**3GPP TSG-SA5 Meeting #162 *S5-253846***

Goteborg, Sweden, 25 - 29 August 2025

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **28.105** | **CR** | **draftCR** | **rev** | **-** | **Current version:** | **19.2.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network | **X** |

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| ***Title:*** | Input to DraftCR Rel-19 TS 28.105 Update the requirements of managing ML models in use in a live network | | | | | | | | | |
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| ***Source to WG:*** | ZTE Corporation | | | | | | | | | |
| ***Source to TSG:*** | SA5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | AIML\_MGT\_Ph2 | | | | |  | ***Date:*** | | | 2024-08-08 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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)* | |
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| ***Reason for change:*** | | The solution for impact management in S5-252108 targets to satisfy the reqirements of managing ML models in use in a live network. However, the proposed solution is to enhance the AIMLInferenceReport by adding the potential impcat information generated by the ML Model. But the requirements propose to identify ML Model(s) that caused performance degradation and recommend remedial actions to address performance measurement and/or KPI degradation caused by ML model(s).  In other words, REQ-AI/ML\_INF-LIVES-01 and REQ-AI/ML\_INF-LIVES-03 is not satisfied and REQ-AI/ML\_INF-LIVES-02 is partially satisfied.  This contribution proposes to update the reqirement to align with the proposed solution. | | | | | | | | |
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| ***Summary of change:*** | | Update on the use case of managing ML models in use in a live network | | | | | | | | |
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| ***Consequences if not approved:*** | | The req is not aligned with the solution. | | | | | | | | |
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| ***Clauses affected:*** | | 6.5.1.3 | | | | | | | | |
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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:*** | | No impact on Stage 3 | | | | | | | | |
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| ***This CR's revision history:*** | |  | | | | | | | | |

***Start of the First Change***

#### 6.5.1.3 Requirements for AI/ML inference performance management

Table 6.5.1.3-1

| Requirement label | Description | Related use case(s) |
| --- | --- | --- |
| **REQ- AI/ML\_INF\_PE-01** | The MnS producer responsible for AI/ML inference management shall have a capability enabling an authorized consumer to get the inference output provided by an AI/ML inference function (e.g., MDAF, NWDAF or RAN function). | AI/ML inference performance evaluation (clause 6.5.1.2.1) |
| **REQ- AI/ML\_INF\_PE-02** | The MnS producer responsible for AI/ML inference management shall have a capability enabling an authorized consumer to get the performance evaluation of an AI/ML inference output as measured by a defined set of performance metrics | AI/ML inference performance evaluation (clause 6.5.1.2.1) |
| **REQ- AI/ML\_INF\_PE-03** | The MnS producer responsible for AI/ML inference management shall have a capability enabling an authorized consumer to provide feedback about an AI/ML inference output expressing the degree to which the inference output meets the consumer's expectations. | AI/ML inference performance evaluation (clause 6.5.1.2.1) |
| **REQ- AI/ML\_INF\_PE-04** | The MnS producer responsible for AI/ML inference management shall have a capability enabling an authorized consumer to be informed about the executed actions that were triggered based on the inference output provided by an AI/ML inference function (e.g., MDAF, NWDAF or RAN function). | AI/ML inference performance evaluation (clause 6.5.1.2.1) |
| **REQ- AI/ML\_INF\_PE-05** | The MnS producer responsible for AI/ML inference management shall have a capability enabling an authorized consumer to obtain the performance data related to an ML model or an AI/ML inference function (e.g., MDAF, NWDAF or RAN function). | AI/ML inference performance evaluation (clause 6.5.1.2.1) |
| **REQ-AI/ML\_PERF-SEL-1** | The ML training MnS producer shall have a capability allowing an authorized MnS consumer to discover supported AI/ML performance measurements related to AI/ML inference and select some of the desired measurements based on the MnS consumer’s requirements. | AI/ML performance measurements selection based on MnS consumer policy (clause 6.5.1.2.2) |
| **REQ-AI/ML\_PERF-POL-1** | The AI/ML MnS producer shall have a capability allowing the authorized MnS consumer to indicate a performance policy related to AI/ML inference. | AI/ML performance measurements selection based on MnS consumer policy (clause 6.5.1.2.2) |
| **REQ-AI/ML\_INF-LIVES-01** | The 3GPP management system should have a capability enabling an authorized consumer to identify ML Model(s) that may cause performance measurement and/or KPI degradation. | Handling of underperforming ML trained models in live networks (6.5.X1.2.1) |
| **REQ-AI/ML\_INF-LIVES-02** | The 3GPP management system should be able to collect network related performance data pertaining to Network Functions actively utilizing ML models. | Performance monitoring of Network Functions with ML trained models in live networks (6.5.X1.2.2) |

***End of the First Change***