**3GPP TSG-SA5 Meeting #155 *S5-243227***

**Jeju, South Korea, 27 - 31 May 2024**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **28.622** | **CR** |  | **rev** | **-** | **Current version:** | **18.6.0** |  |
|  | | | | | | | | |
| *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:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | MADCOL\_ph2 | | | | |  | ***Date:*** | | | 2024-05-yy |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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:*** | | Clarification for historical management data and management data to be generated in the future is missing. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | * Add description to clarify cases whether historical management data or management data to be generated in the future or both are requested in ManagementDataCollection IOC. * Editorial changes | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Ambiguity whether management data to be generated in the future can be requested via ManagementDataCollection IOC. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.3.47, 4.3.48 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  |  | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  |  | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  |  | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | **Input to Draft CR to 28.622 related to the WI MADCOL\_ph2** | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | S5-243227 is a revision of S5-242678 | | | | | | | | |

***First change***

### 4.3.47 ManagementDataCollection

#### 4.3.47.1 Definition

This IOC represents a management data collection request job. The requested data is of kind Trace, MDT (Minimization of Drive Test), RLF (Radio Link Failure) report, RCEF (RRC Connection Establishment Failure) report, PM (performance measurements), KPI (end-to-end key performance indicators) or a combination of these. The attribute "managementData" defines the management data which shall be reported. This may either include a list of data categories or a list of management data identified with their name. For further details see clause 4.3.50.

The "targetNodeFilter" attribute can be used to target object instance(s) producing the required management data. It is assumed that the consumer may not have detailed knowledge of the network and hence may not identify the exact object instance producing the required management data. In this case consumer can request management data, specified by 3GPP, produced by certain object instance(s) based on a particular location, the domain (CN or RAN) of the object instances, and the handled traffic (CP or UP) of the object instances.

To activate the production of the requested data, a MnS consumer has to create a "ManagementDataCollection" object instance on the MnS producer.

The production and reporting of the management data can be constrained by conditions such that only when the conditions are satisfied shall management data collection be enabled. For example, a MnS consumer can request to create two ManagementDataCollection instances. One can be configured with high data producing and reporting period on a set of conditions (e.g, to reduce transmission cost when network performance metric is in normal range). Another can be configured with low data producing and reporting period on another set of conditions (e.g. to enable network optimization when network performance metric is in abnormal range).

*Editor’s Note:* It is currently not possible to construct conditions based on performance metrics. This needs to be enabled before the text in the paragraph above can be approved and published. Furthermore, it needs to be investigated if the “ConditionMonitor” shall be used or if the conditions should be added to this IOC directly using an attribute.

The MnS producer may derive multiple jobs ("PerfMetricJob", "TraceJob") from a single "ManagementDataCollection" job for collecting the required management data. If the MnS producer receives the collected data from multiple sources, it consolidate the data into a set of management data for reporting.

The attribute "collectionTimeWindow" specifies the time window for which the management data should be reported. The attributes “startTime” and the “endTime” can be in the past, present or in the future.

The attribute "reportingCtrl" specifies the method and associated control parameters for reporting the produced management data to MnS consumers. Three methods are available: file-based reporting with selection of the file location by the MnS producer, file-based reporting with selection of the file location by the MnS consumer and stream-based reporting.

*Editor’s Note:* Changes to enable one time reporting are TBD.

The attribute "dataScope" configures, whether the management data should be reported per S-NSSAI or per 5QI or per PLMN, if applicable.

The attribute “processMonitor” allows the MnS consumer to monitor the status of the management data collection represented by the object "ManagementDataCollection".

The MnS producer indicates in the attribute "progressStateInfo" the state of the management data collection:

* NOT\_STARTED
* RUNNING
* CANCELING

and indicates in the attribute "resultStateInfo":

* FINISHED
* FAILED
* PARTIALLY\_FAILED
* CANCELLED

#### 4.3.47.2 Attributes

The ManagementDataCollection IOC includes the attributes inherited from Top IOC (defined in clause 4.3.29) and the following attributes:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **S** | **isReadable** | **isWritable** | **isInvariant** | **isNotifyable** |
| managementData | M | T | T | T | N/A |
| targetNodeFilter | M | T | T | T | N/A |
| collectionTimeWindow | M | T | T | T | N/A |
| reportingCtrl | M | T | T | T | N/A |
| dataScope | O | T | T | T | N/A |
| condition | O | T | T | T | N/A |
| processMonitor | O | T | F | F | T |

#### 4.3.47.3 Attribute constraints

None.

#### 4.3.47.4 Notifications

The common notifications defined in clause 4.5 are valid for this IOC. In addition, the following set of notifications is also valid.

| **Name** | **S** | **Notes** |
| --- | --- | --- |
| notifyFileReady | M | -- |
| notifyFilePreparationError | M | -- |

### 4.3.48 TimeWindow <<choice>>

#### 4.3.48.1 Definition

This choice defines a time window.

It is a choice between the control parameters required to define the time window as follows:

When startTime and endTime is present (CHOICE\_1), the time window starts when startTime is reached and ends when endTime is reached.

When only the startTime attribute is present (CHOICE\_2), the time window starts when startTime is reached and runs until deletion of the managed object instance including this timeWindow.

When only the endTime attribute is present (CHOICE\_3), the time window starts when the managed object instance including this timeWindow is created and ends when endTime is reached.

#### 4.3.48.2 Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute name** | **S** | **isReadable** | **isWritable** | **isInvariant** | **isNotifyable** |
| CHOICE\_1.1 startTime | CM | T | T | T | T |
| CHOICE\_1.2 endTime | CM | T | T | T | T |
| CHOICE\_2.1 startTime | CM | T | T | T | T |
| CHOICE\_3.1 endTime | CM | T | T | T | T |

#### 4.3.48.3 Attribute constraints

|  |  |
| --- | --- |
| Name | Definition |
| CHOICE\_1.1 startTime  CHOICE\_1.2 endTime | These attributes shall be supported, when the MnS consumer configures the start and end time of the time window.  These attributes are supported for "ManagementDataCollection" IOC. |
| CHOICE\_2.1 startTime | This attribute shall be supported, if the MnS consumer indicates only the start time of a time window and the end time is defined by the deletion of the managed object instance.  This attribute is not supported for "ManagementDataCollection" IOC. |
| CHOICE\_3.1 endTime | This attribute shall be supported, if the MnS consumer indicates only the end time of a time window and the start time is defined by the creation of the managed object instance.  This attribute is not supported for "ManagementDataCollection" IOC. |

#### 4.3.48.4 Notifications

The clause 4.5 of the <<IOC>> using this <<dataType>> as one of its attributes, shall be applicable.

***End of changes***