**3GPP TSG-SA5 Meeting #144-e *S5-225468***

**e-meeting, 15th Aug 2022 - 24th Aug 2022**

**Source: Nokia, Nokia Shanghai Bell**

**Title: pCR TR 28.831 Add key issue Definition of createMOI**

**Document for: Approval**

**Agenda Item: 6.8.2.3 - FS\_eSBMAe\_WoP#3**

# 1 Decision/action requested

***The group is requested to discuss and approve the pCR below***

# 2 References

[1] 3GPP TS 28.831: " Management and orchestration; Study on basic Service-Based Management Architecture (SBMA) enabler enhancements"

# 3 Rationale

The definition of createMOI misses many important aspects and needs to be improved.

# 4 Detailed proposal

The following changes are proposed for TR 28.831 [1].

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| **Begin of modifications** |

## 4.X Key issue #X: Definition of createMOI

### 4.X.1 Issue description

The operation "createMOI" in TS 28.532 is underspecified and needs to be improved in many aspects.

### 4.X.1 Analysis

The following points need to be clarified in the definition of "createMOI":

* Clarify that the name of the new object is assigned by the MnS consumer.
* Clarify that the MnS consumer does not need to provide in the creation request values for all attributes defined for the object class.
* Clarify that depending on the object class some attribute values have to be provided in the creation request.
* Clarify the MnS producer may provide values for attributes, for which no value is provided in the request.
* Clarify the operation is synchronous.

### 4.X.3 CR proposal

The existing clause 11.1.1.1 in TS 28.532 shall be replaced as follows:

Note that the pCR features already a Presence Qualifier "P", that still needs to be introduced into the IS template. The Presence Qualifier "P", when set to "M", specifies that the attribute shall be present in the creation request. When set to "O", the attribute may or may not be present in the creation request.

\*\*\*\*\*\* BEGIN \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 11.1.1.1 createMOI operation

##### 11.1.1.1.1 Description

This operation is invoked by MnS consumer to request the MnS producer to create a (single) Managed Object Instance (MOI) in the MIB maintained by MnS producer.

The "managedObjectClass" specifies the class name and the "managedObjectInstance" the instance name of the object to be created. Both parameters shall be included in the request.

The MnS consumer constructs the instance name by first assigning a value to the naming attribute of the new instance, and then constructing a DN according to TS 32.300 [25].

The MnS consumer provides in "attributeListIn" some or all attribute name/value pairs defined for the managed object class. The parameter "attributeListIn" may also be empty or absent. This flexibility is required because the MnS consumer may not know or may not be able to determine values for all attributes when he wants to create the object.

For some object classes, the values of some attributes may have to be specified in the "createMOI" request. These attributes need to be clearly identified where the object class is defined.

Attributes, for which a default value is defined, do not need to be included in the "createMOI" request unless the default value shall be overwritten with some other value. In the extreme case that all attributes have a default value, the parameter "attributeListIn" may be completely empty or absent.

Depending on the stage 3 protocol, instead of absent attribute name/value pairs, the name/value pairs may also be present in the "createMOI" request with a specific NULL value. The NULL value indicates that no value has been assigned to the attribute yet.

When a default value is specified for a specific attribute and the attribute is absent in the request or has a NULL value, the MnS producer shall assign the default value to that attribute. The MnS producer may also assign values to attributes whose values are not provided in the "createMOI" request and for which no default value is specified. The object class definition should identify these attributes.

When the MnS producer modifies the attributes provided in "attributeListIn" before creating the object, beyond just assigning default values, and as a consequence the name/value pairs of the created object differ from those provided in "attributeListIn", the MnS producer shall include "attributeListOut" in the "createMOI" response, otherwise "attributeListOut" may be omitted in the response.

In case the stage 3 protocol does not support returning "attributeListOut" the MnS producer shall not modify the attribute list provided in the request in any other way than assigning default values. In this case the MnS producer shall modify the attributes only after returning the "createMOI" response. Attribute vale change notifications may be used to notify MnS consumers.

Note the parameters "attributeListIn" and "attributeListOut" are to be interpreted in a way that on stage 3 this information must be present. A specific protocol may choose to use instead of a plain list of attribute name/value pairs the complete representation of the managed object to be created.

In case of a successful operation, the object shall be created immediately upon reception of the "createMOI" request, and t7he "createMOI" response shall be returmed immediately after the creation of the object. The MnS producer shall not wait with the creationof the object or returning the response until some other potentially long-lasting process or activity, that might be triggered by the reception of the request or the creation of the object, has completed.

Only objects, whose parent exists, can be created (directly under that parent). The MnS producer shall consider an attempt to create an object whose parent object does not exist as an error.

##### 11.1.1.1.2 Input parameters

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter Name | S | P | Information Type / Legal Values | Comment |
| managedObjectClass | M | M | string | Class name of the managed object to be created. |
| managedObjectInstance | M | M | DN | Instance name of the managed object to be created. |
| attributeListIn | M | O | LIST OF SEQUENCE< attribute name, attribute value> | List of attribute name/value pairs of the managed object to be reated. |

##### 11.1.1.1.3 Output parameters

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter name | S | P | Matching Information / Legal Values | Comment |
| attributeListOut | M | O | LIST OF SEQUENCE< attribute name, attribute value> | List of attribute name/value pairs of the created object.The parameter shall be present when attributes provided in "attributeListIn" have been modified by the MnS producer before object creation, otherwise it may be absent. |
| Status | M | M | ENUM (OperationSucceeded, OperationSucceededAttributesModified, Failed) |  |

\*\*\*\*\*\* END \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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| **End of modifications** |