**3GPP TSG- Meeting #**

**, , -**

|  |
| --- |
| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** | **-** | **rev** | 1 | **Current version:** |  |  |
|  |
| *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)*.* |
|  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network | **X** |

|  |
| --- |
|  |
| ***Title:***  | Input to DraftCR TS 28.105 Correct ML Training Class Diagram |
|  |  |
| ***Source to WG:*** |  |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** |  |  | ***Date:*** |  |
|  |  |  |  |  |
| ***Category:*** |  |  | ***Release:*** |  |
|  | *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-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19) Rel-20 (Release 20)* |
|  |  |
| ***Reason for change:*** | Correct ML Training Class Diagram to fit the described solution for ML Training. |
|  |  |
| ***Summary of change:*** | Correct Association of MLTrainingRequest, MLTrainingReport, MLTrainingProcess, MLEntity and MLEnitiyCoordnatonGroup. |
|  |  |
| ***Consequences if not approved:*** | leads to incorrect implementation. |
|  |  |
| ***Clauses affected:*** | 7.3a and A.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:*** | S5-241949 |
|  |  |
| ***This CR's revision history:*** |  |

|  |
| --- |
| **Start of modification** |

## 7.3a Information model definitions for AI/ML operational phases

### 7.3a.1 Information model definitions for ML Training

#### 7.3a.1.1 Class diagram

##### 7.3a.1.1.1 Relationships

This clause depicts the set of classes (e.g. IOCs) that encapsulates the information relevant to ML model training. For the UML semantics, see TS 32.156 [13].



Figure 7.3a.1.1.1-1: NRM fragment for ML training

|  |
| --- |
| **Next modification** |

# A.2 PlantUML code for Figure 7.3a.1.1.1-1: NRM fragment for ML model training

@startuml

skinparam ClassStereotypeFontStyle normal

skinparam ClassBackgroundColor White

skinparam shadowing false

skinparam monochrome true

hide members

hide circle

'skinparam maxMessageSize 250

skinparam nodesep 60

class ManagedEntity <<ProxyClass>>

class MLEntity <<InformationObjectClass>>

class MLEntityCoordinationGroup <<InformationObjectClass>>

class MLTrainingFunction <<InformationObjectClass>>

class MLTrainingRequest <<InformationObjectClass>>

class MLTrainingReport <<InformationObjectClass>>

class MLTrainingProcess <<InformationObjectClass>>

class MLEntityRepository <<InformationObjectClass>>

ManagedEntity "1" \*-- "\*" MLTrainingFunction: <<names>>

MLTrainingFunction "1" \*-- "\*" MLTrainingProcess: <<names>>

MLTrainingFunction "1" \*-- "\*" MLTrainingRequest: <<names>>

MLTrainingFunction "1" \*-- "\*" MLTrainingReport: <<names>>

MLTrainingFunction "1" \*-- "\*" ThresholdMonitor : <<names>>

MLTrainingFunction "\*" --> "1" MLEntityRepository

MLTrainingProcess "1" -r-> "1" MLTrainingReport

MLTrainingProcess "\*" <-l- "\*" MLTrainingRequest

MLTrainingRequest "1" --> "0..1" MLEntity

MLTrainingRequest "1" -r-> "0..1" MLEntityCoordinationGroup

MLTrainingReport "1" --> "0..1" MLEntity

MLTrainingReport "1" --> "0..1" MLEntityCoordinationGroup

MLTrainingProcess "1" --> "0..1" MLEntity

MLTrainingProcess "1" --> "0..1" MLEntityCoordinationGroup

MLEntity"\*" -l-> "1" ThresholdMonitor

MLTrainingReport "1" -r-> "1" MLTrainingReport

note left of ManagedEntity

 This represents the following IOCs:

 SubNetwork or

 ManagedFunction or

 ManagedElement

 end note

@enduml

|  |
| --- |
| **End of modification** |