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**Digital cellular telecommunications system (Phase 2+) (GSM);
Universal Mobile Telecommunications System (UMTS);
LTE;
5G;
3GPP IP Multimedia Subsystem (IMS)
conferencing Management Object (MO)
(3GPP TS 24.166 version 17.0.0 Release 17)**



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Foreword

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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

This document defines the IMS conferencing 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-ERELED_DM-V1_2 [3].

The IMS conferencing management object consists of relevant parameters that can be managed for IMS conferencing capabilities.

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 24.147: "Conferencing using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3".
- [3] OMA-ERELED-DM-V1_2-20070209-A : "Enabler Release Definition for OMA Device Management, Version 1.2".
- [4] IETF RFC 4579 (August 2006): "Session Initiation Protocol Call Control - Conferencing for User Agents".
- [5] 3GPP TS 23.003: "Numbering, addressing and identification".

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.

The following terms and definitions given in IETF RFC 4579 [4] apply:

Conference Factory URI

3.2 Abbreviations

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

CN	Core Network
DDF	Device Description Framework
DM	Device Management
IMS	IP Multimedia core network Subsystem
IP	Internet Protocol
MO	Management Object
OMA	Open Mobile Alliance
SIP	Session Initiation Protocol

SNPN Stand-alone Non-Public Network
 UE User Equipment

4 IMS conferencing management object

The IMS conferencing management object is used to manage configuration settings of the UE for IMS conferencing. The management object covers parameters for IMS conferencing related capabilities. 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-conf:1.0.

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

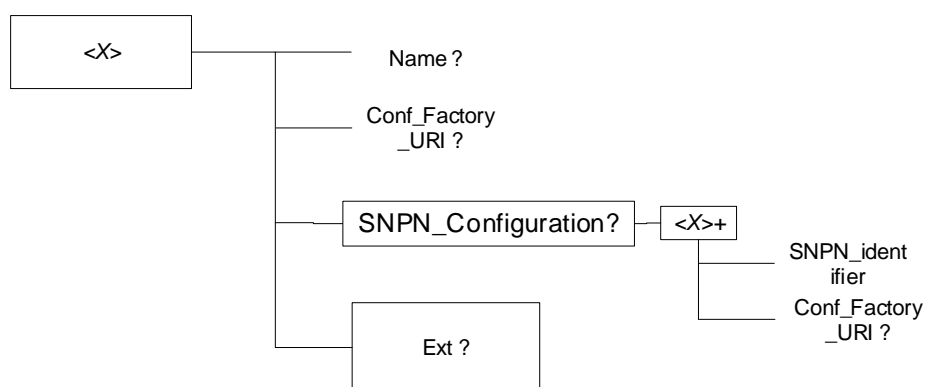


Figure 1: The 3GPP Conferencing Management Object

5 Management object parameters

5.1 General

This clause describes the parameters for the IMS conferencing 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 one or more IMS conferencing capabilities. Support for a UE is defined by the related roles as defined by the related IMS conferencing service.

NOTE: One node is normally used.

5.3 /<X>/Name

The Name leaf is a name for the conferencing settings.

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

5.4 /<X>/Conf_Factory_URI

The Conf_Factory_URI leaf defines a Conference Factory URI as defined by IETF RFC 4579 [4] that is supported by a subscriber's network as described in 3GPP TS 24.147 [2].

- Occurrence: ZeroOrOne
- Format: chr
- Access Types: Get, Replace
- Values: <A Conference Factory URI>

5.5 /<X>/Ext

The Ext is an interior node for where the vendor specific information about the IMS conferencing management 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

5.6 /<X>/SNPN_Configuration

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

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

5.7 /<X>/SNPN_Configuration/<X>

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

- a) SNPN identity; and
- b) configuration parameters.

NOTE: For each of the elements in the list, a) must be present and at least one parameter of b) needs to appear.

A configuration parameter in an /<X>/SNPN_Configuration/<X> node other than the SNPN_identifier, is applicable when the UE selects an entry of "list of subscriber data":

- a) with the SNPN identity of the subscribed SNPN which is the same as the SNPN identity in the SNPN_identifier leaf.
- Occurrence: OneOrMore
- Format: node
- Access Types: Get, Replace
- Values: N/A

5.8 /<X>/SNPN_Configuration/<X>/SNPN_identifier

This leaf indicates the SNPN identity of the subscribed SNPN for which the list of configuration parameters are applicable.

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

The PLMN and NID are in the format defined by 3GPP TS 23.003 [5], with each digit of the MCC and MNC of the PLMN and each digit of the assignment mode and NID value of the NID encoded as an ASCII character.

5.9 /<X>/Conf_Factory_URI

The Conf_Factory_URI leaf defines a Conference Factory URI as defined by IETF RFC 4579 [4] that is supported by a subscriber's network as described in 3GPP TS 24.147 [2].

- Occurrence: ZeroOrOne
- Format: chr
- Access Types: Get, Replace
- Values: <A Conference Factory URI>

Annex A (informative): Management object 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> IMS conferencing </NodeName>
    <DFProperties>
      <AccessType>
        <Get/>
      </AccessType>
      <Description>IMS conferencing configuration parameters</Description>
      <DFFormat>
        <node/>
      </DFFormat>
      <Occurrence>
        <OneOrMore/>
      </Occurrence>
      <Scope>
        <Permanent/>
      </Scope>
      <DFTitle>The IMS conferencing Management Object.</DFTitle>
      <DFType>
        <DDFName>urn:oma:mo:ext-3gpp-conf:1.0</DDFName>
      </DFType>
    </DFProperties>
  </Node>
  <Node>
    <NodeName>Name</NodeName>
    <DFProperties>
      <AccessType>
        <Get/>
      </AccessType>
      <DFFormat>
        <chr/>
      </DFFormat>
      <Occurrence>
        <ZeroOrOne/>
      </Occurrence>
      <Scope>
        <Permanent/>
      </Scope>
      <DFTitle>Name for conference settings.</DFTitle>
      <DFType>
        <MIME>text/plain</MIME>
      </DFType>
    </DFProperties>
  </Node>
  <Node>
    <NodeName>Conference_Factory_URI</NodeName>
    <DFProperties>
      <AccessType>
        <Get/>
        <Replace/>
      </AccessType>
      <DFFormat>
        <chr/>
      </DFFormat>
      <Occurrence>
        <ZeroOrOne/>
      </Occurrence>
      <Scope>
        <Permanent/>
      </Scope>
      <DFTitle>The Confernece Factory URI.</DFTitle>
      <DFType>
        <MIME>text/plain</MIME>
      </DFType>
    </DFProperties>
  </Node>
</MgmtTree>
```

```

    </DFProperties>
  </Node>
  <Node>
    <nodeName>SNPN_Configuration</nodeName>
    <DFProperties>
      <AccessType>
        <Get/>
        <Replace/>
      </AccessType>
      <DFFormat>
        <node/>
      </DFFormat>
      <Occurrence>
        <ZeroOrOne/>
      </Occurrence>
      <Scope>
        <Permanent/>
      </Scope>
      <DFTitle>SNPN Configuration.</DFTitle>
      <DFType>
        <MIME>text/plain</MIME>
      </DFType>
    </DFProperties>
  </Node>
  <Node>
    <nodeName/>
    <DFProperties>
      <AccessType>
        <Get/>
      </AccessType>
      <DFFormat>
        <node/>
      </DFFormat>
      <Occurrence>
        <OneOrMore/>
      </Occurrence>
      <Scope>
        <Dynamic/>
      </Scope>
      <DFTitle>SNPN fonfiguration parameters.</DFTitle>
      <DFType>
        <MIME>text/plain</MIME>
      </DFType>
    </DFProperties>
  </Node>
  <Node>
    <nodeName>SNPN_identifier</nodeName>
    <DFProperties>
      <AccessType>
        <Get/>
        <Replace/>
      </AccessType>
      <DFFormat>
        <chr/>
      </DFFormat>
      <Occurrence>
        <One/>
      </Occurrence>
      <Scope>
        <Permanent/>
      </Scope>
      <DFTitle>Identifier of the SNPN.</DFTitle>
      <DFType>
        <MIME>text/plain</MIME>
      </DFType>
    </DFProperties>
  </Node>
  <Node>
    <nodeName>Conference_Factory_URI</nodeName>
    <DFProperties>
      <AccessType>
        <Get/>
        <Replace/>
      </AccessType>
      <DFFormat>
        <chr/>
      </DFFormat>
      <Occurrence>
        <ZeroOrOne/>
      </Occurrence>
    </DFProperties>
  </Node>

```

```

        <Scope>
          <Permanent/>
        </Scope>
        <DFTitle>The Confernece Factory URI.</DFTitle>
        <DFType>
          <MIME>text/plain</MIME>
        </DFType>
      </DFProperties>
    </Node>
  </Node>
</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>
</MgmtTree>

```

Annex B (informative): Change history

Change history									
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New	WG doc	
2009-10					Version 0.0.0: First proposal		0.0.0		
2009-10					Version 0.0.1 due to comments in CT1#61	0.0.0	0.0.2		
2009-11					Author proposes to use urn:oma:mo:ext-3gpp-conf:1.0	0.0.1	0.0.2		
2009-11					Comments received on proposal for urn:oma:mo:ext-3gpp-conf:1.0. This needs to be documented as an EN	0.0.2	0.0.3		
2009-11	CP-46	CP-090888			Version 1.0.0 created by MCC for presentation to CT-46 for information and approval	0.0.3	1.0.0		
2009-12	CP-46	CP-091044			Formal number added	1.0.0	1.0.1		
2009-12	CP-46				Version 9.0.0 created by MCC after approval at CT-46	1.0.1	9.0.0		
2010-03	CP-47	CP-100135	0001		Missing "Ext" interior node	9.0.0	9.1.0	C1-100451	
2011-03	CP-51	CP-110174	0002		MO identifier registered by OMNA	9.1.0	9.2.0	C1-110074	
2011-03	CP-51				Upgrade to Rel-10	9.2.0	10.0.0		
2012-09	CP-57				Upgrade to Rel-11	10.0.0	11.0.0		
2014-09	CP-65				Upgrade to Rel-12	11.0.0	12.0.0		
2015-12	CP-70				Upgrade to Rel-13	12.0.0	13.0.0		

Change history							
Date	Meeting	TDoc	CR	Rev	Cat	Subject/Comment	New version
2017-03	CT75					Upgrade to Rel-14	14.0.0
2018-06	SA80	-	-	-		Update to Rel-15 version (MCC)	15.0.0
2018-12	CT-82	CP-183077	0004		F	Addition of the object identifier in the DDF of the 3GPP Management Object	16.0.0
2022-03	CT-95e	CP-220237	0005	-	B	SNPN configuration for conferencing	17.0.0

History

Document history		
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