ETSI TS 124 368 V11.2.0 (2012-10)

Universal Mobile Telecommunications System (UMTS);
LTE;
Non-Access Stratum (NAS) configuration
Management Object (MO)
(3GPP TS 24.368 version 11.2.0 Release 11)

Reference
RTS/TSGC-0124368vb20

Keywords
LTE,UMTS

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Intellectual Property Rights

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

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

Foreword

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

The present document may refer to technical specifications or reports using their 3GPP identities, UMTS identities or GSM identities. These should be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between GSM, UMTS, 3GPP and ETSI identities can be found under http://webapp.etsi.org/key/queryform.asp.

Contents

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;
  - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

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".

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

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.

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

MO	Management Object
NAS	Non-Access Stratum
OMA	Open Mobile Alliance

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:

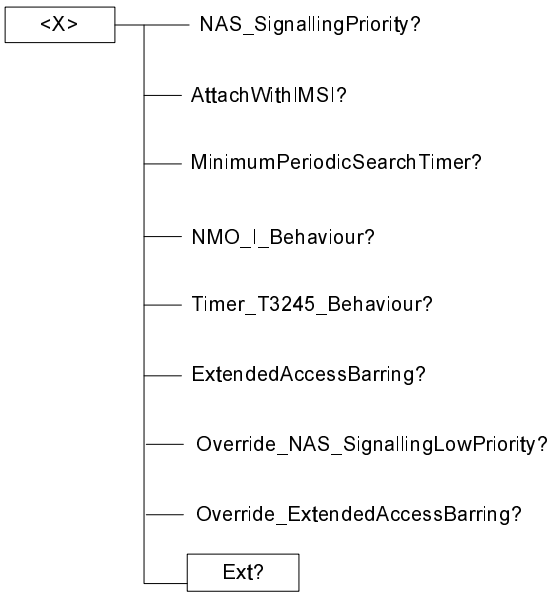

Figure 4-1: The NAS configuration Management Object

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] and 3GPP TS 24.301 [5] 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.

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.

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"?>
<!DOCTYPE MgmtTree PUBLIC "-//OMA//DTD-DM-DDF 1.2//EN"
"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>
            <NodeName>NAS_SignallingPriority</NodeName>
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                    <int/>
                </DFFormat>
                <Occurrence>
                    <ZeroOrOne/>
                </Occurrence>
                <DFTitle>NAS Signalling Priority.</DFTitle>
                <DFType>
                    <MIME>text/plain</MIME>
                </DFType>
            </DFProperties>
        </Node>

        <Node>
            <NodeName>AttachWithIMSI</NodeName>
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                    <bool/>
                </DFFormat>
                <Occurrence>
                    <ZeroOrOne/>
                </Occurrence>
                <DFTitle>Attach with IMSI.</DFTitle>
                <DFType>
                    <MIME>text/plain</MIME>
                </DFType>
            </DFProperties>
        </Node>
```

```
<Node>
    <NodeName>MinimumPeriodicSearchTimer</NodeName>
    <DFProperties>
        <AccessType>
            <Get/>
            <Replace/>
        </AccessType>
        <DFFormat>
            <int/>
        </DFFormat>
        <Occurrence>
            <ZeroOrOne/>
        </Occurrence>
        <DFTitle>Minimum periodic search timer.</DFTitle>
        <DFType>
            <MIME>text/plain</MIME>
        </DFType>
    </DFProperties>
</Node>

<Node>
    <NodeName>NMO_I_Behaviour</NodeName>
    <DFProperties>
        <AccessType>
            <Get/>
            <Replace/>
        </AccessType>
        <DFFormat>
            <bool/>
        </DFFormat>
        <Occurrence>
            <ZeroOrOne/>
        </Occurrence>
        <DFTitle>NMO I behaviour.</DFTitle>
        <DFType>
            <MIME>text/plain</MIME>
        </DFType>
    </DFProperties>
</Node>

<Node>
    <NodeName>Timer_T3245_Behaviour</NodeName>
    <DFProperties>
        <AccessType>
            <Get/>
            <Replace/>
        </AccessType>
        <DFFormat>
            <bool/>
        </DFFormat>
        <Occurrence>
            <ZeroOrOne/>
        </Occurrence>
        <DFTitle>Timer T3245 Behaviour.</DFTitle>
        <DFType>
            <MIME>text/plain</MIME>
        </DFType>
    </DFProperties>
</Node>

<Node>
    <NodeName>ExtendedAccessBarring</NodeName>
    <DFProperties>
        <AccessType>
            <Get/>
            <Replace/>
        </AccessType>
        <DFFormat>
            <bool/>
        </DFFormat>
        <Occurrence>
            <ZeroOrOne/>
        </Occurrence>
        <DFTitle>Extended Access Barring.</DFTitle>
        <DFType>
            <MIME>text/plain</MIME>
        </DFType>
```

```
            </DFProperties>
        </Node>

        <Node>
            <NodeName>Override_NAS_SignallingLowPriority>
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                    <bool/>
                </DFFormat>
                <Occurrence>
                    <ZeroOrOne/>
                </Occurrence>
                <DFTitle>Override NAS Signalling Low Priority.</DFTitle>
                <DFType>
                    <MIME>text/plain</MIME>
                </DFType>
            </DFProperties>
        </Node>


        <Node>
            <NodeName>Override_ExtendedAccessBarring>
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                    <bool/>
                </DFFormat>
                <Occurrence>
                    <ZeroOrOne/>
                </Occurrence>
                <DFTitle>Override ExtendedAccessBarring.</DFTitle>
                <DFType>
                    <MIME>text/plain</MIME>
                </DFType>
            </DFProperties>
        </Node>

        <Node>
            <NodeName>Ext</NodeName>
            <DFProperties>
                <AccessType>
                    <Get/>
                </AccessType>
                <DFFormat>
                    <node/>
                </DFFormat>
                <Occurrence>
                    <ZeroOrOne/>
                </Occurrence>
                <DFTitle>A collection of all extension objects.</DFTitle>
                <DFType>
                    <DDFName/>
                </DFType>
            </DFProperties>
        </Node>
    </Node>
</MgmtTree>
```

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 subclauses 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

History

Document history		
V11.2.0	October 2012	Publication