**3GPP TSG-SA5 Meeting #155S5-243139**

**27 - 31 May 2024, Jeju, South Korea** **revision of S5-242338**

**Source: Nokia, Nokia Shanghai Bell**

**Title:** **Rel 19pCR TR28.867 CCL scope management**

**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 scope for which the CCL may collect data or which the CCL’s actions may impact. This pCR introduces the use cases for management of Closed Control Loops scopes.

# 4 Detailed proposal

***Start of First change***

# 5. Use Cases

5.Y3 Use case X3: CCL scope management

5.Y3.1 Description

Each CCL should have specific scopes for which it is responsible.

The network may be assumed to be a p-dimensional space *Sp* from which subregions d*p* Є D maybe created. Accordingly, *Sp* is the full scope space whose dimension may include time, geography, etc. as showed in Table 1 while d*p* Є D can be CCL’s scope. In that respect, scope assignment is the mapping of CCLs to regions dЄD that are part of the network’s full scope S. There may be 2 types of scopes – the measurement scope where related measurements are collected and the impact or control scope which is the scope to which the CCL’s actions may have impact. The scopes for the different CCLs can be managed by the MnS consumer.

Table 1: Example scope-space map from which the scope of CCL may be derived

|  |  |  |
| --- | --- | --- |
| Scope dimension | Granularity | Example values to be assigned |
| Time | Seconds, minutes, days | * Every hour,
* Every Saturday at 2:00 hours
 |
| Network domains |  | * Radio,
* Core,
 |
| Geography | Region/City | * City x
* Street y in City x
 |
| Network Elements  | gNB | * gNB X
 |
| Cells | * Cell A on gNB X
 |
| Terminals, e.g., types of users  | * users
 |
| Resources | slices |  |
| Network Function | * Virtual Network Function A
* Physical Network Function B
 |
|  |  |
| Transport containers (links, flows, …) | * an identifiable link,
* a specific flow
 |
| : |  |  |

5.Y3.2 Potential Requirements

REQ-CCL-COORD-1: The 3GPP management system should support a capability enabling the MnS consumer to configure the scopes of a CCL, including the measurement scope (i.e., where related measurements are collected) and the control scope scope (i.e. where the CCL acts).

5.Y3.3 Potential Solutions

TBD

5.Y3.4 Evaluation of solutions

TBD

|  |
| --- |
| **End of modifications** |