**3GPP TSG CT WG3 Meeting #139 *C3-250355***

**Athens, Greece, 17th – 21st February, 2025**

**Source: Huawei**

**Title: Discussion on enhancements of session management policy control**

**Document for: Discussion**

**Agenda Item: 19.1**

**Work Item / Release: Rel-19**

*Abstract of the contribution:*

*This discussion paper identifies a list of technical improvements and possible enhancements to the of session management policy control that may not be covered by other Rel-19 dedicated WIs.*

# **1. Introduction**

The bullets listed below identify a set of technical improvements and enhancements related with session management policy control that need to be applied but are not covered by other Rel-19 dedicated WIs:

- The handling of the precedence;

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- Update the PCRT for wireless and wireline convergence;

- Completion of the SM policy association procedures in the current specification.

# **2. Discussion**

## **2.1 The handling of precedence**

In TS 23.503 Table 6.3.1, the presence condition of precedence information used for service data flow detection is conditional and indicates that the precedence is mandatory for PCC rules with SDF template containing SDF filter(s). For dynamic PCC rules with an SDF template containing an application identifier, the precedence is either preconfigured in SMF or provided in the PCC rule from PCF.

Observation#1: The precedence is mandatory in Table 4.1.4.2.1-1 of TS 29.512, which is misaligned with the Stage 2 requirement and the description in Table 6.3.1.

* **May impact on TS 29.512:**

It is proposed to add clarifications for the case of PCC rules about the precedence used for e.g., Service data flow detection

## **2.3 Update the PCRT for wireless and wireline convergence**

Within the annex for wireless and wireline convergence in TS 29.512 and TS 29.514, some descriptions indicate that some features do not apply to the wireless and wireline convergence scenario. Several new features have been introduced since we defined the support of wireless and wireline convergence, the corresponding descriptions shall be updated accordingly.

* **May impact on TS 29.512:**

The corresponding descriptions shall be updated accordingly to complete the annex for wireless and wireline convergence with missing feature limitation for already specified functionality.

## **2.6 Completion of the SM policy association procedure in the current specification**

### **2.6.1 Completion of the guidelines for SM policy overview**

CT3 introduces a generic overview for the SM policy in the current specification and should capture the complete range of scenarios covering the six major requirements in TS 23.503 clause 4.3 including charging control requirements, policy control requirements, usage monitoring control requirements, application detection and control requirements, network capability exposure requirements, and traffic steering control requirements. Meanwhile, in TS 29.512 clause 4.1, not all requirements are captured in the description as follow:

*4.1.1 Overview*

*The Session Management Policy Control Service performs provisioning, update and removal of session related policies and PCC rules by the Policy Control Function (PCF) to the NF service consumer (e.g. SMF). The Session Management Policy Control Service can be used for charging control, policy control, application detection and control and/or access traffic steering, switching and splitting within a MA PDU Session. Session Management Policy Control Service applies to the cases where the SMF interacts with the PCF in the non-roaming scenario, the SMF interacts with the V-PCF in the local breakout roaming scenario and the H-SMF interacts with the H-PCF in the home-routed scenario.*

* **May impact on TS 29.512:**

Compared the guidance in Stage 2, supplementing the decription in clause 4.1 TS 29.512 to align with Stage 2 is needed.

### **2.6.3 Update the procedure for SM Policy Association Management**

The current SM Policy Association procedures in TS 29.513 are unclear and incorrect as follow:

* **May impact on TS 29.513:**
* In SM Policy Association Establishment procedure:
1. In Step 4:The usage of "ExtendedSamePcf" feature and "SamePcf" feature can be described separately to indicate different scenarios and should be refer to TS 29.521 instead of TS 29.512.
2. The description for Step 6-9 can be rewording to minimize subsequent unnecessary updates and missing scenarios.
* The general clauses for SM Policy Association procedures are missing, the essential descriptions and references to other TSs are required.

### **2.6.4 Update the procedure for QoS Parameters Mapping**

In Release 18, the QoS mapping function is enhanced to support PCF maps the information from UDR as follow:

*One QoS mapping function is located at the PCF, which maps the service information received over the Rx interface or N5 interface, or if the "GMEC" feature is supported, the service information obtained from the UDR into QoS parameters (e.g. 5QI, GBR, MBR, and ARP). This mapping is access independent. Clause 7.3 specifies the QoS mapping functions at the PCF applicable for all accesses.*

* **May impact on TS 29.513:**

The sub-clause shall be added to introduce the PCF interworking with UDR for QoS parameter mapping functions.

### **2.6.5 Clarification/completion of SM policy associations procedures, missed in the previous 3GPP Releases which do not be covered by the scope of any other Rel-19 dedicated WIs**

May impact on any affected TSs, e.g., TS 29.512, TS 29.513, TS 29.214, TS 29.514, TS 29.519.

# **3. Proposal**

Based on the topics discussed in clause 2, Huawei proposes to agree a new dedicated WID to specify the above enhancements. Huawei is bringing the SMPC19 WID to CT3#139 meeting.