**3GPP TSG-SA5 Meeting #154 *S5-241931d6***

Changsha, China, 15 - 19 April 2024

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **28.105** | **CR** | **DraftCR** | **rev** | **1** | **Current version:** | **18.3.0** |  |
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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:***  | Rel-18 InputDraftCR TS 28.105 Update the AI/ML terminology |
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| ***Source to WG:*** | Huawei, Deutsche Telekom, Intel, Ericsson, Nokia, NEC, ZTE, CATT |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | AIML\_MGT |  | ***Date:*** | 2024-03-19 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** | Rel-18 |
|  | *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:*** | - For the terminology, the relation between ML entity and ML model is not clear. |
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| ***Summary of change:*** | * Update the terminology name.
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| ***Consequences if not approved:*** | The AI/ML terminology is unclear. |
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| ***Clauses affected:*** | 3.1 |
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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 ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

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| **1st modified section** |

## 3.1 Terms

For the purposes of the present document, the terms given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

**ML model:** a manageable artifact of an ML model algorithm.

NOTE 1: An ML model may contain metadata related to the model algorithm. Metadata may include e.g. the applicable runtime context for the ML model algorithm.

**ML model algorithm:** mathematical algorithm that can be "trained" by data and human expert input as examples to replicate a decision an expert would make when provided that same information.

NOTE 2: The ML model algorithm is proprietary and not in scope for standardization.

NOTE 3: The relation between ML model and ML model algorithm is highlighted in Figure 3.1.1:



Figure 3.1.1: The relation between ML model and ML model algorithm.

**ML model training:** process performed by an ML training function to take training data, run it through an ML model, derive the associated loss and adjust the parameterization of that ML model based on the computed loss.

**ML initial training:** the ML model training that generates the initial version of an ML entity.

**ML re-training:** The process of training of a previously trained ML model.

NOTE 3: A new version of a trained ML entity supports the same type of inference as the previous version of the ML entity, i.e., the data type of inference input and data type of inference output remain unchanged between the two versions of the ML entity, but parameter values might be different for the re-trained model.

**ML joint training:** the ML training for a group of ML models that are trained and targeted for inference.

**ML training:** refers to the end-to-end processes to enable an ML training function to perform ML model initial training or re-training (as defined above).

NOTE 4: ML training may include interaction with other parties to collect and format the data required for ML model training.

**ML training function**: a logical function with ML model training capabilities.

**AI/ML inference**: refers to the process of running a set of input data through a trained ML entity to produce set of output data, such as predictions.

**AI/ML inference function**: a logical function that employs an ML model to conduct inference.

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| **End of modified sections** |