**3GPP TSG-CT WG6 Meeting #112-eC6-22XXXX**

**E-Meeting, 23th – 26th August 2022 *revision of C6-220456***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **31.102** | **CR** | **0963** | **rev** | **1** | **Current version:** | **17.6.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps | **X** | ME | **X** | Radio Access Network |  | Core Network |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | KAUSF derivation configuration in SNPN | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Intel | | | | | | | | | |
| ***Source to TSG:*** | CT6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eNPN | | | | |  | ***Date:*** | | | 2022-08-10 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | TS 33.501 clause I.2.2.2.2 specifies a scenario in SNPN which requires the UE to be configured with an indication that the UE shall use MSK for the derivation of KAUSF after the success of the primary authentication.  *“0. The UE shall be configured with credentials from the Credentials holder e.g. SUPI containing a network-specific identifier and credentials for the key-generating EAP-method used. As part of configuration of the credentials, the UE shall also be configured with an indication that the UE shall use MSK for the derivation of KAUSF after the success of the primary authentication. The exact procedures used to configure the UE are not specified in the present document.”*  Furthermore, TS 24.501 clause 5.4.1.2.2.3 specifies if the credentials in the USIM contain an indication to use MSK for derivation of KAUSF after success of primary authentication and key agreement procedure then the UE derives MSK from CK' and IK' otherwise derive EMSK from CK' and IK'. There is also a related EN that the indication to use MSK requires an extension of the related elementary file in USIM subject to CT6 agreement.  *“If a USIM is present and the SNN check is successful, the UE shall handle the EAP-request/AKA'-challenge message as specified in IETF RFC 5448 [40]. The USIM shall derive CK and IK and compute the authentication response (RES) using the 5G authentication challenge data received from the ME, and pass RES to the ME. The ME shall derive CK' and IK' from CK and IK, and if the UE operates in SNPN access operation mode and the credentials in the USIM contain an indication to use MSK for derivation of KAUSF after success of primary authentication and key agreement procedure then derive MSK from CK' and IK' otherwise derive EMSK from CK' and IK'.”*  *Editor’s Note [WI: eNPN, CR#4412]: The indication to use MSK requires extension of the related elementary file in USIM subject to CT6 agreement.*  Accordingly, it is proposed to add a new EF with the KAUSF derivation configuration. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add new Service in USIM service table and new EF. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | KAUSF derivation using MSK not supported. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.2.8, 4.4.11.1, 4.4.11.X (new), 4.7, 5.19.y (new), Annex A, Annex E, H.9 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Revisions 1   * Changed KAUSF derivation configuration in SNPN to KAUSF derivation configuration to be more future proof * Moved new EF under DF5GS * Added file location in clause 4.7 | | | | | | | | |

\*\*\* First 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°2: | Fixed Dialling Numbers (FDN) |
|  | Service n°3: | Extension 2 |
|  | Service n°4: | Service Dialling Numbers (SDN) |
|  | Service n°5: | Extension3 |
|  | Service n°6: | Barred Dialling Numbers (BDN) |
|  | Service n°7: | Extension4 |
|  | Service n°8: | Outgoing Call Information (OCI and OCT) |
|  | Service n°9: | Incoming Call Information (ICI and ICT) |
|  | Service n°10: | Short Message Storage (SMS) |
|  | Service n°11: | Short Message Status Reports (SMSR) |
|  | Service n°12: | Short Message Service Parameters (SMSP) |
|  | Service n°13: | Advice of Charge (AoC) |
|  | Service n°14: | Capability Configuration Parameters 2 (CCP2) |
|  | Service n°15: | Cell Broadcast Message Identifier |
|  | Service n°16: | Cell Broadcast Message Identifier Ranges |
|  | Service n°17: | Group Identifier Level 1 |
|  | Service n°18: | Group Identifier Level 2 |
|  | Service n°19: | Service Provider Name |
|  | Service n°20: | User controlled PLMN selector with Access Technology |
|  | Service n°21: | MSISDN |
|  | Service n°22: | Image (IMG) |
|  | Service n°23: | Support of Localised Service Areas (SoLSA) |
|  | Service n°24: | Enhanced Multi‑Level Precedence and Pre‑emption Service |
|  | Service n°25: | Automatic Answer for eMLPP |
|  | Service n°26: | RFU |
|  | Service n°27: | GSM Access |
|  | Service n°28: | Data download via SMS-PP |
|  | Service n°29: | Data download via SMS‑CB |
|  | Service n°30: | Call Control by USIM |
|  | Service n°31: | MO-SMS Control by USIM |
|  | Service n°32: | RUN AT COMMAND command |
|  | Service n°33: | shall be set to '1' |
|  | Service n°34: | Enabled Services Table |
|  | Service n°35: | APN Control List (ACL) |
|  | Service n°36: | Depersonalisation Control Keys |
|  | Service n°37: | Co-operative Network List |
|  | Service n°38: | GSM security context |
|  | Service n°39: | CPBCCH Information |
|  | Service n°40: | Investigation Scan |
|  | Service n°41: | MexE |
|  | Service n°42: | Operator controlled PLMN selector with Access Technology |
|  | Service n°43: | HPLMN selector with Access Technology |
|  | Service n°44: | Extension 5 |
|  | Service n°45: | PLMN Network Name |
|  | Service n°46: | Operator PLMN List |
|  | Service n°47: | Mailbox Dialling Numbers |
|  | Service n°48: | Message Waiting Indication Status |
|  | Service n°49: | Call Forwarding Indication Status |
|  | Service n°50: | Reserved and shall be ignored |
|  | Service n°51: | Service Provider Display Information |
|  | Service n°52 | Multimedia Messaging Service (MMS) |
|  | Service n°53 | Extension 8 |
|  | Service n°54 | Call control on GPRS by USIM |
|  | Service n°55 | MMS User Connectivity Parameters |
|  | Service n°56 | Network's indication of alerting in the MS (NIA) |
|  | Service n°57 | VGCS Group Identifier List (EFVGCS and EFVGCSS) |
|  | Service n°58 | VBS Group Identifier List (EFVBS and EFVBSS) |
|  | Service n°59 | Pseudonym |
|  | Service n°60 | User Controlled PLMN selector for I-WLAN access |
|  | Service n°61 | Operator Controlled PLMN selector for I-WLAN access |
|  | Service n°62 | User controlled WSID list |
|  | Service n°63 | Operator controlled WSID list |
|  | Service n°64 | VGCS security |
|  | Service n°65 | VBS security |
|  | Service n°66 | WLAN Reauthentication Identity |
|  | Service n°67 | Multimedia Messages Storage |
|  | Service n°68 | Generic Bootstrapping Architecture (GBA) |
|  | Service n°69 | MBMS security |
|  | Service n°70 | Data download via USSD and USSD application mode |
|  | Service n°71 | Equivalent HPLMN |
|  | Service n°72 | Additional TERMINAL PROFILE after UICC activation |
|  | Service n°73 | Equivalent HPLMN Presentation Indication |
|  | Service n°74 | Last RPLMN Selection Indication |
|  | Service n°75 | OMA BCAST Smart Card Profile |
|  | Service n°76 | GBA-based Local Key Establishment Mechanism |
|  | Service n°77 | Terminal Applications |
|  | Service n°78 | Service Provider Name Icon |
|  | Service n°79 | PLMN Network Name Icon |
|  | Service n°80 | Connectivity Parameters for USIM IP connections |
|  | Service n°81 | Home I-WLAN Specific Identifier List |
|  | Service n°82 | I-WLAN Equivalent HPLMN Presentation Indication |
|  | Service n°83 | I-WLAN HPLMN Priority Indication |
|  | Service n°84 | I-WLAN Last Registered PLMN |
|  | Service n°85 | EPS Mobility Management Information |
|  | Service n°86 | Allowed CSG Lists and corresponding indications |
|  | Service n°87 | Call control on EPS PDN connection by USIM |
|  | Service n°88 | HPLMN Direct Access |
|  | Service n°89 | eCall Data |
|  | Service n°90 | Operator CSG Lists and corresponding indications |
|  | Service n°91 | Support for SM-over-IP |
|  | Service n°92 | Support of CSG Display Control |
|  | Service n°93 | Communication Control for IMS by USIM |
|  | Service n°94 | Extended Terminal Applications |
|  | Service n°95 | Support of UICC access to IMS |
|  | Service n°96 | Non-Access Stratum configuration by USIM |
|  | Service n°97 | PWS configuration by USIM |
|  | Service n°98 | RFU |
|  | Service n°99 | URI support by UICC |
|  | Service n°100 | Extended EARFCN support |
|  | Service n°101 | ProSe |
|  | Service n°102 | USAT Application Pairing |
|  | Service n°103 | Media Type support |
|  | Service n°104 | IMS call disconnection cause |
|  | Service n°105 | URI support for MO SHORT MESSAGE CONTROL |
|  | Service n°106 | ePDG configuration Information support |
|  | Service n°107 | ePDG configuration Information configured |
|  | 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 |
|  | Service n°112 | eCall Data over IMS |
|  | Service n°113 | URI support for SMS-PP DOWNLOAD as defined in 3GPP TS 31.111 [12] |
|  | Service n°114 | From Preferred |
|  | Service n°115 | IMS configuration data |
|  | Service n°116 | TV configuration |
|  | Service n°117 | 3GPP PS Data Off |
|  | Service n°118 | 3GPP PS Data Off Service List |
|  | Service n°119 | V2X |
|  | Service n°120 | XCAP Configuration Data |
|  | Service n°121 | EARFCN list for MTC/NB-IOT UEs |
|  | Service n°122 | 5GS Mobility Management Information |
|  | Service n°123 | 5G Security Parameters |
|  | Service n°124 | Subscription identifier privacy support |
|  | Service n°125 | SUCI calculation by the USIM |
|  | Service n°126 | UAC Access Identities support |
|  | Service n°127 | Control plane-based steering of UE in VPLMN |
|  | Service n°128 | Call control on PDU Session by USIM |
|  | Service n°129 | 5GS Operator PLMN List |
|  | Service n°130 | Support for SUPI of type NSI or GLI or GCI |
|  | Service n°131 | 3GPP PS Data Off separate Home and Roaming lists |
|  | Service n°132 | Support for URSP by USIM |
|  | Service n°133 | 5G Security Parameters extended |
|  | Service n°134 | MuD and MiD configuration data |
|  | Service n°135 | Support for Trusted non-3GPP access networks by USIM |
|  | Service n°136 | Support for multiple records of NAS security context storage for multiple registration |
|  | Service n°137 | Pre-configured CAG information list |
|  | Service n°138 | SOR-CMCI storage in USIM |
|  | Service n°139 | 5G ProSe |
|  | Service n°140 | Storage of disaster roaming information in USIM |
|  | Service n°141 | Pre-configured eDRX parameters |
|  | Service n°142 | 5G NSWO support |
|  | Service n°143 | PWS configuration for SNPN in USIM |
|  | Service n°144 | Multiplier Coefficient for Higher Priority PLMN search via NG-RAN satellite access |
|  | Service n°XXY | KAUSF derivation configuration |

The EF shall contain at least one byte. 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. The coding falls under the responsibility of the 3GPP.

Service n°46 can only be declared "available" if service n°45 is declared "available".

Service n°95, n°99 and n°115 shall not be declared "available" if an ISIM application is present on the UICC.

Service n°125 shall only be taken into account if Service n°124 is declared "available". If Service n°124 and Service n°125 are declared "available", the "SUCI calculation is to be performed by the USIM". If Service n°124 is declared "available" and Service n°125 is not declared "available", the "SUCI calculation is to be performed by the ME".

Coding:

1 bit is used to code each service:  
bit = 1: service available;  
bit = 0: service not available.

- Service available means that the USIM has the capability to support the service and that the service is available for the user of the USIM unless the service is identified as "disabled" in EFEST.  
Service not available means that the service shall not be used by the USIM user, even if the USIM has the capability to support the service.

First byte:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | b8 | | b7 | | b6 | | B5 | | B4 | | b3 | | b2 | | b1 | |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | Service n°1 |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | Service n°2 |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | Service n°3 |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | Service n°4 |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | Service n°5 |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | Service n°6 |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | Service n°7 |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | Service n°8 |

Second byte:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | b8 | | b7 | | b6 | | B5 | | B4 | | b3 | | b2 | | b1 | |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | Service n°9 |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | Service n°10 |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | Service n°11 |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | Service n°12 |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | Service n°13 |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | Service n°14 |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | Service n°15 |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | Service n°16 |

etc.

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

#### 4.4.11.1 Introduction

This clause describes the files that are specific for 5GS.

DF5GS shall be present at the ADFUSIM level if any of the following services are "available" in EFUST (USIM Service Table):

|  |  |
| --- | --- |
| Service n°122 | 5GS Mobility Management Information |
| Service n°123 | 5G Security Parameters |
| Service n°124 | Subscription identifier privacy support |
| Service n°125 | SUCI calculation by the USIM |
| Service n°126 | UAC Access Identities support |
| Service n°127 | Control plane-based steering of UE in VPLMN |
| Service n°128 | Call control on PDU Session by USIM |
| Service n°129 | 5GS Operator PLMN List |
| Service n°130 | Support for SUPI of type NSI or GLI or GCI |
| Service n°132 | Support for URSP by USIM |
| Service n°133 | 5G Security Parameters extended |
| Service n°134 | MuD and MiD configuration data |
| Service n°135 | Support for Trusted non-3GPP access networks by USIM |
| Service n°136 | Support for multiple records of NAS security context storage for multiple registration |
| Service n°137 | Pre-configured CAG information list |
| Service n°138 | SOR-CMCI storage in USIM |
| Service n°139 | 5G ProSe |
| Service n°140 | Storage of disaster roaming information in USIM |
| Service n°141 | Pre-configured eDRX parameters |
| Service n°142 | 5G NSWO support |
| Service n°144 | Multiplier Coefficient for Higher Priority PLMN search via NG-RAN satellite access |
| Service n°XXY | KAUSF derivation configuration |

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

#### 4.4.11.X EFKAUSF\_DERIVATION (KAUSF derivation configuration)

If service n°XXY is "available", this file shall be present. This EF contains the configuration parameter for KAUSF derivation, as defined in TS 33.501 [105].

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Identifier: '4F0y' | | Structure: transparent | | | Optional | |
| SFI: ‘0y’ | | |  | | | |
| File size: X bytes (X ≥ 1) | | | Update activity: low | | | |
| Access Conditions:  READ ALW  UPDATE ADM  ACTIVATE ADM  DEACTIVATE ADM | | | | | | |
| Bytes | Description | | | M/O | | Length |
| 1 | KAUSF derivation configuration | | | M | | 1 byte |
| 2 to X | RFU | | | O | | X bytes |

Contents:

Configuration for KAUSF derivation

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | b8 | | b7 | | b6 | | b5 | | b4 | | b3 | | b2 | | b1 | |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | KAUSF derivation configuration in SNPN:  b1=0 Use EMSK for derivation of KAUSF in SNPN  b1=1 Use MSK for derivation of KAUSF in SNPN |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | | RFU (see TS 31.101 [11]) |

\*\*\* 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.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  | |  |  | |  | MF | |  |  | |  |  | |  |  | |
|  |  |  |  |  |  | |  |  | |  | '3F00' | |  |  | |  |  | |  |  | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  | |  | EFDIR | |  | EFPL | |  | EFARR | |  | EFICCID | |  | EFUMPC | |
|  |  |  |  |  |  | |  | '2F00' | |  | '2F05' | |  | '2F06' | |  | '2FE2' | |  | '2F08' | |
|  |  | DFGSM | |  | see TS | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | '7F20' | |  | 51.011 [18] | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  | DFCD | |  | see TS | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | '7F11' | |  | 31.101 [11] | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | DFTELECOM | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | '7F10' | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  | |  | EFARR | |  | EFADN | |  | EFFDN | |  | EFSMS | |  | EFMSISDN | |
|  |  |  |  |  |  | |  | '6F06' | |  | '6F3A' | |  | '6F3B' | |  | '6F3C' | |  | '6F40' | |
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|  |  |  |  |  |  | |  | '6F42' | |  | '6F43' | |  | '6F44' | |  | '6F47' | |  | '6F49' | |
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|  |  |  |  |  |  | |  | '6F4A' | |  | '6F4B' | |  | '6F4C' | |  | '6F4D' | |  | '6F4E' | |
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|  |  |  |  |  | '5F50' | |  |  | |  |  | |  |  | |  |  | |  |  | |
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|  |  |  |  |  |  |  |  | '4F20' | |  | '4FXX' | |  | '4F21' | |  |  | |  |  | |
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|  |  |  |  |  | DFPHONEBOOK | |  |  | |  |  | |  |  | |  |  | |  |  | |
|  |  |  |  |  | '5F3A' | |  |  | |  |  | |  |  | |  |  | |  |  | |
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|  |  |  |  |  |  |  |  | '4F22' | |  | '4F23' | |  | '4F24' | |  | '4F30' | |  | '4FXX' | |
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|  |  |  |  |  | DFMULTIMEDIA | |  |  | |  |  | |  |  | |  |  | |  |  | |
|  |  |  |  |  | '5F3B' | |  |  | |  |  | |  |  | |  |  | |  |  | |
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|  |  |  |  |  |  |  |  | '4F47' | |  | '4F48' | |  |  | |  |  | |  |  | |
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|  |  |  |  |  | '5F3C' | |  | C.S0074-A[53] | |  |  | |  |  | |  |  | |  |  | |
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|  |  |  |  |  |  |  |  | '4F01' | |  | '4F02' | |  |  | |  |  | |  |  | |
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|  |  |  |  |  | DFV2X | |  |  | |  |  | |  |  | |  |  | |  |  | |
|  |  |  |  |  | '5F3E' | |  |  | |  |  | |  |  | |  |  | |  |  | |
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|  |  |  |  |  |  |  |  | '4F01' | |  | '4F02' | |  | '4F03' | |  | '4F04' | |  |  | |

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**

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|  |  | |  | | |  |  | | | | | |  | | '6F05' | | | | | |  | | | '6F06' | | | | | | | | |  | | '6F07' | | | | | |  | | '6F08' | | | | | |  | | '6F09' | | | | |
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|  |  | |  | | |  |  | | | | | |  | | '6F2C' | | | | | |  | | | '6F31' | | | | | | | |  | | | '6F32' | | | | | |  | | '6F37' | | | | | |  | | '6F38' | | | | |
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|  |  | |  | | |  |  | | | | | |  | | '6F39' | | | | | |  | | | '6F3B' | | | | | | | |  | | | '6F3C' | | | | | |  | | '6F3E' | | | | | |  | | '6F3F' | | | | |
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|  |  | |  | | |  |  | | | | | |  | | '6F40' | | | | | |  | | | '6F41' | | | | | | | |  | | | '6F42' | | | | | |  | | '6F43' | | | | | |  | | '6F45' | | | | |
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|  |  | |  | | |  |  | | | | | |  | | '6F46' | | | | | |  | | | '6F47' | | | | | | | |  | | | '6F48' | | | | | |  | | '6F49' | | | | | |  | | '6F4B' | | | | |
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|  |  | |  | | |  |  | | | | | |  | | '6F4C' | | | | | |  | | | '6F4D' | | | | | | | |  | | | '6F4E' | | | | | |  | | '6F4F' | | | | | |  | | '6F50' | | | | |
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|  |  | |  | | |  |  | | | | | |  | | '6F55' | | | | | |  | | | '6F56' | | | | | | | |  | | | '6F57' | | | | | |  | | '6F58' | | | | | |  | | '6F5B' | | | | |
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|  |  | |  | | |  |  | | | | | |  | | '6F5C' | | | | | |  | | | '6F60' | | | | | | | |  | | | '6F61' | | | | | |  | | '6F62' | | | | | |  | | '6F73' | | | | |
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|  |  | |  | | |  |  | | | | | |  | | '6F78' | | | | | |  | | | '6F7B' | | | | | | | |  | | | '6F7E' | | | | | |  | | '6F80' | | | | | |  | | '6F81' | | | | |
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|  |  | |  | | |  |  | | | | | |  | | '6F82' | | | | | |  | | | '6F83' | | | | | | | |  | | | '6FAD' | | | | | |  | | '6FB1' | | | | | |  | | '6FB2' | | | | |
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|  |  | |  | | |  |  | | | | | |  | | '6FB3' | | | | | |  | | | '6FB4' | | | | | | | |  | | | '6FB5' | | | | | |  | | '6FB6' | | | | | |  | | '6FB7' | | | | |
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|  |  | |  | | |  |  | | | | | |  | | '6FC3' | | | | | |  | | | '6FC4' | | | | | | | |  | | | '6FC5' | | | | | |  | | '6FC6' | | | | | |  | | '6FC7' | | | | |
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|  |  | |  | | |  |  | | |  | | |  | | EFHPLMNDAI | | | | | |  | | |  | | | | | | | |  | | |  | | | | | |  | |  | | | | | |  | |  | | | | |
|  |  | |  | | |  |  | | |  | | |  | | '4F4B' | | | | | |  | | |  | | | | | | | |  | | |  | | | | | |  | |  | | | | | |  | |  | | | | |
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|  |  | |  | | |  | DFHNB | | | | | |  | |  | | | | | |  | | |  | | | | | | |  | | | |  | | | | | |  | |  | | | | | |  | |  | | | | |
|  |  | |  | | |  | '5F50' | | | | | |  | |  | | | | | |  | | |  | | | | | | |  | | | |  | | | | | |  | |  | | | | | |  | |  | | | | |
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|  |  | |  | | |  |  | | |  | | |  | | EFACSGL | | | | | |  | | | EFCSGT | | | | | | |  | | | | EFHNBN | | | | | |  | | EFOCSGL | | | | | |  | | EFOCSGT | | | | |
|  |  | |  | | |  |  | | |  | | |  | | '4F81' | | | | | |  | | | '4F82' | | | | | | |  | | | | '4F83' | | | | | |  | | '4F84' | | | | | |  | | '4F85' | | | | |
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|  |  | |  | | |  | '5F90' | | | | | |  | |  | | | | | |  | | |  | | | | | | |  | | | |  | | | | | |  | |  | | | | | |  | |  | | | | |
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|  |  | |  | | |  |  | | |  | | |  | | EFPROSE\_MON | | | | | |  | | | EFPROSE\_ANN | | | | | | |  | | | | EFPROSEFUNC | | | | | |  | | EFPROSE\_RADIO\_COM | | | | | |  | | EFPROSE\_RADIO\_MON | | | | |
|  |  | |  | | |  |  | | |  | | |  | | '4F01' | | | | | |  | | | '4F02' | | | | | | |  | | | | '4F03' | | | | | |  | | '4F04' | | | | | |  | | '4F05' | | | | |
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|  |  | |  | | |  |  | | |  | | |  | | '4F06' | | | | | |  | | | '4F07' | | | | | | |  | | | | '4F08' | | | | | |  | | '4F09' | | | | | |  | | '4F10' | | | | |
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|  |  | |  | | |  |  | | |  | | |  | | EFPROSE\_UIRC | | | | | |  | | | EFPROSE\_GM\_DISCOVERY | | | | | | |  | | | | EFPROSE\_RELAY | | | | | |  | | EFPROSE\_RELAY\_DISCOVERY | | | | | |  | |  | | | | |
|  |  | |  | | |  |  | | |  | | |  | | '4F11' | | | | | |  | | | '4F12' | | | | | | |  | | | | '4F13' | | | | | |  | | '4F14' | | | | | |  | |  | | | | |
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|  |  | |  | | |  | DFACDC | | | | | |  | |  | | | | | |  | | |  | | | | | | |  | | | |  | | | | | |  | |  | | | | | |  | |  | | | | |
|  |  | |  | | |  | '5FA0' | | | | | |  | |  | | | | | |  | | |  | | | | | | |  | | | |  | | | | | |  | |  | | | | | |  | |  | | | | |
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|  |  | |  | | |  |  | | |  | | |  | | EFACDC\_LIST | | | | | |  | | | EFACDC\_OS\_CONFIG | | | | | | |  | | | |  | | | | | |  | |  | | | | | |  | |  | | | | |
|  |  | |  | | |  |  | | |  | | |  | | '4F01' | | | | | |  | | | '4FXX' | | | | | | |  | | | |  | | | | | |  | |  | | | | | |  | |  | | | | |
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|  |  | |  | | |  | DFTV  '5FB0' | | | | | |  | |  | | | | | |  | | |  | | | | | | |  | | | |  | | | | | |  | |  | | | | | |  | |  | | | | |
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|  |  | |  | | |  | DF5GS  '5FC0' | | | | | |  | |  | | | | | |  | | |  | | | | | | |  | | | |  | | | | | |  | |  | | | | | |  | |  | | | | |
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|  |  |  | |  |  |  | | |  | | |  | | '4F01' | | | | | |  | | '4F02' | | | | | | | |  | | | | '4F03' | | | | | |  | | '4F04' | | | | | |  | | '4F05' | | | | | |
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|  | |  | |  |  |  | | |  | | |  | | '4F06' | | | | | |  | | '4F07' | | | | | | | |  | | | | '4F08' | | | | | |  | | '4F09' | | | | | |  | | '4F0A' | | | | | |
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|  | |  | |  |  |  | | |  | | |  | | '4F0B' | | | | | |  | | '4F0C' | | | | | | | |  | | | | '4F0D' | | | | | |  | | '4F0E' | | | | | |  | | '4F0F | | | | | |
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|  | |  | |  |  |  | | |  | | |  | | ‘4F10' | | | | | |  | | '4F11' | | | | | | | |  | | | | '4F15' | | | | | |  | | '4F1Y' | | | | | |  | |  | | | | | |
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|  | |  | |  |  |  | | |  | | |  | | EF5G\_PROSE\_ST  '4F01' | | | | | |  | | EF5G\_PROSE\_DD '4F02' | | | | | | | |  | | | | EF5G\_PROSE\_DC '4F03' | | | | | |  | | EF5G\_PROSE\_U2NRU '4F04' | | | | | |  | | EF5G\_PROSE\_RU '4F05' | | | | | |
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**Figure 4.2: File identifiers and directory structures of USIM**

NOTE 5: The value '6F65' under ADFUSIM was used in earlier versions of this specification, and should not be re-assigned in future versions.

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

### 5.19.y KAUSF derivation configuration

Requirement: Service n° XXY is "available".

Request: The ME performs the reading procedure with EFKAUSF\_DERIVATION.

\*\*\* 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 | | |
| '4F01' | | 5GS 3GPP location information | | Caution (Note 1) | | |
| '4F01' | | 5G ProSe Service Table | | Yes | | |
| ‘4F01’ | | PWS configuration in SNPN. | | Yes | | |
| '4F02' | | V2X configuration data | | Yes | | |
| '4F02' | | ProSe Announcing Parameters | | Yes | | |
| '4F02' | | MCS configuration data | | Yes | | |
| '4F02' | | 5GS non-3GPP location information | | Caution (Note 1) | | |
| '4F02' | | 5G ProSe configuration data for direct discovery | | Yes | | |
| '4F03' | | HPLMN ProSe Function | | Yes | | |
| '4F03' | | 5GS 3GPP Access NAS Security Context | | Caution | | |
| '4F03' | | V2X data policy over PC5 | | Yes | | |
| '4F03' | | 5G ProSe configuration data for direct communication | | Yes | | |
| '4F04' | | ProSe Direct Communication Radio Parameters | | Yes | | |
| '4F04' | | 5GS non-3GPP Access NAS Security Context | | Caution | | |
| '4F04' | | V2X data policy over Uu | | Yes | | |
| '4F04' | | 5G ProSe configuration data for UE-to-network relay UE | | Yes | | |
| '4F05' | | ProSe Direct Discovery Monitoring Radio Parameters | | Yes | | |
| '4F05' | | 5G authentication keys | | No | | |
| '4F05' | | 5G ProSe configuration data for remote UE | | Yes | | |
| '4F06' | | ProSe Direct Discovery Announcing Radio Parameters | | Yes | | |
| '4F06' | | UAC Access Identities Configuration | | Caution | | |
| '4F07' | | ProSe Policy Parameters | | Yes | | |
| '4F07' | | Subscriber Concealed Identifier Calculation Information | | Yes | | |
| '4F09' | | SUPI as Network Access Identifier | | Caution | | |
| '4F09' | | ProSe Group Counter | | No | | |
| '4F0A' | | Routing Indicator | | Yes (Note 5) | | |
| '4F0B' | | UE Route Selection Policies | | Yes | | |
| '4F0C' | | Trusted non-3GPP Serving network name list | | Yes | | |
| '4F0D' | | Pre-configured CAG information list | | Caution | | |
| '4F0E' | | Steering of roaming connected mode control information | | Yes | | |
| '4F0F' | | Disaster roaming information | | Yes | | |
| '4F10' | | ProSe Service Table | | Caution | | |
| ‘4F10' | | 5GS eDRX Parameters | | Yes | | |
| '4F11' | | ProSe UsageInformationReportingConfiguration | | Caution (Note 4) | | |
| '4F11 | | 5G Non-Seamless WLAN Offload configuration | | Yes | | |
| '4F12' | | ProSe Group Member Discovery Parameters | | Yes | | |
| '4F13' | | ProSe Relay Parameters | | Yes | | |
| '4F14' | | ProSe Relay Discovery Parameters | | Yes | | |
| '4F15' | | Multiplier coefficient for Higher Priority PLMN search period via NG-RAN satellite access | | Yes | | |
| '4F1y' | | KAUSF derivation configuration | | Caution | | |
| '4F20' | | Image data | | Yes | | |
| '4F20' | | GSM Ciphering key Kc | | No | | |
| '4FXX' | | Image Instance data Files | | Yes | | |
| '4FXX' | | ACDC OS Configuration | | Yes | | |
| '4F21' | | ICE graphics | | Yes | | |
| '4FXX' | | Unique identifier | | Yes | | |
| '4F22' | | Phone book synchronisation counter | | Yes | | |
| '4F23' | | Change counter | | Yes | | |
| '4F24' | | Previous unique identifier | | Yes | | |
| '4F30' | | Phone book reference file | | Yes | | |
| '4FXX' | | Capability configuration parameters 1 | | Yes | | |
| '4F30' | | SoLSA Access Indicator | | Caution | | |
| '4F31' | | SoLSA LSA List | | Caution | | |
| '4FXX' | | LSA Descriptor files | | Caution | | |
| '4F52' | | GPRS Ciphring key KcGPRS | | No | | |
| '4F63' | | CPBCCH Information | | No | | |
| '4F64' | | Investigation Scan | | Caution | | |
| '4FXX' | | Additional number alpha string | | Yes | | |
| '4FXX' | | Additional number | | Yes | | |
| '4FXX' | | Second name entry | | Yes | | |
| '4FXX' | | Grouping information alpha string | | Yes | | |
| '4FXX' | | Phone book control | | Yes | | |
| '4FXX' | | E-mail addresses | | Yes | | |
| '4FXX' | | Index administration phone book | | Yes | | |
| '4FXX' | | Extension 1 | | Yes | | |
| '4FXX' | | Abbreviated dialling numbers | | Yes | | |
| '4FXX' | | Grouping file | | Yes | | |
| '4FXX' | | TV User Service Description | | Yes | | |
| '4F41' | | Pseudonym | | Caution | | |
| '4F42' | | User controlled PLMN selector for I-WLAN | | No | | |
| '4F43' | | Operator controlled PLMN selector for I-WLAN | | Caution | | |
| '4F44' | | User controlled WSID List | | No | | |
| '4F45' | | Operator controlled WSID List | | Caution | | |
| '4F46' | | WLAN Reauthentication Identity | | No | | |
| 4F47' | | Home I-WLAN Specific Identifier List | | Yes | | |
| '4F47' | | Multimedia Messages List | | Yes | | |
| '4F48' | | I-WLAN Equivalent HPLMN Presentation Indication | | Yes | | |
| '4F48' | | Multimedia Messages Data File | | Yes | | |
| '4F49' | | I-WLAN HPLMN Priority Indication | | Yes | | |
| '4F4A' | | I-WLAN Last Registered PLMN | | Caution | | |
| '4F4B' | | HPLMN Direct Access Indicator | | Yes | | |
| '4F81' | | Allowed CSG lists | | Yes | | |
| '4F82' | | CSG Type | | Yes | | |
| '4F83' | | HNB name | | Yes | | |
| '4F84' | | Operator CSG lists | | Yes | | |
| '4F85' | | Operator CSG Type | | Yes | | |
| '4F86' | | Operator HNB name | | Yes | | |
| '6F01' | | enhanced AKA support | | Caution | | |
| '6F05' | | Language indication | | Yes | | |
| '6F06' | | Access rule reference (under ADFUSIM and DFTELECOM) | | Caution | | |
| '6F07' | | IMSI | | Caution (Note 1) | | |
| '6F08' | | Ciphering and integrity keys | | No | | |
| '6F09' | | Ciphering and integrity keys for packet switched domain | | No | | |
| '6F2C' | | De-personalization Control Keys | | Caution | | |
| '6F31' | | Higher Priority PLMN search period | | Caution | | |
| '6F32' | | Co-operative network list | | Caution | | |
| '6F37' | | ACM maximum value | | Yes | | |
| '6F38' | | USIM service table | | Caution | | |
| '6F39' | | Accumulated call meter | | Yes | | |
| '6F3B' | | Fixed dialling numbers | | Yes (Note 2) | | |
| '6F3C' | | Short messages | | Yes | | |
| '6F3E' | | Group identifier level 1 | | Yes | | |
| '6F3F' | | Group identifier level 2 | | Yes | | |
| '6F40' | | MSISDN storage | | Yes | | |
| '6F41' | | PUCT | | Yes | | |
| '6F42' | | SMS parameters | | Yes | | |
| '6F43' | | SMS status | | Yes | | |
| '6F45' | | CBMI | | Caution | | |
| '6F46' | | Service provider name | | Yes | | |
| '6F47' | | Short message status reports | | Yes | | |
| '6F48' | | CBMID | | Yes | | |
| '6F49' | | Service Dialling Numbers | | Yes (Note 2) | | |
| '6F4B' | | Extension 2 | | Yes | | |
| '6F4C' | | Extension 3 | | Yes | | |
| '6F4D' | | Barred dialling numbers | | Yes | | |
| '6F4E' | | Extension 5 | | Yes | | |
| '6F4F' | | Capability configuration parameters 2 | | Yes | | |
| '6F50' | | CBMIR | | Yes | | |
| '6F54' | | SetUp Menu Elements | | Yes | | |
| '6F55' | | Extension 4 | | Yes | | |
| '6F56' | | Enabled services table | | Caution | | |
| '6F57' | | Access point name control list | | Yes | | |
| '6F58' | | Comparison method information | | Yes | | |
| '6F5B' | | Initialisation value for Hyperframe number | | Caution | | |
| '6F5C' | | Maximum value of START | | Yes | | |
| '6F60' | | User controlled PLMN selector with Access Technology | | No | | |
| '6F61' | | Operator controlled PLMN selector with Access Technology | | Caution | | |
| '6F62' | | HPLMN selector with Access Technology | | Caution | | |
| '6F73' | | Packet switched location information | | Caution (Note 1) | | |
| '6F78' | | Access control class | | Caution | | |
| '6F7B' | | Forbidden PLMNs | | Caution | | |
| '6F7E' | | Location information | | No (Note 1) | | |
| '6F80' | | Incoming call information | | Yes | | |
| '6F81' | | Outgoing call information | | Yes | | |
| '6F82' | | Incoming call timer | | Yes | | |
| '6F83' | | Outgoing call timer | | Yes | | |
| '6FAD' | | Administrative data | | Caution | | |
| '6FB1' | | Voice Group Call Service | | Yes | | |
| '6FB2' | | Voice Group Call Service Status | | Yes | | |
| '6FB3' | | Voice Broadcast Service | | Yes | | |
| '6FB4' | | Voice Broadcast Service Status | | Yes | | |
| '6FB5' | | Enhanced Multi Level Pre-emption and Priority | | Yes | | |
| '6FB6' | | Automatic Answer for eMLPP Service | | Yes | | |
| '6FB7' | | Emergency Call Codes | | Caution | | |
| '6FC3' | | Key for hidden phone book entries | | No | | |
| '6FC4' | | Network Parameters | | No | | |
| '6FC5' | | PLMN Network Name | | Yes | | |
| '6FC6' | | Operator Network List | | Yes | | |
| '6FC7' | | Mailbox Dialling Numbers | | Yes | | |
| '6FC8' | | Extension 6 | | Yes | | |
| '6FC9' | | Mailbox Identifier | | Caution | | |
| '6FCA' | | Message Waiting Indication Status | | Caution | | |
| '6FCB' | | Call Forwarding Indication Status | | Caution | | |
| '6FCC' | | Extension 7 | | Yes | | |
| '6FCD' | | Service Provider Display Information | | Yes | | |
| '6FCE' | | MMS Notification | | Yes | | |
| '6FCF' | | Extension 8 | | Yes | | |
| '6FD0' | | MMS Issuer Connectivity Parameters | | Yes | | |
| '6FD1' | | MMS User Preferences | | Yes | | |
| '6FD2' | | MMS User Connectivity Parameters | | Yes | | |
| '6FD3' | | Network's indication of alerting (NIA) | | Caution | | |
| '6FD4' | | Voice Group Call Service Ciphering Algorithm | | Yes | | |
| '6FD5' | | Voice Broadcast Service Ciphering Algorithm | | Yes | | |
| '6FD6' | | GBA Bootstrapping parameters | | Caution | | |
| '6FD7' | | MBMS Service Keys List | | Caution | | |
| '6FD8' | | MBMS User Key | | Caution | | |
| '6FD9' | | EHPLMN | | Caution | | |
| '6FDA' | | GBA NAF List | | Caution | | |
| '6FDB' | | EHPLMN Presentation Indication | | Caution | | |
| '6FDC' | | Last RPLMN Selection Indication | | Caution | | |
| '6FDD' | | NAF Key Centre Address | | Caution | | |
| '6FDE' | | Service Provider Name Icon | | Yes | | |
| '6FDF' | | PLMN Network Name Icon | | Yes | | |
| '6FE0' | | In Case of Emergency – Dialling Number | | Yes | | |
| '6FE1' | | In Case of Emergency – Free Format | | Yes | | |
| '6FE2' | | Network Connectivity Parameters for UICC IP connections | | Yes | | |
| '6FE3' | | EPS location information | | Caution (Note 1) | | |
| '6FE4' | | EPS NAS Security Context | | Caution | | |
| '6FE5' | | Public Service Identity of the SM-SC | | Yes | |
| '6FE6' | | USAT Facility Control | | Caution | |
| '6FE7' | | UICC IARI | | Caution (Note 3) | |
| '6FE8' | | Non Access Stratum Configuration | | Yes | |
| '6FE9' | | UICC certificate | | Yes | |
| '6FEA' | | Relay Node ID | | Yes | |
| '6FEB' | | Max value of Secure Channel counter | | Caution | |
| '6FEC' | | Public Warning System | | Yes | |
| '6FED' | | FDN URI | | Yes (Note 2) | |
| '6FEE' | | BDN URI | | Yes | |
| '6FEF' | | SDN URI | | Yes (Note 2) | |
| '6FF0' | | IMEI(SV) Allowed List | | Yes | |
| '6FF1' | | IMEI(SV) Pairing Status | | Caution | |
| '6FF2' | | IMEI(SV) Pairing Devices | | Caution | |
| '6FF3' | | Home ePDG Identifier | | Yes | |
| '6FF4' | | ePDG Selection Information | | Yes | |
| '6FF5' | | Emergency ePDG Identifier | | Yes | |
| '6FF6' | | ePDG Selection Information for Emergency Services | | Yes | |
| '6FF7' | | From Preferred | | Yes | |
| '6FF8' | | IMSConfigData | | Caution | |
| '6FF9' | | 3GPPPSDATAOFF | | Caution | |
| '6FFA' | | 3GPPPSDATAOFFservicelist | | Caution | |
| '6FFB' | | TV Configuration | | Yes | |
| '6FFC' | | XCAP Configuration Data | | Yes | |
| '6FFD' | | EARFCN List for MTC/NB-IOT UEs | | Yes | |
| '6FFE' | | MuD and MiD configuration data | | Yes | |
| NOTE1: If EFIMSI is changed, the UICC should issue REFRESH as defined in 3GPP TS 31.111 [12] and update EFLOCI, EFPSLOCI, EFEPSLOCI, EF5GS3GPPLOCI and EF5GSN3GPPLOCI accordingly.  NOTE2: This file may contain eCALL related test and reconfiguration numbers or URIs.  NOTE3: If EFUICCIARI is changed, the UICC shall issue a REFRESH command as defined in TS 31.111. The ME shall read the updated list of IARIs associated with active applications installed on the UICC.  NOTE4: Updating EFProSe\_UIRC Over-The-Air, especially adding more parameters to the report, may cause a reduction of number of reports to be able to be stored in the UE.  NOTE5: If EFRouting\_Indicator is changed, the UICC shall issue File Change Notification REFRESH, as defined in 3GPP TS 31.111 [12]. | | | | | | |

Editor's Note: The REFRESH for SUPI\_NAI update needs to be further specified.

\*\*\* 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 | |
| '4F01' | | 5GS 3GPP location information | | | 'FFFFFFFFFFFFFFFFFFFFFFFFFF xxxxxx 000000 01' (see NOTE 2) | |
| '4F01' | | 5G ProSe Service Table | | | Operator dependent | |
| ‘4F01’ | | PWS configuration in SNPN | | | Operator dependent | |
| '4F02' | | V2X configuration data | | | Operator dependent | |
| '4F02' | | ProSe Announcing Parameters | | | Operator dependent | |
| '4F02' | | MCS configuration data | | | Operator dependent | |
| '4F02' | | 5GS non-3GPP location information | | | 'FFFFFFFFFFFFFFFFFFFFFFFFFF xxxxxx 000000 01' (see NOTE 2) | |
| '4F02' | | 5G ProSe configuration data for direct discovery | | | Operator dependent | |
| '4F03' | | HPLMN ProSe Function | | | Operator dependent | |
| '4F03' | | 5GS 3GPP Access NAS Security Context | | | 'FF…FF' | |
| '4F03' | | V2X data policy over PC5 | | | Operator dependent | |
| '4F03' | | 5G ProSe configuration data for direct communication | | | Operator dependent | |
| '4F04' | | ProSe Direct Communication Radio Parameters | | | Operator dependent | |
| '4F04' | | 5GS non-3GPP Access NAS Security Context | | | 'FF…FF' | |
| '4F04' | | V2X data policy over Uu | | | Operator dependent | |
| '4F04' | | 5G ProSe configuration data for UE-to-network relay UE | | | Operator dependent | |
| '4F05' | | ProSe Direct Discovery Monitoring Radio Parameters | | | Operator dependent | |
| '4F05' | | 5G authentication keys | | | 'FF…FF' | |
| '4F05' | | 5G ProSe configuration data for remote UE | | | Operator dependent | |
| '4F06' | | ProSe Direct Discovery Announcing Radio Parameters | | | Operator dependent | |
| '4F06' | | UAC Access Identities Configuration | | | Operator dependent | |
| '4F07' | | ProSe Policy Parameters | | | Operator dependent | |
| '4F07' | | Subscriber Concealed Identifier Calculation Information | | | Operator dependent | |
| '4F08' | | 5GS Operator PLMN List | | | Operator dependent | |
| '4F08' | | ProSe PLMN Parameters | | | Operator dependent | |
| '4F09' | | SUPI as Network Access Identifier | | | Operator dependent | |
| '4F09' | | ProSe Group Counter | | | 'FF…FF' | |
| '4F0A' | | Routing Indicator | | | 'F0FFFFFF' | |
| '4F0B' | | UE Route Selection Policies | | | Operator dependent | |
| '4F0C' | | Trusted non-3GPP Serving network name list | | | Operator dependent | |
| '4F0D' | | Pre-configured CAG information list | | | Operator dependent | |
| '4F0E' | | Steering of roaming connected mode control information | | | Operator dependent | |
| '4F0F' | | Disaster roaming information | | | Operator dependent | |
| '4F10' | | ProSe Service Table | | | Operator dependent | |
| ‘4F10' | 5GS eDRX Parameters | | | Operator dependent | | |
| '4F11' | ProSe UsageInformationReportingConfiguration | | | Operator dependent | | |
| '4F11' | 5G Non-Seamless WLAN Offload configuration | | | Operator dependent | | |
| '4F12' | ProSe Group Member Discovery Parameters | | | Operator dependent | | |
| '4F13' | ProSe Relay Parameters | | | Operator dependent | | |
| '4F14' | ProSe Relay Discovery Parameters | | | Operator dependent | | |
| '4F15' | Multiplier coefficient for Higher Priority PLMN search via NG-RAN satellite access | | | Operator dependent | | |
| ‘4F1y’ | KAUSF derivation configuration | | | Operator dependent | | |
| '4F20' | | Image data | | | '00FF...FF' | |
| '4F20' | | GSM Ciphering key Kc | | | 'FF...FF07' | |
| '4FXX' | | Image instance data files | | | 'FF…FF' | |
| '4FXX' | | ACDC OS Configuration | | | Operator dependent | |
| '4FXX' | | TV User Service Description | | | Operator dependent | |
| '4F21' | | ICE graphics | | | 'FF…FF' | |
| '4FXX' | | Unique identifier | | | '0000' | |
| '4F22' | | Phone book synchronisation counter | | | '00000000' | |
| '4F23' | | Change counter | | | '0000' | |
| '4F24' | | Previous unique identifier | | | '0000' | |
| '4F30' | | Phone book reference file | | | Operator dependent | |
| '4F30' | SoLSA Access Indicator | | | '00FF...FF' | | |
| '4F31' | SoLSA LSA List | | | 'FF...FF' | | |
| '4FXX' | LSA Descriptor files | | | 'FF…FF' | | |
| '4FXX' | | Capability configuration parameters 1 | | | 'FF…FF' | |
| '4F52' | | GPRS Ciphring key KcGPRS | | | 'FF...FF07' | |
| '4F63' | | CPBCCH Information | | | 'FF..FF' | |
| '4F64' | | Investigation PLMN scan | | | '00' | |
| '4FXX' | | E-mail addresses | | | 'FF…FF' | |
| '4FXX' | | Additional number alpha string | | | 'FF…FF' | |
| '4FXX' | | Second name entry | | | 'FF…FF' | |
| '4FXX' | | Abbreviated dialling numbers | | | 'FF...FF' | |
| '4FXX' | | Grouping file | | | '00…00' | |
| '4FXX' | | Grouping information alpha string | | | 'FF…FF' | |
| '4FXX' | | Phone book control | | | '0000' | |
| '4FXX' | | Index administration phone book | | | 'FF…FF' | |
| '4FXX' | | Additional number | | | 'FF…FF' | |
| '4FXX' | | Extension 1 | | | '00FF...FF' | |
| '4F41' | | Pseudonym | | | '0000FF…FF' | |
| '4F42' | | User Controlled PLMN selector for I-WLAN | | | 'FF…FF' | |
| '4F43' | | Operator Controlled PLMN selector for I-WLAN | | | Operator dependent | |
| '4F44' | | User Controlled WSID list | | | '00FF…FF' | |
| '4F45' | | Operator controlled WSID list | | | Operator dependent | |
| '4F46' | | WLAN Reauthentication Identity | | | 'FF…FF' | |
| '4F47' | | Home I-WLAN Specific Identifier List | | | Operator dependent | |
| '4F47' | | Multimedia Messages List | | | 'FF…FF' | |
| '4F48' | | I-WLAN Equivalent HPLMN Presentation Indication | | | Operator dependent | |
| '4F48' | | Multimedia Messages Data File | | | 'FF…FF' | |
| '4F49' | | I-WLAN HPLMN Indication | | | Operator dependent | |
| '4F4A' | | I-WLAN Last Registered PLMN | | | 'FFFFFF' | |
| '4F4B' | | HPLMN Direct Access Indicator | | | Operator dependent | |
| '4F81' | | Allowed CSG lists | | | Operator dependent | |
| '4F82' | | CSG Type | | | Operator dependent | |
| '4F83' | | HNB name | | | Operator dependent | |
| '4F84' | | Operator CSG lists | | | Operator dependent | |
| '4F85' | | Operator CSG Type | | | Operator dependent | |
| '4F86' | | Operator HNB name | | | Operator dependent | |
| '6F01' | | enhanced AKA support | | | Operator dependent | |
| '6F05' | | Language indication | | | 'FF…FF' | |
| '6F06' | | Access rule reference (under ADFUSIM and DFTELECOM) | | | Card issuer/operator dependent | |
| '6F07' | | IMSI | | | Operator dependent | |
| '6F08' | | Ciphering and integrity keys | | | '07FF…FF' | |
| '6F09' | | Ciphering and integrity keys for packet switched domain | | | '07FF…FF' | |
| '6F2C' | | De-personalization control keys | | | 'FF…FF' | |
| '6F31' | | Higher Priority PLMN search period | | | 'FF' | |
| '6F32' | | Co-operative network list | | | 'FF…FF' | |
| '6F37' | | ACM maximum value | | | '000000' (see note 1) | |
| '6F38' | | USIM service table | | | Operator dependent | |
| '6F39' | | Accumulated call meter | | | '000000' | |
| '6F3B' | | Fixed dialling numbers | | | 'FF...FF' | |
| '6F3C' | | Short messages | | | '00FF...FF' | |
| '6F3E' | | Group identifier level 1 | | | Operator dependent | |
| '6F3F' | | Group identifier level 2 | | | Operator dependent | |
| '6F40' | | MSISDN storage | | | 'FF...FF' | |
| '6F41' | | PUCT | | | 'FFFFFF0000' | |
| '6F42' | | SMS parameters | | | 'FF...FF' | |
| '6F43' | | SMS status | | | 'FF...FF' | |
| '6F45' | | CBMI | | | 'FF...FF' | |
| '6F46' | | Service provider name | | | Operator dependent | |
| '6F47' | | Short message status reports | | | '00FF…FF' | |
| '6F48' | | CBMID | | | 'FF...FF' | |
| '6F49' | | Service Dialling Numbers | | | 'FF...FF' | |
| '6F4B' | | Extension 2 | | | '00FF...FF' | |
| '6F4C' | | Extension 3 | | | '00FF...FF' | |
| '6F4D' | | Barred Dialling Numbers | | | 'FF...FF' | |
| '6F4E' | | Extension 5 | | | '00FF...FF' | |
| '6F4F' | | Capability configuration parameters 2 | | | 'FF...FF' | |
| '6F50' | | CBMIR | | | 'FF...FF' | |
| '6F54' | | SetUp Menu Elements | | | Operator dependent | |
| '6F55' | | Extension 4 | | | '00FF...FF' | |
| '6F56' | | Enabled services table | | | Operator dependent | |
| '6F57' | | Access point name control list | | | '00FF…FF' | |
| '6F58' | | Comparison method information | | | 'FF…FF' | |
| '6F5B' | | Initialisation value for Hyperframe number | | | 'F0 00 00 F0 00 00' | |
| '6F5C' | | Maximum value of START | | | Operator dependent | |
| '6F60' | | User controlled PLMN selector with Access Technology | | | 'FFFFFF0000..FFFFFF0000' | |
| '6F61' | | Operator controlled PLMN selector with Access Technology | | | 'FFFFFF0000..FFFFFF0000' | |
| '6F62' | | HPLMN selector with Access Technology | | | 'FFFFFF0000..FFFFFF0000' | |
| '6F73' | | Packet switched location information | | | 'FFFFFFFF FFFFFF xxxxxx 0000 FF 01' (see note 2) | |
| '6F78' | | Access control class | | | Operator dependent | |
| '6F7B' | | Forbidden PLMNs | | | 'FF...FF' | |
| '6F7E | | Location information | | | 'FFFFFFFF xxxxxx 0000 FF 01' (see note 2) | |
| '6F80' | | Incoming call information | | | 'FF…FF 000000 00 01FFFF' | |
| '6F81' | | Outgoing call information | | | 'FF…FF 000000 01FFFF' | |
| '6F82' | | Incoming call timer | | | '000000' | |
| '6F83' | | Outgoing call timer | | | '000000' | |
| '6FAD' | | Administrative data | | | Operator dependent | |
| '6FB1' | | Voice Group Call Service | | | Operator dependent | |
| '6FB2' | | Voice Group Call Service Status | | | Operator dependent | |
| '6FB3' | | Voice Broadcast Service | | | Operator dependent | |
| '6FB4' | | Voice Broadcast Service Status | | | Operator dependent | |
| '6FB5' | | EMLPP | | | Operator dependent | |
| '6FB6' | | AaeM | | | '00' | |
| '6FB7' | | Emergency call codes | | | Operator dependent | |
| '6FC3' | | Key for hidden phone book entries | | | 'FF…FF' | |
| '6FC4' | | Network Parameters | | | 'FF…FF' | |
| '6FC5' | | PLMN Network Name | | | Operator dependent | |
| '6FC6' | | Operator Network List | | | Operator dependent | |
| '6FC7' | | Mailbox Dialling Numbers | | | Operator dependent | |
| '6FC8' | | Extension 6 | | | '00 FF...FF' | |
| '6FC9' | | Mailbox Identifier | | | Operator dependent | |
| '6FCA' | | Message Waiting Indication Status | | | '00 00 00 00 00' | |
| '6FCB' | | Call Forwarding Indication Status | | | 'xx 00 FF...FF' | |
| '6FCC' | | Extension 7 | | | '00 FF...FF' | |
| '6FCD' | | Service Provider Display Information | | |  | |
| '6FCE' | MMS Notification | | | '00 00 00 FF…FF' | | |
| '6FCF' | Extension 8 | | | '00FF...FF' | | |
| '6FD0' | MMS Issuer Connectivity Parameters | | | 'FF…FF' | | |
| '6FD1' | MMS User Preferences | | | 'FF…FF' | | |
| '6FD2' | MMS User Connectivity Parameters | | | 'FF…FF' | | |
| '6FD3' | | | Network's Indication of Alerting (NIA) | | | 'FF...FF' | |
| '6FD4' | | | Voice Group Call Service Ciphering Algorithm | | | '00…00' | |
| '6FD5' | | | Voice Broadcast Service Ciphering Algorithm | | | '00…00' | |
| '6FD6' | | | GBA Bootstrapping parameters | | | 'FF…FF' | |
| '6FD7' | | | MBMS Service Keys List | | | 'FF…FF' | |
| '6FD8' | | | MBMS User Key | | | 'FF…FF' | |
| '6FD9' | | | EHPLMN | | | 'FF…FF' or xxxxxx (see Note 2) | |
| '6FDA' | | | GBA NAF List | | | 'FF…FF' | |
| '6FDB' | | | EHPLMN Presentation Indication | | | '00' | |
| '6FDC' | | | Last RPLMN Selection Indication | | | '00' | |
| '6FDD' | | | NAF Key Centre Address | | | 'FF…FF' | |
| '6FDE' | | | Service Provider Name Icon | | | '00 FF…FF' | |
| '6FDF' | | | PLMN Network Name Icon | | | '00 FF…FF' | |
| '6FE0' | | | In Case of Emergency – Dialling Number | | | Operator dependent | |
| '6FE1' | | | In Case of Emergency – Free Format | | | Operator dependent | |
| '6FE2' | | | Network Connectivity Parameters for UICC IP connections | | | Operator dependent | |
| '6FE3' | | | EPS location information | | | 'FFFFFFFFFFFFFFFFFFFFFFFF xxxxxx0000 01' (see note 2) | |
| '6FE4' | | | EPS NAS Security Context | | | 'FF…FF' | |
| '6FE5' | | | Public Service Identity of the SM-SC | | | Operator dependent | |
| '6FE6' | | | USAT Facility Control | | | '80 1E 60 C0 1E 90 00 80 04 00 00 00  00 00 00 00 00 F0 00 00 00 00 40 00  00 00 00 00 00 80' | |
| '6FE7' | | | UICC IARI | | | Operator dependent | |
| '6FE8' | | | Non Access Stratum Configuration | | | Operator dependent | |
| '6FE9' | | | UICC certificate | | | Card Issuer / Operator dependent | |
| '6FEA' | | | Relay Node ID | | | Operator dependent | |
| '6FEB' | | | Max value of Secure Channel counter | | | FF..FF | |
| '6FEC' | | | Public Warning System | | | Operator dependent | |
| '6FED' | | | FDN URI | | | 'FF…FF' | |
| '6FEE' | | | BDN URI | | | 'FF…FF' | |
| '6FEF' | | | SDN URI | | | 'FF…FF' | |
| '6FF0' | | | IMEI(SV) Allowed List | | | Operator dependent (at least 1 range of IMEI(SV) values) | |
| '6FF1' | | | IMEI(SV) Pairing Status | | | 'FF…FF' | |
| '6FF2' | | | IMEI(SV) Pairing Devices | | | 'FF…FF' | |
| '6FF3' | | | Home ePDG Identifier | | | 'FF…FF' | |
| '6FF4' | | | ePDG Selection Information | | | 'FF…FF' | |
| '6FF5' | | | Emergency ePDG Identifier | | | 'FF…FF' | |
| '6FF6' | | | ePDG Selection Information for Emergency Services | | | 'FF…FF' | |
| '6FF7' | | | From Preferred | | | '00' | |
| '6FF8' | | | IMSConfigData | | | Operator dependent | |
| '6FF9' | | | 3GPPPSDATAOFF | | | Operator dependent | |
| '6FFA' | | | 3GPPPSDATAOFFservicelist | | | Operator dependent | |
| '6FFB' | | | TV Configuration | | | Operator dependent | |
| '6FFC' | | | XCAP Configuration Data | | | Operator dependent | |
| '6FFD' | | | EARFCN list for MTC/NB-IOT UEs | | | Operator dependent | |
| '6FFE' | | | MuD and MiD Configuration Data | | | Operator dependent | |

NOTE 1: The value '000000' means that ACMmax is not valid, i.e. there is no restriction on the ACM. When assigning a value to ACMmax, care should be taken not to use values too close to the maximum possible value 'FFFFFF', because the INCREASE command does not update EFACM if the units to be added would exceed 'FFFFFF'. This could affect the call termination procedure of the Advice of Charge function.

NOTE 2: xxxxxx stands for any valid MCC and MNC, coded according to TS 24.008 [9].

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

# H.9 List of SFI Values at the DF 5GS Level

|  |  |  |
| --- | --- | --- |
| File Identification | SFI | Description |
| '4F01' | '01' | 5GS 3GPP location information (Note) |
| '4F02' | '02' | 5GS non-3GPP location information (Note) |
| '4F03' | '03' | 5GS 3GPP Access NAS Security Context |
| '4F04' | '04' | 5GS non-3GPP Access NAS Security Context |
| '4F05' | '05' | 5G authentication keys |
| '4F06' | '06' | UAC Access Identities Configuration |
| '4F07' | '07' | Subscriber Concealed Identifier Calculation Information |
| '4F08' | '08' | 5GS Operator PLMN List |
| '4F09' | '09' | SUPI as Network Access Identifier |
| '4F0A' | '0A' | Routing Indicator |
| '4F0B' | '0B' | UE Route Selection Policies |
| '4F0C' | '0C' | Trusted non-3GPP Serving network name list |
| '4F0D' | '0D' | Pre-configured CAG information list |
| '4F0E' | '0E' | Steering of roaming connected mode control information |
| '4F0F' | '0F' | Disaster roaming information |
| ‘4F10' | '10' | 5GS eDRX Parameters |
| '4F11' | '11' | 5G Non-Seamless WLAN Offload configuration |
| '4F15' | '12' | Multiplier coefficient for Higher Priority PLMN search via NG-RAN satellite access |
| '4F1y' | '1z' | KAUSF derivation configuration |
| NOTE: If EFIMSI is changed, the UICC should issue REFRESH as defined in 3GPP TS 31.111 [12] and update EF5GS3GPPLOCI and EF5GSN3GPPLOCI accordingly. | | |

All other SFI values are reserved for future use.

\*\*\* End changes \*\*\*