

3GPP TSG RAN Rel-18 workshop
Electronic Meeting, June 28 - July 2, 2021

RWS-210359



Motivation for support of AI enabled NG-RAN

Agenda Item: 4.3
Source: CMCC



Motivations and Rel-17 attempts

- 5G networks are facing increasing numbers of KPIs and has to address more complex system design and optimization issues introduced by NR.
- Traditional human-machine interaction is slow, error-prone, expensive, and cumbersome
- Rel-17 Data collection enhancement SI, the first attempt of applying AI/ML in RAN, intends to build common AI/ML terminology, high-level framework, and to study the initial use cases and specification impact.
- A Rel-18 WI following on the SI should be carried out.

Rel-18 objectives

- Taking AI framework and recommended use cases in the Rel-17 TR to normative work, e.g.,
 - AI/ML for energy saving.
 - AI/ML for traffic steering
 - AI/ML for load balancing
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- Support of the use cases via enhancement of network interfaces
- Further study on other promising use cases can be considered, how to organize this needs further discussion.



AI/ML enabled NG-RAN



Proposals

- **Proposal 1:** A Rel-18 WI following on the RAN3-leading “Data collection enhancement SI” should be planned to carry out the corresponding normative work. Detailed objectives can be decided later after the SI completion.
- **Proposal 2:** Further study on other potential use cases should be considered, whether to extend existing SI or set-up a new SI or combining with other AI-related SI, e.g., AI for air interface can be discussed.

THANK YOU !