**3GPP TSG-SA5 Meeting #140-e *S5-216230***

**e-meeting, 15 - 24 November 2021**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **28.536** | **CR** | **-** | **rev** | **-** | **Current version:** | **17.0.0** |  |
|  | | | | | | | | |
| *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 | **x** |

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| ***Title:*** | Input to draftCR S5-215550 Updates to assurance report for eCOSLA | | | | | | | | | |
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| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eCOSLA | | | | |  | ***Date:*** | | | 2021-11-2 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **C** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | 1. Reference to AssuranceClosedControlLoop is missing in AssuranceReport IOC.  2. It is too restrictive to define properties of assuranceGoalStatusId and assuranceTargetStatusId as “Integer”. | | | | | | | | |
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| ***Summary of change:*** | | 1. Add attribute assuranceClosedControlLoopRef in AssuranceReport IOC.  2. Modify properties of assuranceGoalStatusId and assuranceTargetStatusId from “Integer” to “String”. | | | | | | | | |
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| ***Consequences if not approved:*** | | Inconsistency exists between AssuranceReport IOC definition and the UML diagram for “Assurance management NRM fragment”. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.1.2.2.1, 4.1.2.3.x.2, 4.1.2.3.x.3, 4.1.2.4 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | This is input to the Rel-17 28.536 DraftCR S5-215550 for eCOSLA | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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| **1st of changes** |

#### 4.1.2.2 Class diagram

#### 4.1.2.2.1 Relationships

This clause depicts the set of classes that encapsulates the information relevant for this MnS. This clause provides an overview of the relationships between relevant classes in UML.

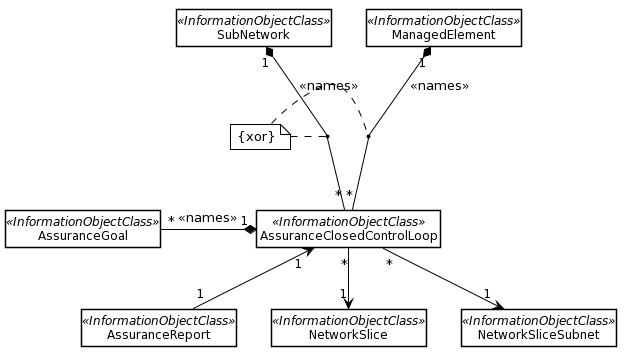


Figure 4.1.2.2.1.1: Assurance management NRM fragment

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| **2nd of changes** |

##### 4.1.2.3.x AssuranceReport <<IOC>>

4.1.2.3.x.1 Definition

This class represents the attributes (typically characteristics attributes) of assurance report, e.g, the information about one or multiple AssuranceGoalStatus and one or multiple AssuranceTargetStatus.

The attribute “assuranceGoalStatusList” defines a list of AssuranceGoalStatus.The attribute “assuranceTargetStatusList” defines a list of AssuranceTargetStatus.

4.1.2.3.x.2 Attributes

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| --- | --- | --- | --- | --- | --- |
| Attribute name | Support Qualifier | isReadable | isWritable | isInvariant | isNotifyable |
| assuranceGoalStatusList | O | T | F | F | T |
| assuranceTargetStatusList | O | T | F | F | T |
| **Attributes related to role** |  |  |  |  |  |
| assuranceClosedControlLoopRef | CM | T | T | F | T |

4.1.2.3.x.3 Attribute constraints

|  |  |
| --- | --- |
| Name | Definition |
| assuranceClosedControlLoopRef | Condition: the AssuranceReport applies to AssuranceClosedControlLoop |

4.1.2.3.x.4 Notifications

The common notifications defined in subclause 4.1.2.5 are valid for this IOC, without exceptions or additions.

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| **2nd of changes** |

#### 4.1.2.4 Attribute definitions

##### 4.1.2.4.1 Attribute properties

The following table defines the properties of attributes that are specified in the present document.

Table 4.1.2.4.1.1

| Attribute Name | Documentation and Allowed Values | Properties |
| --- | --- | --- |
| controlLoopLifeCyclePhase | It indicates the lifecycle phase of the AssuranceClosedControlLoop instance.  AllowedValues: Preparation, Commissioning, Operation and Decommissioning. | type: Enum  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: NULL  isNullable: False |
| assuranceTargetName | The name of the attribute which is part of AssuranceTarget.  The assuranceTargetName shall be equal to the name of an attribute in the relevant ServiceProfile or SliceProfile. The relevant ServiceProfile or SliceProfile is identified by the attribute serviceProfileId or sliceProfileId in the AssuranceGoal. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| assuranceTargetValue | The value of the attribute which is part of AssuranceTarget | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| assuranceTargetList | This is an attribute containing a list of AssuranceTarget(s) that are part of an AssuranceGoal | type: AssuranceTarget  multiplicity: 1..\*  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| observationTime | It indicates the time duration over which an AssuranceGoal is observed.  The observation time is expressed in seconds. | type: Integer  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| assuranceGoalStatusObserved | It holds the status of the observed goal fulfilment to the assuranceGoal. The value is FULFILLED only if all the constituent assuranceTargetStatusObserved are FULFILLED.  allowedValues: "FULFILLED", “NOT\_FULFILLED | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| assuranceGoalStatusPredicted | It holds the status of the predicted future goal fulfilment to the assuranceGoal . The value is FULFILLED only if all the constituent assuranceTargetStatusPredicted are FULFILLED.  allowedValues: "FULFILLED", “NOT\_FULFILLED" | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| assuranceTargetStatusObserved | It holds the status of the observed target fulfilment to the assuranceGoal.  allowedValues: "FULFILLED", “NOT\_FULFILLED | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| assuranceTargetStatusPredicted | It holds the status of the predicted future target fulfilment to the assuranceGoal  allowedValues: "FULFILLED", “NOT\_FULFILLED" | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| networkSliceRef | It holds the reference to the NetworkSlice instance subject to assurance requirements | type: Dn  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| networkSliceSubnetRef | It holds the reference to the NetworkSliceSubnet instance subject to assurance requirements | type: Dn  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| operationalState | It indicates the operational state of the AssuranceClosedControlLoop instance. It describes whether the resource is installed and partially or fully operable (Enabled) or the resource is not installed or not operable (Disabled).  Allowed values; Enabled/Disabled  allowedValues: "ENABLED", "DISABLED".  The meaning of these values is as defined in 3GPP TS 28.625 [14] and ITU-T X.731 [15]. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: Disabled  allowedValues: Enabled, Disabled  isNullable: False |
| administrativeState | It indicates the administrative state of the AssuranceClosedControlLoop instance. It describes the permission to use or the prohibition against using the AssuranceClosedControlLoop instance. The administrative state is set by the MnS consumer.  Allowed values; Locked/Unlocked  allowedValues: "LOCKED", "UNLOCKED".  The meaning of these values is as defined in 3GPP TS 28.625 [14] and ITU-T X.731 [15]. | type: ENUM  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: Locked  allowedValues: Locked, Unlocked  isNullable: False |
| assuranceClosedControlLoopRef | It holds the reference to the AssuranceClosedControlLoop instance. | type: Dn  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| assuranceGoalStatusId | The indication of the AssuranceGoalStatus. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| assuranceTargetStatusId | The indication of the AssuranceTargetStatus. | type: String  multiplicity: 1  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| assuranceGoalStatusList | This is an attribute containing a list of assuranceGoalStatus | type: AssuranceGoalStatus  multiplicity: 1..\*  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| assuranceTargetStatusList | This is an attribute containing a list of assuranceTargetStatus | type: AssuranceTargetStatus  multiplicity: 1..\*  isOrdered: N/A  isUnique: N/A  defaultValue: None  isNullable: False |
| NOTE 1: Void  NOTE 2: Void | | |

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| **End of changes** |