization

If EFs have an unassigned value, it may not be clear from the main text what this value should be. This annex suggests values in these cases.

|  |  |  |
| --- | --- | --- |
| File Identification | Description | Value |
| '2F00' | Application directory | Card issuer/operator dependent |
| '2F05' | Preferred languages | 'FF…FF' |
| '2F06' | Access rule reference | Card issuer/operator dependent |
| '2F08' | UICC Maximum Power Consumption | Card issuer/operator dependent |
| '2FE2' | ICC identification | operator dependent |
| '4F01' | ProSe Monitoring Parameters | Operator dependent |
| '4F01' | ACDC List | Operator dependent |
| '4F01' | MCS Service Table | '0000' |
| '4F01' | V2X Service Table | Operator dependent |
| '4F02' | V2X configuration data | Operator dependent |
| '4F02' | ProSe Announcing Parameters | Operator dependent |
| '4F02' | MCS configuration data | Operator dependent |
| '4F03' | HPLMN ProSe Function | Operator dependent |

[…]

\*\*\*\*\* Next change \*\*\*\*\*

# H.7 List of SFI Values at the DF MCS Level

|  |  |  |  |
| --- | --- | --- | --- |
| File Identification | SFI | Description | |
| '4F01' | '01' | MCS Service Table | |
| '4F02' | '02' | MCS configuration data | |
| NOTE: The values '03', '04' and '05' were used in earlier versions of the specification and should not be reallocated. | | | |

All other SFI values are reserved for future use.

\*\*\*\*\* Next change \*\*\*\*\*

\*\*\*\*\* Next change \*\*\*\*\*