**3GPP TSG-SA5 Meeting #143-e *S5-223318***

e-meeting, 9 - 17 May 2022

**Source: China Mobile, Huawei**

**Title: pCR 28.910 Add introduction on relevant SI/WI in 3GPP**

**Document for: Approval**

**Agenda Item: 6.5.1.1**

# 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 v0.1.0".

# 3 Rationale

This contribution proposes to add introduction of autonomous network or network automation related study items and work items in 3GPP according to the editor’s note in clause 4 of TR 28.910.

# 4 Detailed proposal

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

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| **1st Change** |

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 28.310: "Management and orchestration; Energy efficiency of 5G"

[3] 3GPP TR 28.813: "Management and orchestration; Study on new aspects of Energy Efficiency (EE) for 5G"

[X1] 3GPP TS 28.100 "Management and orchestration; Levels of autonomous network"

[X2] 3GPP TS 28.312: "Management and orchestration; Intent driven management services for mobile networks".

[X3] 3GPP TS 32.422: "Telecommunication management; Subscriber and equipment trace; Trace control and configuration management".

[X4] 3GPP TS 32.423: "Telecommunication management; Subscriber and equipment trace; Trace data definition and management".

[X5] 3GPP TR 23.791: "Study of Enablers for Network Automation for 5G".

[X6] 3GPP TR 37.816: "Study on RAN-centric data collection and utilization for LTE and NR".

[X7] 3GPP TS 28.104: "Management and orchestration; Management Data Analytics".

[X8] 3GPP TR 23.700-91: "Study on enablers for network automation for the 5G System (5GS); Phase 2".

[X9] 3GPP TS 23.288: "Architecture enhancements for 5G System (5GS) to support network data analytics services".

[X10] 3GPP TR 37.817: "Study on enhancement for data collection for NR and ENDC".

[X11] 3GPP TS 28.313: "Management and orchestration; Self-Organizing Networks (SON) for 5G networks".

[X12] 3GPP TS 28.535: "Management and orchestration; Management services for communication service assurance; Requirements".

[X13] 3GPP TS 28.536: "Management and orchestration; Management services for communication service assurance; Stage 2 and stage 3".

[X14] 3GPP TS 28.531: "Management and orchestration ; Provisioning; "

[X15] 3GPP TS 28.105: "Management and orchestration; Artificial Intelligence / Machine Learning (AI/ML) management".

[X16] 3GPP TS 28.532: "Management and orchestration; Generic management services".

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| **2nd Change** |

# 4 Introduction on relevant study items and work items in 3GPP

In 3GPP TS 28.100 [X1], categorizations of the tasks in a workflow are speified in clause 4.3.4 of TS 28.100 including intent handling, awareness, analysis, decision and execution, and these task categories are used in the framework approach for evaluating autonomous network levels (ANL) in clause 5 of TS 28.100.

To enable intelligence and automation of network and service management and orchestration, or to enable network intelligence and automation in 5GC and RAN, Many features or services are introduced or being studied in corresponding study items and work items in 3GPP, such as self-organizing networks (SON) for 5G networks, management of trace/minimization of drive test (MDT), management data analytics service (MDAS), closed loop SLS assurance (COSLA), intent driven management service (IDMS), artificial intelligence / machine learning (AI/ML) management, NWDAF, RAN intelligence, etc. They are relevant to the task categories in the workflow specified in ANL. For example, TS 28.312 [X2] specifies requirements and solutions for IDMS which is relevant to intent handling tasks. There are example documents related to awareness tasks, such as TS 32.422 [X3], TS 32.423 [X4] those which specify Trace, MDT and Radio Link Failure (RLF) management, TR 23.791 [X5] and TR 37.816[X6] those which study 5GC data collection and RAN-centric data collection respectively. Documents relevant to analysis tasks include TS 28.104 [X7] which specifies the MDA capabilities, processes and requirements for MDAS, and TR 23.791 [X5], TR 23.700-91 [X8] and TS 23.288 [X9] those which describe and specify network data analytics services in 5G Core network, TR 37.816[X6] and TR 37.817[X10] which study RAN-centric data analysis and solutions of AI enabled RAN. There are documents related to decision tasks, such as TS 28.313 [X11] which specifies the SON functions in 5GS, TS 28.535 [X12] and TS 28.536 [X13] which specifies closed control loop communication service assurance solution. And TS 28.531 [X14] which specifies provisioning of 5G networks is an example of decision tasks related document.

In addition, there are also some technical specifications specifies features or services that can enable intelligence and automation in general regardless the specific task categories. For example, TS 28.105 [X15] specifies the AI/ML management capabilities and services for 5GS where AI/ML is used, which may relevant to Analysis, Decision and Intent handling. TS 28.532 [X16] specifies the stage 2 and stage 3 of generic management services for mobile network including generic provisioning MnS, generic fault supervision MnS and performance assurance MnS, etc.

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| **End of Changes** |