**3GPP TSG-SA5 Meeting #130e *S5-202219***

**e-meeting 20-28 April 2020**

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| *CR-Form-v11.4* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **28.622** | **CR** | **0075** | **rev** | **1** | **Current version:** | **16.3.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network |  |

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| ***Title:*** | Update concept of ME and MF | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eNRM | | | | |  | ***Date:*** | | | 2020-04-07 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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 can be 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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The concept of ManagedElement in clause 4.3.3 has following issues:   1. Both ME and ManagedElement are used which may cause confusion ; 2. The relation of ManagedElement and ManagedFunction is not clearly described. | | | | | | | | |
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| ***Summary of change:*** | | This contribution proposes to update the concept description of ManagedElement | | | | | | | | |
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| ***Consequences if not approved:*** | | The concept description of ManagedElement is not clear. | | | | | | | | |
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| ***Clauses affected:*** | | 4.3.3.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

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| ***This CR's revision history:*** |  |

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| **1st Change** |

### 4.3.3 ManagedElement

#### 4.3.3.1 Definition

This IOC represents telecommunications equipment or TMN entities within the telecommunications network providing support and/or service to the subscriber.   
An instance of ManagedElement IOC is often used to represent a Network Element defined in TS 32.101[1] including virtualization or non-virtualization scenario. ManagementElement IOC is used for communicating with a manager (directly or indirectly) over one or more management interfaces for the purpose of being monitored and/or controlled. ManagedElement may or may not additionally perform element management functionality. An ManagedElement contains equipment that may or may not be geographically distributed. A ManagedElement is often referred to as a "Network Element".

A telecommunication equipment has software and hardware components. The ManagedElement IOC described above represents the following two cases:

* In the case when the software component is designed to run on dedicated hardware component, the ManagedElement IOC description includes both software and hardware components.
* In the case when the software is designed to run on ETSI NFV defined NFVI [15], the ManagedElement IOC description would exclude the NFVI component supporting the above mentioned subject software.

A ManagedElement may be contained in either a SubNetwork or in a MeContext instance. A ManagedElement may also exist stand-alone with no parent at all.

The relation of ManagedElement IOC and ManagedFunction IOC can be described as following:

* A ManagedElement IOC instance may have 1..1 containment relationship to a ManagedFunction IOC instance. In this case, the ManagedElement IOC may be used to represent a NE with single ManagedFunction functionality. For example, a ManagedElement is used to represent the 3GPP defined RNC node.
* A ManagedElement instances may have 1..N containment relationship to multiple ManagedFunction IOC instances. In this case, the ManagedElement IOC may be used to represent a NE with combined ManagedFunction functionality (as indicated by the managedElementType attribute and the contained instances of different ManagedFunction IOCs). For example, a ManagedElement is used to represent the combined functionality of 3GPP defined gNBCUCPFunction, gNBCUUPFunction and gNBDUFunction.

NOTE: For some specific functional IOCs a 1..N containment relationship is permitted. The specific functional entities are identified in the NRMs that define subclasses of ManagedFunction.

#### 4.3.3.2 Attributes

The ManagedElement IOC includes the attributes inherited from ManagedElement\_ IOC (defined in TS 28.620 [9]), attributes inherited from Top IOC (defined in clause 4.3.8) and the following attributes:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute Name | Support Qualifier | isReadable | isWritable | isInvariant | isNotifyable |
| vendorName | M | T | F | F | T |
| userDefinedState | M | T | T | F | T |
| swVersion | M | T | F | F | T |
| priorityLabel | O | T | F | T | F |
| measurementsList | M | T | F | F | T |

#### 4.3.3.3 Attribute constraints

Attribute constrains for dnPrefix: The attribute dnPrefix shall be supported if an instance of ManagedElement is the local root instance of the MIB. Otherwise the attribute shall be absent or carry no information.

#### 4.3.3.4 Notifications

The common notifications defined in clause 4.5 are valid for this IOC. In addition, the following set of notifications is also valid.

| Name | Qualifier | Notes |
| --- | --- | --- |
| notifyDownloadNESwStatusChanged | See Software Management IRP (3GPP TS 32.532 [6]) |  |
| notifyInstallNESwStatusChanged | See Software Management IRP (3GPP TS 32.532 [6]) |  |
| notifyActivateNESwStatusChanged | See Software Management IRP (3GPP TS 32.532 [6]) |  |

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| **End of Change** |