**3GPP TSG-SA5 Meeting #155S5-243145**

**27 - 31 May 2024, Jeju, South Korea revision of S5-242336**

**Source: Nokia, Nokia Shanghai Bell**

**Title:** **pCR 28.867 Dynamic CCL creation and execution**

**Document for: Approval**

**Agenda Item: 6.19.4**

# 1 Decision/action requested

**Discuss and agree on the text**

# 2 References

[1] 3GPP TR 28.867-010 “Closed control loop management”.

# 3 Rationale

CCLs automate the management of network resources thereby taking control away from operators, so CCLs need to be managed including the creation and execution of CCLs. This pCR extends the use cases for management of Dynamic creation to include dynamic execution of CCLs.

# 4 Detailed proposal

***Start of First change***

# 5. Use Cases

5.1 Use case 1: Dynamic CCL Creation and execution

5.Y1.1.2 Conditional decision activation of CCLs

For the CCLs that have been instantiated, the MnS consumer may want to request for a CCL to be triggered to execute when certain conditions are met, e.g. when the performance on a certain threshold is crossed. The MnS consumer should be enabled to define those conditions for executing the CCL and that the CCL is triggered to execute when the stated conditions are met.

5.1.2 Potential Requirements

REQ-CCL-CRTN-1: The 3GPP management system should support a capability enabling the MnS consumer to request that a CCL of a specific type or fulfilling a stated goal should be composed from a set of management function types or instances or services.

REQ-CCL-CRTN-2: The 3GPP management system should support a capability enabling the MnS consumer to provide conditions under which a CCL can be dynamically composed or instantiated triggered to execute

REQ-CCL-CRTN-3: The 3GPP management system should support a capability enabling the MnS consumer to be notified when a CCL is dynamically composed or instantiated or triggered to execute.

5.1.3 Potential Solutions

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To enable dynamic composition of the CCL

* Extend the existing ACCL IOC to represent a general Closed Control Loop, say named CCL
* introduce a datatype representing a step of the CCL, say named cCLStep. The cCLStep represents either a MnF or a MnS producer which can be part of the CCL.
* introduce on the CCL IOC, an attribute representing the sequence of steps of the CCL. The MnS consumer can provide the list of MnFs or MnS producers that should be combined into a CCL.
* Introduce in the managed function the set of management function instances from which the said management function may take input to be used in deriving its output.
* Introduce in the managed function the set of management services (instances) from which the said management function may take input to be used in deriving its output.

When a combination of the sets of management functions and services are all defined to include their data sources, the combination is equivalent to a dynamically composed CCL.

To enable dynamic Conditional decision activation of the CCL

* introduce on the CCL IOC, an attribute representing the set of conditions to be monitored by the CCL before it triggers activation of its decisions. The attribute may be of type threshold monitor defined in TS28.622, condition monitor as defined in TS28.622 or expectation Target defined in TS28.312
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5.1.4 Evaluation of solutions

TBD

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| **End of modifications** |