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Technical Specification

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Non-Access Stratum (NAS) configuration   
Management Object (MO)

(Release 18)

 

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# Foreword

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

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

Version x.y.z

where:

x the first digit:

1 presented to TSG for information;

2 presented to TSG for approval;

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y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

z the third digit is incremented when editorial only changes have been incorporated in the document.

# 1 Scope

The present document defines a Management Object (MO) that can be used to configure the UE with parameters related to Non-Access Stratum (NAS) functionality.

The MO is compatible with the OMA Device Management (DM) protocol specifications, version 1.2 and upwards, and is defined using the OMA DM Device Description Framework (DDF) as described in the Enabler Release Definition OMA-ERELD-DM-V1\_2 [2].

The MO consists of relevant parameters for NAS related configuration of a UE.

# 2 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] OMA-ERELD-DM-V1\_2: "Enabler Release Definition for OMA Device Management".

[3] 3GPP TS 23.122: "Non-Access-Stratum (NAS) functions related to Mobile Station (MS) in idle mode".

[4] 3GPP TS 24.008: "Mobile radio interface Layer 3 specification; Core network protocols; Stage 3".

[5] 3GPP TS 24.301: "Non-Access-Stratum (NAS) protocol for Evolved Packet System (EPS); Stage 3".

[5A] 3GPP TS 23.401: "GPRS enhancements for E-UTRAN access".

[6] 3GPP TS 31.102: "Characteristics of the USIM Application".

[7] 3GPP TS 31.111: "Universal Subscriber Identity Module (USIM) Application Toolkit (USAT)".

[8] 3GPP TS 36.101: "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception".

[9] 3GPP TS 23.032: "Universal Geographical Area Description (GAD)".

[10] 3GPP TS 36.304: "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode".

[11] 3GPP TS 24.501: "Non-Access-Stratum (NAS) protocol for 5G System (5GS); Stage 3".

[12] 3GPP TS 23.221: "Architectural requirements".

[13] 3GPP TS 23.003: "Numbering, addressing and identification".

[14] 3GPP TS 36.331: "Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC) protocol specification".

[15] 3GPP TS 38.331: "NR; Radio Resource Control (RRC); Protocol Specification".

[16] 3GPP TS 23.501: "System Architecture for the 5G System; Stage 2".

# 3 Definitions, symbols and abbreviations

## 3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TR 21.905 [1] apply.

**Reserved:** The value "reserved" is assigned to a code point to indicate that it is reserved for future use. The present document specifies no processing rules for handling of "reserved" value by the receiving entity.

For the purposes of the present document, the following terms and definitions given in 3GPP TS 23.122 [6] apply:

**EHPLMN**

**HPLMN**

**VPLMN**

For the purposes of the present document, the following terms and definitions given in 3GPP TS 23.501 [16] apply:

**Stand-alone Non-Public Network**

For the purposes of the present document, the following terms and definitions given in 3GPP TS 24.301 [5] apply:

**In NB-S1 mode**

For the purposes of the present document, the following terms and definitions given in 3GPP TS 23.221 [12] apply:

**Restricted Local Operator Services**

For the purposes of the present document, the following terms and definitions given in 3GPP TS 24.501 [11] apply:

**SNPN access operation mode**

**NSSAI inclusion mode**

## 3.2 Abbreviations

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

ACL Access Control List

DDF Device Description Framework

DM Device Management

EARFCN E-UTRA Absolute Radio Frequency Channel Number

MO Management Object

MTC Machine-Type Communications

NAS Non-Access Stratum

NB-IoT Narrowband IoT

NID Network Identifier

OMA Open Mobile Alliance

RLOS Restricted Local Operator Services

SENSE Signal level Enhanced Network Selection

SNPN Stand-alone Non-Public Network

# 4 NAS configuration MO

The NAS configuration MO is used to manage configuration parameters related to NAS functionality for a UE supporting provisioning of such information. The presence and format of the non-access stratum configuration file on the USIM is specified in 3GPP TS 31.102 [6].

The MO identifier is: urn:oma:mo:ext-3gpp-nas-config:1.0.

The OMA DM Access Control List (ACL) property mechanism (see OMA-ERELD-DM-V1\_2 [2]) may be used to grant or deny access rights to OMA DM servers in order to modify nodes and leaf objects of the NAS configuration MO.

The following nodes and leaf objects are possible in the NAS configuration MO as described in figure 4-1:



Figure 4-1: The NAS configuration Management Object (1 of 3)



Figure 4-2: The NAS configuration Management Object (2 of 3)



Figure 4-3: The NAS configuration Management Object (3 of 3)

# 5 NAS configuration MO parameters

## 5.1 General

This clause describes the parameters for the NAS configuration MO.

## 5.2 Node: *<X>*

This interior node acts as a placeholder for zero or one accounts for a fixed node.

- Occurrence: ZeroOrOne

- Format: node

- Access Types: Get

- Values: N/A

## 5.3 *<X>*/NAS\_SignallingPriority

The NAS\_SignallingPriority leaf indicates a NAS signalling priority which is used to determine the setting of the low priority indicator to be included in NAS messages as specified in 3GPP TS 24.008 [4] and 3GPP TS 24.301 [5].

- Occurrence: ZeroOrOne

- Format: int

- Access Types: Get, Replace

- Values: <NAS signalling priority>

Possible values for the NAS signalling priority are specified in table 5.3.1.

Table 5.3.1: Values of NAS\_SignallingPriority leaf

|  |  |
| --- | --- |
| Value | Description |
| 0 | Reserved |
| 1 | NAS signalling low priority |
| 2-255 | Reserved |

## 5.4 *<X>*/AttachWithIMSI

The AttachWithIMSI leaf indicates whether attach with IMSI is performed when moving to a non-equivalent PLMN as specified in 3GPP TS 24.008 [4] and 3GPP TS 24.301 [5].

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 Indicates that normal behaviour is applied.

1 Indicates that attach with IMSI is performed when moving to a non-equivalent PLMN.

The default value 0 applies if this leaf is not provisioned.

## 5.5 *<X>*/MinimumPeriodicSearchTimer

The MinimumPeriodicSearchTimer leaf gives a minimum value in minutes for the timer T controlling the periodic search for higher prioritized PLMNs as specified in 3GPP TS 23.122 [3].

- Occurrence: ZeroOrOne

- Format: int

- Access Types: Get, Replace

- Values: 0-255

The default value 0 applies if this leaf is not provisioned.

## 5.6 *<X>*/NMO\_I\_Behaviour

The NMO\_I\_Behaviour leaf indicates whether the "NMO I, Network Mode of Operation I" indication as specified in 3GPP TS 24.008 [4] is applied by the UE.

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 Indicates that the "NMO I, Network Mode of Operation I" indication is not used.

1 Indicates that the "NMO I, Network Mode of Operation I" indication is used, if available.

The default value 0 applies if this leaf is not provisioned.

## 5.7 *<X>*/Timer\_T3245\_Behaviour

The Timer\_T3245\_Behaviour leaf indicates whether the timer T3245 and the related functionality as specified in 3GPP TS 24.008 [4], 3GPP TS 24.301 [5] , and 3GPP TS 24.501 [11] is used by the UE.

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 Indicates that the timer T3245 is not used.

1 Indicates that the timer T3245 is used.

The default value 0 applies if this leaf is not provisioned.

## 5.8 *<X>*/ExtendedAccessBarring

The ExtendedAccessBarring leaf indicates whether the extended access barring is applicable for the UE as specified in 3GPP TS 24.008 [4] and 3GPP TS 24.301 [5].

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 Indicates that the extended access barring is not applied for the UE.

1 Indicates that the extended access barring is applied for the UE.

The default value 0 applies if this leaf is not provisioned.

## 5.9 *<X>*/Override\_NAS\_SignallingLowPriority

The Override\_NAS\_SignallingLowPriority leaf indicates whether the UE can override the NAS\_SignallingPriority leaf node configured to NAS signalling low priority.

The setting of the low priority indicator included in NAS messages when the Override\_NAS\_SignallingPriority leaf exists is specified in 3GPP TS 24.008 [4] and 3GPP TS 24.301 [5].

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 Indicates that the UE cannot override the NAS signalling low priority indicator

1 Indicates that the UE can override the NAS signalling low priority indicator

The default value 0 applies if this leaf is not provisioned.

If provisioned, this leaf is set to the same value as that provisioned for the Override\_ExtendedAccessBarring leaf, e.g., if the UE is configured to override the NAS signalling low access priority indicator, then UE is also configured to override extended access class barring (see 3GPP TS 23.401 [5A]).

## 5.10 *<X>*/Override\_ExtendedAccessBarring

The Override\_ExtendedAccessBarring leaf indicates whether the UE can override ExtendedAccessBarring leaf node configured to extended access barring.

The handling of extended access barring for the UE when the Override\_ExtendedAccessBarring leaf exists is specified in 3GPP TS 24.008 [4] and 3GPP TS 24.301 [5].

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 Indicates that the UE cannot override extended access barring

1 Indicates that the UE can override extended access barring

The default value 0 applies if this leaf is not provisioned.

If provisioned, this leaf is set to the same value as that provisioned for the Override\_NAS\_SignallingLowPriority leaf, e.g., if the UE is configured to override the NAS signalling low access priority indicator, then UE is also configured to override extended access class barring (see 3GPP TS 23.401 [5A]).

## 5.10a *<X>*/FastFirstHigherPriorityPLMNSearch

The FastFirstHigherPriorityPLMNSearch leaf indicates whether the UE performs the first search for a higher priority PLMN after at least 2 minutes and at most T minutes upon entering a VPLMN as specified in 3GPP TS 23.122 [3].

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 Indicates that the Fast First Higher Priority PLMN Search is disabled, see 3GPP TS 23.122 [3]

1 Indicates that the Fast First Higher Priority PLMN Search is enabled, see 3GPP TS 23.122 [3]

The default value 0 applies if this leaf is not provisioned.

## 5.10b *<X>*/EUTRADisablingAllowedForEMMCause15

The EUTRADisablingAllowedForEMMCause15 leaf indicates whether the UE is allowed to disable the E-UTRA capability when it receives the Extended EMM cause IE with value "E-UTRAN not allowed" as described in 3GPP TS 24.301 [5].

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 Indicates that "E-UTRA Disabling for EMM cause #15" is disabled, see 3GPP TS 24.301 [5]

1 Indicates that "E-UTRA Disabling for EMM cause #15" is enabled, see 3GPP TS 24.301 [5]

The default value 0 applies if this leaf is not provisioned.

## 5.10c *<X>*/SM\_RetryWaitTime

The SM\_RetryWaitTime leaf indicates a configured UE retry wait time value applicable when in HPLMN or EHPLMN (see 3GPP TS 23.122 [3]) for controlling the UE session management retry behaviour when prior session management request was rejected by the network with cause value #8, #27, #32, #33 as specified in 3GPP TS 24.008 [4] and 3GPP TS 24.301 [5], or when prior session management request was rejected by the network with cause value #8, #27, #32, #33, #70 as specified in 3GPP TS 24.501 [11].

- Occurrence: ZeroOrOne

- Format: int

- Access Types: Get, Replace

- Values: 0-255

The default value of 12 minutes applies if this leaf is not provisioned.

SM\_RetryWaitTime shall be coded in the same format as the value part of GPRS Timer 3 IE as specified in Table 10.5.163a/3GPP TS 24.008 [4] converted into a decimal value.

## 5.10d *<X>*/SM\_RetryAtRATChange

The SM\_RetryAtRATChange leaf indicates the UE's retry behaviour when in HPLMN or EHPLMN (see 3GPP TS 23.122 [3]) after inter-system change between S1 mode and A/Gb or Iu mode or N1 mode as specified in 3GPP TS 24.008 [4], 3GPP TS 24.301 [5] and 3GPP TS 24.501 [11].

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 Indicates that the UE is allowed to retry the corresponding ESM procedure in S1 mode if an SM procedure was rejected in A/Gb or Iu mode or a 5GSM procedure was rejected in N1 mode, and to retry the corresponding SM procedure in A/Gb or Iu mode or the corresponding 5GSM procedure in N1 mode if an ESM procedure was rejected in S1 mode, see 3GPP TS 24.008 [4], 3GPP TS 24.301 [5] and 3GPP TS 24.501 [11]

1 Indicates that the UE is not allowed to retry an SM procedure or the corresponding ESM procedure or the corresponding 5GSM procedure in any of the modes: A/Gb, Iu, S1 and N1 mode, see 3GPP TS 24.008 [4], 3GPP TS 24.301 [5] and 3GPP TS 24.501 [11]

The default value 0 applies if this leaf is not provisioned.

## 5.10e *<X>*/Default\_DCN\_ID

The Default\_DCN\_ID leaf indicates the default DCN-ID.

- Occurrence: ZeroOrOne

- Format: int

- Access Types: Get, Replace

- Values: 0-65535

Default\_DCN\_ID shall be coded as DCN-ID as specified in 3GPP TS 23.003 [5], converted into a decimal value.

## 5.10f /*<X>*/3GPP\_PS\_data\_off

The interior node contains configuration parameters for 3GPP PS data off.

- Occurrence: ZeroOrOne

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10g /*<X>*/3GPP\_PS\_data\_off/Exempted\_service\_list

The interior node contains one or more services which are exempted of 3GPP PS data off when the UE is in its HPLMN or EHPLMN. If the Exempted\_service\_list\_roaming node is not present, this list is also used when the UE is in the VPLMN.

- Occurrence: One

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10h Void

## 5.10i /*<X>*/3GPP\_PS\_data\_off/Exempted\_service\_list/Device\_management\_over\_PS

The Device\_management\_over\_PS leaf indicates whether Device management over PS is a 3GPP PS data off exempt service when the UE is in its HPLMN or EHPLMN.

- Occurrence: One

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 - Indicates that the device management over PS is not a 3GPP PS data off exempt service when the UE is in its HPLMN or EHPLMN.

1 - Indicates that the device management over PS is a 3GPP PS data off exempt service when the UE is in its HPLMN or EHPLMN.

## 5.10j /*<X>*/3GPP\_PS\_data\_off/Exempted\_service\_list/Bearer\_independent\_protocol

The Bearer\_independent\_protocol leaf indicates whether Bearer independent protocol is a 3GPP PS data off exempt service when the UE is in its HPLMN or EHPLMN.

- Occurrence: One

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 - Indicates that the bearer independent protocol is not a 3GPP PS data off exempt service when the UE is in its HPLMN or EHPLMN (see 3GPP TS 31.111 [7]).

1 - Indicates that the bearer independent protocol is a 3GPP PS data off exempt service when the UE is in its HPLMN or EHPLMN (see 3GPP TS 31.111 [7]).

## 5.10k *<X>*/ExceptionDataReportingAllowed

For the UE in NB-S1 mode, the ExceptionDataReportingAllowed leaf indicates whether the UE is allowed to use the RRC establishment cause mo-ExceptionData, as specified in 3GPP TS 24.301 [5].

For the UE in NB-N1 mode, the ExceptionDataReportingAllowed leaf indicates whether the UE is allowed to use the RRC establishment cause mo-ExceptionData, as specified in 3GPP TS 24.501 [11].

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 Indicates that the UE is not allowed to use the RRC establishment cause mo-ExceptionData.

1 Indicates that the UE is allowed to use the RRC establishment cause mo-ExceptionData.

If this leaf is not provisioned, the value of 0 is used.

## 5.10l /*<X>*/3GPP\_PS\_data\_off/Exempted\_service\_list\_roaming

The interior node contains one or more services which are exempted of 3GPP PS data off when the UE is in the VPLMN. If this node is not present, the Exempted\_service\_list is used when the UE is in the VPLMN.

- Occurrence: One

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10m /*<X>*/3GPP\_PS\_data\_off/Exempted\_service\_list\_roaming/Device\_management\_over\_PS

The Device\_management\_over\_PS leaf indicates whether Device management over PS is a 3GPP PS data off exempt service when the UE is in the VPLMN.

- Occurrence: One

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 - Indicates that the device management over PS is not a 3GPP PS data off exempt service when the UE is in the VPLMN.

1 - Indicates that the device management over PS is a 3GPP PS data off exempt service when the UE is in the VPLMN.

## 5.10n /*<X>*/3GPP\_PS\_data\_off/Exempted\_service\_list\_roaming/Bearer\_independent\_protocol

The Bearer\_independent\_protocol leaf indicates whether Bearer independent protocol is a 3GPP PS data off exempt service when the UE is in the VPLMN.

- Occurrence: One

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 - Indicates that the bearer independent protocol is not a 3GPP PS data off exempt service when the UE is in the VPLMN (see 3GPP TS 31.111 [7]).

1 - Indicates that the bearer independent protocol is a 3GPP PS data off exempt service when the UE is in the VPLMN (see 3GPP TS 31.111 [7]).

## 5.10nb /*<X>*/3GPP\_PS\_data\_off/Exempted\_service\_list\_non-subscribed\_SNPN

The interior node contains one or more services which are exempted of 3GPP PS data off when the UE with the selected PLMN subscription is in the non-subscribed SNPN.

- Occurrence: One

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10nc /*<X>*/3GPP\_PS\_data\_off/Exempted\_service\_list\_non-subscribed\_SNPN/Device\_management\_over\_PS

The Device\_management\_over\_PS leaf indicates whether device management over PS is a 3GPP PS data off exempt service when the UE with the selected PLMN subscription is in the non-subscribed SNPN.

- Occurrence: One

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 - Indicates that the device management over PS is not a 3GPP PS data off exempt service when the UE is in the non-subscribed SNPN.

1 - Indicates that the device management over PS is a 3GPP PS data off exempt service when the UE is in the non-subscribed SNPN.

## 5.10nd /*<X>*/3GPP\_PS\_data\_off/Exempted\_service\_list\_non-subscribed\_SNPN/Bearer\_independent\_protocol

The Bearer\_independent\_protocol leaf indicates whether bearer independent protocol is a 3GPP PS data off exempt service when the UE with the selected PLMN subscription is in the non-subscribed SNPN.

- Occurrence: One

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 - Indicates that the bearer independent protocol is not a 3GPP PS data off exempt service when the UE is in the non-subscribed SNPN (see 3GPP TS 31.111 [7]).

1 - Indicates that the bearer independent protocol is a 3GPP PS data off exempt service when the UE is in the non-subscribed SNPN (see 3GPP TS 31.111 [7]).

## 5.10o /*<X>*/EARFCNList

This interior node contains a list of EARFCNs configured to the UE for initial cell search of MTC carrier or NB-IoT carrier as specified in 3GPP TS 36.304 [10].

- Occurrence: ZeroOrOne

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10p /*<X>*/EARFCNList/<X>

This interior node acts as a placeholder for one or more EARFCNs and associated geographical area configured to the UE for initial cell search of MTC carrier or NB-IoT carrier as specified in 3GPP TS 36.304 [10].

- Occurrence: OneOrMore

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10q /*<X>*/EARFCNList/<X>/EARFCN

The EARFCN leaf contains an EARFCN configured to the UE for initial cell search of MTC carrier or NB-IoT carrier as specified in 3GPP TS 36.304 [10].

- Occurrence: One

- Format: chr

- Access Types: Get, Replace

- Values: <EARFCN>

The format of the EARFCN is defined by 3GPP TS 36.101 [8].

## 5.10r /*<X>*/EARFCNList/<X>/GeographicalArea

The GeographicalArea node acts as a placeholder for the geographical area associated with an EARFCN configured to the UE. The EARFCN is used by the UE for initial cell search of MTC carrier or NB-IoT carrier as specified in 3GPP TS 36.304 [10] when the UE is within the associated geographical area.

- Occurrence: One

- Format: Node

- Access Types: Get, Replace

- Values: N/A

## 5.10s /*<X>*/EARFCNList/<X>/GeographicalArea/Polygon

The Polygon node acts as a placeholder for polygon geographical area descriptions.

- Occurrence: ZeroOrOne

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10t /*<X>*/EARFCNList/<X>/GeographicalArea/Polygon/<X>

This interior node acts as a placeholder for one or more polygon geographical area descriptions.

- Occurrence: OneOrMore

- Format: node

- Access Types: Get, Replace

- Values: <N/A >

## 5.10u /*<X>*/EARFCNList/<X>/GeographicalArea/Polygon/<X>/ Coordinates

The Coordinates node acts as a placeholder for geographical coordinates outlining the borders of a polygon geographical area.

- Occurrence: One

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10v /*<X>*/EARFCNList/<X>/GeographicalArea/Polygon/<X>/ Coordinates/<X>

This interior node acts as a placeholder for one or more geographical coordinates.

- Occurrence: OneOrMore

- Format: node

- Access Types: Get, Replace

- Values: <N/A>

NOTE: The upper limit of 15 specified in 3GPP TS 23.032 [9] for the number of points in a polygon shape does not apply to the number of coordinates in a geographical area described as a polygon for initial cell search of MTC or NB-IoT carrier.

## 5.10w /*<X>*/EARFCNList/<X>/GeographicalArea/Polygon/<X>/ Coordinates/<X>/Latitude

The Latitude leaf contains the latitude of a geographical coordinate outlining the border of the polygon geographical area.

- Occurrence: One

- Format: bin

- Access Types: Get, Replace

- Values: <Latitude>

The Latitude is defined in clause 6.1 of 3GPP TS 23.032 [9].

## 5.10x /*<X>*/EARFCNList/<X>/GeographicalArea/Polygon/<X>/ Coordinates/<X>/Longitude

The Longitude leaf contains the longitude of a geographical coordinate outlining the border of the polygon geographical area.

- Occurrence: One

- Format: bin

- Access Types: Get, Replace

- Values: <Longitude>

The Longitude is defined in clause 6.1 of 3GPP TS 23.032 [9].

## 5.10y /*<X>*/RLOSPreferredPLMNList

This interior node contains a list of RLOS preferred PLMNs configured to the UE for selection of a PLMN offering access to RLOS as specified in 3GPP TS 23.122 [3].

- Occurrence: ZeroOrOne

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10z /*<X>*/RLOSPreferredPLMNList/<X>

This interior node acts as a placeholder for one or more RLOS preferred PLMNs configured to the UE for selection of a PLMN offering access to RLOS as specified in 3GPP TS 23.122 [3].

- Occurrence: OneOrMore

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10za /*<X>*/RLOSPreferredPLMNList/<X>/PLMN

The PLMN leaf indicates the PLMN code of the RLOS preferred PLMN.

- Occurrence: One

- Format: chr

- Access Types: Get, Replace

- Values: <PLMN>

The PLMN is in the format defined by 3GPP TS 23.003 [13], with each digit of the MCC and MNC encoded as an ASCII character.

## 5.10zb /*<X>*/RLOSPreferredPLMNList/<X>/PLMNPriority

The PLMNPriority leaf represents the priority of the RLOS preferred PLMN in the RLOS preferred PLMN list and is represented as a numerical value.

- Occurrence: One

- Format: int

- Access Types: Get, Replace

- Values: <PLMN Priority>

The UE shall treat the PLMN with the lowest PLMNPriority value as the PLMN having the highest priority. If the UE finds multiple PLMNs with the same priority, the choice of the PLMN is UE implementation specific.

## 5.10zc /*<X>*/MfgAssignUERadioCapId

This interior node contains a list of manufacturer-assigned UE radio capability IDs configured in the UE as an alternative for signalling the radio capabilities container as specified in 3GPP TS 24.501 [11].

- Occurrence: ZeroOrOne

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10zca /*<X>*/MfgAssignUERadioCapId/VendorID

The VendorID leaf contains the Vendor ID for the manufacturer-assigned UE radio capability IDs configured in the UE.

- Occurrence: One

- Format: chr

- Access Types: Get, Replace

- Values: <VendorID>

The format of the Vendor ID is defined by 3GPP TS 23.003 [13].

## 5.10zd /*<X>*/MfgAssignUERadioCapId/<X>

This interior node acts as a placeholder for one or more Radio Configuration Identifiers (RCI) which identifies the UE radio configuration for which the manufacturer-assigned UE radio capability IDis applicable as specified in 3GPP TS 23.003 [13].

- Occurrence: OneOrMore

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10ze /*<X>*/MfgAssignUERadioCapId/<X>/RCI

The RCI leaf contains the Radio Configuration Identifier (RCI) which identifies the UE radio configuration as specified in 3GPP TS 23.003 [13].

- Occurrence: One

- Format: chr

- Access Types: Get, Replace

- Values: <RCI>

The format of the RCI is defined by 3GPP TS 23.003 [13].

## 5.10zf /*<X>*/MfgAssignUERadioCapId/<X>/UERadioConfigLTE

The UERadioConfigLTE leaf contains the UE radio capabilities associated with the Radio Configuration Identifier (RCI), encoded as a binary string as specified in 3GPP TS 36.331 [14].

- Occurrence: ZeroOrOne

- Format: bin

- Access Types: Get, Replace

- Values: <UERadioConfigLTE>

The UERadioConfigLTE is defined as the *UE-CapabilityRAT-ContainerList* in clause 6.3.6 of 3GPP TS 36.331 [14].

## 5.10zg /*<X>*/MfgAssignUERadioCapId/<X>/UERadioConfigNR

The UERadioConfigNR leaf contains the UE radio capabilities associated with the Radio Configuration Identifier (RCI), encoded as a binary string as specified in 3GPP TS 38.331 [15].

- Occurrence: ZeroOrOne

- Format: bin

- Access Types: Get, Replace

- Values: <UERadioConfigNR>

The UERadioConfigNR is defined as the *UE-CapabilityRAT-ContainerList* in clause 6.3.3 of 3GPP TS 38.331 [15].

## 5.10zh /*<X>*/RLOSAllowedMCCList

This interior node contains a list of RLOS allowed MCCs configured to the UE for selection of a PLMN offering access to RLOS as specified in 3GPP TS 23.122 [3].

- Occurrence: ZeroOrOne

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10zi /*<X>*/RLOSAllowedMCCList/<X>

This interior node acts as a placeholder for one or more RLOS Allowed MCCs configured to the UE for selection of a PLMN offering access to RLOS as specified in 3GPP TS 23.122 [3].

- Occurrence: OneOrMore

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10zj /*<X>*/RLOSAllowedMCCList/<X>/MCC

The MCC leaf indicates the MCC value of the RLOS allowed MCC.

- Occurrence: One

- Format: chr

- Access Types: Get, Replace

- Values: <MCC>

The MCC is in the format defined by 3GPP TS 23.003 [13], with each digit of the MCC encoded as an ASCII character.

## 5.10zk /*<X>*/SNPN\_Configuration

This interior node contains configuration parameters regarding a UE operating in SNPN access operation mode.

- Occurrence: ZeroOrOne

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10zl /*<X>*/SNPN\_Configuration/<X>

This interior node acts as a placeholder for a list of:

1) SNPN identity;

2) configuration parameters regarding 3GPP PS data off for a UE which selected an entry of "list of subscriber data" with the subscribed SNPN identified by the SNPN identifier; and

3) configured UE retry wait time value for a UE which selected an entry of "list of subscriber data" with the subscribed SNPN identified by the SNPN identifier.

NOTE: For each of the elements in the list, 1) must be present and either 2), 3), or both needs to appear.

- Occurrence: OneOrMore

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10zm /*<X>*/SNPN\_Configuration/<X>/SNPN\_identifier

This leaf indicates the SNPN identity of the subscribed SNPN of an entry of "list of subscriber data", for which the 3GPP\_PS\_data\_off leaf or SM\_RetryWaitTime leaf is applicable.

- Occurrence: One

- Format: chr

- Access Types: Get, Replace

- Values: <PLMN><NID>

The PLMN and NID are in the format defined by 3GPP TS 23.003 [13], with each digit of the MCC and MNC of the PLMN and each digit of the assignment mode and NID value of the NID encoded as an ASCII character.

## 5.10zn /*<X>*/SNPN\_Configuration/<X>/3GPP\_PS\_data\_off

The interior node contains configuration parameters regarding 3GPP PS data off for a UE in the SNPN identified by the SNPN\_identifier leaf or a non-subscribed SNPN.

- Occurrence: ZeroOrOne

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10zo /*<X>*/SNPN\_Configuration/<X>/3GPP\_PS\_data\_off/Exempted\_service\_list

This interior node contains one or more services which are exempted of 3GPP PS data off when the UE is in the SNPN identified by the SNPN\_identifier leaf. If the Exempted\_service\_list\_non\_subscribed\_SNPN node is not present, this list is also used when the UE is in non-subscribed SNPN.

- Occurrence: One

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10zp /*<X>*/SNPN\_Configuration/<X>/3GPP\_PS\_data\_off/ Exempted\_service\_list/Device\_management\_over\_PS

This leaf indicates whether Device management over PS is a 3GPP PS data off exempt service when the UE is in the SNPN identified by the SNPN\_identifier leaf.

- Occurrence: One

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 - Indicates that the device management over PS is not a 3GPP PS data off exempt service when the UE is in the SNPN identified by the SNPN\_identifier leaf.

1 - Indicates that the device management over PS is a 3GPP PS data off exempt service when the UE is in the SNPN identified by the SNPN\_identifier leaf.

## 5.10zq /*<X>*/SNPN\_Configuration/<X>/3GPP\_PS\_data\_off/ Exempted\_service\_list/Bearer\_independent\_protocol

This leaf indicates whether Bearer independent protocol is a 3GPP PS data off exempt service when the UE is in the SNPN identified by the SNPN\_identifier leaf.

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 - Indicates that the bearer independent protocol is not a 3GPP PS data off exempt service when the UE is the SNPN identified by the SNPN\_identifier leaf (see 3GPP TS 31.111 [7]).

1 - Indicates that the bearer independent protocol is a 3GPP PS data off exempt service when the UE is the SNPN identified by the SNPN\_identifier leaf (see 3GPP TS 31.111 [7]).

## 5.10zr *<X>*/SNPN\_Configuration/<X>/SM\_RetryWaitTime

This leaf indicates a configured UE retry wait time value for a UE in the SNPN identified by the SNPN\_identifier leaf in order to control the UE session management retry behaviour when prior session management request was rejected by the network with cause value #8, #27, #32, #33, #70 as specified in 3GPP TS 24.501 [11].

- Occurrence: ZeroOrOne

- Format: int

- Access Types: Get, Replace

- Values: 0-255

SM\_RetryWaitTime shall be coded in the same format as the value part of GPRS Timer 3 IE as specified in table 10.5.163a/3GPP TS 24.008 [4] converted into a decimal value.

## 5.10zs *<X>*/SNPN\_Configuration/<X>/Timer\_T3245\_Behaviour

This leaf indicates whether the timer T3245 and the related functionality as specified in 3GPP TS 24.501 [11] is used by the UE operating in SNPN access operation mode.

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 Indicates that the timer T3245 is not used.

1 Indicates that the timer T3245 is used.

The default value 0 applies if this leaf is not provisioned.

## 5.10zt /*<X>*/SNPN\_Configuration/<X>/3GPP\_PS\_data\_off/ Exempted\_service\_list\_non\_subscribed\_SNPN

This interior node contains one or more services which are exempted of 3GPP PS data off when the UE is in a non-subscribed SNPN. If this node is not present, the Exempted\_service\_list is used when the UE is in the non-subscribed SNPN.

- Occurrence: ZeroOrOne

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10zu /*<X>*/SNPN\_Configuration/<X>/3GPP\_PS\_data\_off/ Exempted\_service\_list\_non\_subscribed\_SNPN/ Device\_management\_over\_PS

This leaf indicates whether Device management over PS is a 3GPP PS data off exempt service when the UE is in the non-subscribed SNPN.

- Occurrence: One

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 - Indicates that the device management over PS is not a 3GPP PS data off exempt service when the UE is in the non-subscribed SNPN.

1 - Indicates that the device management over PS is a 3GPP PS data off exempt service when the UE is in the non-subscribed SNPN.

## 5.10zv /*<X>*/SNPN\_Configuration/<X>/3GPP\_PS\_data\_off/ Exempted\_service\_list\_non\_subscribed\_SNPN/ Bearer\_independent\_protocol

This leaf indicates whether Bearer independent protocol is a 3GPP PS data off exempt service when the UE is in the non-subscribed SNPN.

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 - Indicates that the bearer independent protocol is not a 3GPP PS data off exempt service when the UE is in the non-subscribed SNPN (see 3GPP TS 31.111 [7]).

1 - Indicates that the bearer independent protocol is a 3GPP PS data off exempt service when the UE is in the non-subscribed SNPN (see 3GPP TS 31.111 [7]).

## 5.10zw *<X>*/NoEUTRADisablingIn5GS

The NoEUTRADisablingIn5GS leaf indicates whether No E-UTRA Disabling In 5GS is disabled or enabled. If No E-UTRA Disabling In 5GS is enabled, the UE shall not disable the E-UTRA capability upon starting timer T3402 when the attach attempt counter or tracking area updating attempt counter reaches 5 and the UE selects an NG-RAN cell.

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 Indicates that No E-UTRA Disabling In 5GS is disabled, see 3GPP TS 24.301 [5]

1 Indicates that No E-UTRA Disabling In 5GS is enabled, see 3GPP TS 24.301 [5]

The default value 0 applies if this leaf is not provisioned.

## 5.10zx /*<X>*/ Re\_enable\_N1\_upon\_reattach

This leaf indicates whether re-enabling N1 mode capability when performing re-attach in EPS is enabled or not. If re-enabling N1 mode capability when performing re-attach in EPS is enabled, the UE shall enable N1 mode capability for 3GPP access if it was previously disabled when receiving the DETACH REQUEST message and the detach type indicates "re-attach required" (see 3GPP TS 24.301 [5]).

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 - Indicates that re-enabling N1 mode capability when performing re-attach is disabled, see 3GPP TS 24.301 [5]

1 - Indicates that re-enabling N1 mode capability when performing re-attach is enabled, see 3GPP TS 24.301 [5]

The default value 0 applies if this leaf is not provisioned.

## 5.10zy /*<X>*/CustomLLFailureRetry

The interior node contains configuration parameters to enable the custom retry in case of lower layer failure to establish the RRC connection during an attach or tracking area updating procedure, see 3GPP TS 24.301 [5].

- Occurrence: ZeroOrOne

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.10zz /*<X>*/ CustomLLFailureRetry/MinRetryTimer

The MinRetyTimer leaf contains the minimum retry timer value in seconds for the lower layer failure to establish the RRC connection during an attach or tracking area updating procedure, see 3GPP TS 24.301 [5].

- Occurrence: One

- Format: int

- Access Types: Get, Replace

- Values: 1-255

## 5.10zz1 /*<X>*/ CustomLLFailureRetry/MaxRetryTimer

The MaxRetyTimer leaf contains the maximum retry timer value in seconds for the lower layer failure to establish the RRC connection during an attach or tracking area updating procedure, see 3GPP TS 24.301 [5].

- Occurrence: One

- Format: int

- Access Types: Get, Replace

- Values: 1-1024

## 5.10zz2 /*<X>*/ CustomLLFailureRetry/MaxMinRetry

The MaxMinRetry leaf contains the maximum number of allowed consecutive retries with MinRetryTimer for the lower layer failure to establish the RRC connection during an attach or tracking area updating procedure, see 3GPP TS 24.301 [5].

- Occurrence: One

- Format: int

- Access Types: Get, Replace

- Values: 1-20

## 5.10zz3 /*<X>*/UE\_using\_SENSE

This leaf indicates whether SENSE is used by the UE or not as specified in 3GPP TS 23.122 [3].

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 - Indicates that SENSE is not used by the UE.

1 - Indicates that SENSE is used by the UE.

If this leaf is not provisioned, the value of 0 is used.

## 5.10zz4 /*<X>*/DefaultNSSAIInclusionMode

This leaf indicates the default NSSAI inclusion mode pre-configured by the operatror when the UE is in its HPLMN or EHPLMN.

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 - Indicates that no pre-configured NSSAI inclusion mode by default.

1 - Indicates that the UE operates according to NSSAI inclusion mode C by default.

If this leaf is not provisioned, the value of 0 is used. The use of NSSAI inclusion mode is specified in 3GPP TS 24.501 [11].

## 5.11 *<X>*/Ext

The Ext is an interior node for where the vendor specific information about the NAS configuration MO is being placed (vendor meaning application vendor, device vendor etc.). Usually the vendor extension is identified by vendor specific name under the ext node. The tree structure under the vendor identifier is not defined and can therefore include one or more un-standardized sub-trees.

- Occurrence: ZeroOrOne

- Format: node

- Access Types: Get

- Values: N/A

Annex A (informative):  
NAS configuration MO DDF

This DDF is the standardized minimal set. A vendor can define its own DDF for the complete device. This DDF can include more features than this minimal standardized version.

<?xml version="1.0" encoding="UTF-8"?>

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"http://www.openmobilealliance.org/tech/DTD/dm\_ddf-v1\_2.dtd">

<MgmtTree>

<VerDTD>1.2</VerDTD>

<Man>--The device manufacturer--</Man>

<Mod>--The device model--</Mod>

<Node>

<NodeName/>

<DFProperties>

<AccessType>

<Get/>

</AccessType>

<Description>NAS configuration</Description>

<DFFormat>

<node/>

</DFFormat>

<Occurrence>

<ZeroOrOne/>

</Occurrence>

<DFTitle>The NAS configuration Management Object.</DFTitle>

<DFType>

<DDFName>urn:oma:mo:ext-3gpp-nas-config:1.0</DDFName>

</DFType>

</DFProperties>

<Node>

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<DFProperties>

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Annex B (informative):  
Change history

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Change history** | | | | | | | |
| **Date** | **TSG #** | **TSG Doc.** | **CR** | **Rev** | **Subject/Comment** | **Old** | **New** | |
| 2010-10 | CT1#67 |  |  |  | Includes the following contribution agreed by CT1:  C1-104202 |  | 0.1.0 | |
| 2010-11 | CT1#68 |  |  |  | Includes the following contribution agreed by CT1:  C1-105247 | 0.1.0 | 0.2.0 | |
| 2010-12 | CT#50 | CP-100719 |  |  | V1.0.0 created by MCC for presentation for information at CT-50 | 0.2.0 | 1.0.0 | |
| 2010-12 | CT#50 | CP-100888 |  |  | V1.0.1 TS-number added at CT#50 | 1.0.0 | 1.0.1 | |
| 2011-01 | CT1#69 |  |  |  | Includes the following contributions agreed by CT1:  C1-110073, C1-110308, C1-110484 | 1.0.1 | 1.1.0 | |
| 2011-02 | CT1#70 |  |  |  | Includes the following contributions agreed by CT1:  C1-110790; C1-111456 | 1.1.0 | 1.2.0 | |
| 2011-03 | CT-51 | CP-110153 |  |  | Version 2.0.0 created by MCC for presentation to CT-51 for approval | 1.2.0 | 2.0.0 | |
| 2011-03 | CT-51 |  |  |  | Version 10.0.0 created by MCC after approval at CT-51 | 2.0.0 | 10.0.0 | |
| 2011-06 | CT-52 | CP-110462 | 0001 | 1 | Reference to NAS configuration in USIM | 10.0.0 | 10.1.0 | |
| 2011-09 | CT-53 | CP-110695 | 0002 | 1 | Definition of reserved code point | 10.1.0 | 11.0.0 | |
| 2012-06 | CT-56 | CP-120315 | 0004 | 2 | Override Low Priority Configuration | 11.0.0 | 11.1.0 | |
| 2012-06 | CT-56 |  |  |  | Re-ordering of clauses of clause 5 | 11.1.0 | 11.1.1 | |
| 2012-09 | CT-57 | CP-120589 | 0006 |  | Correction on overriding configurations | 11.1.1 | 11.2.0 | |
| 2013-12 | CT-62 | CP-130762 | 0007 | 3 | Fast higher priority PLMN search upon entering VPLMN | 11.2.0 | 12.0.0 | |
| 2014-06 | CT-64 | CP-140331 | 0009 |  | Addition of configuration parameter for EMM cause #15 extension | 12.0.0 | 12.1.0 | |
| 2014-09 | CT-65 | CP-140643 | 0012 | 1 | "Override\_NAS\_SignallingLowPriority" and "Override\_ExtendedAccessBarring" linkage | 12.1.0 | 12.2.0 | |
| 2015-03 | CT-67 | CP-150069 | 0014 | 2 | Addition of UE retry configuration parameter to NAS MO | 12.2.0 | 12.3.0 | |
| 2015-06 | CT-68 | CP-150323 | 0017 | 1 | Correcting DDF to be valid XML document | 12.3.0 | 13.0.0 | |
| 2015-06 | CT-68 | CP-150329 | 0018 |  | Clarification to the applicability of the UE retry wait time value or behaviour | 12.3.0 | 13.0.0 | |
| 2015-09 | CT-69 | CP-150511 | 0020 |  | NAS MO figure | 13.0.0 | 13.1.0 | |
| 2015-12 | CT-70 | CP-150710 | 0021 | 1 | Setting of override EAB and override NSLP leaves | 13.1.0 | 13.2.0 | |
| 2016-06 | CT-72 | CP-160309 | 0022 | 6 | UE configuration for exceptional data reporting | 13.2.0 | 13.3.0 | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Change history** | | | | | | | |
| **Date** | **Meeting** | **TDoc** | **CR** | **Rev** | **Cat** | **Subject/Comment** | **New version** |
| 2016-12 | CT#74 | CP-160738 | 0023 | 2 | B | Addition of default standardized DCN-ID | 14.0.0 |
| 2017-03 | CT#75 | CP-170130 | 0024 | 4 | B | 3GPP PS data off configuration for non-SIP services | 14.1.0 |
| 2017-03 | CT#75 | CP-170122 | 0026 | 3 | F | Resolve DCN-ID length | 14.1.0 |
| 2017-06 | CT#76 | CP-171092 | 0028 |  | F | Correction on place of ExceptionDataReportingAllowed leaf | 14.2.0 |
| 2017-06 | CT#76 | CP-171085 | 0029 |  | F | Removal of editor's note [WI PS\_DATA\_OFF-CT CR#0024] on APN(s) list and associated packet filter(s) | 14.2.0 |
| 2017-06 | CT#76 | CP-171085 | 0030 | 1 | F | Removal of editor's note [WI PS\_DATA\_OFF-CT CR#0024] on the need of updating the DDF | 14.2.0 |
| 2018-06 | CT#80 | CP-181056 | 0031 | 2 | F | Remove default value of exempted BIP service | 14.3.0 |
| 2018-06 | CT#80 | CP-181056 | 0035 | 1 | F | Remove the default value of Device\_management\_over\_PS | 14.3.0 |
| 2018-06 | CT#80 | CP-181056 | 0036 | 2 | F | Correction to Exempted\_service\_list sub-tree | 14.3.0 |
| 2018-06 | CT#80 | CP-181076 | 0032 | 1 | F | Enabling pre-provisioning of EARFCNs and associated geographical areas for initial cell search of MTC carrier or NB-IOT carrier | 15.0.0 |
| 2018-06 | CT#80 | CP-181074 | 0033 | 3 | B | Enabling 3GPP PS data off in roaming-NAS MO | 15.0.0 |
| 2018-09 | CT#81 | CP-182156 | 0038 |  | F | Corrections for invalid DDF | 15.1.0 |
| 2019-03 | CT#83 | CP-190106 | 0040 | 1 | B | SINE\_5G: Inter-RAT retry restriction in 5GS | 16.0.0 |
| 2019-06 | CT#84 | CP-191144 | 0041 | 1 | B | Configuration of RLOS preferred PLMN list | 16.1.0 |
| 2019-09 | CT#85 | CP-192070 | 0043 | 2 | F | 5GSM cause #27 and #70 for NAS MO SM\_RetryWaitTime | 16.2.0 |
| 2019-09 | CT#85 | CP-192069 | 0044 | 1 | B | Provisioning of manufacturer-assigned UE radio capability ID to the UE | 16.2.0 |
| 2020-03 | CT#87e | CP-200125 | 0045 |  | C | Finalizing provisioning of manufacturer-assigned UE radio capability IDs at the UE | 16.3.0 |
| 2020-03 | CT#87e | CP-200124 | 0046 | 2 | B | NAS configuration for restriction on access to RLOS | 16.3.0 |
| 2020-03 | CT#87e | CP-200107 | 0048 | 1 | C | MO exception data reporting for NB-IoT in 5G | 16.3.0 |
| 2020-06 | CT#88e | CP-201100 | 0050 |  | F | Timer\_T3245\_Behaviour leaf applicable in 5GS | 16.4.0 |
| 2020-06 | CT#88e | CP-201135 | 0051 | 2 | B | Configuration parameters for a UE operating in SNPN access mode | 16.4.0 |
| 2020-09 | CT#89e | CP-202170 | 0052 |  | F | Timer\_T3245\_Behaviour for SNPN | 16.5.0 |
| 2021-03 | CT#91e | CP-210114 | 0053 | 2 | F | SNPN access operation mode | 16.6.0 |
| 2021-09 | CT#93e | CP-212157 | 0054 | 1 | B | Handling of T3402 to ensure IMS voice availability | 17.0.0 |
| 2021-12 | CT#94e | CP-213034 | 0055 | 1 | F | Correction of SNPN configuration | 17.1.0 |
| 2022-03 | CT#95e | CP-220259 | 0058 | - | F | Correction on noeutradisablingin5gs | 17.2.0 |
| 2022-03 | CT#95e | CP-220237 | 0059 | 1 | F | Configuration parameters for UEs supporting access to an SNPN using credentials from CH | 17.2.0 |
| 2022-03 | CT#95e | CP-220237 | 0060 | 1 | F | Configuration parameters for 3GPP PS data off and UE in non-subscribed SNPN | 17.2.0 |
| 2022-03 | CT#95e | CP-220248 | 0062 | 1 | F | Re-activate N1 mode capability upon re-attach procedure - Alt. 4 | 17.2.0 |
| 2022-06 | CT#96 | CP-221223 | 0061 | 2 | F | Allow configurable attach and TAU retries for some lower layer failures | 17.3.0 |
| 2022-12 | CT#98e | CP-223139 | 0065 | 2 | B | NAS configuration MO for using SENSE | 18.0.0 |
| 2023-03 | CT#99 | [CP-230249](https://portal.3gpp.org/ngppapp/CreateTdoc.aspx?mode=view&contributionUid=CP-230249) | 0066 | 1 | F | Updates to NAS Configuration MO for SENSE | 18.1.0 |
| 2023-03 | CT#99 | CP-231232 | 0068 | - | F | Correcting incorrect DDF | 18.2.0 |
| 2023-03 | CT#99 | CP-231217 | 0069 | 1 | F | Default NSSAI inclusion mode pre-configuration | 18.2.0 |