**3GPP TSG-SA5 Meeting #131e *S5-203090***

**e-meeting 25th May-3rd June 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **28.552** | **CR** | **0238** | **rev** | **2** | **Current version:** | **16.5.0** |  |
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| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Addition of AM policy association update measurements for PCF | | | | | | | | | |
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| ***Source to WG:*** | , ZTE | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_SLICE\_ePA | | | | |  | ***Date:*** | | | 2020-05-15 |
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| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) Rel-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
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| ***Reason for change:*** | | The AM policy association measurements for PCF only include creation, so it’s necessary to add update measurements to make the it more complete. | | | | | | | | |
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| ***Summary of change:*** | | Add “Number of AM policy association update requests” and “Number of successful AM policy association updates” in clause 5.5.1, and modify “A.15 Policy association related measurements” in clause A.15. | | | | | | | | |
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| ***Consequences if not approved:*** | | The current measurements only about creation for PCF would be incomplete. | | | | | | | | |
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| ***Clauses affected:*** | | 5.5.1.a (new), 5.5.1.b (new), A.15 | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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| **1st Modified Section** |

# 5.5.1 AM policy association related measurements

## 5.5.1.1 Number of AM policy association requests

a) This measurement provides the number of AM policy association requests received by the visiting PCF ((V-)PCF).

b) CC

c) On receipt by the PCF from the AMF of Npcf\_AMPolicyControl\_Create (see 3GPP TS 23.502 [7]). Each AM policy association request is added to the relevant subcounter per NSI identifier (S-NSSAI).

d) Each subcounter is an integer value

e) PA.PolicyAMAssoReq.*SNSSAI*

Where *SNSSAI* identifies the NSI;

f) PCFFunction

g) Valid for packet switched traffic

h) 5GS

i) One usage of this performance measurements is for performance assurance.

## 5.5.1.2 Number of successful AM policy associations

a) This measurement provides the number of successful AM policy associations at the visiting PCF ((V-)PCF).

b) CC

c) On transmission by the PCF to the AMF of Npcf\_AMPolicyControl\_Create response (see 3GPP TS 23.502 [7]). Each successful AM policy association is added to the relevant subcounter per NSI identifier (S-NSSAI).

d) Each subcounter is an integer value

e) PA.PolicyAMAssoSucc.*SNSSAI*

Where *SNSSAI* identifies the NSI;

f) PCFFunction

g) Valid for packet switched traffic

h) 5GS

i) One usage of this performance measurements is for performance assurance.

## 5.5.1.a Number of AM policy association update requests

a) This measurement provides the number of AM policy association update requests PCF received from AMF.

b) CC

c) PCF receives the update (post) operation sent by AMF for the "policies / {polassoid} / update" resource URL.

d) A single integer value

e) PCF.PolicyAmAssocUpdateReq

f) PCFFunction

g) Valid for packet switching

h) 5GS

## 5.5.1.b Number of successful AM policy association updates

a) This measurement provides the number of successful update of AM policy association on PCF.

b) CC

c) PCF returns "200 OK" response message

d) A single integer value

e) PCF.PolicyAmAssocUpdateSucc

f) PCFFunction

g) Valid for packet switching

h) 5GS

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| **2nd Modified Section** |

# A.15 Policy association related measurements

To ensure the UE properly use the services provided by 5GS, the UE needs to be associated with a set of policies. The policies are categorized into AM policy, SM policy and UE policy and these kinds of policies are provisioned by PCF.

The AM policy association needs to be established in case the UE initially registers to the network or the UE needs the AMF re-allocation. The AM policy association needs to be updated in case the change of UE contract strategy (permitted list of S-NSSAIs, etc).

The SM policy association needs to be established when the UE requests a PDU Session Establishment.

The UE policy association needs to be established in the following scenarios:

1. UE initial registration with the network when a UE Policy Container is received.

2. The AMF relocation with PCF change in handover procedure and registration procedure.

3. UE registration with 5GS when the UE moves from EPS to 5GS and there is no existing UE Policy Association between AMF and PCF for this UE.

The policy association establishment is the essential steps allowing the UE to be served by the 5GS under the designed policies, therefore it needs to be monitored.

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| **End of Modified Sections** |