**3GPP TSG-SA5 Meeting #156 *S5-244284***

Maastricht, The Netherlands, 19 - 23 August 2024

**Source: Ericsson, Deutsche Telekom**

**Title: Rel-19 pCR TR 28.871 Add alternative solution for discovery of management capabilities**

**Document for: Approval**

**Agenda Item: 6.19.8**

# 1 Decision/action requested

***The group is asked to approve the detailed proposal in section 4.***

# 2 References

[1] 3GPP TS 28.537: "Management and orchestration; Management capabilities "

# 3 Rationale

How a MnS consumer can retrieve capability information is described in TS 28.537 and basically consists of the following two steps: first the information about the MnS retrieved from the registry, with this information the consumer finds out about the MnSs and can retrieve detailed capabilities from each MnS.

The requirement **REQ-DMS-**1 is already met by the current solution in 28.537, however there may be a case where the consumer just wants to discover the MnS provisioning categories supported by an MnS producer.

# 4 Detailed proposal

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| **Start of modification** |

## 5.3 Discovery of management capabilities of MnS supported by a MnS Producer

### 5.3.1 Description

The use cases and requirements for discovery of Management Services are described in TS 28.537 [3], which includes:

- MnS Consumer retrieves management service information from MnS registry

- MnS Consumer retrieves detailed capabilities about management service

In TS 28.622[2], MnsInfo IOC is introduced to describe the management service information and detailed capabilities about management service, which includes:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | S | isReadable | isWritable | isInvariant | isNotifyable |
| mnsLabel | M | T | F | F | T |
| mnsType | M | T | F | F | T |
| mnsVersion | M | T | F | F | T |
| mnsAddress | M | T | F | F | T |
| mnsScope | M | T | F | F | T |

The model driven approach (i.e. usage of provisioning MnS operations specified in TS 28.532 [14] and NRM fragments) can be used to support various types of management capabilities in SBMA. MnS consumer may need to get management capability information of the MnS in an convenient way. For example, MnS consumer may need to query which MnS can provide the threshold control capability. The current MnSType attribute in MnSInfo IOC cannot be used to represent the management capability information of MnS.

### 5.3.2 Potential requirements

**REQ-DMS-1:** The 3GPP management system should provide capabilities allowing MnS consumers to retrieve the management capability information for MnS.

### 5.3.3 Potential solutions

#### 5.3.3.1 Solution 1

Following are the proposed enhancement for MnSInfo IOC defined in TS 28.622 [2]:

**Enhancement Aspect 1:** Add attribute ‘mnsCapability’ to represent the types of management capabilities provided by MnS instance that the MnSType is ProvMnS.

| Attribute Name | Documentation and Allowed Values | Properties |
| --- | --- | --- |
| mnsCapability | It describes the types of management capabilities provided by MnS instance that the MnSType is ProvMnS. If the attribute has no value, it means that information about the categories is not available in the registry.  The allowed values:  - MANAGEMENT\_DATA\_CONTROL  - FAULT\_MANAGEMENT  - FILE\_MANAGEMENT  - NR\_PROVISIONING  - 5GC\_PROVISIONING  - NETWORK\_SLICING\_PROVISIONING  - EDGE\_COMPUTING\_PROVISIONING  - AI/ML\_MANAGEMENT  - MDA  - SON\_POLICY  - RANSC\_MANAGEMENT  - INTENT\_DRIVEN\_MANAGEMENT  - MNS\_REGISTRY\_AND\_DISCOVERY  - COMMUNICATION\_SERVICE\_ASSURANCE  - NSOEU  - MSAC\_MANAGEMENT | Type: Enum  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |

#### 5.3.3.1 Solution 2

Following is the proposed enhancement for MnSInfo IOC defined in TS 28.622 [2]:

**Enhancement Aspect 1:** Add attribute ‘mnsFeatures’ to represent the categories of management data provided by a provisioning MnS instance.

| Attribute Name | Documentation and Allowed Values | Properties |
| --- | --- | --- |
| mnsFeatures | It describes the categories of provisioning data provided by a provisioning MnS instance. If the attribute has no value, it means that information about the categories is not available in the registry.  The allowed values:  - MANAGEMENT\_DATA\_CONTROL  - FAULT\_MANAGEMENT  - FILE\_MANAGEMENT  - NR\_PROVISIONING  - 5GC\_PROVISIONING  - NETWORK\_SLICING\_PROVISIONING  - EDGE\_COMPUTING\_PROVISIONING  - AI/ML\_MANAGEMENT  - MDA  - SON\_POLICY  - RANSC\_MANAGEMENT  - INTENT\_DRIVEN\_MANAGEMENT  - MNS\_REGISTRY\_AND\_DISCOVERY  - COMMUNICATION\_SERVICE\_ASSURANCE  - NSOEU  - MSAC\_MANAGEMENT | Type: Enum  multiplicity: 0..\*  isOrdered: False  isUnique: True  defaultValue: None  isNullable: False |

### 5.3.4 Evaluation of potential solutions

TBD

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| **End of modification** |