ETSI TS 124 333 V12.0.0 (2014-10)

Universal Mobile Telecommunications System (UMTS);
LTE;
Proximity-services Management Object (MO)
(3GPP TS 24.333 version 12.0.0 Release 12)

Reference
DTS/TSGC-0124333vc00

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.

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**may not**", "**need**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

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 Management Objects (MO) that are used to configure the ProSe-enabled UE.

The MOs are compatible with the OMA Device Management (DM) protocol specifications, version 1.2 and upwards, and are defined using the OMA DM Device Description Framework (DDF) as described in the Enabler Release Definition OMA-ERELD-DM-V1_2 [3].

The MOs consist of relevant parameters for provisioning and authorisation of ProSe at the ProSe-enabled UE.

The protocol aspects for ProSe are described in 3GPP TS 24.334 [4].

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] 3GPP TS 23.303: "Proximity-based Services (ProSe); Stage 2".

[3] OMA-ERELD-DM-V1_2: "Enabler Release Definition for OMA Device Management".

[4] 3GPP TS 24.334: "Proximity-services (ProSe) User Equipment (UE) to Proximity-services (ProSe) Function Protocol aspects; Stage 3".

[5] OMA-TS-DM_Protocol-V1_2: "OMA Device Management Protocol".

[6] 3GPP TS 23.003: "Numbering, addressing and identification".

[7] 3GPP TS 33.303: "Proximity-based Services (ProSe); Security aspects".

[8] IETF RFC 3927: "Dynamic Configuration of IPv4 Link-Local Addresses".

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] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

For the purposes of the present document, the following terms and definitions given in 3GPP TS 23.303 [2] apply:

ProSe Direct Discovery
ProSe-enabled UE

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].

DDF	Device Description Framework
DPF	Direct Services Provisioning Function
FQDN	Fully Qualified Domain Name
MO	Management Object
MSISDN	MS International PSTN/ISDN Number
ProSe	Proximity-based Services

4 ProSe Direct Services Provisioning MO

4.1 Overview

The ProSe Direct Services Provisioning MO is used to manage ProSe direct discovery authorisation and provisioning information for a ProSe-enabled UE.

The MO identifier is: urn:oma:mo:ext-3gpp-prose-direct-provisioning:1.0.

Editor"s note: This proposed MO identifier needs to be confirmed by OMA.

The UE may initiate the provision of all available information from the DPF, using a client-initiated session Alert message of code "Generic Alert" (see OMA-TS-DM_Protocol-V1_2 [5]). When requesting all available information from the DPF, the "Type" element of the OMA DM generic alert message shall be set to "urn:oma:mo:ext-3gpp-prose-direct-provisioning:1.0:provision", the "LocURI" element (inside the "Source" element) shall be set to the address of the DPF as specified by OMA-TS-DM_Protocol-V1_2 [5] and the "Data" element is not included.

The OMA DM Access Control List (ACL) property mechanism (see OMA-ERELD-DM-V1_2 [3]) may be used to grant or deny access rights to OMA DM servers in order to modify nodes and leaf objects of the ProSe Direct Services Provisioning MO.

The following nodes and leaf objects are possible in the ProSe Direct Services Provisioning MO as described in figure 4.1.1:

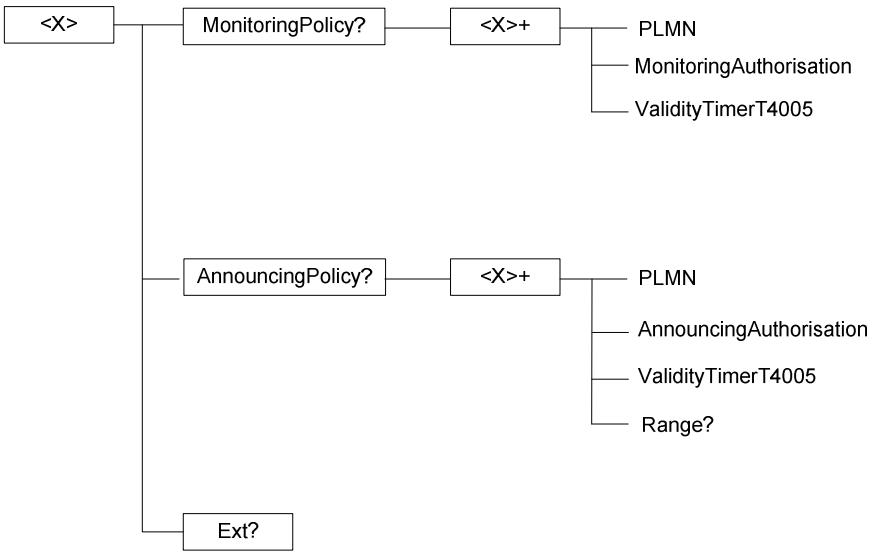

Figure 4.1.1: The ProSe Direct Services Provisioning Management Object

4.2 ProSe Direct Services Provisioning MO parameters

4.2.1 General

This subclause describes the parameters for the ProSe Direct Services Provisioning MO.

4.2.2 Node: <*X*>

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

- Occurrence: ZeroOrOne
- Format: node
- Access Types: Get
- Values: N/A

4.2.3 <*X*>/MonitoringPolicy

The MonitoringPolicy node acts as a placeholder for monitoring authorisation policy.

- Occurrence: ZeroOrOne
- Format: node
- Access Types: Get, Replace
- Values: N/A

4.2.4 <*X*>/MonitoringPolicy/<*X*>

This interior node acts as a placeholder for one or more monitoring authorisation policies.

- Occurrence: OneOrMore
- Format: node
- Access Types: Get, Replace
- Values: N/A

4.2.5 <*X*>/MonitoringPolicy/<*X*>/PLMN

The PLMN leaf indicates the PLMN code of the operator in which the monitoring authorisation policy applies.

- Occurrence: One
- Format: chr
- Access Types: Get, Replace
- Values: <PLMN>

The format of the PLMN is defined by 3GPP TS 23.003 [6].

NOTE: The UE is prohibited from performing ProSe direct discovery monitoring in any PLMN for which no monitoring authorisation policy is available.

4.2.6 <*X*>/MonitoringPolicy/<*X*>/MonitoringAuthorisation

The MonitoringAuthorisation leaf indicates whether the UE is pre-authorised or conditionally authorised to perform ProSe direct discovery monitoring in the PLMN in which this monitoring authorisation policy applies.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <MonitoringAuthorisation>

Possible values for the MonitoringAuthorisation are specified in table 4.2.6.1.

Table 4.2.6.1: Values of MonitoringAuthorisation leaf

Value	Description
0	Reserved
1	Pre-authorised. The UE is authorised by the HPLMN to perform ProSe direct discovery monitoring without contacting the ProSe Function in the PLMN in which this monitoring authorisation policy applies.
2	Conditionally authorised. The UE needs to contact the ProSe Function in the PLMN in which this monitoring authorisation policy applies to obtain authorisation to perform ProSe direct discovery monitoring.
3-255	Reserved

4.2.7 <*X*>/MonitoringPolicy/<*X*>/ValidityTimerT4005

The ValidityTimerT4005 leaf indicates in unit of minutes for how long this monitoring authorisation policy is valid.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: FFS

Editor"s note: The range of the validity timer T4005 is FFS.

4.2.8 <*X*>/AnnouncingPolicy

The AnnouncingPolicy node acts as a placeholder for announcing authorisation policy.

- Occurrence: ZeroOrOne
- Format: node
- Access Types: Get, Replace
- Values: N/A

4.2.9 <*X*>/AnnouncingPolicy/<*X*>

This interior node acts as a placeholder for one or more announcing authorisation policies.

- Occurrence: OneOrMore
- Format: node
- Access Types: Get, Replace
- Values: N/A

4.2.10 <*X*>/AnnouncingPolicy/<*X*>/PLMN

The PLMN leaf indicates the PLMN code of the operator in which the announcing authorisation policy applies.

- Occurrence: One
- Format: chr
- Access Types: Get, Replace
- Values: <PLMN>

The format of the PLMN is defined by 3GPP TS 23.003 [6].

NOTE: The UE is prohibited from performing ProSe direct discovery announcing in any PLMN for which no announcing authorisation policy is available.

4.2.11 <*X*>/AnnouncingPolicy/<*X*>/AnnouncingAuthorisation

The AnnouncingAuthorisation leaf indicates whether the UE is pre-authorised or conditionally authorised to perform ProSe direct discovery announcing in the PLMN in which this announcing authorisation policy applies.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <AnnouncingAuthorisation>

Possible values for the AnnouncingAuthorisation are specified in table 4.2.11.1.

Table 4.2.11.1: Values of AnnouncingAuthorisation leaf

Value	Description
0	Reserved
1	Pre-authorised. The UE is authorised by the HPLMN to perform ProSe direct discovery announcing without contacting the ProSe Function in the PLMN in which this announcing authorisation policy applies.
2	Conditionally authorised. The UE needs to contact the ProSe Function in the PLMN in which this announcing authorisation policy applies to obtain authorisation to perform ProSe direct discovery announcing.
3-255	Reserved

4.2.12 <*X*>/AnnouncingPolicy/<*X*>/ValidityTimerT4005

The ValidityTimerT4005 leaf indicates in unit of minutes for how long this announcing authorisation policy is valid.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: FFS

Editor"s note: The range of the validity timer T4005 is FFS.

4.2.13 <*X*>/AnnouncingPolicy/<*X*>/Range

The Range leaf indicates the authorised announcing range in the PLMN in which this announcing authorisation policy applies.

- Occurrence: ZeroOrOne
- Format: int
- Access Types: Get, Replace
- Values: <Range>

Possible values for the Range are specified in table 4.2.13.1.

Table 4.2.13.1: Values of Range leaf

Value	Description
0	Reserved
1	The maximum transmit power level authorised for announcing for ProSe direct discovery in the PLMN in which this announcing authorisation policy applies is set to: FFS.
2	The maximum transmit power level authorised for announcing for ProSe direct discovery in the PLMN in which this announcing authorisation policy applies is set to: FFS.
3	The maximum transmit power level authorised for announcing for ProSe direct discovery in the PLMN in which this announcing authorisation policy applies is set to: FFS.
4-255	Reserved

Editor"s note: The maximum transmit power level values need to be confirmed by RAN1.

4.2.14 <*X*>/Ext

The Ext is an interior node for where the vendor specific information about the ProSe Direct Services Provisioning 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

5 ProSe Public Safety Direct Services Provisioning MO

5.1 Overview

The ProSe Public Safety Direct Services Provisioning MO is used to manage ProSe direct discovery and ProSe direct communication authorisation and provisioning information for a ProSe-enabled public safety UE.

The MO identifier is: urn:oma:mo:ext-3gpp-prose-public-safety-direct-provisioning:1.0.

Editor"s note: This proposed MO identifier needs to be confirmed by OMA.

The UE may initiate the provision of all available information from the DPF, using a client-initiated session Alert message of code "Generic Alert" (see OMA-TS-DM_Protocol-V1_2 [5]). When requesting all available information from the DPF, the "Type" element of the OMA DM generic alert message shall be set to "urn:oma:mo:ext-3gpp-prose-public-safety-direct-provisioning:1.0:provision", the "LocURI" element (inside the "Source" element) shall be set to the address of the DPF as specified by OMA-TS-DM_Protocol-V1_2 [5] and the "Data" element is not included.

The OMA DM Access Control List (ACL) property mechanism (see OMA-ERELD-DM-V1_2 [3]) may be used to grant or deny access rights to OMA DM servers in order to modify nodes and leaf objects of the ProSe Public Safety Direct Services Provisioning MO.

The following nodes and leaf objects are possible in the ProSe Public Safety Direct Services Provisioning MO as described in figure 5.1.1:

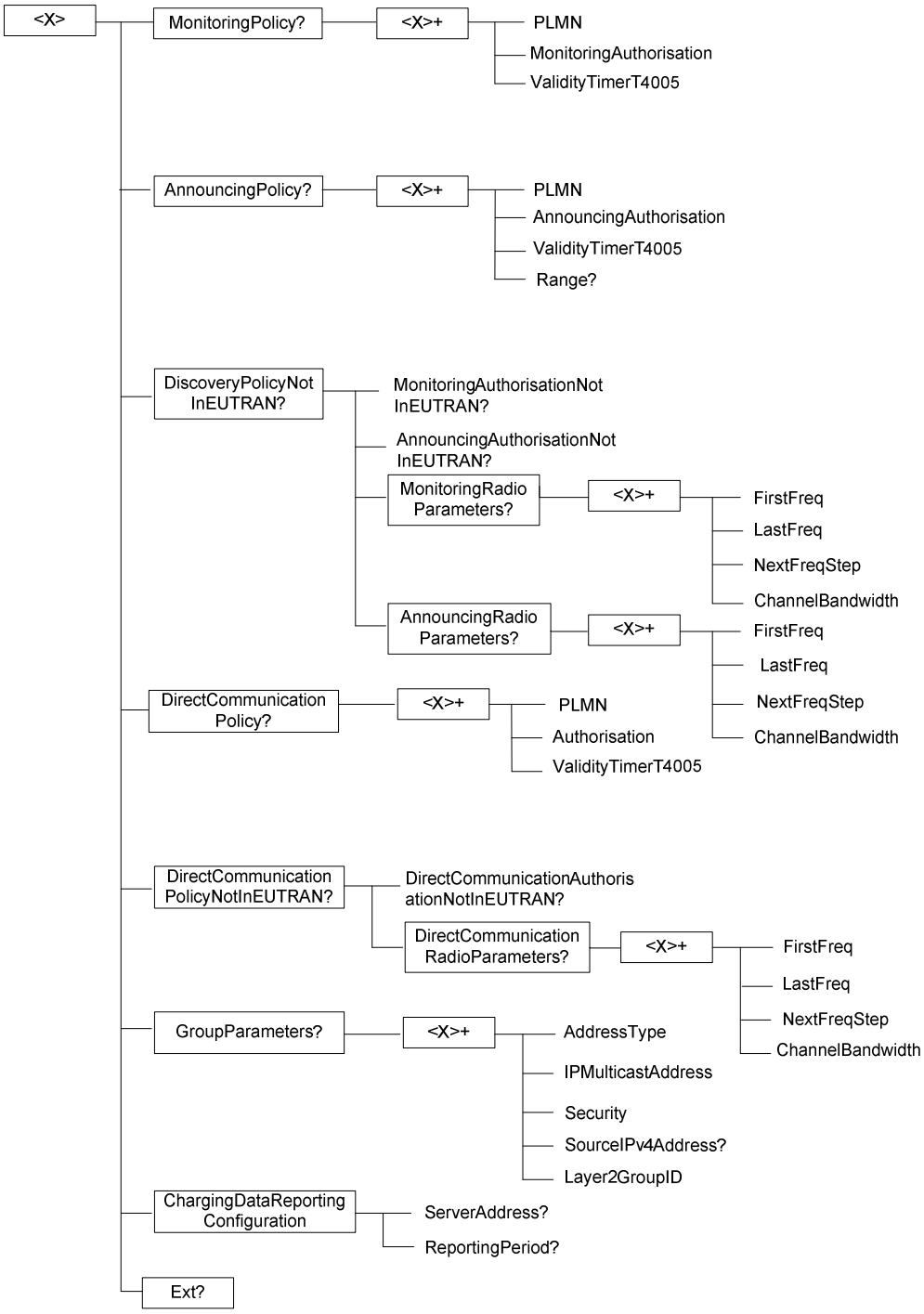

Figure 5.1.1: The ProSe Public Safety Direct Services Provisioning Management Object

5.2 ProSe Public Safety Direct Services Provisioning MO parameters

5.2.1 General

This clause describes the parameters for the ProSe Public Safety Direct Services Provisioning MO.

5.2.2 Node: <*X*>

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

- Occurrence: ZeroOrOne
- Format: node
- Access Types: Get
- Values: N/A

5.2.3 <*X*>/MonitoringPolicy

The MonitoringPolicy node acts as a placeholder for monitoring authorisation policy.

- Occurrence: ZeroOrOne
- Format: node
- Access Types: Get, Replace
- Values: N/A

5.2.4 <*X*>/MonitoringPolicy/<*X*>

This interior node acts as a placeholder for one or more monitoring authorisation policies.

- Occurrence: OneOrMore
- Format: node
- Access Types: Get, Replace
- Values: N/A

5.2.5 <*X*>/MonitoringPolicy/<*X*>/PLMN

The PLMN leaf indicates the PLMN code of the operator in which the monitoring authorisation policy applies.

- Occurrence: One
- Format: chr
- Access Types: Get, Replace
- Values: <PLMN>

The format of the PLMN is defined by 3GPP TS 23.003 [6].

NOTE: The UE is prohibited from performing ProSe direct discovery monitoring in any PLMN for which no monitoring authorisation policy is available.

5.2.6 <*X*>/MonitoringPolicy/<*X*>/MonitoringAuthorisation

The MonitoringAuthorisation leaf indicates whether the UE is pre-authorised or conditionally authorised to perform ProSe direct discovery monitoring in the PLMN in which this monitoring authorisation policy applies.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <MonitoringAuthorisation>

Possible values for the MonitoringAuthorisation are specified in table 5.2.6.1.

Table 5.2.6.1: Values of MonitoringAuthorisation leaf

Value	Description
0	Reserved
1	Pre-authorised. The UE is authorised by the HPLMN to perform ProSe public safety direct discovery monitoring without contacting the ProSe Function in the PLMN in which this monitoring authorisation policy applies.
2	Conditionally authorised. The UE needs to contact the ProSe Function in the PLMN in which this monitoring authorisation policy applies to obtain authorisation to perform ProSe public safety direct discovery monitoring.
3-255	Reserved

5.2.7 <*X*>/MonitoringPolicy/<*X*>/ValidityTimerT4005

The ValidityTimerT4005 leaf indicates in unit of minutes for how long this monitoring authorisation policy is valid.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: FFS

Editor"s note: The range of the validity timer T4005 is FFS.

5.2.8 <*X*>/AnnouncingPolicy

The AnnouncingPolicy node acts as a placeholder for announcing authorisation policy.

- Occurrence: ZeroOrOne
- Format: node
- Access Types: Get, Replace
- Values: N/A

5.2.9 <*X*>/AnnouncingPolicy/<*X*>

This interior node acts as a placeholder for one or more announcing authorisation policies.

- Occurrence: OneOrMore
- Format: node
- Access Types: Get, Replace
- Values: N/A

5.2.10 <*X*>/AnnouncingPolicy/<*X*>/PLMN

The PLMN leaf indicates the PLMN code of the operator in which the announcing authorisation policy applies.

- Occurrence: One
- Format: chr
- Access Types: Get, Replace
- Values: <PLMN>

The format of the PLMN is defined by 3GPP TS 23.003 [6].

NOTE: The UE is prohibited from performing ProSe direct discovery announcing in any PLMN for which no announcing authorisation policy is available.

5.2.11 <*X*>/AnnouncingPolicy/<*X*>/AnnouncingAuthorisation

The AnnouncingAuthorisation leaf indicates whether the UE is pre-authorised or conditionally authorised to perform ProSe direct discovery announcing in the PLMN in which this announcing authorisation policy applies.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <AnnouncingAuthorisation>

Possible values for the AnnouncingAuthorisation are specified in table 5.2.11.1.

Table 5.2.11.1: Values of AnnouncingAuthorisation leaf

Value	Description
0	Reserved
1	Pre-authorised. The UE is authorised by the HPLMN to perform ProSe public safety direct discovery announcing without contacting the ProSe Function in the PLMN in which this announcing authorisation policy applies.
2	Conditionally authorised. The UE needs to contact the ProSe Function in the PLMN in which this announcing authorisation policy applies to obtain authorisation to perform ProSe public safety direct discovery announcing.
3-255	Reserved

5.2.12 <*X*>/AnnouncingPolicy/<*X*>/ValidityTimerT4005

The ValidityTimerT4005 leaf indicates in unit of minutes for how long this announcing authorisation policy is valid.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: FFS

Editor"s note: The range of the validity timer T4005 is FFS.

5.2.13 <*X*>/AnnouncingPolicy/<*X*>/Range

The Range leaf indicates the authorised announcing range in the PLMN in which this announcing authorisation policy applies.

- Occurrence: ZeroOrOne
- Format: int
- Access Types: Get, Replace
- Values: <Range>

Possible values for the Range are specified in table 5.2.13.1.

Table 5.2.13.1: Values of Range leaf

Value	Description
0	Reserved
1	The maximum transmit power level authorised for announcing ProSe public safety direct discovery in the PLMN in which this announcing authorisation policy applies is set to: FFS.
2	The maximum transmit power level authorised for announcing ProSe public safety direct discovery in the PLMN in which this announcing authorisation policy applies is set to: FFS.
3	The maximum transmit power level authorised for announcing ProSe public safety direct discovery in the PLMN in which this announcing authorisation policy applies is set to: FFS
4-255	Reserved

5.2.14 <*X*>/DiscoveryPolicyNotInEUTRAN

The DiscoveryPolicyNotInEUTRAN node acts as a placeholder for the description of the direct discovery authorisation when the UE is not served by E-UTRAN.

- Occurrence: ZeroOrOne
- Format: node
- Access Types: Get, Replace
- Values: N/A

5.2.15 <*X*>/DiscoveryPolicyNotInEUTRAN/MonitoringAuthorisationNotInEUTRAN

The DiscoveryAuthorisationNotInEUTRAN leaf indicates whether the UE is authorised to perform ProSe direct discovery monitoring when not served by E-UTRAN.

- Occurrence: ZeroOrOne
- Format: bool
- Access Types: Get, Replace
- Values: 0, 1

  0 Indicates that the UE is not authorised to perform ProSe direct discovery monitoring when not served by E-UTRAN.

  1 Indicates that the UE is authorised to perform ProSe direct discovery monitoring when not served by E-UTRAN.

5.2.16 <*X*>/DiscoveryPolicyNotInEUTRAN/AnnouncingAuthorisationNotInEUTRAN

The DiscoveryAuthorisationNotInEUTRAN leaf indicates whether the UE is authorised to perform ProSe direct discovery announcing when not served by E-UTRAN.

- Occurrence: ZeroOrOne
- Format: bool
- Access Types: Get, Replace
- Values: 0, 1

  0 Indicates that the UE is not authorised to perform ProSe direct discovery announcing when not served by E-UTRAN.

  1 Indicates that the UE is authorised to perform ProSe direct discovery announcing when not served by E-UTRAN.

5.2.17 <*X*>/DiscoveryPolicyNotInEUTRAN/MonitoringRadioParameters

The RadioParameters note acts as a placeholder for the radio parameter information needed for the UE to perform ProSe direct discovery monitoring when the UE is not served by E-UTRAN.

- Occurrence: ZeroOrMore
- Format: node
- Access Types: Get, Replace
- Values: N/A

Editor"s note: The type and structure of the radio parameters needed for the UE to perform ProSe direct discovery monitoring when the UE is not served by E-UTRAN needs to be confirmed by RAN2 and possibly RAN1.

5.2.18 <*X*>/DiscoveryPolicyNotInEUTRAN/MonitoringRadioParameters/<X>

This interior node acts as a place holder for one or more set of radio parameters needed for the UE to perform ProSe direct discovery monitoring when the UE is not served by E-UTRAN.

- Occurrence: OneOrMore
- Format: node
- Access Types: Get, Replace
- Values: <N/A>

5.2.19 <*X*>/DiscoveryPolicyNotInEUTRAN/MonitoringRadioParameters/<*X*>/FirstFreq

The FirstFreq leaf specifies the first center frequency in KHz for this channel.

- Occurrence: One

- Format: int
- Access Types: Get, Replace
- Values: <FirstFreq>

5.2.20 <*X*>/DiscoveryPolicyNotInEUTRAN/MonitoringRadioParameters/<*X*>/LastFreq

The LastFreq leaf specifies the last center frequency in KHz for this channel. If this value equals to the FirstFreq or the leaf node is omitted, then this entry refers to a single channel rather than a channel range. If this field is present then NextFreqStep shall be present as well.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <LastFreq>

5.2.21 <*X*>/DiscoveryPolicyNotInEUTRAN/MonitoringRadioParameters/<*X*>/NextFreqStep

The NextFreqStep leaf defines the frequency step in KHz to reach the next central frequency when defining the frequency range using FirstFreq and LastFreq.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <NextFreqStep>

When this leaf node is omitted there is only one central frequency (i.e FirstFreq). If this field is present LastFreq shall be present as well. The formula to calculate the next central frequency is:

CurrentFreq = FirstFreq

While (CurrentFreq <= LastFreq) CurrentFreq = CurrentFreq + NextFreqStep

5.2.22 <*X*>/DiscoveryPolicyNotInEUTRAN/MonitoringRadioParameters/<X>/ChannelBandwidth

The ChannelBandwidth leaf is the system bandwith in KHz that is supported by the public safety network.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <ChannelBandwidth>

5.2.23 <*X*>/DiscoveryPolicyNotInEUTRAN/AnnouncingRadioParameters

The RadioParameters note acts as a placeholder for the radio parameter information needed for the UE to perform ProSe direct discovery announcing when the UE is not served by E-UTRAN.

- Occurrence: ZeroOrMore
- Format: node
- Access Types: Get, Replace
- Values: N/A

Editor"s note: The nature and structure of the radio parameters needed for the UE to perform ProSe direct discovery announcing when the UE is not served by E-UTRAN needs to be confirmed by RAN2 and possibly RAN1.

5.2.24 <*X*>/DiscoveryPolicyNotInEUTRAN/AnnouncingRadioParameters/<X>

This interior node acts as a place holder for one or more set of radio parameters needed for the UE to perform ProSe direct discovery annoucing when the UE is not served by E-UTRAN.

- Occurrence: OneOrMore
- Format: node
- Access Types: Get, Replace
- Values: <N/A>

5.2.25 <*X*>/DiscoveryPolicyNotInEUTRAN/AnnouncingRadioParameters/<*X*>/FirstFreq

The FirstFreq leaf specifies the first center frequency in KHz for this channel.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <FirstFreq>

5.2.26 <*X*>/DiscoveryPolicyNotInEUTRAN/AnnouncingRadioParameters/<*X*>/LastFreq

The LastFreq leaf specifies the last center frequency in KHz for this channel. If this value equals to the FirstFreq or the leaf node is omitted, then this entry refers to a single channel rather than a channel range. If this field is present then NextFreqStep shall be present as well.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <LastFreq>

5.2.27 <*X*>/DiscoveryPolicyNotInEUTRAN/AnnouncingRadioParameters/<*X*>/NextFreqStep

The NextFreqStep leaf defines the frequency step in KHz to reach the next central frequency when defining the frequency range using FirstFreq and LastFreq.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <NextFreqStep>

When this leaf node is omitted there is only one central frequency (i.e FirstFreq). If this field is present LastFreq shall be present as well. The formula to calculate the next central frequency is:

CurrentFreq = FirstFreq

While (CurrentFreq <= LastFreq) CurrentFreq = CurrentFreq + NextFreqStep

5.2.28 <*X*>/DiscoveryPolicyNotInEUTRAN/AnnouncingRadioParameters/<X>/ChannelBandwidth

The ChannelBandwidth leaf is the system bandwith in KHz that is supported by the public safety network.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <ChannelBandwidth>

5.2.29 <*X*>/DirectCommunicationPolicy

The DirectCommunicationPolicy node acts as a placeholder for ProSe direct communciation authorisation policy.

- Occurrence: ZeroOrOne
- Format: node
- Access Types: Get, Replace
- Values: N/A

5.2.30 <*X*>/DirectCommunicationPolicy/<*X*>

This interior node acts as a placeholder for one or more ProSe direct communication authorisation policies.

- Occurrence: OneOrMore
- Format: node
- Access Types: Get, Replace
- Values: N/A

5.2.31 <*X*>/DirectCommunicationPolicy/<*X*>/PLMN

The PLMN leaf indicates the PLMN code of the operator in which the ProSe direct communication authorisation policy applies.

- Occurrence: One
- Format: chr
- Access Types: Get, Replace
- Values: <PLMN>

The format of the PLMN is defined by 3GPP TS 23.003 [6].

NOTE: The UE is prohibited from performing ProSe direct communication in any PLMN for which no monitoring authorisation policy is available.

5.2.32 <*X*>/DirectCommunicationPolicy/<*X*>/Authorisation

The MonitoringAuthorisation leaf indicates whether the UE is pre-authorised or conditionally authorised to perform ProSe direct communication in the PLMN in which this authorisation policy applies.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <Authorisation>

Possible values for the Authorisation are specified in table 5.2.32.1.

Table 5.2.32.1: Values of MonitoringAuthorisation leaf

Value	Description
0	Reserved
1	Pre-authorised. The UE is authorised by the HPLMN to perform one-to-many ProSe public safety direct communication without contacting the ProSe Function in the PLMN in which this authorisation policy applies.
2	Conditionally authorised. The UE needs to contact the ProSe Function in the PLMN in which this authorisation policy applies to obtain authorisation to perform one-to-may ProSe public safety direct communication.
3-255	Reserved

5.2.33 <*X*>/DirectCommunicationPolicy/<*X*>/ValidityTimerT4005

The ValidityTimerT4005 leaf indicates in unit of minutes for how long this authorisation policy is valid.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: FFS

Editor"s note: The range of the validity timer T4005 is FFS.

5.2.34 <*X*>/DirectCommunicationPolicyNotInEUTRAN

The DirectCommunicationPolicyNotInEUTRAN node acts as a placeholder for the description of the direct communication authorisation when the UE is not served by E-UTRAN.

- Occurrence: ZeroOrOne
- Format: node
- Access Types: Get, Replace
- Values: N/A

5.2.35 <*X*>/DirectCommunicationPolicyNotInEUTRAN/DirectCommunicationAuthorisationNotInEUTRAN

The DirectCommunicationAuthorisationNotInEUTRAN leaf indicates whether the UE is authorised to perform ProSe direct communication when not served by E-UTRAN.

- Occurrence: ZeroOrOne
- Format: bool
- Access Types: Get, Replace
- Values: 0, 1

  0 Indicates that the UE is not authorised to perform ProSe direct communication when not served by E-UTRAN.

  1 Indicates that the UE is authorised to perform ProSe direct communication when not served by E-UTRAN.

5.2.36 <*X*>/DirectCommunicationPolicyNotInEUTRAN/DirectCommunicationRadioParameters

The DirectCommunicationRadioParameters node acts as a placeholder for the radio parameter information needed for the UE to perform ProSe direct communication when the UE is not served by E-UTRAN.

- Occurrence: ZeroOrMore
- Format: node
- Access Types: Get, Replace
- Values: N/A

Editor"s note: The nature and structure of the radio parameters needed for the UE to perform ProSe direct communication when the UE is not served by E-UTRAN needs to be confirmed by RAN2 and possibly RAN1.

5.2.37 <*X*>/DirectCommunicationPolicyNotInEUTRAN/DirectCommunicationRadioParameters/<X>

This interior node acts as a place holder for one or more set of radio parameters needed for the UE to perform ProSe direct communication when the UE is not served by E-UTRAN.

- Occurrence: OneOrMore
- Format: node
- Access Types: Get, Replace
- Values: <N/A>

5.2.38 <*X*>/DirectCommunicationPolicyNotInEUTRAN/DirectCommunicationRadioParameters/<*X*>/FirstFreq

The FirstFreq leaf specifies the first center frequency in KHz for this channel.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <FirstFreq>

5.2.39 <*X*>/DirectCommunicationPolicyNotInEUTRAN/DirectCommunicationRadioParameters/<*X*>/LastFreq

The LastFreq leaf specifies the last center frequency in KHz for this channel. If this value equals to the FirstFreq or the leaf node is omitted, then this entry refers to a single channel rather than a channel range. If this field is present then NextFreqStep shall be present as well.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <LastFreq>

5.2.40 <*X*>/DirectCommunicationPolicyNotInEUTRAN/DirectCommunicationRadioParameters/<*X*>/NextFreqStep

The NextFreqStep leaf defines the frequency step in KHz to reach the next central frequency when defining the frequency range using FirstFreq and LastFreq.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <NextFreqStep>

When this leaf node is omitted there is only one central frequency (i.e FirstFreq). If this field is present LastFreq shall be present as well. The formula to calculate the next central frequency is:

CurrentFreq = FirstFreq

While (CurrentFreq <= LastFreq) CurrentFreq = CurrentFreq + NextFreqStep

5.2.41 <*X*>/DirectCommunicationPolicyNotInEUTRAN/DirectCommunicationRadioParameters/<X>/ChannelBandwidth

The ChannelBandwidth leaf is the system bandwith in KHz that is supported by the public safety network.

- Occurrence: One

- Format: int
- Access Types: Get, Replace
- Values: <ChannelBandwidth>

5.2.42 <*X*>/GroupParameters

The GroupParameters node acts as a placeholder for ProSe direct communciation group parameters.

- Occurrence: ZeroOrOne
- Format: node
- Access Types: Get, Replace
- Values: N/A

5.2.43 <*X*>/GroupParameters/<*X*>

This interior node acts as a placeholder for one or more set of group parameters for ProSe direct communication.

- Occurrence: OneOrMore
- Format: node
- Access Types: Get, Replace
- Values: N/A

5.2.44 <*X*>/GroupParameters/<*X*>/ AddressType

The AddressType leaf indicates the IP version of the addresses described by the IPMulticastAddress leaf.

- Occurrence: One
- Format: chr
- Access Types: Get, Replace
- Values: 'IPv4', 'IPv6'

5.2.45 <*X*>/GroupParameters/<*X*>/ IPMulticastAddress

The IPMulticastAddress leaf indicates the IP multicast address to be used for performing ProSe direct communication.

- Occurrence: One
- Format: chr
- Access Types: Get, Replace
- Values: <an IPv4 address>, <an IPv6 address>.

The value of this leaf is an IPv4 address if the AddressType leaf value of the same rule is equal to "IPv4". The value of this leaf is an IPv6 address if the AddressType leaf value of the same rule is equal to "IPv6".

5.2.46 <*X*>/GroupParameters/<*X*>/Security

The Security leaf contains group security related content for one-to-many ProSe Direct Communication (see 3GPP TS 33.303 [7]).

Editor"s note: The type and the structure of the group security related content needs to be defined by SA3.

5.2.47 <*X*>/GroupParameters/<*X*>/SourceIPv4address

The SourceIPv4address leaf indicates the IP source address of the IP address to be used by the UE as a source address. If none is provisioned, then the UE shall use Dynamic Configuration of IPv4 Link-Local Addresses IETF RFC 3927 [8] to obtain a link local address for the Group. The source address refers to the IP address of the data packets destined for the UE.

- Occurrence: ZeroOrOne
- Format: chr
- Access Types: Get, Replace
- Values: <an IPv4 address>, <an IPv6 address>.

The value of this leaf is an IPv4 address.

The absence of this leaf indicates that the UE shall use Dynamic Configuration of IPv4 Link-Local Addresses IETF RFC 3927 [8] to obtain a link local address for the group.

5.2.48 <*X*>/GroupParameters/<*X*>/Layer2GroupID

The Layer2GroupID leaf indicates the group ID to be used at layer 2 for performing ProSe direct communication.

- Occurrence: One
- Format: chr
- Access Types: Get, Replace
- Values: <Group ID>

5.2.49 <*X*>/ChargingDataReportingConfiguration

The ChargingDataReportingConfiguration node acts as a placeholder for the description of the configuration to be used by the UE for reporting of charging data.

- Occurrence: ZeroOrOne
- Format: node
- Access Types: Get, Replace
- Values: N/A

Editor"s note: The type and structure of the charging data reporting configuration needs to be confirmed by SA5.

5.2.50 <*X*>/ChargingDataReportingConfiguration/ServerAddress

The ServerAddress leaf contains the address of the server to which the UE shall upload the charging data.

- Occurrence: ZeroOrOne
- Format: bool
- Access Types: Get, Replace
- Values: <an IPv4 address>, <an IPv6 address>.

5.2.51 <*X*>/ChargingDataReportingConfiguration/ReportingPeriod

The ReportingPeriod leaf contains the time interval, in unit of minutes, at which the UE shall upload the charging data to the server.

- Occurrence: ZeroOrOne
- Format: int
- Access Types: Get, Replace
- Values: <ReportingPeriod>.

5.2.52 <*X*>/Ext

The Ext is an interior node for where the vendor specific information about the ProSe Public Safety Direct Services Provisioning 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): ProSe Direct Services Provisioning 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>ProSe Direct Services Provisioning</Description>
            <DFFormat>
                <node/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
            </Occurrence>
            <DFTitle>The ProSe Direct Services Provisioning Management Object.</DFTitle>
            <DFType>
                <DDFName/>urn:oma:mo:ext-3gpp-prose-direct-provisioning:1.0<DDFName/>
            </DFType>
        </DFProperties>

        <Node>
            <NodeName>MonitoringPolicy</NodeName>
            <!-- The MonitoringPolicy node starts here. -->
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                    <node/>
                </DFFormat>
                <Occurrence>
                    <ZeroOrOne/>
                </Occurrence>
                <DFTitle>Monitoring authorisation policies for ProSe Direct Services.</DFTitle>
                <DFType>
                    <DDFName/>
                </DFType>
            </DFProperties>

            <Node>
                <NodeName></NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <node/>
                    </DFFormat>
                    <Occurrence>
                        <OneOrMore/>
                    </Occurrence>
                    <DFType>
                        <DDFName></DDFName>
                    </DFType>
                </DFProperties>

                <Node>
```

```
                <NodeName>PLMN</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <chr/>
                    </DFFormat>
                    <Occurrence>
                        <One/>
                    </Occurrence>
                    <DFTitle>PLMN code.</DFTitle>
                    <DFType>
                        <MIME>text/plain</MIME>
                    </DFType>
                </DFProperties>
            </Node>

            <Node>
                <NodeName>MonitoringAuthorisation</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <int/>
                    </DFFormat>
                    <Occurrence>
                        <One/>
                    </Occurrence>
                    <DFTitle>Authorisation for monitoring.</DFTitle>
                    <DFType>
                        <DDFName/>
                    </DFType>
                </DFProperties>
            </Node>

            <Node>
                <NodeName>ValidityTimerT4005</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <int/>
                    </DFFormat>
                    <Occurrence>
                        <One/>
                    </Occurrence>
                    <DFTitle>Validity Timer T4005 for monitoring policy.</DFTitle>
                    <DFType>
                        <DDFName/>
                    </DFType>
                </DFProperties>
            </Node>

        </Node>
    </Node>

    <Node>
        <NodeName>AnnouncingPolicy</NodeName>
        <!-- The AnnouncingPolicy node starts here. -->
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <node/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
            </Occurrence>
            <DFTitle>Announcing authorisation policies for ProSe Direct Services.</DFTitle>
            <DFType>
```

```
            <DDFName/>
        </DFType>
    </DFProperties>

    <Node>
        <NodeName></NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <node/>
            </DFFormat>
            <Occurrence>
                <OneOrMore/>
            </Occurrence>
            <DFType>
                <DDFName></DDFName>
            </DFType>
        </DFProperties>

        <Node>
            <NodeName>PLMN</NodeName>
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                    <chr/>
                </DFFormat>
                <Occurrence>
                    <One/>
                </Occurrence>
                <DFTitle>PLMN code.</DFTitle>
                <DFType>
                    <MIME>text/plain</MIME>
                </DFType>
            </DFProperties>
        </Node>

        <Node>
            <NodeName>AnnouncingAuthorisation</NodeName>
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                    <int/>
                </DFFormat>
                <Occurrence>
                    <One/>
                </Occurrence>
                <DFTitle>Authorisation for announcing.</DFTitle>
                <DFType>
                    <DDFName/>
                </DFType>
            </DFProperties>
        </Node>

        <Node>
            <NodeName>ValidityTimerT4005</NodeName>
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                    <int/>
                </DFFormat>
                <Occurrence>
                    <One/>
                </Occurrence>
                <DFTitle>Validity Timer T4005 for announcing policy.</DFTitle>
                <DFType>
                    <DDFName/>
```

```
                    </DFType>
                </DFProperties>
            </Node>


            <Node>
                <NodeName>Range</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <int/>
                    </DFFormat>
                    <Occurrence>
                        <ZeroOrOne/>
                    </Occurrence>
                    <DFTitle>Authorised range for announcing.</DFTitle>
                    <DFType>
                        <DDFName/>
                    </DFType>
                </DFProperties>
            </Node>

        </Node>
    </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): ProSe Public Safety Direct Services Provisioning 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>ProSe Public Safety Direct Services Provisioning</Description>
            <DFFormat>
                <node/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
            </Occurrence>
            <DFTitle>The ProSe Public Safety Direct Services Provisioning Management
Object.</DFTitle>
            <DFType>
                <DDFName/>urn:oma:mo:ext-3gpp-prose-public-safety-direct-provisioning:1.0<DDFName/>
            </DFType>
        </DFProperties>

        <Node>
            <NodeName>MonitoringPolicy</NodeName>
            <!-- The MonitoringPolicy node starts here. -->
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                    <node/>
                </DFFormat>
                <Occurrence>
                    <ZeroOrOne/>
                </Occurrence>
                <DFTitle>Monitoring authorisation policies for ProSe Public Safety Direct
Services.</DFTitle>
                <DFType>
                    <DDFName/>
                </DFType>
            </DFProperties>

            <Node>
                <NodeName></NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <node/>
                    </DFFormat>
                    <Occurrence>
                        <OneOrMore/>
                    </Occurrence>
                    <DFType>
                        <DDFName></DDFName>
                    </DFType>
                </DFProperties>
```

```
            <Node>
                <NodeName>PLMN</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <chr/>
                    </DFFormat>
                    <Occurrence>
                        <One/>
                    </Occurrence>
                    <DFTitle>PLMN code.</DFTitle>
                    <DFType>
                        <MIME>text/plain</MIME>
                    </DFType>
                </DFProperties>
            </Node>

            <Node>
                <NodeName>MonitoringAuthorisation</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <int/>
                    </DFFormat>
                    <Occurrence>
                        <One/>
                    </Occurrence>
                    <DFTitle>Authorisation for monitoring.</DFTitle>
                    <DFType>
                        <DDFName/>
                    </DFType>
                </DFProperties>
            </Node>

            <Node>
                <NodeName>ValidityTimerT4005</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <int/>
                    </DFFormat>
                    <Occurrence>
                        <One/>
                    </Occurrence>
                    <DFTitle>Validity Timer T4005 for monitoring policy.</DFTitle>
                    <DFType>
                        <DDFName/>
                    </DFType>
                </DFProperties>
            </Node>

        </Node>
    </Node>

    <Node>
        <NodeName>AnnouncingPolicy</NodeName>
        <!-- The AnnouncingPolicy node starts here. -->
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <node/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
            </Occurrence>
```

```
                <DFTitle>Announcing authorisation policies for ProSe Public Safety Direct
Services.</DFTitle>
                <DFType>
                    <DDFName/>
                </DFType>
            </DFProperties>

            <Node>
                <NodeName></NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <node/>
                    </DFFormat>
                    <Occurrence>
                        <OneOrMore/>
                    </Occurrence>
                    <DFType>
                        <DDFName></DDFName>
                    </DFType>
                </DFProperties>

                <Node>
                    <NodeName>PLMN</NodeName>
                    <DFProperties>
                        <AccessType>
                            <Get/>
                            <Replace/>
                        </AccessType>
                        <DFFormat>
                            <chr/>
                        </DFFormat>
                        <Occurrence>
                            <One/>
                        </Occurrence>
                        <DFTitle>PLMN code.</DFTitle>
                        <DFType>
                            <MIME>text/plain</MIME>
                        </DFType>
                    </DFProperties>
                </Node>

                <Node>
                    <NodeName>AnnouncingAuthorisation</NodeName>
                    <DFProperties>
                        <AccessType>
                            <Get/>
                            <Replace/>
                        </AccessType>
                        <DFFormat>
                            <int/>
                        </DFFormat>
                        <Occurrence>
                            <One/>
                        </Occurrence>
                        <DFTitle>Authorisation for announcing.</DFTitle>
                        <DFType>
                            <DDFName/>
                        </DFType>
                    </DFProperties>
                </Node>

                <Node>
                    <NodeName>ValidityTimerT4005</NodeName>
                    <DFProperties>
                        <AccessType>
                            <Get/>
                            <Replace/>
                        </AccessType>
                        <DFFormat>
                            <int/>
                        </DFFormat>
                        <Occurrence>
                            <One/>
                        </Occurrence>
```

```
                        <DFTitle>Validity Timer T4005 for announcing policy.</DFTitle>
                        <DFType>
                            <DDFName/>
                        </DFType>
                    </DFProperties>
                </Node>


                <Node>
                    <NodeName>Range</NodeName>
                    <DFProperties>
                        <AccessType>
                            <Get/>
                            <Replace/>
                        </AccessType>
                        <DFFormat>
                            <int/>
                        </DFFormat>
                        <Occurrence>
                            <ZeroOrOne/>
                        </Occurrence>
                        <DFTitle>Authorised range for announcing.</DFTitle>
                        <DFType>
                            <DDFName/>
                        </DFType>
                    </DFProperties>
                </Node>

            </Node>
        </Node>

        <Node>
            <NodeName>DiscoveryPolicyNotInEUTRAN</NodeName>
            <!-- The DiscoveryPolicyNotInEUTRAN node starts here.-->
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                    <node/>
                </DFFormat>
                <Occurrence>
                    <ZeroOrOne/>
                </Occurrence>
                <DFTitle>Discovery policy when the UE is not in E-UTRAN policies for monitoring and
announcing of ProSe Public Safety Direct Services.</DFTitle>
                <DFType>
                    <DDFName/>
                </DFType>
            </DFProperties>

            <Node>
                <NodeName>MonitoringAuthorisationNotInEUTRAN</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <int/>
                    </DFFormat>
                    <Occurrence>
                        <ZeroOrOne/>
                    </Occurrence>
                    <DFTitle>Authorisation for monitoring when not in E-UTRAN.</DFTitle>
                    <DFType>
                        <DDFName/>
                    </DFType>
                </DFProperties>
            </Node>

            <Node>
                <NodeName>AnnouncingAuthorisationNotInEUTRAN</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
```

```
            </AccessType>
            <DFFormat>
                <int/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
            </Occurrence>
            <DFTitle>Authorisation for announcing when not in E-UTRAN.</DFTitle>
            <DFType>
                <DDFName/>
            </DFType>
        </DFProperties>
    </Node>



    <Node>
        <NodeName>MonitoringRadioParameters</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <node/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
            </Occurrence>
            <DFTitle>Radio parameters for monitoring when not in E-UTRAN.</DFTitle>
                    <DFType>
                <DDFName/>
            </DFType>
        </DFProperties>

        <Node>
            <NodeName></NodeName>
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                    <node/>
                </DFFormat>
                <Occurrence>
                    <OneOrMore/>
                </Occurrence>
                <DFType>
                    <DDFName></DDFName>
                </DFType>
            </DFProperties>

            <Node>
                <NodeName>FirstFreq</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <int/>
                    </DFFormat>
                    <Occurrence>
                        <One/>
                    </Occurrence>
                    <DFTitle>The first center frequency.</DFTitle>
                    <DFType>
                        <MIME>text/plain</MIME>
                    </DFType>
                </DFProperties>
            </Node>

            <Node>
                <NodeName>LastFreq</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
```

```
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <int/>
                    </DFFormat>
                    <Occurrence>
                        <One/>
                    </Occurrence>
                    <DFTitle>The last center frequency.</DFTitle>
                    <DFType>
                        <MIME>text/plain</MIME>
                    </DFType>
                </DFProperties>
            </Node>

            <Node>
                <NodeName>NextFreqStep</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <int/>
                    </DFFormat>
                    <Occurrence>
                        <One/>
                    </Occurrence>
                    <DFTitle>The frequency step for next central frequency.</DFTitle>
                    <DFType>
                        <MIME>text/plain</MIME>
                    </DFType>
                </DFProperties>
            </Node>

            <Node>
                <NodeName>ChannelBandwidth</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <int/>
                    </DFFormat>
                    <Occurrence>
                        <One/>
                    </Occurrence>
                    <DFTitle>The channel bandwidth in KHz.</DFTitle>
                    <DFType>
                        <MIME>text/plain</MIME>
                    </DFType>
                </DFProperties>
            </Node>

        </Node>

    </Node>

    <Node>
            <NodeName>AnnouncingRadioParameters</NodeName>
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                    <node/>
                </DFFormat>
                <Occurrence>
                    <ZeroOrOne/>
                </Occurrence>
                <DFTitle>Radio parameters for announcing when not in E-UTRAN.</DFTitle>
                <DFType>
                    <DDFName/>
                </DFType>
            </DFProperties>
```

```
<Node>
    <NodeName></NodeName>
    <DFProperties>
        <AccessType>
            <Get/>
            <Replace/>
        </AccessType>
        <DFFormat>
            <node/>
        </DFFormat>
        <Occurrence>
            <OneOrMore/>
        </Occurrence>
        <DFType>
            <DDFName></DDFName>
        </DFType>
    </DFProperties>

    <Node>
        <NodeName>FirstFreq</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <int/>
            </DFFormat>
            <Occurrence>
                <One/>
            </Occurrence>
            <DFTitle>The first center frequency.</DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
            </DFType>
        </DFProperties>
    </Node>

    <Node>
        <NodeName>LastFreq</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <int/>
            </DFFormat>
            <Occurrence>
                <One/>
            </Occurrence>
            <DFTitle>The last center frequency.</DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
            </DFType>
        </DFProperties>
    </Node>

    <Node>
        <NodeName>NextFreqStep</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <int/>
            </DFFormat>
            <Occurrence>
                <One/>
            </Occurrence>
            <DFTitle>The frequency step for next central frequency.</DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
            </DFType>
        </DFProperties>
    </Node>
```

```
                    <Node>
                        <NodeName>ChannelBandwidth</NodeName>
                        <DFProperties>
                            <AccessType>
                                <Get/>
                                <Replace/>
                            </AccessType>
                            <DFFormat>
                                <int/>
                            </DFFormat>
                            <Occurrence>
                                <One/>
                            </Occurrence>
                            <DFTitle>The channel bandwidth in KHz.</DFTitle>
                            <DFType>
                                <MIME>text/plain</MIME>
                            </DFType>
                        </DFProperties>
                    </Node>

                </Node>
            </Node>
        </Node>


        <Node>
            <NodeName>DirectCommunicationPolicy</NodeName>
            <!-- The DirectCommunicationPolicy node starts here. -->
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                    <node/>
                </DFFormat>
                <Occurrence>
                    <ZeroOrOne/>
                </Occurrence>
                <DFTitle>Direct communication policies for ProSe Public Safety Direct
Services.</DFTitle>
                <DFType>
                    <DDFName/>
                </DFType>
            </DFProperties>

            <Node>
                <NodeName></NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <node/>
                    </DFFormat>
                    <Occurrence>
                        <OneOrMore/>
                    </Occurrence>
                    <DFType>
                        <DDFName></DDFName>
                    </DFType>
                </DFProperties>

                <Node>
                    <NodeName>PLMN</NodeName>
                    <DFProperties>
                        <AccessType>
                            <Get/>
                            <Replace/>
                        </AccessType>
                        <DFFormat>
                            <chr/>
                        </DFFormat>
                        <Occurrence>
                            <One/>
                        </Occurrence>
                        <DFTitle>PLMN code.</DFTitle>
```

```
                    <DFType>
                        <MIME>text/plain</MIME>
                    </DFType>
                </DFProperties>
            </Node>

            <Node>
                <NodeName>Authorisation</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <int/>
                    </DFFormat>
                    <Occurrence>
                        <One/>
                    </Occurrence>
                    <DFTitle>Authorisation for direct communication.</DFTitle>
                    <DFType>
                        <DDFName/>
                    </DFType>
                </DFProperties>
            </Node>

            <Node>
                <NodeName>ValidityTimerT4005</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <int/>
                    </DFFormat>
                    <Occurrence>
                        <One/>
                    </Occurrence>
                    <DFTitle>Validity Timer T4005 for direct communication policy.</DFTitle>
                    <DFType>
                        <DDFName/>
                    </DFType>
                </DFProperties>
            </Node>


        </Node>
    </Node>

    <Node>
        <NodeName>DirectCommunicationPolicyNotInEUTRAN</NodeName>
        <!-- The DirectCommunicationPolicyNotInEUTRAN node starts here. -->
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <node/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
            </Occurrence>
            <DFTitle>DirectCommunication policy when the UE is not  in E-UTRAN policies direct
communication of ProSe Public Safety Direct Services.</DFTitle>
            <DFType>
                <DDFName/>
            </DFType>
        </DFProperties>

        <Node>
            <NodeName>DirectCommunicationAuthorisationNotInEUTRAN</NodeName>
            <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
```

```
                <DFFormat>
                    <int/>
                </DFFormat>
                <Occurrence>
                    <ZeroOrOne/>
                </Occurrence>
                <DFTitle>Authorisation for direct communication when not in E-UTRAN.</DFTitle>
                <DFType>
                    <DDFName/>
                </DFType>
            </DFProperties>
            </Node>

            <Node>
                <NodeName>DirectCommunicationRadioParameters</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <node/>
                    </DFFormat>
                    <Occurrence>
                        <ZeroOrOne/>
                    </Occurrence>
                    <DFTitle>Radio parameters for direct communication when not in E-
UTRAN.</DFTitle>
                    <DFType>
                        <DDFName/>
                    </DFType>
                </DFProperties>

                <Node>
                <NodeName></NodeName>
                    <DFProperties>
                        <AccessType>
                            <Get/>
                            <Replace/>
                        </AccessType>
                        <DFFormat>
                            <node/>
                        </DFFormat>
                        <Occurrence>
                            <OneOrMore/>
                        </Occurrence>
                        <DFType>
                            <DDFName></DDFName>
                        </DFType>
                    </DFProperties>

                    <Node>
                        <NodeName>FirstFreq</NodeName>
                        <DFProperties>
                            <AccessType>
                                <Get/>
                                <Replace/>
                            </AccessType>
                            <DFFormat>
                                <int/>
                            </DFFormat>
                            <Occurrence>
                                <One/>
                            </Occurrence>
                            <DFTitle>The first center frequency.</DFTitle>
                            <DFType>
                                <MIME>text/plain</MIME>
                            </DFType>
                        </DFProperties>
                    </Node>

                    <Node>
                        <NodeName>LastFreq</NodeName>
                        <DFProperties>
                            <AccessType>
                                <Get/>
                                <Replace/>
                            </AccessType>
```

```
                        <DFFormat>
                            <int/>
                        </DFFormat>
                        <Occurrence>
                            <One/>
                        </Occurrence>
                        <DFTitle>The last center frequency.</DFTitle>
                        <DFType>
                            <MIME>text/plain</MIME>
                        </DFType>
                    </DFProperties>
                </Node>

                <Node>
                    <NodeName>NextFreqStep</NodeName>
                    <DFProperties>
                        <AccessType>
                            <Get/>
                            <Replace/>
                        </AccessType>
                        <DFFormat>
                            <int/>
                        </DFFormat>
                        <Occurrence>
                            <One/>
                        </Occurrence>
                        <DFTitle>The frequency step for next central frequency.</DFTitle>
                        <DFType>
                            <MIME>text/plain</MIME>
                        </DFType>
                    </DFProperties>
                </Node>

                <Node>
                    <NodeName>ChannelBandwidth</NodeName>
                    <DFProperties>
                        <AccessType>
                            <Get/>
                            <Replace/>
                        </AccessType>
                        <DFFormat>
                            <int/>
                        </DFFormat>
                        <Occurrence>
                            <One/>
                        </Occurrence>
                        <DFTitle>The channel bandwidth in KHz.</DFTitle>
                        <DFType>
                            <MIME>text/plain</MIME>
                        </DFType>
                    </DFProperties>
                </Node>

            </Node>
        </Node>
    </Node>

    <Node>
        <NodeName>GroupParameters</NodeName>
        <!-- The GroupParameters node starts here. -->
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <node/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
            </Occurrence>
            <DFTitle>Group parameters for ProSe Public Safety Direct Services.</DFTitle>
            <DFType>
                <DDFName/>
            </DFType>
        </DFProperties>

        <Node>
```

```
                <NodeName></NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <node/>
                    </DFFormat>
                    <Occurrence>
                        <OneOrMore/>
                    </Occurrence>
                    <DFType>
                        <DDFName></DDFName>
                    </DFType>
                </DFProperties>

                <Node>
                    <NodeName>AddressType</NodeName>
                    <DFProperties>
                        <AccessType>
                            <Get/>
                            <Replace/>
                        </AccessType>
                        <DFFormat>
                            <chr/>
                        </DFFormat>
                        <Occurrence>
                            <One/>
                        </Occurrence>
                        <DFTitle>IP version of the IP address.</DFTitle>
                        <DFType>
                            <MIME>text/plain</MIME>
                        </DFType>
                    </DFProperties>
                </Node>

                <Node>
                    <NodeName>IPMulticastAddress</NodeName>
                    <DFProperties>
                        <AccessType>
                            <Get/>
                            <Replace/>
                        </AccessType>
                        <DFFormat>
                            <chr/>
                        </DFFormat>
                        <Occurrence>
                            <One/>
                        </Occurrence>
                        <DFTitle>IP multicast address.</DFTitle>
                        <DFType>
                            <DDFName/>
                        </DFType>
                    </DFProperties>
                </Node>

                <Node>
                    <NodeName>Security</NodeName>
                    <DFProperties>
                        <AccessType>
                            <Get/>
                            <Replace/>
                        </AccessType>
                        <DFFormat>
                            <node/>
                        </DFFormat>
                        <Occurrence>
                            <One/>
                        </Occurrence>
                        <DFTitle>Place holder for security parameters which is up to SA3 to
decide.</DFTitle>
                        <DFType>
                            <DDFName/>
                        </DFType>
                    </DFProperties>
                </Node>
```

```
                <Node>
                    <NodeName>SourceIPv4Address</NodeName>
                    <DFProperties>
                        <AccessType>
                            <Get/>
                            <Replace/>
                        </AccessType>
                        <DFFormat>
                            <chr/>
                        </DFFormat>
                        <Occurrence>
                            <ZeroOrOne/>
                        </Occurrence>
                        <DFTitle>Source IPv4 address.</DFTitle>
                        <DFType>
                            <DDFName/>
                        </DFType>
                    </DFProperties>
                </Node>

                <Node>
                    <NodeName>Layer2GroupID</NodeName>
                    <DFProperties>
                        <AccessType>
                            <Get/>
                            <Replace/>
                        </AccessType>
                        <DFFormat>
                            <chr/>
                        </DFFormat>
                        <Occurrence>
                            <One/>
                        </Occurrence>
                        <DFTitle>The Layer 2 group ID.</DFTitle>
                        <DFType>
                            <DDFName/>
                        </DFType>
                    </DFProperties>
                </Node>

            </Node>
        </Node>

        <Node>
            <NodeName>ChargingDataReportingConfiguration</NodeName>
            <!-- The GroupParameters node starts here. -->
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                    <node/>
                </DFFormat>
                <Occurrence>
                    <ZeroOrOne/>
                </Occurrence>
                <DFTitle>Charging data reporting configuration for ProSe Public Safety Direct
Services.</DFTitle>
                <DFType>
                    <DDFName/>
                </DFType>
            </DFProperties>

            <Node>
                <NodeName>ServerAddress</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <chr/>
                    </DFFormat>
                    <Occurrence>
                        <ZeroOrOne/>
                    </Occurrence>
```

```
                    <DFTitle>Server address for reporting charging data.</DFTitle>
                    <DFType>
                        <DDFName/>
                    </DFType>
                </DFProperties>
            </Node>


            <Node>
                <NodeName>ReportingPeriod</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <int/>
                    </DFFormat>
                    <Occurrence>
                        <ZeroOrOne/>
                    </Occurrence>
                    <DFTitle>Reporting period.</DFTitle>
                    <DFType>
                        <DDFName/>
                    </DFType>
                </DFProperties>
            </Node>

        </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 C (informative): Change history

Change history							
Date	**TSG #**	**TSG Doc.**	**CR**	**Rev**	**Subject/Comment**	**Old**	**New**
2014-03					TS skeleton generated for submission at CT1#86bis	-	0.0.0
2014-04	CT1#86bis				Implementation of C1-141571 and C1-141572. Editorial and formatting fixes.	0.0.0	0.1.0
2014-05	CT1#87				Implementation of C1-142200	0.1.0	0.2.0
2014-06	CT-64	CP-140278			Version 1.0.0 submitted to CT-64 for information	0.2.0	1.0.0
2014-07	CT1#88				Implementation of C1-142855, C1-143024, C1-143244, C1-143252 and C1-143318. Fix for Annex B DDF compilation error.	1.0.0	1.1.0
2014-09	CT-65	CP-140629			Version 2.0.0 submitted to CT-65 for approval	1.1.0	2.0.0
2014-09	CT-65	CP-140716			Plenary tdoc revised to include missing cover sheet	1.1.0	2.0.0
2014-09	Post CT-65				Version 12.0.0 created after approval	2.0.0	12.0.0

History

Document history		
V12.0.0	October 2014	Publication