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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

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

1 Scope

This document defines a mobile device 3GPP IMS Management Object. The management object is compatible with OMA Device Management protocol specifications, version 1.2 and upwards, and is defined using the OMA DM Device Description Framework as described in the Enabler Release Definition OMA-ERELD _DM-V1_2 [12].

The 3GPP IMS Management Object consists of relevant parameters that can be managed for the IM CN Subsystem. This includes the basic framework defined in 3GPP TS 23.228 [4] and 3GPP TS 24.229 [5], and early IMS as defined in 3GPP TS 23.221 [3]. This also includes relevant parameters that can be managed for the application of SMS over IP networks defined in 3GPP TS 24.341 [5a].

The IMS Management Object defines a repository of data into the ME including parameters that are provisioned from the ISIM application (i.e. 3GPP TS 31.103 [11]) or, after derivation, from the USIM application (i.e. 3GPP TS 31.102 [10]).

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the 3GPP IMS Management Object 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 23.003: "Numbering, addressing and identification".

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

[4] 3GPP TS 23.228: "IP Multimedia Subsystem (IMS); Stage 2".

[5] 3GPP TS 24.229: "Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3".

[5a] 3GPP TS 24.341: "Support of SMS over IP networks; Stage 3".

[6] Void.

[7] Void.

[8] RFC 1123: "Requirements for Internet Hosts -- Application and Support".

[9] Void.

[10] 3GPP TS 31.102: "Characteristics of the USIM application".

[11] 3GPP TS 31.103: "Characteristics of the IP Multimedia Services Identity Module; (ISIM) Application".

[12] OMA-ERELD-DM-V1_2-20070209-A : "Enabler Release Definition for OMA Device Management, Version 1.2".

[13] Void.

[14] 3GPP TS 23.221: "Architectural requirements".

[15] 3GPP TS 24.301: "Non-Access-Stratum (NAS) protocol for Evolved Packet System (EPS); Stage 3".

[16] 3GPP TS 24.292: "IP Multimedia (IM) Core Network (CN) subsystem Centralized Services (ICS); Stage 3".

[17] 3GPP TS 24.008: "Mobile Radio Interface Layer 3 specification; Core Network Protocols; Stage 3".

[18] RFC 5626: "Managing Client-Initiated Connections in the Session Initiation Protocol (SIP)".

[19] 3GPP TS 22.173: "IP Multimedia Core Network Subsystem (IMS) Multimedia Telephony Service and supplementary services; Stage 1".

[20] 3GPP TS 24.623: "Extensible Markup Language (XML) Configuration Access Protocol (XCAP) over the Ut interface for Manipulating Supplementary Services".

[21] 3GPP TS 24.238: "Session Initiation Protocol (SIP) based user configuration;Stage 3".

[22] 3GPP TS 29.292: "Interworking between the IP Multimedia (IM) Core Network (CN) subsystem and MSC Server for IMS Centralized Services (ICS)".

3 Definitions and abbreviations

3.1 Definitions

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

3.2 Abbreviations

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

AC	Application Characteristics
CN	Core Network
CP	Client Provisioning
CSCF	Call Session Control Function
DDF	Device Description Framework
DM	Device Management
ICSI	IMS Communication Service Identifier
IMS	IP Multimedia core network Subsystem
IP	Internet Protocol
ISIM	IM Services Identity Module
MO	Management Object
OMA	Open Mobile Alliance
P-CSCF	Proxy – CSCF
PDP	Packet Data Protocol
SIP	Session Initiation Protocol
SS	Supplementary Services
UE	User Equipment
USIM	Universal Subscriber Identity Module

4 3GPP IMS Management Object

The 3GPP IMS Management Object is used to manage settings of the UE for IM CN Subsystem protocols. The Management Object covers generic parameters for the IM CN subsystem. The Management Object enables the management of the settings on behalf of the end user.

The Management Object Identifier is: urn:oma:mo:ext-3gpp-ims:1.0.

Protocol compatibility: This MO is compatible with OMA DM 1.2.

The following nodes and leaf objects are possible under the 3GPP_IMS node:

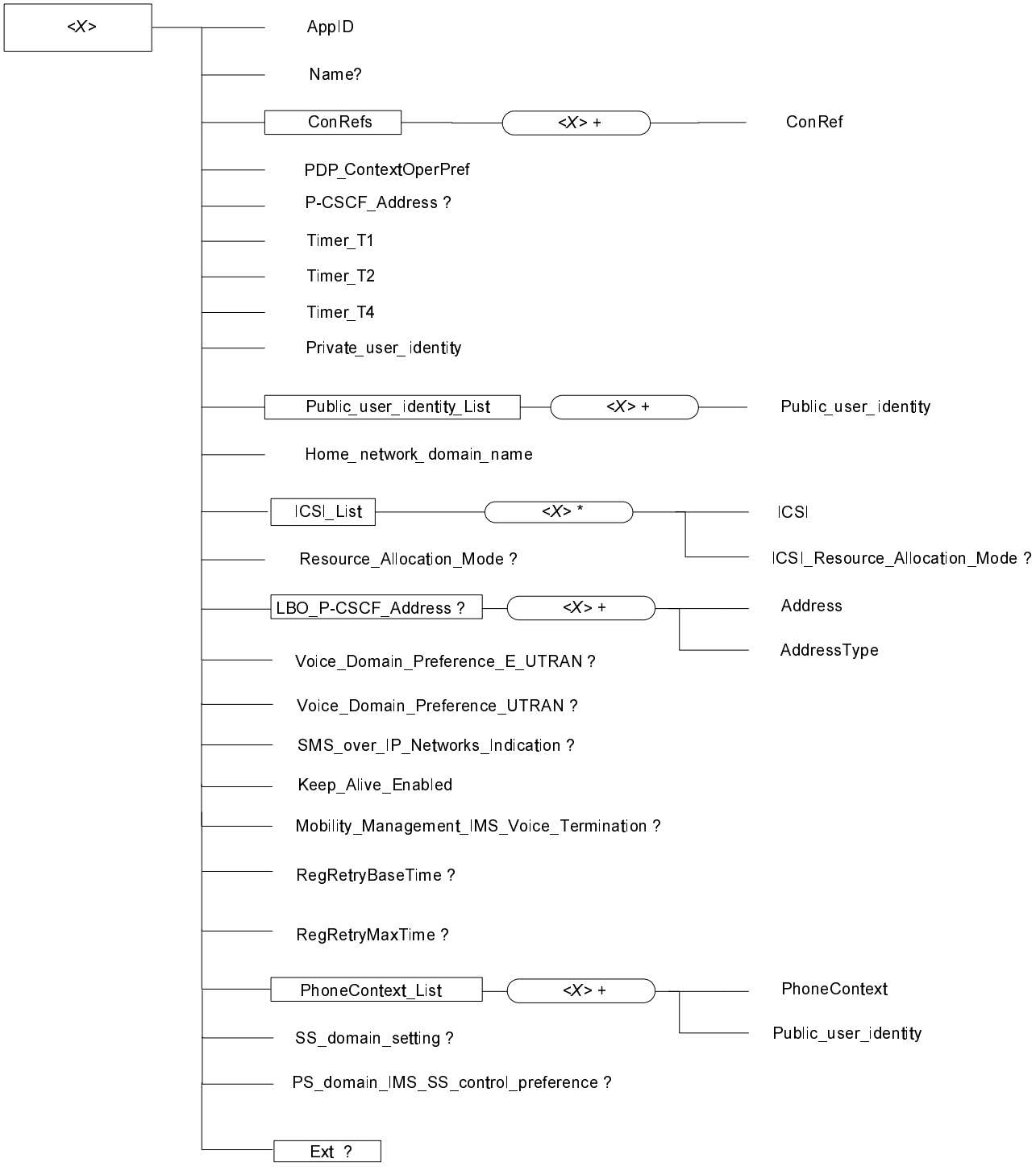

Figure 1: The 3GPP IMS Management Object

5 Management Object parameters

5.1 General

This clause describes the parameters for the 3GPP IMS Management Object.

5.2 Node: /<*X*>

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

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

The interior node is mandatory if the UE supports the IM CN Subsystem. Support for a UE is defined by the user agent role as defined in 3GPP TS 24.229 [5].

NOTE: One node is normally used. More nodes are only used in case the terminal supports multiple UICCs.

5.3 /<*X*>/AppID

The AppID identifies the type of the application service available at the described application service access point. The value is globally unique.

- Occurrence: One
- Format: chr
- Access Types: Get
- Value: <ap2001>

NOTE: The value of the 3GPP_IMS/AppID is determined by OMA.

5.4 /<*X*>/Name

The Name leaf is a name for the 3GPP_IMS settings.

- Occurrence: ZeroOrOne
- Format: chr
- Access Types: Get
- Values: <User displayable name>

5.5 /<*X*>/ConRefs/

The ConRefs interior node is used to allow a reference to a list of network access point objects.

- Occurrence: One
- Format: node
- Access Types: Get

- Values: N/A

5.6 /<*X*>/ConRefs/<*X*>

This run-time node acts as a placeholder for one or more network access point objects.

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

5.7 /<*X*>/ConRefs/<*X*>/ConRef

The ConRef leaf represents one or more network access point objects.

- Occurrence: One
- Format: chr
- Access Types: Get, Replace
- Values: <A network access point object>

5.8 /<*X*>/PDP_ContextOperPref

The PDP_ContextOperPref leaf indicates an operator's preference to have a dedicated PDP context for SIP signalling.

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

  0 – Indicates that the operator has no preference for a dedicated PDP context for SIP signalling.

  1 – Indicates that the operator has preference for a dedicated PDP context for SIP signalling.

The PDP_ContextOperPref leaf indicates a preference only. 3GPP TS 24.229 [5] describes the normative options and the procedures for establishment of a dedicated PDP context for SIP signalling.

5.9 /<*X*>/P-CSCF_Address

The P-CSCF_Address leaf defines an FQDN or an IPv4 address to an IPv4 P-CSCF.

- Occurrence: ZeroOrOne
- Format: chr
- Access Types: Get, Replace
- Values: <A fully qualified domain name> or IPv4 address>

The P-CSCF_Address leaf shall only be used in early IMS implementations as described in 3GPP TS 23.221 [3].

The FQDN, or host name as defined by RFC 1123 [8], is represented as character-labels with dots as delimiters.

EXAMPLE: pcscf.operator.com

5.10 /<*X*>/Timer_T1

The Timer_T1 leaf defines the SIP timer T1 – the RTT estimate.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <The round trip time>

The Timer_T1 leaf is an estimate for the round trip time in the system (UE – P-CSCF). The timer value shall be given in milliseconds. The default value is recommended in 3GPP TS 24.229 [5]. The Timer_T1 is a 32 bits unsigned integer.

EXAMPLE: 2000 (milliseconds)

5.11 /<*X*>/Timer_T2

The Timer_T2 leaf defines the SIP timer T2 – the maximum retransmit interval for non-INVITE requests and INVITE responses.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <The maximum retransmit interval for non-INVITE requests and INVITE responses>

The Timer_T2 leaf is an estimate for the maximum retransmit interval for non-INVITE requests and INVITE responses. The timer value shall be given in milliseconds. The default value is recommended in 3GPP TS 24.229 [5]. The Timer_T2 is a 32 bits unsigned integer.

EXAMPLE: 16000 (milliseconds)

5.12 /<*X*>/Timer_T4

The Timer_T4 leaf defines the SIP timer T4 – the maximum duration a message will remain in the network.

- Occurrence: One
- Format: int
- Access Types: Get, Replace
- Values: <The maximum duration a message will remain in the network>

The Timer_T4 leaf is an estimate for the maximum duration a message will remain in the network. The timer value shall be given in milliseconds. The default value is recommended in 3GPP TS 24.229 [5]. The Timer_T4 is a 32 bits unsigned integer.

EXAMPLE: 17000 (milliseconds)

5.13 /<*X*>/Private_user_identity

The Private_user_identity leaf represents the private user identity.

- Occurrence: One
- Format: chr
- Access Types: Get

- Values: <A private user identity>

NOTE: The Private_user_identity leaf value is populated by the UE using the procedures to obtain the private user identity specified in 3GPP TS 24.229 [5].

The format of the private user identity is defined by 3GPP TS 23.003 [2].

EXAMPLE: 234150999999999@ims.mnc015.mcc234.3gppnetwork.org

5.14 /<*X*>/Public_user_identity_List/

The Public_user_identity_List interior node is used to allow a reference to a list of public user identities.

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

5.15 /<*X*>/Public_user_identity_List/<*X*>

This run-time node acts as a placeholder for one or more public user identities.

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

5.16 /<*X*>/Public_user_identity_List/<*X*>/Public_user_identity

The Public_user_identity leaf represents one or more public user identities.

- Occurrence: One
- Format: chr
- Access Types: Get
- Values: <A public user identity>

NOTE: The Public_user_identity leaf value is populated by the UE using the procedures to obtain the public user identity specified in 3GPP TS 24.229 [5].

The temporary public user identity if derived is populated and stored as the topmost element in the Public_user_identity_List as specified in 3GPP TS 24.229 [5].

The format of the public user identity is defined by 3GPP TS 23.003 [2].

EXAMPLE: sip: 234150999999999@ims.mnc015.mcc234.3gppnetwork.org

5.17 /<*X*>/Home_network_domain_name

The Home_network_domain_name leaf indicates the operator’s home network domain.

- Occurrence: One
- Format: chr

- Access Types: Get
- Values: <The home network domain name>

NOTE: The Home_network_domain_name leaf value is populated by the UE using the procedures to obtain the home network domain name specified in 3GPP TS 24.229 [5].

The format of the home network domain name is defined by 3GPP TS 23.003 [2].

EXAMPLE: ims.mnc015.mcc234.3gppnetwork.org

5.18 /<*X*>/Ext/

The Ext is an interior node for where the vendor specific information about the 3GPP-IMS 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 identified is not defined and can therefore include one or more un-standardized sub-trees.

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

5.19 /<*X*>/ICSI_List/

The ICSI_List interior node is used to allow a reference to a list of IMS communication service identifiers that are supported by a subscriber‘s network for that subscriber.

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

5.20 /<*X*>/ICSI_List/<*X*>

This run-time node acts as a placeholder for zero or more IMS communication service identifiers that are supported by a subscriber‘s network for that subscriber.

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

5.21 /<*X*>/ICSI_List/<*X*>/ICSI

The ICSI leaf represents one IMS communication service identifier that is supported by a subscriber‘s network for that subscriber.

- Occurrence: One
- Format: chr
- Access Types: Get, Replace

- Values: <A communication services identifier>

The format of the communication services identifier is defined by 3GPP TS 24.229 [2]

5.21A /<*X*>/ICSI_List/<*X*>/ICSI_Resource_Allocation_Mode

The ICSI_Resource_Allocation_Mode leaf indicates whether UE initiates resource allocation for the media controlled by IM CN subsystem when a certain ICSI is used for the IMS session and when both UE and network can initiate resource allocation.

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

  0 – Indicates that the UE attempts to initiate resource allocation for the media controlled by IM CN subsystem.

  1 – Indicates that the UE does not attempt to initiate resource allocation for the media controlled by IM CN subsystem.

NOTE: When value 1 is set, the network initiates resource allocation for the media controlled by IM CN subsystem.

In absence of the parameter, UE attempts to initiate resource allocation for the media controlled by IM CN subsystem when a certain ICSI is used for the IMS session and when both UE and network can initiate resource allocation.

5.22 /<*X*>/LBO_P-CSCF_Address/

The LBO_P-CSCF_Address interior node is used to allow a reference to a list of P-CSCFs.

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

5.23 /<*X*>/LBO_P-CSCF_Address/<*X*>

This run-time node acts as a placeholder for one or more P-CSCF Addresses. Note that the order in which these nodes appear implies the priority of the address, where the first appearing has the highest priority.

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

5.24 /<*X*>/LBO_P-CSCF_Address/<*X*>/Address

The Address leaf defines the FQDN of a P-CSCF.

- Occurrence: One
- Format: chr

- Access Types: Get, Replace
- Values: <A fully qualified domain name>, <an IPv4 address>, <an IPv6 address>

The FQDN, or host name as defined by RFC 1123 [8], is represented as character-labels with dots as delimiters.

EXAMPLE: pcscf.operator.com

5.25 /<*X*>/LBO_P-CSCF_Address/<*X*>/AddressType

The AddressType leaf defines the type of address stored in the Address leaf node.

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

EXAMPLE: 'FQDN'

NOTE: Populating P-CSCF address list with only entries havingAddressType values of either 'IPv4' or 'IPv6' results in coupling of the home operator's network topology to the data stored in the IMS MO in the UE. Unless the list also contains at least one entry of type FQDN, any changes in the network topology will have to be followed by the update of the IMS MO of each affected UE before service could be restored for that UE.

5.26 /<*X*>/Resource_Allocation_Mode

The Resource_Allocation_Mode leaf indicates whether UE initiates resource allocation for the media controlled by IM CN subsystem for all IMS sessions not covered by any "ICSI Resource Allocation Mode", when both UE and network can initiate resource allocation.

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

  0 – Indicates that the UE attempts to initiate resource allocation for the media controlled by IM CN subsystem.

  1 – Indicates that the UE does not attempt to initiate resource allocation for the media controlled by IM CN subsystem.

NOTE: When value 1 is set, the network initiates resource allocation for the media controlled by IM CN subsystem.

In absence of the parameter, UE attempts to initiate resource allocation for the media controlled by IM CN subsystem for all IMS sessions not covered by any "ICSI Resource Allocation Mode", when both UE and network can initiate resource allocation.

5.27 /<*X*>/Voice_Domain_Preference_E_UTRAN

The Voice_Domain_Preference_E_UTRAN leaf indicates network operator's preference for selection of the domain to be used for voice communication services by the UE.

- Occurrence: ZeroOrOne
- Format: int

- Access Types: Get, Replace
- Values: 1, 2, 3, 4

  1 – Indicates that the UE does not attempt to initiate voice sessions over the IM CN Subsystem using an E-UTRAN bearer. This value equates to "CS Voice only" as described in 3GPP TS 23.221 [14].

  2 – Indicates that the UE preferably attempts to use the CS domain to originate voice sessions. In addition, a UE, in accordance with 3GPP TS 24.292 [16], upon receiving a request for a session including voice, preferably attempts to use the CS domain for the audio media stream. This value equates to "CS Voice preferred, IMS PS Voice as secondary" as described in 3GPP TS 23.221 [14].

  3 – Indicates that the UE preferably attempts to use the IM CN Subsystem using an E-UTRAN bearer to originate sessions including voice. In addition, a UE, in accordance with 3GPP TS 24.292 [16], upon receiving a request for a session including voice, preferably attempts to use an E-UTRAN bearer for the audio media stream. This value equates to "IMS PS Voice preferred, CS Voice as secondary" as described in 3GPP TS 23.221 [14].

  4 – Indicates that the UE attempts to initiate voice sessions over IM CN Subsystem using an E-UTRAN bearer. In addition, a UE, upon receiving a request for a session including voice, attempts to use an E-UTRAN bearer for all the the audio media stream(s). This value equates to "IMS PS Voice only" as described in 3GPP TS 23.221 [14].

NOTE: For Voice_Domain_Preference_E_UTRAN leaf values 2, 3 and 4, whether the UE does attempt to use the IM CN subsystem using an E-UTRAN bearer for voice session initiation or termination is further guided by the "IMS Voice over PS session" indicator. See 3GPP TS 24.301 [15] and 3GPP TS 24.292 [16].

5.28 /<*X*>/SMS_Over_IP_Networks_Indication

The SMS_Over_IP_Networks_Indication leaf indicates network operator's preference for selection of the domain to be used for short message service (SMS) originated by the UE.

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

  0 – Indicates that the SMS service is not to be invoked over the IP networks.

  1 – Indicates that the SMS service is preferred to be invoked over the IP networks.

5.29 /<*X*>/Keep_Alive_Enabled

The Keep_Alive_Enabled leaf indicates whether the UE sends keep alives.

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

  0 – Indicates that the UE does not send keep alives.

  1 – Indicates that the UE is to send keep alives.

3GPP TS 24.229 [5] describes the normative behaviour for the UE sending keep alives when the Keep_Alive_Enabled leaf indicates that sending keep alives is enabled.

5.30 /<*X*>/Voice_Domain_Preference_UTRAN

The Voice_Domain_Preference_UTRAN leaf indicates network operator's preference for selection of the domain to be used for voice communication services by the UE.

- Occurrence: ZeroOrOne
- Format: int
- Access Types: Get, Replace
- Values: 1, 2, 3

  1 – Indicates that the UE does not attempt to initiate voice sessions over the IM CN Subsystem using an UTRAN PS bearer. This value equates to "CS Voice only" as described in 3GPP TS 23.221 [14].

  2 – Indicates that the UE preferably attempts to use the CS domain to originate voice sessions. In addition, a UE, in accordance with 3GPP TS 24.292 [16], upon receiving a request for a session including voice, preferably attempts to use the CS domain for the audio media stream. This value equates to "CS Voice preferred, IMS PS Voice as secondary" as described in 3GPP TS 23.221 [14].

  3 – Indicates that the UE preferably attempts to use the IM CN Subsystem using an UTRAN PS bearer to originate sessions including voice. In addition, a UE, in accordance with 3GPP TS 24.292 [16], upon receiving a request for a session including voice, preferably attempts to use an UTRAN PS bearer for the audio media stream. This value equates to "IMS PS Voice preferred, CS Voice as secondary" as described in 3GPP TS 23.221 [14].

5.31 /<*X*>/Mobility_Management_IMS_Voice_Termination

This leaf applies if a UE utilises the services provided by EPS or GPRS to provide packet-mode communication between the UE and the IM CN subsystem.

The Mobility_Management_IMS_Voice_Termination leaf indicates whether the UE mobility management performs additional procedures as specified in 3GPP TS 24.008 [17] and 3GPP TS 24.301 [15] to support terminating access domain selection by the network.

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

  0 – Mobility Management for IMS Voice Termination disabled.

  1 – Mobility Management for IMS Voice Termination enabled.

5.32 void

5.33 void

5.34 void

5.35 /<*X*>/RegRetryBaseTime

The RegRetryBaseTime leaf represents the value of the base-time parameter of the algorithm defined in subclause 4.5 of RFC 5626 [18].

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

The base time value shall be given in seconds.

5.36 /<*X*>/RegRetryMaxTime

The RegRetryMaxTime leaf represents the value of the max-time parameter of the algorithm defined in subclause 4.5 of RFC 5626 [18].

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

The maximum time value shall be given in seconds.

5.37 /<*X*>/PhoneContext_List/

The PhoneContext_List interior node is used to allow a reference to a list of phone-context parameter values for other local numbers, than geo-local or home-local numbers, as defined in subclause 5.1.2A.1.5 of 3GPP TS 24.229 [5].

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

5.38 /<*X*>/PhoneContext_List/<*X*>

This run-time node acts as a placeholder for one or more phone-context parameter values.

- Occurrence: OneOrMore
- Format: node
- Access Types: Get

- Values: N/A

5.39 /<*X*>/PhoneContext_List/<*X*>/PhoneContext

The PhoneContext leaf defines the value of the phone-context parameter.

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

5.40 /<*X*>/PhoneContext_List/<*X*>/Public_user_identity

The Public_user_identity leaf defines zero or more public user identities to which the phone-context parameter value is associated.

- Occurrence: OneOrMore
- Format: chr
- Access Types: Get, Replace
- Values: <A public user identity>.

5.41 /<*X*>/SS_domain_setting

The SS_domain_setting leaf indicates the network operator's preference for the selection of the domain used by the UE when performing supplementary services (SS) setting control for voice services.

NOTE 1: The SS_domain_setting leaf does not provide a mechanism for the network operator to select the domain used for mobile originating USSD requests.

- Occurrence: ZeroOrOne
- Format: int
- Access Types: Get, Replace
- Values: 0, 1, 2

  0 – Indicates that the UE only uses the PS domain for SS setting control

  1 – Indicates that the UE only uses the CS domain for SS setting control

  2 - Indicates that the UE uses the PS domain for SS setting control when the PS domain is being used by the UE for voice services, and the UE uses the CS domain for SS setting control when the CS domain is being used by the UE for voice services

The network operator can select the preference for the selection of the domain used by the UE when performing supplementary services (SS) setting control for voice services, according to the domain(s) where the supplementary services are provisioned. For example:

- if the supplementary services are provisioned only in the PS domain, the UE can be restricted to configure only the supplementary services part of the IMS multimedia telephony communication service by setting value "0";

NOTE 2: If voice services are centralized in IMS, and if the UE accesses the CS domain for voice services, the supplementary services part of the IMS multimedia telephony communication service can also be configured in the PS domain by the UE.

- if the supplementary services are provisioned only in the CS domain, the UE can be restricted to configure only the supplementary services for CS speech by setting value "1"; and

NOTE 3: If the supplementary services are provisioned in the PS domain, then the supplementary services part of the IMS multimedia telephony communication service can also be configured by a UE accessing the CS domain towards an MSC server enhanced for ICS implementing the interworking between call independent supplementary service signalling and the XCAP application usage for manipulating supplementary services data, as specified in 3GPP TS 29.292 [22].

- if the supplementary services are provisioned in both the CS domain and PS domain, then value "2" can be set to restrict the UE to:

  a) configure the supplementary services for CS speech when the UE is using the CS domain for voice services; and

  b) configure the supplementary services part of the IMS multimedia telephony communication service when the UE is using the PS domain for voice services.

5.42 /<*X*>/PS_domain_IMS_SS_control_preference

The PS_domain_IMS_SS_control_preference leaf provides a means to define the method for which Supplementary Services as defined by 3GPP TS 22.173 [19] are controlled by the UE when SS setting control is to be invoked over the PS domain.

- Occurrence: ZeroOrOne

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

  0 – Indicates that the IMS SS setting control for services defined by 3GPP TS 22.173 [19] is to be invoked using XCAP/Ut as defined by 3GPP TS 24.623 [20]

  1 – Indicates that the IMS SS setting control for services defined by 3GPP TS 22.173 [19] is to be invoked using SIP-based user configuration as defined by 3GPP TS 24.238 [21]

NOTE: The usage of other methods for controlling the IMS SS setting control are out of the scope of this parameter.

The UE uses the information stored in the PS_domain_IMS_SS_control_preference leaf either when the SS_domain_setting leaf is set to "0", or when SS_domain_setting is set to "2" and the domain currently used for voice services is the PS domain.

Annex A (informative): Management Object DDF

This DDF is the standardized minimal set. A vendor can define it's 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>3GPP_IMS</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
            </AccessType>
            <Description>3GPP IMS settings</Description>
            <DFFormat>
                <node/>
            </DFFormat>
            <Occurrence>
                <OneOrMore/>
            </Occurrence>
            <Scope>
                <Permanent/>
            </Scope>
            <DFTitle>The 3GPP IMS Management Object.</DFTitle>
            <DFType>
                <DDFName/>
            </DFType>
        </DFProperties>

        <Node>
            <NodeName>AppID</NodeName>
            <DFProperties>
                <AccessType>
                    <Get/>
                </AccessType>
                <DFFormat>
                    <chr/>
                </DFFormat>
                <Occurrence>
                    <One/>
                </Occurrence>
                <Scope>
                    <Permanent/>
                </Scope>
                <DFTitle>The Application ID.</DFTitle>
                <DFType>
                    <MIME>text/plain</MIME>
                </DFType>
            </DFProperties>
        </Node>
```

```
<Node>
    <NodeName>Name</NodeName>
    <DFProperties>
        <AccessType>
            <Get/>
        </AccessType>
        <DFFormat>
            <chr/>
        </DFFormat>
        <Occurrence>
            <ZeroOrOne/>
        </Occurrence>
        <Scope>
            <Dynamic/>
        </Scope>
        <DFTitle>User displayable name for the node.</DFTitle>
        <DFType>
            <MIME>text/plain</MIME>
        </DFType>
   </DFProperties>
</Node>

<Node>
    <NodeName>ConRefs</NodeName>
    <!-- The ConRefs node starts here. -->
    <DFProperties>
        <AccessType>
            <Get/>
        </AccessType>
        <DFFormat>
            <node/>
        </DFFormat>
        <Occurrence>
            <One/>
        </Occurrence>
        <Scope>
            <Permanent/>
        </Scope>
        <DFTitle>A collection of network access point objects.</DFTitle>
        <DFType>
            <DDFName/>
        </DFType>
    </DFProperties>
    <Node>
        <NodeName/>
        <DFProperties>
            <AccessType>
                <Get/>
            </AccessType>
            <DFFormat>
                <node/>
            </DFFormat>
            <Occurrence>
                <OneOrMore/>
            </Occurrence>
            <Scope>
                <Dynamic/>
            </Scope>
            <DFTitle>The "name" node for a network access point object.</DFTitle>
            <DFType>
                <DDFName/>
            </DFType>
```

```
            </DFProperties>
            <Node>
                <NodeName>ConRef</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                      <chr/>
                    </DFFormat>
                    <Occurrence>
                        <One/>
                    </Occurrence>
                    <Scope>
                        <Permanent/>
                    </Scope>
                    <DFTitle>The ConRef (network access point object).</DFTitle>
                    <DFType>
                        <MIME>text/plain</MIME>
                    </DFType>
                </DFProperties>
            </Node>
        </Node>
    </Node>

    <Node>
        <NodeName>PDP_ContextOperPref</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <bool/>
            </DFFormat>
            <Occurrence>
                <One/>
            </Occurrence>
            <Scope>
                <Permanent/>
            </Scope>
            <DFTitle>Indication of the operator's preference for a dedicated PDP context for IMS
signalling.</DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
            </DFType>
        </DFProperties>
    </Node>

    <Node>
        <NodeName>P-CSCF_Address</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
              <chr/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
```

```
            </Occurrence>
            <Scope>
                <Dynamic/>
            </Scope>
            <DFTitle>The address of the P-CSCF.</DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
            </DFType>
        </DFProperties>
    </Node>

    <Node>
        <NodeName>Timer_T1</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <int/>
            </DFFormat>
            <Occurrence>
                <One/>
            </Occurrence>
            <Scope>
                <Permanent/>
            </Scope>
            <DFTitle>RFC 3261, timer T1.</DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
            </DFType>
        </DFProperties>
    </Node>

    <Node>
        <NodeName>Timer_T2</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <int/>
            </DFFormat>
            <Occurrence>
                <One/>
            </Occurrence>
            <Scope>
                <Permanent/>
            </Scope>
            <DFTitle>RFC 3261, timer T2.</DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
            </DFType>
        </DFProperties>
    </Node>

    <Node>
        <NodeName>Timer_T4</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
```

```
                <Replace/>
            </AccessType>
            <DFFormat>
                <int/>
            </DFFormat>
            <Occurrence>
                <One/>
            </Occurrence>
            <Scope>
                <Permanent/>
            </Scope>
            <DFTitle>RFC 3261, timer T4.</DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
            </DFType>
        </DFProperties>
    </Node>

    <Node>
        <NodeName>Private_user_identity</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
            </AccessType>
            <DFFormat>
                <chr/>
            </DFFormat>
            <Occurrence>
                <One/>
            </Occurrence>
            <Scope>
                <Permanent/>
            </Scope>
            <DFTitle>The private user identity.</DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
            </DFType>
        </DFProperties>
    </Node>

    <Node>
        <NodeName>Public_user_identity_List</NodeName>
        <!-- The Public_user_identity_List node starts here. -->
        <DFProperties>
            <AccessType>
                <Get/>
            </AccessType>
            <DFFormat>
                <node/>
            </DFFormat>
            <Occurrence>
                <One/>
            </Occurrence>
            <Scope>
                <Permanent/>
            </Scope>
            <DFTitle>A collection of public user identity objects.</DFTitle>
            <DFType>
                <DDFName/>
            </DFType>
        </DFProperties>
        <Node>
```

```
            <NodeName/>
            <DFProperties>
                <AccessType>
                    <Get/>
                </AccessType>
                <DFFormat>
                    <node/>
                </DFFormat>
                <Occurrence>
                    <OneOrMore/>
                </Occurrence>
                <Scope>
                    <Dynamic/>
                </Scope>
                <DFTitle>The "name" node for a public user identity object.</DFTitle>
                <DFType>
                    <DDFName/>
                </DFType>
            </DFProperties>
            <Node>
                <NodeName>Public_user_identity</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                    </AccessType>
                    <DFFormat>
                       <chr/>
                    </DFFormat>
                    <Occurrence>
                        <One/>
                    </Occurrence>
                    <Scope>
                        <Permanent/>
                    </Scope>
                    <DFTitle>The public user identity.</DFTitle>
                    <DFType>
                        <MIME>text/plain</MIME>
                    </DFType>
                </DFProperties>
            </Node>
        </Node>
    </Node>

    <Node>
        <NodeName>Home_network_domain_name</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
            </AccessType>
            <DFFormat>
                <chr/>
            </DFFormat>
            <Occurrence>
                <One/>
            </Occurrence>
            <Scope>
                <Permanent/>
            </Scope>
            <DFTitle>The home network domain name.</DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
            </DFType>
```

```
        </DFProperties>
    </Node>

    <Node>
        <NodeName>ICSI_List</NodeName>
        <!-- The ICSI_List node starts here. -->
        <DFProperties>
            <AccessType>
                <Get/>
            </AccessType>
            <DFFormat>
                <node/>
            </DFFormat>
            <Occurrence>
                <One/>
            </Occurrence>
            <Scope>
                <Permanent/>
            </Scope>
            <DFTitle>A collection of IMS communication services identifier objects.</DFTitle>
            <DFType>
                <DDFName/>
            </DFType>
        </DFProperties>
        <Node>
            <NodeName/>
            <DFProperties>
                <AccessType>
                    <Get/>
                </AccessType>
                <DFFormat>
                    <node/>
                </DFFormat>
                <Occurrence>
                    <OneOrMore/>
                </Occurrence>
                <Scope>
                    <Dynamic/>
                </Scope>
                <DFTitle>The "name" node for an IMS communication services identifier object.</DFTitle>
                <DFType>
                    <DDFName/>
                </DFType>
            </DFProperties>
            <Node>
                <NodeName>ICSI</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <chr/>
                    </DFFormat>
                    <Occurrence>
                        <One/>
                    </Occurrence>
                    <Scope>
                        <Permanent/>
                    </Scope>
                    <DFTitle>The IMS communication services  identifier.</DFTitle>
                    <DFType>
```

```
                        <MIME>text/plain</MIME>
                    </DFType>
                </DFProperties>
            </Node>
            <Node>
                <NodeName>ICSI_Resource_Allocation_Mode</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                        <bool/>
                    </DFFormat>
                    <Occurrence>
                        <ZeroOrOne/>
                    </Occurrence>
                    <Scope>
                        <Permanent/>
                    </Scope>
                    <DFTitle>Indicates whether UE initiates resource allocation for the media controlled by IM CN subsystem when a certain ICSI is used for the IMS session and when both UE and network can initiate resource allocation for IMS media.</DFTitle>
                    <DFType>
                        <MIME>text/plain</MIME>
                    </DFType>
                </DFProperties>
            </Node>
        </Node>
    </Node>

    <Node>
        <NodeName>LBO_P-CSCF_Address</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <node/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
            </Occurrence>
            <Scope>
                <Dynamic/>
            </Scope>
            <DFTitle>A collection of addresses of the P-CSCF for IMS Local Breakout.</DFTitle>
            <DFType>
                <DDFName/>
            </DFType>
        </DFProperties>
        <Node>
            <NodeName/>
            <DFProperties>
                <AccessType>
                    <Get/>
                </AccessType>
                <DFFormat>
                    <node/>
                </DFFormat>
                <Occurrence>
```

```
                <OneOrMore/>
            </Occurrence>
            <Scope>
                <Dynamic/>
            </Scope>
            <DFTitle>The "name" node for a P-CSCF address.</DFTitle>
            <DFType>
                <DDFName/>
            </DFType>
        </DFProperties>
        <Node>
            <NodeName>Address</NodeName>
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                  <chr/>
                </DFFormat>
                <Occurrence>
                    <One/>
                </Occurrence>
                <Scope>
                    <Permanent/>
                </Scope>
                <DFTitle>The P-CSCF Address.</DFTitle>
                <DFType>
                    <MIME>text/plain</MIME>
                </DFType>
            </DFProperties>
        </Node>

        <Node>
            <NodeName>AddressType</NodeName>
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                  <chr/>
                </DFFormat>
                <Occurrence>
                    <One/>
                </Occurrence>
                <Scope>
                    <Permanent/>
                </Scope>
                <DFTitle>The type of P-CSCF Address.</DFTitle>
                <DFType>
                    <MIME>text/plain</MIME>
                </DFType>
            </DFProperties>
        </Node>
    </Node>
</Node>

<Node>
    <NodeName>Resource_Allocation_Mode</NodeName>
    <DFProperties>
        <AccessType>
```

```
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <bool/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
            </Occurrence>
            <Scope>
                <Permanent/>
            </Scope>
            <DFTitle>Indicates whether UE initiates resource allocation for the media controlled by IM CN subsystem for all IMS sessions not covered by any "ICSI Resource Allocation Mode" when both UE and network can initiate resource allocation.</DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
            </DFType>
        </DFProperties>
    </Node>

    <Node>
        <NodeName>Voice_Domain_Preference_EUTRAN</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <int/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
            </Occurrence>
            <Scope>
                <Permanent/>
            </Scope>
            <DFTitle>Network operator's preference for voice domain for E-UTRAN according to 3GPP TS 23.221.</DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
            </DFType>
        </DFProperties>
    </Node>

        <Node>
        <NodeName>Voice_Domain_Preference_UTRAN</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <int/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
            </Occurrence>
            <Scope>
                <Permanent/>
            </Scope>
```

```
            <DFTitle>Network operator's preference for voice domain for UTRAN according to 3GPP TS
23.221.</DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
            </DFType>
        </DFProperties>
    </Node>

    <Node>
        <NodeName>SMS_over_IP_Networks_Indication</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <bool/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
            </Occurrence>
            <Scope>
                <Permanent/>
            </Scope>
            <DFTitle>Indicates whether the SMS service is preferred to be invoked over the IMS domain, or it shall
not be invoked over the IMS domain .</DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
            </DFType>
        </DFProperties>
    </Node>


    <Node>
        <NodeName>Keep_Alive_Enabled</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <bool/>
            </DFFormat>
            <Occurrence>
                <One/>
            </Occurrence>
            <Scope>
                <Permanent/>
            </Scope>
            <DFTitle>Indication whether the sending of keep alives by the UE is enabled.</DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
            </DFType>
        </DFProperties>
    </Node>


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

```
            </AccessType>
            <DFFormat>
                <bool/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
            </Occurrence>
            <Scope>
                <Permanent/>
            </Scope>
            <DFTitle>Indicates whether the UE mobility management performs additional procedures as specified in
3GPP TS 24.008 and 3GPP TS 24.301 to support terminating access domain selection by the network.</DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
            </DFType>
        </DFProperties>
    </Node>


    <Node>
        <NodeName> RegRetryBaseTime</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <int/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
            </Occurrence>
            <Scope>
                <Permanent/>
            </Scope>
            <DFTitle> Represents the value of the base-time parameter of the algorithm defined in subclause 4.5 of
RFC 5626</DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
            </DFType>
        </DFProperties>
    </Node>

    <Node>
        <NodeName> RegRetryMaxTime</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
                <int/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
            </Occurrence>
            <Scope>
                <Permanent/>
            </Scope>
            <DFTitle> Represents the value of the max-time parameter of the algorithm defined in subclause 4.5 of
RFC 5626 </DFTitle>
            <DFType>
                <MIME>text/plain</MIME>
```

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

    <Node>
        <NodeName>PhoneContext_List</NodeName>
        <DFProperties>
            <AccessType>
                <Get/>
                <Replace/>
            </AccessType>
            <DFFormat>
               <node/>
            </DFFormat>
            <Occurrence>
                <ZeroOrOne/>
            </Occurrence>
            <Scope>
                <Dynamic/>
            </Scope>
            <DFTitle>A collection of phone-context parameters values with the associated public user
identities</DFTitle>
            <DFType>
                <DDFName/>
            </DFType>
        </DFProperties>
        <Node>
            <NodeName/>
            <DFProperties>
                <AccessType>
                    <Get/>
                </AccessType>
                <DFFormat>
                    <node/>
                </DFFormat>
                <Occurrence>
                    <OneOrMore/>
                </Occurrence>
                <Scope>
                    <Dynamic/>
                </Scope>
                <DFTitle>The "name" node for a phone-context value</DFTitle>
                <DFType>
                    <DDFName/>
                </DFType>
            </DFProperties>
            <Node>
                <NodeName>PhoneContext</NodeName>
                <DFProperties>
                    <AccessType>
                        <Get/>
                        <Replace/>
                    </AccessType>
                    <DFFormat>
                       <chr/>
                    </DFFormat>
                    <Occurrence>
                        <One/>
                    </Occurrence>
                    <Scope>
                        <Permanent/>
                    </Scope>
```

```
                <DFTitle>The phone-context parameter value </DFTitle>
                <DFType>
                    <MIME>text/plain</MIME>
                </DFType>
            </DFProperties>
        </Node>

        <Node>
            <NodeName>Public_user_identity</NodeName>
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                  <chr/>
                </DFFormat>
                <Occurrence>
                    <OneOrMore/>
                </Occurrence>
                <Scope>
                    <Permanent/>
                </Scope>
                <DFTitle>The associated Public User identity URIs </DFTitle>
                <DFType>
                    <MIME>text/plain</MIME>
                </DFType>
            </DFProperties>
        </Node>
    </Node>
</Node>

<Node>
    <NodeName>SS_domain_setting</NodeName>
    <DFProperties>
        <AccessType>
            <Get/>
            <Replace/>
        </AccessType>
        <DFFormat>
            <int/>
        </DFFormat>
        <Occurrence>
            <ZeroOrOne/>
        </Occurrence>
        <Scope>
            <Permanent/>
        </Scope>
        <DFTitle>Domain or mechanism used to choose the domain for SS setting control</DFTitle>
        <DFType>
            <MIME>text/plain</MIME>
        </DFType>
    </DFProperties>
</Node>

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

```
                <DFFormat>
                    <bool/>
                </DFFormat>
                <Occurrence>
                    <ZeroOrOne/>
                </Occurrence>
                <Scope>
                    <Permanent/>
                </Scope>
                <DFTitle>Mechanim used for performing IMS SS setting control over the PS domain for services
defined in 3GPP TS 22.173</DFTitle>
                <DFType>
                    <MIME>text/plain</MIME>
                </DFType>
            </DFProperties>
        </Node>

        <Node>
            <NodeName>Ext</NodeName>
            <!-- The Extension node starts here. -->
            <DFProperties>
                <AccessType>
                    <Get/>
                    <Replace/>
                </AccessType>
                <DFFormat>
                    <node/>
                </DFFormat>
                <Occurrence>
                    <ZeroOrOne/>
                </Occurrence>
                <Scope>
                    <Dynamic/>
                </Scope>
                <DFTitle>A collection of all Extension objects.</DFTitle>
                <DFType>
                    <DDFName/>
                </DFType>
            </DFProperties>
        </Node>

    </Node>

</MgmtTree>
```

Annex B (informative): 3GPP IMS Client Provisioning Application Characteristics (CP AC)

B.1 General

This annex defines the 3GPP IMS Client Provisioning Application Characteristics (CP AC) as supported in the Enabler Release Definition OMA-ERELD-DM-V1_2 [12].

If the initial IMS parameters cannot be provisioned as specified in OMA-ERELD-DM-V1_2 [12], initial IMS parameters can be provisioned using OMA CP.

If a client is provisioned with 3GPP IMS related parameters by both OMA DM and OMA CP, the client will use the 3GPP IMS related parameters provisioned by OMA DM.

B.2 Definition of the 3GPP IMS Client Provisioning Application Characteristics

IDENTIFYING INFORMATION
########################
APPID: 3GPP_IMS.
APPID type: OMNA.
Owner: 3GPP CT1 Working Group.
Contact: 3GPP TSG CT WG1.
Registration version: 1.0.
Registration timestamp: 2005-10-01.
Application description: IP Multimedia Subsystem.
Application reference:
IMS specifications, 3GPP TS 24.229, 3GPP TS 23.221 and 3GPP TS 23.228.
URL:http://ftp.3gpp.org/.

WELL-KNOWN PARAMETERS
#####################
Characteristic/name: APPLICATION/APPID.
Status: Required.
Occurs: 1/1.
Default value: None.
Used values: N/A.
Interpretation: The Application ID - this is the same as for the MO DDF.

Characteristic/name: APPLICATION/NAME.
Status: Required.
Occurs: 0/1.
Default value: ap2001.
Used values: ap2001.
Interpretation: User displayable name for the application.

Characteristic/name: APPLICATION/PROVIDER-ID.
Status: Required.
Occurs: 0/1.
Default value: None.
Used values: N/A.
Interpretation: An identifier for the IMS service provider that provides the client provisioning. This is used to distinguish between settings for different IMS service providers within a client.

Characteristic/name: APPLICATION/APPREF.
Status: Required.
Occurs: 0/1.
Default value: None.
Used values: N/A.
Interpretation:
The APPREF parameter defines the reference identity of the IMS APPLICATION characteristic. The APPREF parameter value is unique in the scope of the provisioning document. The TO-APPREF parameter included in other APPLICATION characteristic can be used for referring to the IMS APPLICATION characteristic.

Characteristic/name: APPLICATION/TO-NAPID.
Status: Required.
Occurs: 1/1.
Default value: None.
Used values: N/A.
Interpretation: The reference to the connectivity characteristics used for IMS.

APPLICATION-SPECIFIC PARAMETERS
################################
Characteristic/name: APPLICATION/PDP_CONTEXTOPERPREF.
Status: Required.
Occurs: 1/1.
Default value: None.
Used values: 0 and 1.
Interpretation: Indication of the operator's preference for a dedicated PDP context for IMS signalling.

Characteristic/name: APPLICATION/P-CSCF_ADDRESS.
Status: Optional.
Occurs: 0/1.
Default value: 0.
Used values: N/A.
Interpretation: The address of the P-CSCF in FQDN format or an IPv4 address.

Characteristic/name: APPLICATION/TIMER_T1.
Status: Required.
Occurs: 0/1.
Default value: N/A.
Used values: Integer.
Interpretation: RFC 3261, timer T1.

Characteristic/name: APPLICATION/TIMER_T2.
Status: Required.
Occurs: 0/1.
Default value: N/A.
Used values: Integer.
Interpretation: RFC 3261, timer T2.

Characteristic/parameter: APPLICATION/TIMER_T4.
Status: Required.
Occurs: 0/1.
Default value: N/A.
Used values: Integer.
Interpretation: RFC 3261, timer T4.

PARAMETER VALUES
################
Characteristic/name/parameter: APPLICATION/PDP_CONTEXTOPERPREF/0.
Status: Optional.
Interpretation: Indicates that the operator has no preference for a dedicated PDP context for SIP signalling.

Characteristic/name/parameter: APPLICATION/PDP_CONTEXTOPERPREF/1.

Status: Optional.
Interpretation: Indicates that the operator has preference for a dedicated PDP context for SIP signalling.

APPLICATION-SPECIFIC PARAMETERS
##############################
Characteristic/name: APPLICATION/KEEP_ALIVE_ENABLED.
Status: Required.
Occurs: 1/1.
Default value: None.
Used values: 0 and 1.
Interpretation: Indication whether the sending of keep alives by the UE is enabled.

###END###

Annex C (informative): Change history

Change history								
Date	**TSG #**	**TSG Doc.**	**CR**	**Rev**	**Subject/Comment**	**Old**	**New**	**WG doc**
2004-10					Version 0.0.1: Preliminary proposal		0.0.1	
2004-11					Version 0.0.2: Version after CN1 #36	0.0.1	0.0.2	
2004-12					Version 1.0.0: Version after CN1#36 and editorial corrections	0.0.2	1.0.0	
2005-02					Version 1.1.0: Version after CN1#37 and editorial corrections	1.0.0	1.1.0	N1-050330 N1-050393
2005-02	TSG-27	NP-050066			Version 2.0.0 created by MCC	1.1.0	2.0.0	
2005-03					Version 2.0.0. approved in TSG-27. V6.0.0 created.	2.0.0	6.0.0	
2005-06	TSG-28	CP-050060	0001	1	Corrections to TS 24.167 due to comments from OMA DM	6.0.0	6.1.0	C1-050704
2005-06	TSG-28	CP-050060	0002	1	Miscellaneous corrections	6.0.0	6.1.0	C1-050705
2005-06	TSG-28	CP-050060	0003	1	Removal of APN from the IMS MO	6.0.0	6.1.0	C1-050706
2005-09	TSG-29	CP-050359	0006	-	Corrections for the 3GPP IMS Management Object	6.1.0	6.2.0	C1-050978
2005-09	TSG-29	CP-050359	0007	3	IMS MO and ISIM usage clarification	6.1.0	6.2.0	C1-051197
2005-09	TSG-29	CP-050359	0009	1	P-CSCF address used in early IMS implementations	6.1.0	6.2.0	C1-051090
2005-09	TSG-29	CP-050360	0010	2	Adding Client Provisioning Application Characteristics to IMS MO Rel-6	6.1.0	6.2.0	C1-051091
2005-12	TSG-30	CP-050544	0011		AppID for the 3GPP_IMS MO determined by OMA	6.2.0	6.3.0	C1-050544
2006-06	TSG-32	CP-060266	0015		Corrections to client provisioning for the 3GPP IMS MO	6.3.0	6.4.0	C1-060627
2006-06	TSG-32	CP-060266	0016		Value range for int-parameters	6.3.0	6.4.0	C1-060628
2006-09	TSG-33	CP-060468	0017	2	Support for DM 1.2 and higher in IMS MO	6.4.0	7.0.0	C1-061855
2007-03	TSG-35	CP-070140	0019		Management Object identifier for the 3GPP IMS MO in rel-7	7.0.0	7.1.0	C1-070043
2007-09	TSG-37	CP-070586	0022	2	IMS MO Extension for Communication Service Identifier	7.1.0	7.2.0	C1-072179
2007-12	TSG-38	CP-070806	0024	1	MO ICSI list is subscription based	7.2.0	7.3.0	C1-073109
2008-03	TSG-39	CP-080119	0026		Correction of OMA DM reference	7.3.0	7.4.0	C1-080300
2008-12	TSG-42	CP-080845	0028	5	Changes to support IMS Local Breakout	7.4.0	8.0.0	C1-084293
2009-03	TSG-43	CP-090237	0032		MO DDF XML bug fix	8.0.0	8.1.0	C1-090289
2009-03	TSG-43	CP-090159	0033	1	Adding possibility to provision mode of the resource allocation used for IMS media	8.0.0	8.1.0	C1-090938
2009-06	TSG-44	CP-090424	0036	1	DFTitle update	8.1.0	8.2.0	C1-092040
2009-09	TSG-45	CP-090674	0037	4	Defining configuration data for the voice domain selection	8.2.0	8.3.0	C1-093979

2009-09	TSG-45	CP-090651	0039	2	Defining configuration data for the SMS domain selection	8.2.0	8.3.0	C1-093970
2009-09	TSG-45	CP-090651	0040	1	Corrections in IMS MO	8.2.0	8.3.0	C1-093816
2009-09	TSG-45	CP-090658	0043		IMS MO Changes for Keep alive	8.2.0	8.3.0	C1-093795
2009-12	TSG-46	CP-090915	0044	2	Correction to take into account Voice Domain Selection for Iu mode	8.3.0	8.4.0	C1-094779
2009-12	TSG-46				Upgrade to Rel-9	8.4.0	9.0.0	
2010-03	TSG-47	CP-100212	0051	2	Correct terminating domain selection for IMS voice Ues	9.0.0	9.1.0	-
2010-06	TSG-48	CP-100354	0052		Correction of names for voice domain preference	9.1.0	9.2.0	C1-101450
2010-09	TSG-49	CP-100519	0056	3	SigComp disabling	9.2.0	10.0.0	C1-103529
2010-12	TSG-50	CP-100750	0057	2	MO for providing max-time and base-time registration parameters provision	10.0.0	10.1.0	C1-105208
2011-03	TSG-51	CP-110181	0058	4	MO for providing phone-context parameter	10.1.0	10.2.0	C1-111246
2011-03	TSG-51	CP-110181	0059	1	Removal of Sigcomp disabling	10.1.0	10.2.0	C1-111219
2012-03	TSG-55	CP-120110	0062		Phone-context errors	10.2.0	10.3.0	C1-120079
2012-03	TSG-55	CP-120124	0063		Errors in ICSI description	10.3.0	11.0.0	C1-120080
2012-12					Correction to change history	11.0.0	11.0.1	
2013-09	TSG-61	CP-130511	0065	2	Supplementary Services Configuration	11.0.1	12.0.0	C1-133578
2013-12	TSG-62	CP-130763	0066	1	Clean-up of Supplementary Services Configuration	12.0.0	12.1.0	C1-134356
2013-12	TSG-62	CP-130763	0168		Clean Up of IMS_SS_control_preference leaf	12.0.0	12.1.0	C1-134598
2013-12	TSG-62	CP-130763	0169		Error Correction in MO DDF	12.0.0	12.1.0	C1-134646
2013-12	TSG-62	CP-130763	0170	1	Providing better explanation of use of how to configure supplementary services	12.0.0	12.1.0	C1-135130
2014-06	TSG-64	CP-140330	0171	1	Exclude USSD from SS configuration	12.1.0	12.2.0	C1-141461

History

Document history		
V12.2.0	October 2014	Publication