3GPP TSG RAN #102
Edinburgh, UK, December 11-15, 2023
Agenda Item: 9.1.1.1

RP-233529

Views on AI/ML for Air Interface

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General Aspects of AI/ML Framework

- Proposal 1: The following aspects should be prioritized during normative work:
  - Identify the AI/ML-specific contents of the UE capability report (supporting conditions)
  - Identify NW-side and UE-side additional conditions
  - Alignment of NW-side additional conditions
    - Applicability of Data Collection at UE, Data Transfer from NW to UE
    - Applicability of Model Transfer from NW to UE
  - Model Identification post alignment of NW-side additional conditions
  - Details on Functionality and Model-ID-based LCM
    - What triggers selection, activation, switching, fallback, monitoring?
    - Measurements/Procedures related to selection, activation, switching, fallback, monitoring

AI/ML for CSI Feedback Enhancements

- At the end of RAN 1 #115, there was no consensus on whether this agenda item should be taken forward for normative work.
- Reasons:
  - Trade-off between performance and complexity/overhead
  - Inter-vendor training collaboration issues

- Proposal 2: Continue CSI Compression as a Study Item for Release 19
- Study the following:
  - Further evaluations on performance and model complexity
  - Multi-vendor training under proprietary constraints
  - Compatibility of UE-side and NW-side of two-sided models
  - Use-cases involving combination of CSI compression and prediction
  - Feasibility of other use-cases of two-sided models

AI/ML for Positioning Accuracy Enhancement

- Proposal 3: The following aspects should be looked at during normative work:

  - Model Input Design
    - Input type and input dimension
  - Signaling overhead resulting from choice of model input
  - Data collection
    - Ground truth generation for training and monitoring data
    - Label quality indicator
  - Model Generalization Methods

Thank You!