**3GPP TSG-SA5 Meeting #157 *S5-246022***

**Hyderabad, India, 14 - 18 October 2024**

**Source: Samsung, Nokia, DT**

**Title: Feedback Management Solutions.**

**Document for: Approval**

**Agenda Item: 6.19.4**

# 1 Decision/action requested

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

# 2 References

None

# 3 Rationale

This provides the solution for existing use case of CCL.

# 4 Detailed proposal

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| **First Change** |

## 5.11 Consumers feedback on CCL actions

### 5.11.1 Description

In fully automated control loops, the CCL re-configures a particular NF to meet its stated goals without the involvement of any other entity. The actions executed by the CCL have different levels of satisfaction for the different consumers. Without a reliable means to gauge consumer Execution Satisfaction, the CCL lacks the feedback to fine-tune and optimize functionality, and so is unable to improve the overall performance. To be able to provide gauge the satisfaction, the consumer should be able to receive information about the provisioning operations executed by the CCL. This information includes operation performed, MOIs updated etc.

Based on some local policies, the consumer may prefer that a particular NF is not updated as part of the Execution step of CCL. The consumer should be enabled to revoke the changes made to a NF. Consumer may also update the CCL to ensure that a particular NF is never updated in future. The existing attribute aCCLDisallowedList can be used, as appropriate.

Alternatively, the consumer may want to provide feedback enabling the CCL to apply an alternative approach to achieve the objectives. The consumer should be able to provide its feedback on the execution indicating how satisfied the consumer is with the CCL actions. For example, the consumer feedback may grade the usefulness of the executed action on a fixed scale say from 0 (indicating a terrible and never to be re-used action) to 10 (indicating a very good action for the interests of the consumer).

Note: the actions that need to be provided to the consumer are decided by the producer.

### 5.11.2 Potential Requirements

REQ-FED-FUN-01: The 3GPP management system should enable consumer to provide its feedback on the action(s) taken by CCL.

REQ-FED-FUN-02: The 3GPP management system should enable consumer to request for revocation of the action(s) taken by the CCL.

REQ-FED-FUN-03: The 3GPP management system should have a capability enabling consumer to receive information (e.g., operation performed, MOIs updated) about the action(s) taken by the CCL.

5.11.3 Potential Solution

The solution involves introducing a new set of information to be maintained for each CCL. This information include the following:

1. ACCL identification (only when the IOC is name-contained in SubNetwork)
2. Feedback Time stamp: Time at which the feedback was provided. This is decided by the producer.
3. Satisfaction Score: It indicates the numeric value ranging from 1 to 10 (1 being the worse), providing the consumer’s satisfaction for the CCL. This is provided by the consumer. This will enable producer to better decide on the actions to be taken as part of execute step.
4. Execution Revoke: The action taken by the CCL may be proved to be so bad that a consumer may, optionally, request to revoke them. This is provided by the consumer.

There are several alternative to include this information as part of network resource model definition:

Alternative 1: This information can be defined as part of a new IOC. This IOC can be name contained in AssuranceClosedControlLoop IOC (3GPP TS 28.536) or directly into Subnetwork IOC (3GPP TS 28.622).

Alternative 2: The information can be added as part of AssuranceReport IOC in form of a new <<datatype>

Procedure flow

The procedure allows consumer to provide its feedback for a particular CCL. This functionality will enable customer satisfaction and help with fine tuning the CCL algorithm thereby improving the overall performance of the automation technique.



1. The CCL gets provisioned.
2. The consumer sends createMOI for CCLFeedback IOC to provide feedback on an existing CCL.
3. Producer send a response.
4. Alternatively, consumer may also send modifyMOIAttribute for AssuranceReport IOC to provide feedback on an existing CCL.
5. Producer send a response.
6. The producer checks if the action performed need to be revoked. The value of attribute RevokeAction will indicate if the actions are to be revoked. If yes, then it will also identified the particular action(s) to be revoked.
7. The producer revokes the actions as indicated by the consumer.

### 5.11.4 Evaluation of solutions

Only one potential solution is proposed. The proposed solution satisfies all the requirements and is considered feasible.

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| **Last Change** |