**3GPP TSG-SA5 Meeting #145-e *S5-225314***

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

**Source: Huawei, China Mobile**

**Title: pCR TR 28.910 Add key issue for enhancement of ANL for RAN NE deployment**

**Document for: approval**

**Agenda Item: 6.7.1.1**

# 1 Decision/action requested

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

# 2 References

[1] 3GPP draft TR 28.910: “Management and orchestration; Study on enhancement of autonomous network levels v0.2.0”.

[2] 3GPP TS 28.100: "Management and orchestration; Levels of autonomous network"

# 3 Rationale

This contribution proposes to add key issues for the enhancement of generic autonomous network level for RAN NE deployment with the following aspects:

- The following Generic autonomy capability description for management system for level 4 is documented in clause 7.2.3, however, the corresponding MnS requirements for such generic autonomy capability (i.e. Additional MnS requirements to support autonomous network level 4) is missing.

***/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Extracted from TS 28.100\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/***

***Level 4 for RAN NE deployment:*** *The 3GPP management system has the following autonomy capabilities:*

*- Determine or update RAN NE deployment control information according to RAN NE deployment intent based on specified intent translation control information.*

***-*** *Evaluate RAN NE deployment intent fulfilment result based on specified intent evaluation control information.*

***7.1.4 Generic MnS requirements***

##### *7.2.4.4 Additional MnS requirements to support autonomous network level 4*

*The additional MnS requirements for level 4 are not specified in the present document.*

***/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Extracted from TS 28.100\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/***

# 4 Detailed proposal

It proposes to make the following changes to TR 28.910[1].

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| **1st Change** |

## 5.X Key Issue# 5.X: Enhancement of generic autonomous network level for RAN NE deployment

#### 5.X.1 Description

#### 5.X.1.1 Issue description

The generic autonomous network level for RAN NE deployment is defined in Clause 7.2 in TS 28.100 [4], which includes generic workflow, generic classification of autonomous network level, generic autonomy capability description for management system, generic MnS requirements and solutions for generic MnS requirements.

Based on current definition, the generic autonomy capability description for management system for level 4 is documented in clause 7.2.3 in TS 28.100 [4]. However, the additional MnS requirements for level 4 are not specified in clause 7.2.4 in TS 28.100 [4].

#### 5.X.1.2 Potential requirements

Following additional MnS requirements to support level 4 autonomy capability for management system definnd in clause 7.2.3 in TS 28.100 [4].

**REQ-ANL-RanNeDeploy-Level\_4-MnS-1** The 3GPP management system shall have the capability allowing its authorized consumer to specify the intent for delivering RAN NE(s) to support the level 4 autonomy capability for RAN NE deployment.

**REQ-ANL- RanNeDeploy-Level\_4-MnS-2** The 3GPP management system shall have the capability allowing its authorized consumer to obtain the fulfilment information of the intent for delivering RAN NE(s) to support the level 4 autonomy capability for RAN NE deployment.

5.X.2 Potential solutions

Following are the solution analyse for MnS requirements to support level4 autonomy capability for RAN NE deployment. Note: the solution below is not used to evaluate the autonomous network level, which are MnS solutions to support MnS requirements for 3gpp management system derived from the autonomy capability in corresponding level.

The RadioNetworkExpectation defined in TS 28.312[2] can be used as the intent expectation for delivering RAN NE(s). A radio subnetwork can contain one or multiple RAN NE(s). The attribute "coverageTACContext", "pLMNContext", "nRFqBandContext" and "rATContext" in ObjectContext can be used as expected radio setting parameters for delivering RAN NE(s). The attribute "weakRSRPRatioTarget", "lowSINRRatioTarget", "aveULRANUEThptTarget" and "aveDLRANUEthptTarget" in ExpectationTarget can be used as expected network capacity and performance targets for delivering RAN NE(s). However, the expected transpoprt setting parameters for delivering RAN NE(s) is missing in RadioNetworkExpectation in TS 28.312[2].

Editor’s Note: How to use the autonomous network level information (including autonomy capability description for each level, as well as the supported MnS solutions) in the management interface is FFS, which needs to be investigated.

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| **End of Changes** |