**3GPP TSG-SA5 Meeting #145-e *S5-225147***

e-meeting, 15 - 24 August 2022

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **28.104** | **CR** | **0011** | **rev** | **1** | **Current version:** | **17.0.1** |  |
|  | | | | | | | | |
| *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:*** | Rel-17 CR TS 28.104 OpenAPI file name and dependence change | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, Intel | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eMDAS | | | | |  | ***Date:*** | | | 2022-07-25 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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:*** | | According to the endorsed DP SP-220341 in SA#95, one of the action is to update OpenAPI YAML file names to be prefixed with the TS number | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Update the file names in spec and update the depended reference across yaml files for mdaNrm.yaml and mdaReport.yaml | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The TS number is missing in corrspondig OpenAPI YAML file names | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | A.2.1, A.2.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 CR's revision history:*** | |  | | | | | | | | |

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| **1st Change** |

# A.2 Solution Set (SS) definitions

## A.2.1 OpenAPI document "TS28104\_MdaNrm.yaml"

openapi: 3.0.1

info:

title: MDA NRM

version: 17.0.0

description: >-

OAS 3.0.1 specification of the MDA NRM

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externalDocs:

description: TS 28.104; MDA

url: http://www.3gpp.org/ftp/Specs/archive/28\_series/28.104/

paths: {}

components:

schemas:

#-------- Definition of types-----------------------------------------------------

MDATypes:

type: array

items:

type: string

MDAOutputs:

type: array

items:

$ref: '#/components/schemas/MDAOutputPerMDAType'

MDAOutputPerMDAType:

type: object

properties:

mDAType:

type: string

mDAOutputIEFilters:

type: array

items:

$ref: '#/components/schemas/MDAOutputIEFilter'

MDAOutputIEFilter:

type: object

properties:

mDAOutputIEName:

type: string

filterValue:

type: string

threshold:

$ref: 'TS28623\_GenericNrm.yaml#/components/schemas/ThresholdInfo'

analyticsPeriod:

type: array

items:

$ref: 'TS28623\_ComDefs.yaml#/components/schemas/DateTime'

timeOut:

$ref: 'TS28623\_ComDefs.yaml#/components/schemas/DateTime'

ReportingMethod:

type: string

enum:

- FILE

- STREAMING

- NOTIFICATION

ReportingTarget:

$ref: 'TS28623\_ComDefs.yaml#/components/schemas/Uri'

AnalyticsScope:

oneOf:

- type: object

properties:

managedEntitiesScope:

$ref: 'TS28623\_ComDefs.yaml#/components/schemas/DnList'

- type: object

properties:

areaScope:

$ref: '#/components/schemas/GeoAreaList'

GeoAreaList:

type: array

items:

$ref: '#/components/schemas/GeoArea'

GeoArea:

type: object

properties:

coordinates:

type: array

items:

$ref: '#/components/schemas/Coordinate'

altitude:

type: number

format: float

Coordinate:

type: object

properties:

latitude:

$ref: 'TS28623\_ComDefs.yaml#/components/schemas/Latitude'

longitude:

$ref: 'TS28623\_ComDefs.yaml#/components/schemas/Longitude'

#-------- Definition of abstract IOCs --------------------------------------------

#-------- Definition of concrete IOCs --------------------------------------------

SubNetwork-Single:

allOf:

- $ref: 'TS28623\_GenericNrm.yaml#/components/schemas/Top'

- type: object

properties:

attributes:

$ref: 'TS28623\_GenericNrm.yaml#/components/schemas/SubNetwork-Attr'

- $ref: 'TS28623\_GenericNrm.yaml#/components/schemas/SubNetwork-ncO'

- type: object

properties:

SubNetwork:

$ref: '#/components/schemas/SubNetwork-Multiple'

ManagedElement:

$ref: '#/components/schemas/ManagedElement-Multiple'

MDAFunction:

$ref: '#/components/schemas/MDAFunction-Multiple'

MDAReport:

$ref: '#/components/schemas/MDAReport-Multiple'

ManagedElement-Single:

allOf:

- $ref: 'TS28623\_GenericNrm.yaml#/components/schemas/Top'

- type: object

properties:

attributes:

$ref: 'TS28623\_GenericNrm.yaml#/components/schemas/ManagedElement-Attr'

- $ref: 'TS28623\_GenericNrm.yaml#/components/schemas/ManagedElement-ncO'

- type: object

properties:

MDAFunction:

$ref: '#/components/schemas/MDAFunction-Multiple'

MDAFunction-Single:

allOf:

- $ref: 'TS28623\_GenericNrm.yaml#/components/schemas/Top'

- type: object

properties:

attributes:

allOf:

- $ref: 'TS28623\_GenericNrm.yaml#/components/schemas/ManagedFunction-Attr'

- type: object

properties:

supportedMDACapabilities:

$ref: '#/components/schemas/MDATypes'

- $ref: 'TS28623\_GenericNrm.yaml#/components/schemas/ManagedFunction-ncO'

- type: object

properties:

MDARequest:

$ref: '#/components/schemas/MDARequest-Multiple'

MDARequest-Single:

allOf:

- $ref: 'TS28623\_GenericNrm.yaml#/components/schemas/Top'

- type: object

properties:

attributes:

allOf:

- type: object

properties:

requestedMDAOutputs:

$ref: '#/components/schemas/MDAOutputs'

reportingMethod:

$ref: '#/components/schemas/ReportingMethod'

reportingTarget:

$ref: '#/components/schemas/ReportingTarget'

analyticsScope:

$ref: '#/components/schemas/AnalyticsScope'

startTime:

$ref: 'TS28623\_ComDefs.yaml#/components/schemas/DateTime'

stopTime:

$ref: 'TS28623\_ComDefs.yaml#/components/schemas/DateTime'

MDAReport-Single:

$ref: 'TS28104\_MdaReport.yaml#/components/schemas/MDAReport'

#-------- Definition of JSON arrays for name-contained IOCs ----------------------

SubNetwork-Multiple:

type: array

items:

$ref: '#/components/schemas/SubNetwork-Single'

ManagedElement-Multiple:

type: array

items:

$ref: '#/components/schemas/ManagedElement-Single'

MDAFunction-Multiple:

type: array

items:

$ref: '#/components/schemas/MDAFunction-Single'

MDARequest-Multiple:

type: array

items:

$ref: '#/components/schemas/MDARequest-Single'

MDAReport-Multiple:

type: array

items:

$ref: '#/components/schemas/MDAReport-Single'

#-------- Definitions in TS 28.104 for TS 28.532 ---------------------------------

resources-mdaNrm:

oneOf:

- $ref: '#/components/schemas/SubNetwork-Single'

- $ref: '#/components/schemas/ManagedElement-Single'

- $ref: '#/components/schemas/MDAFunction-Single'

- $ref: '#/components/schemas/MDARequest-Single'

- $ref: '#/components/schemas/MDAReport-Single'

## A.2.2 OpenAPI document "TS28104\_MdaReport.yaml"

openapi: 3.0.1

info:

title: MDA Report

version: 17.0.0

description: >-

OAS 3.0.1 specification of the MDA Report

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externalDocs:

description: TS 28.104; MDA Report

url: http://www.3gpp.org/ftp/Specs/archive/28\_series/28.104/

paths: {}

components:

schemas:

#-------- Definition of types-----------------------------------------------------

MDAOutputs:

type: object

properties:

mDAType:

type: string

mdaOutputList:

type: array

items:

$ref: '#/components/schemas/MDAOutputEntry'

mDARequestRef:

$ref: 'TS28623\_ComDefs.yaml#/components/schemas/Dn'

MDAOutputEntry:

type: object

properties:

mDAOutputIEName:

type: string

mdaOutputIEValue: {}

analyticsWindow:

$ref: '#/components/schemas/TimeWindow'

confidenceDegree:

type: number

format: float

TimeWindow:

type: object

properties:

startTime:

$ref: 'TS28623\_ComDefs.yaml#/components/schemas/DateTime'

endTime:

$ref: 'TS28623\_ComDefs.yaml#/components/schemas/DateTime'

#-------- Definition of MDA Report --------------------------------------------

MDAReport:

allOf:

- $ref: 'genericNrm.yaml#/components/schemas/Top'

- type: object

properties:

attributes:

allOf:

- type: object

properties:

mDAReportID:

type: string

mDAOutputs:

$ref: '#/components/schemas/MDAOutputs'

|  |
| --- |
| **End of Change** |