**3GPP TSG-SA5 Meeting #157 *S5-246142d2***

Hyderabad, India, 14 - 18 October 2024

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **28.105** | **CR** | **0194** | **rev** | **1** | **Current version:** | **18.5.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | CR Rel-18 TS 28.105 add missing terms | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | NEC, Intel, Ericsson, Nokia | | | | | | | | | |
| ***Source to TSG:*** | SA5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | AIML\_MGT | | | | |  | ***Date:*** | | | 2024-09-19 |
|  |  | | | |  | |  | | |  |
| ***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 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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Terms are missing from clause 3.1. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add missing terms | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Missing information from the spec and misalignement between existing text and terminologies. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 3.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

***Start of changes***

3 Definitions of terms, symbols and abbreviations

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 representation of an ML model algorithm.

NOTE 1: an ML model algorithm is a mathematical algorithm through which running a set of input data can generate a set of inference output.

NOTE 2: ML model algorithm is proprietary and not in scope for standardization and therefore not treated in this specification.

NOTE 3: ML model may include metadata. Metadata may include e.g. information related to the trained model, and applicable runtime context.

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

**ML model initial training:** a process of training an initial version of an ML model.

**ML model re-training:** a process of training a previously trained version of an ML model and generate a new version.

NOTE 4: a new version of a trained ML model supports the same type of inference as the previous version of the ML model, i.e., the data type of inference input and data type of inference output remain unchanged between the two versions of the ML model, but parameter values might be different for the re-trained model.

**ML model joint training:** a process of training a group of ML models.

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

**ML model testing:** a process of evaluating the performance of an ML model using testing data different from data used for model training and validation.

**ML model joint testing**: a process of evaluating the performance of a group of ML models using testing data different from data used for model training and validation.

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

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

NOTE 5: the inference represents the process to realize the AI capabilities by utilizing a trained ML model and other AI enablers if needed, hence the AI/ML prefix is used when referring to inference as compared to training and testing.

**AI/ML inference function**: a logical function that employs trained ML model(s) to conduct inference.

**AI/ML inference emulation**: running the inference process to evaluate the performance of an ML model in an emulation environment before deploying it into the target environment.

**ML model deployment:** a process of making a trained ML model available for use in the target environment.

**ML model loading**: a process of making a trained ML model available to an inference function.

**AI/ML activation**: a process of enabling the inference capability of an AI/ML inference function.

**AI/ML deactivation**: a process of disabling the inference capability of an AI/ML inference function.

***End of changes***