**3GPP TSG- Meeting #5**

**, 15-24 Aug 2022**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **28.105** | **CR** | **0004** | **rev** | **1** | **Current version:** | **17.0.0** |  |
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| *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, Huawei, Intel |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | TEI17  |  | ***Date:*** | 2022-08-05 |
|  |  |  |  |  |
| ***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 canbe 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)* |
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| ***Reason for change:*** | Fix incorrect AimlNrm.yaml, genericNrm.yaml & comDefs.yaml name in the TS 28.105 |
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| ***Summary of change:*** | Fix it accordingly. |
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| ***Consequences if not approved:*** | Incorrect specification leads to wrong implementation. |
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| ***Clauses affected:*** |  B.2.1 |
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|  | **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 ...  |
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| ***Other comments:*** | Code in Forge is correct. |
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| ***This CR's revision history:*** |  |

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| **Start of 1st Change** |

## B.2.1 OpenAPI document " TS28105\_AiMlNrm.yaml "

openapi: 3.0.1

info:

 title: AI/ML NRM

 version: 17.0.0

 description: >-

 OAS 3.0.1 specification of the AI/ML NRM

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externalDocs:

 description: TS 28.105; AI/ML Management

 url: http://www.3gpp.org/ftp/Specs/archive/28\_series/28.105/

paths: {}

components:

 schemas:

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

 AIMLEntityList:

 type: array

 items:

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

 AIMLEntity:

 type: object

 properties:

 aIMLEntityId:

 type: string

 inferenceType:

 type: string

 aIMLEntityVersion:

 type: string

 expectedRunTimeContext:

 type: string

 trainingContext:

 type: string

 runTimeContext:

 type: string

 RequestStatus:

 type: string

 enum:

 - NOT\_STARTED

 - TRAINING\_IN\_PROGRESS

 - SUSPENDED

 - FINISHED

 - CANCELLED

 PerformanceRequirements:

 type: array

 items:

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

 ModelPerformance:

 type: object

 properties:

 inferenceOutputName:

 type: string

 performanceMetric:

 type: string

 performanceScore:

 type: number

 format: float

 decisionConfidenceScore:

 type: number

 format: float

 TrainingProcessMonitor:

 description: >-

 This data type is the "ProcessMonitor" data type defined in "TS28623\_GenericNrm.yaml" with specialisations for usage in the "AIMLTrainingProcess".

 type: object

 properties:

 aIMLTrainingProcessId:

 type: string

 status:

 type: string

 enum:

 - RUNNING

 - CANCELLING

 - CANCELLED

 - SUSPENDED

 - FINSHED

 progressPercentage:

 type: integer

 minimum: 0

 maximum: 100

 progressStateInfo:

 type: string

 enum:

 - COLLECTING\_DATA

 - PREPARING\_TRAINING\_DATA

 - TRAINING

 resultStateInfo:

 type: string

#-------- 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'

 AIMLTrainingFunction:

 $ref: '#/components/schemas/AIMLTrainingFunction-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:

 AIMLTrainingFunction:

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

 AIMLTrainingFunction-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:

 aIMLEntityList:

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

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

 - type: object

 properties:

 AIMLTrainingRequest:

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

 AIMLTrainingProcess:

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

 AIMLTrainingReport:

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

 AIMLTrainingRequest-Single:

 allOf:

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

 - type: object

 properties:

 attributes:

 allOf:

 - type: object

 properties:

 aIMLEntityId:

 type: string

 candidateTraingDataSource:

 type: array

 items:

 type: string

 traingDataQualityScore:

 type: number

 format: float

 trainingRequestSource:

 type: string

 requestStatus:

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

 expectedRuntimeContext:

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

 performanceRequirements:

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

 cancelRequest:

 type: boolean

 suspendRequest:

 type: boolean

 AIMLTrainingProcess-Single:

 allOf:

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

 - type: object

 properties:

 attributes:

 allOf:

 - type: object

 properties:

 aIMLTrainingProcessId:

 type: string

 priority:

 type: integer

 terminationConditions:

 type: string

 progressStatus:

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

 cancelProcess:

 type: boolean

 suspendProcess:

 type: boolean

 trainingRequestRef:

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

 trainingReportRef:

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

 AIMLTrainingReport-Single:

 allOf:

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

 - type: object

 properties:

 attributes:

 allOf:

 - type: object

 properties:

 aIMLEntityId:

 type: string

 areConsumerTrainingDataUsed:

 type: boolean

 usedConsumerTrainingData:

 type: array

 items:

 type: string

 confidenceIndication:

 type: integer

 modelPerformanceTraining:

 type: array

 items:

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

 areNewTrainingDataUsed:

 type: boolean

#-------- 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'

 AIMLTrainingFunction-Multiple:

 type: array

 items:

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

 AIMLTrainingRequest-Multiple:

 type: array

 items:

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

 AIMLTrainingProcess-Multiple:

 type: array

 items:

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

 AIMLTrainingReport-Multiple:

 type: array

 items:

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

#-------- Definitions in 3GPP TS 28.104 for 3GPP TS 28.532 ---------------------------------

 resources-AiMlNrm:

 oneOf:

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

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

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

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

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

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

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| **End of change** |