**3GPP TSG-SA5 Meeting #145-e *S5-225316***

**e-meeting, 15 - 24 August 2022**

**Source: Huawei, China Mobile**

**Title: pCR TR 28.909 Add key issues for KEI of autonomous network levels evaluation for radio network optimization**

**Document for: approval**

**Agenda Item: 6.7.2.2**

# 1 Decision/action requested

***The group is asked to discuss and approval.***

# 2 References

[1] 3GPP draft TR 28.909: “Management and orchestration; Study on evaluation of autonomous network levels v0.2.0”.

# 3 Rationale

This contribution proposes to add key issues for KEI of autonomous network levels evaluation for radio network optimization based on concept of KEI in clause 4.1.3.

# 4 Detailed proposal

It proposes to make the following changes to TR 28.909[1].

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| **1st Change** |

## 5.X Key Issue# 5.X: KEI of autonomous network levels evaluation for radio network optimization

### 5.X.1 Description

Key effectiveness indicator (KEI) describes the effective of introducing autonomy capability into telecom system. Regarding the radio network optimization (e.g. radio network coverage optimization) related scenarios, following aspects can be considered as evaluation effect for autonomy capability for radio network optimization.

- Network performance improvement by introducing autonomy capability for radio network optimization. For example, telecom system A can improve the 30% coverage performance by introducing the autonomy capability for corresponding tasks.

- Autonomous optimization effect for corresponding radio network optimization tasks by introducing autonomy capability. For example, telecom system A can analyse the root cause for 90% coverage issue cells by introducing autonomy capability for network issue root cause analyse task.

### 5.X.2 Potential Solution

Based on the description in clause 5.X.1, following are the potential KEI types for radio network optimization. The concrete KEI for a specific radio network optimization use case or scenario will be introduced later.

- Network performance gain, this is used to measure the network performance improvement ratio by introducing autonomy capability for radio network optimization. The network performance can be coverage performance, capacity performance, throughput performance and other performance, which depends on the concrete radio network optimization use case or scenario. For eample, following coverage performance gain example can be used for the coverage optimization use case. For example, the coverage performance gain can be proportion of the reduced number of weak coverage cells (e.g. RSRP < -110dB) by introducing the autonomy capability for network optimization to the total number of weak coverage cells before introducing the autonomy capability for network optimization.

- Autonomy ratio of optimization, including the autonomy ratio for corresponding network optimization tasks (including task of network issue demarcation analysis, task of network issue root cause analysis, task of network adjustment solution analysis, task of network adjustment solution evaluation and determination, etc.). For example, coverage issue root cause analysis autonomy ratio represents the proportion of the number of the coverage issue cells whose root cause analysed by the telecom system to the total number of coverage issue cells.

- Optimization period, which means the time period that the telecom system take for the network optimization. For example, one hour, one day or one week.

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| **End of Changes** |