**3GPP TSG-SA5 Meeting #144-e *S5-224280***

**e-meeting, 27 June - 1 July 2022**

**Source: Nokia, Nokia Shanghai Bell**

**Title: Add a new key issue for Adding capabilities and procedures to advertise supported IOCs, attributes, conditions, and constraints by the MnS Producer**

**Document for: Approval**

**Agenda Item: 6.8.2.3**

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

This contribution proposes to add a new key issue to study potential solutions for the following objective as described in FS\_eSBMAe SID.

* Investigate if new capabilities should be added to the Provisioning MnS, for example the concept of creating and removing attributes of managed object instances, or filter profiles.

4 Detailed proposal

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

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| **1st 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] RFC8525: YANG Library

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| **2nd Change** |

## 4.x Key Issue #x: Adding capabilities and procedures to advertise supported IOCs, attributes, conditions, and constraints by the MnS Producer

### 4.x.1 Issue description

SA5 defines NRMs with IOCs with attributes along with constraints. Different MnS Producers implementing the NRM might have different levels of support for the IOCs defined in SA5. A MnS Producer might not support an IOC since the underlying functionality is not supported. For example, a MnS Producer supporting a non-split NG-RAN deployment will not support the IOCs relevant only for a 3-split NG-RAN deployment. Similarly, MnS Producers might not support all attributes of an IOC, or all values of an attribute due to certain constraints, since the underlying functionality is not supported or the allowed values are dependent on another attribute value. For example, a MnS producer that is not supporting Energy Saving Function or ANR Function or file-based reporting functionality will not support the attributes dependant on supported the function. Another example of this constraint is when the MnS Producer supports only a subset of the attribute values. Additionally, for the IOCs with containment relationship with ProxyClass representing different IOCs, the MnS Producer may support all or only a subset of containment for the IOCs that can exist at different levels in the containment tree.

A mechanism for the MnS Consumer to be aware of such conditions, constraints and the attributes supported by the MnS Producer is currently missing.

This clause analyses the current situation and proposes a solution.

### 4.x.2 Current situation

Currently the MnS producer does not advertise the supported IOCs, attributes, conditions and constrains to the MnS consumers. The MnS consumers may expect that the complete NRM defined in SA5 is supported by the MnS Producer. There is no mechanism currently defined where the MnS Consumer can get this information. Hence, a mechanism to advertise such capabilities and procedures needs to be studied and specified.

### 4.x.3 Analysis

### 4.x.4 Potential requirements

Potential requirements to address the issue are:

[Req-1] MnS Producer shall be able to publish or notify supported IOCs

[Req-2] MnS Producer shall be able to publish or notify supported attributes for the supported IOCs

[Req-3] MnS Producer shall be able to publish or notify configuration constraints and dependencies for the supported attributes and IOCs

[Req-3] MnS Producer shall be able to publish or notify supported containment relationships for the IOCs.

### 4.x.5 Potential solution

Define datastore that can be used by the MnS Producer to publish and notify the supported IOCs, attributes, conditions, and constraints to MnS Consumer.

The mechanism defined by the YANG module "ietf-yang-library" (reference [2]) provides a potential solution for Netconf/YANG solution set.

### 4.x.6 CR proposal

### 4.x.7 Conclusion

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| **End of change** |