**3GPP TSG-SA5 Meeting #144-e *S5-224295***

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

**Source: Ericsson**

**Title: New WID on methodology for deprecation of IOCs, data types and attributes.**

**Document for: Approval**

**Agenda Item: 6.2**

3GPP™ Work Item Description

Information on Work Items can be found at <http://www.3gpp.org/Work-Items>   
See also the [3GPP Working Procedures](http://www.3gpp.org/specifications-groups/working-procedures), article 39 and the TSG Working Methods in [3GPP TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm)

Title: Methodology for deprecation of IOCs, data types and attributes

Acronym: OAM\_MetDep

Unique identifier:

{A number to be provided by MCC at the plenary}

Potential target Release: *Rel-18*

# 1 Impacts

{For Normative work, identify the anticipated impacts. For a Study, identify the scope of the study}

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Affects: | UICC apps | ME | AN | CN | Others (specify) |
| Yes |  |  | x | x |  |
| No | x |  |  |  |  |
| Don't know |  | x |  |  |  |

# 2 Classification of the Work Item and linked work items

## 2.1 Primary classification

### This work item is a …

|  |  |
| --- | --- |
| x | Feature |
|  | Building Block |
|  | Work Task |
|  | Study Item |

## 2.2 Parent Work Item

N/A

### 2.3 Other related Work Items and dependencies

N/A

# 3 Justification

Standards have situations where changes cannot be done in a backward compatible manor. In SA5, sometimes stage 2 and 3 attributes, data types or classes need to be changed in a non-backwards compatible way or even removed.

When deprecation is not applied, for a system to work both the consumer and producers need to support the new version of the NRM at the same time. For example, if a non-backwards compatible change is needed in the interface between the management system entity and several traffic nodes, for the system to continue to work both the management system entity and the traffic nodes, all need to be upgraded to the new version of the NRM at the same time.  
The idea with deprecation is that the entities can be upgraded at different points in time. Not all nodes need to be upgraded at the same time.

A common way of solving these kinds of problems in other organisations is to use deprecation.

It is proposed to have deprecation for attributes, data types, IOCs, operations and notifications for the cases when non backwards compatible changes are needed.

The proposal is to include a deprecation mechanism in the SA5 methodology, so that it can be used in SA5 TSs.

Examples of non-backwards compatible changes:

Example 1 (attribute):

28.541 CR0658

Change the mandatory attribute pLMNIdList to pLMNInfoList,

Removing the Conditional Mandatory attribute sNSSAIList.

Example 2 (data type and IOC):28.622 CR0084 Update PM control fragment (stage 2).

Replacing data type KPIs with SupportedPerfMettricGroup and removing IOC  MeasurementControl.

Example 3 (IOC):

28.622 CR 0086 Update FM control fragment (stage 2)

Removing the IOC FMControl.

Example 4 (Operation):

28.532 CR 0102 Rel-16 CR 28.532 Remove subscribe and unsubscribe operation from ProvMnS

Removing the operations subscribe and unsubscribe.

# 4 Objective

To specify the methodology for how deprecation shall be used in SA5 TSs for attributes, data types, IOCs, operations and notifications.

The stage 2 solution shall be specified so that the already existing deprecation mechanisms in YANG RFC 7950 section 7.21.2) and YAML (JSON Schema Validation: A Vocabulary for Structural Validation of JSON section 9.3) can be used.

# 5 Expected Output and Time scale

|  |  |  |  |
| --- | --- | --- | --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} | | | |
| TS/TR No. | Description of change | Target completion plenary# | Remarks |
| 32.156 | Introduction of deprecation of IOCs, data types and attributes. | TSG SA#99 Mar. 2023 |  |
| 32.160 | Introduction of deprecation of IOCs, data types and attributes | TSG SA#99 Mar. 2023 |  |

# 6 Work item Rapporteur(s)

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# 7 Work item leadership

SA5

# 8 Aspects that involve other WGs

None.

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| Ericsson |
| Nokia |
| Cisco |
| NEC |
| Deutche Telekom |
|  |