**3GPP TSG-SA5 Meeting #148eS5-233391**

Electronic meeting, 17th April- 25th April 2023

**Source: Samsung**

**Title: DP for Rel-19 topic**

**Document for: Information**

**Agenda Item: 6.1**

# 1 Decision/action requested

***In this box give a very clear / short /concise statement of what is wanted.***

# 2 References

[1] None

# 3 Rationale

Closed loop automation is the integral part of advanced network automation. This calls for zero-touch network management. The network can sense, analyze and adapt itself. Rel-17 work on closed control loop lacks in several functionalities and can be further enhanced to develop a more agile automation technique. The following list depicts those ehnancements:

1. Run-time CCL composition: The CCL can be composed by the management system implicitly (without explicit request i.e createMOI for AssuranceClosedControlLoop) based on some network events (e.g performance degradation, threshold crossing, creating for slice Intent)
2. Disintegrated CCL: The CCL can be disintegrated into four parts each coming from different vendor implying the standardized interaction between them. It is to be studied where the opportunities are for multi-vendor scenarios and why. This may also include determining which SA5 defined management service can support individual steps (Monitor, Analyze, Decide and Execute) of a CCL
3. Conflict Resolution: Several CCL can target the same Managed Function as part of its Execute step. This conflict should be avoided and if happens should be dealt with appropriately and automatically.
4. The following usecase are not addressed in Rel-17 work and should be taken are of in addition.
	* CCL state management
5. CCL scope extensions: The Rel-16 COSLA and Rel-17 eCOSLA defined the CCL only used for communication service assurance scenarios (including network slice and network slice subnet). It is to be studied if the CCL scope can be extended to cover other scenarios.

The work should be done in collaboration with ETSI ZSM as and when appropriate.

Several work item in SA5 target network automation, the relationship between CCL and all those work items should be studied.

# 4 Detailed proposal

It is recommended to add the following potential work area in “S5-232752 SA5 Collection of Rel-19 potential topics for SA workshop preparation.doc”

* **Intelligence and Automation**

Topic: Enhanced Closed Control Loop Phase 2

Overall Objectives: The objectives includes enabling implicit CCL invocation, managing multi-vendor CCL, conflict resolution among CCL, state management of a CCL and CCL scope extensions.