**3GPP TSG-CT WG1 Meeting #134-eC1-221801**

**E-Meeting, 17th – 25th February 2022**

|  |
| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **24.424** | **CR** | **0013** | **rev** | **1** | **Current version:** | **17.1.0** |  |
|  |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
|  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **x** | Radio Access Network |  | Core Network |  |

|  |
| --- |
|  |
| ***Title:***  | SNPN configuration in XCAP MO |
|  |  |
| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | CT1 |
|  |  |
| ***Work item code:*** | eNPN |  | ***Date:*** | 2022-02-22 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-17 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***Reason for change:*** | The MMTel MO needs to be extended to accommodate XCAP configuration |
|  |  |
| ***Summary of change:*** | Added SNPN configuration in the MO. Modified figures and DDF accordingly. |
|  |  |
| ***Consequences if not approved:*** | Configuration per SNPN is not supported. |
|  |  |
| ***Clauses affected:*** | 2, 3.2, 5.x1 (new), 5.x2 (new), 5.x3 (new), 5.x4 (new), 5.x5 (new), 5.x6 (new), 5.x7 (new), 5.x8 (new), 5.x9 (new), 5.x10 (new), annex A |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** | Rev 1: Added SNPN\_Configuration/<X>/ to headingsAdded headings for XCAP\_conn\_params\_policyCorrected figure and applied revision marksAdded DDFMinor correction of order of <Get/> and <Replace/>Added clauses affected. |

**\*\*\*\*\*\*\***

\* \* \* First Change \* \* \* \*

# 2 References

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

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

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

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

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

[2] OMA OMA-ERELD-DM-V1\_2-20070209-A: "Enabler Release Definition for OMA Device Management, Version 1.2".

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

[4] OMA OMA-TS-XDM\_MO-V1\_1-20080627-A: "OMA Management Object for XML Document Management".

[5] OMA OMA-TS-DM\_Protocol-V1\_2-20070209-A: "OMA Device Management Protocol".

[6] 3GPP TS 22.011: "Service accessibility".

[7] 3GPP TS 33.220: "Generic Authentication Architecture (GAA); Generic Bootstrapping Architecture (GBA)".

[8] 3GPP TS 33.221: "Generic Authentication Architecture (GAA); Support for subscriber certificates".

[9] Void.

[10] IETF RFC 7616: "HTTP Digest Access Authentication".

[11] 3GPP TS 23.003: "Numbering, addressing and identification".

\* \* \* Next Change \* \* \* \*

## 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

DM Device Management

IP Internet Protocol

IP-CAN IP-Connectivity Access Network

MO Management Object

OMA Open Mobile Alliance

PS Packet Switched

SNPN Stand-alone Non-Public Network

SS Supplementary Services

UE User Equipment

XCAP XML Configuration Access Protocol

XML Extensible Markup Language

# 4 MO for XCAP over Ut interface for manipulating SS

The MO for XCAP over Ut interface for manipulating SS is used to manage settings of the UE for extensible markup language (XML) configuration access protocol (XCAP) over the Ut interface for manipulating supplementary services (SS). Figure 4-1 gives overview of the configuration parameters of the MO for XCAP over Ut interface for manipulating SS.

The MO for XCAP over Ut interface for manipulating SS covers configuration parameters for a UE supporting the UE role specified in 3GPP TS 24.623 [3].

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

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



Figure 4-1: MO for XCAP over Ut interface for manipulating SS

\* \* \* Next Change \* \* \* \*

## 5.x1 /*<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

\* \* \* Next Change \* \* \* \*

## 5.x2 /*<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

\* \* \* Next Change \* \* \* \*

## 5.x3 /*<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 [11], 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.x4 /*<X>*/SNPN\_Configuration/<X>/AuthenticationForXCAP

The AuthenticationForXCAP leaf provides a means to define the authentication mechanism for Ut reference point.

- Occurrence: ZeroOrOne

- Format: int

- Access Types: Get, Replace

- Values: 0, 1, 2, 3, 4

0 – Indicates that the authentication mechanism for Ut reference point is GBA\_ME as defined in 3GPP TS 33.220 [7].

1 – Indicates that the authentication mechanism for Ut reference point is GBA\_U as defined in 3GPP TS 33.220 [7].

2 – Indicates that the authentication mechanism for Ut reference point is GBA\_Digest as defined in 3GPP TS 33.220 [7].

3 – Indicates that the authentication mechanism for Ut reference point is SSC (support for subscriber certificates) as defined in 3GPP TS 33.221 [8].

4 – Indicates that the authentication mechanism for Ut reference point is Digest Access Authentication as defined in IETF RFC 7616 [10].

## 5.x5 /*<X>*/SNPN\_Configuration/<X>/XCAP\_conn\_params\_policy

This interior node contains the XCAP connection parameters policy.

- Occurrence: ZeroOrOne

- Format: node

- Access Types: Get, Replace

- Values: N/A

If this interior node contains a child node not defined in this version of the present document, the child node is ignored.

## 5.x6 /*<X>*/SNPN\_Configuration/<X>/XCAP\_conn\_params\_policy/*<X>*

This interior node contains one XCAP connection parameters policy part.

- Occurrence: OneOrMore

- Format: node

- Access Types: Get, Replace

- Values: N/A

If this interior node contains a child node not defined in this version of the present document, this interior node is ignored.

If a descendant node of this interior node contains a value not defined in this version of the present document, this interior node is ignored.

## 5.x7 /*<X>*/SNPN\_Configuration/<X>/XCAP\_conn\_params\_policy/*<X>*/XDM\_MO\_ref

This leaf contains an XCAP connection parameters reference.

The value of this leaf is a full device URI as specified in OMA-TS-DM\_Protocol-V1\_2 [5], identifying the <X> interior node specified in OMA-TS-XDM\_MO-V1\_1 [4] in the UE management tree.

- Occurrence: One

- Format: chr

- Access Types: Get, Replace

- Values: N/A

## 5.x8 /*<X>*/SNPN\_Configuration/<X>/3GPP\_PS\_data\_off

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

- Occurrence: ZeroOrOne

- Format: node

- Access Types: Get, Replace

- Values: N/A

## 5.x9 /*<X>*/SNPN\_Configuration/<X>/3GPP\_PS\_data\_off/SS\_XCAP\_config\_exempt

The leaf indicates whether the manipulation of supplementary services (SS) settings using XCAP over Ut interface is a 3GPP PS data off exempt service.

- Occurrence: One

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 - Indicates that the SS configuration via XCAP is not a 3GPP PS data off exempt service.

1 - Indicates that the SS configuration via XCAP is a 3GPP PS data off exempt service.

## 5.x10 /*<X>*/SNPN\_Configuration/<X>/3GPP\_PS\_data\_off/SS\_XCAP\_config\_non-subscribed\_exempt

The leaf indicates whether the manipulation of supplementary services (SS) settings using XCAP over Ut interface is a 3GPP PS data off non-subscribed exempt service.

- Occurrence: One

- Format: bool

- Access Types: Get, Replace

- Values: 0, 1

0 - Indicates that the SS configuration via XCAP is not a 3GPP PS data off non-subscribed exempt service.

1 - Indicates that the SS configuration via XCAP is a 3GPP PS data off non-subscribed exempt service.

Annex A (informative):
DDF of MO for XCAP over Ut interface for manipulating SS

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

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

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 "http://www.openmobilealliance.org/tech/DTD/DM\_DDF-V1\_2.dtd">

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

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\* \* \* End of Changes \* \* \* \*