**3GPP TSG-CT WG3 Meeting #142 *C3-253040***

**Gothenburg, SE, 25 - 29 August 2025**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **29.507** | **CR** | **0344** | **rev** | **-** | **Current version:** | **19.3.0** |  |
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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:***  | Completion of S-NSSAI replacement functionality in AMPolicyControl procedures |
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| ***Source to WG:*** | Verizon, Ericsson, Nokia, Oracle, Samsung |
| ***Source to TSG:*** | CT3 |
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| ***Work item code:*** | TEI19, eNS\_Ph3 |  | ***Date:*** | 2025-07-30 |
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| ***Category:*** | **F** |  | ***Release:*** | Rel-19 |
|  | *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 canbe 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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | Stage 2 Technical Specifications include the following functionality that is still missing at stage 3 level: * PCF becomes aware of the UE support to S-NSSAI replacement functionality at AM Policy Control Association establishment.
* PCF may deduce that one or more S-NSSAIs become unavailable or available again based on interaction with the NWDAF for slice load level information analytics.
* Interaction with the PCF occurs if the AMF is not able to deduce the alternative S-NSSAIs from the NSSF or based on local configuration.

For the first topic, CT3 has already discussed during last year the need for a specific indicator defined at stage 2 level and objections to that solution have prevented to agree on it. As described in the Discussion Paper in C3-253031, large network operators find necessary to specify a solution to prevent signalling storms from the PCF notifying all the UEs about network slice replacement.In order to allow other kind of implementations, the AMF will only report the support of S-NSSAI replacement feature when the received UE capability indicates the support of this functionality. |
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| ***Summary of change:*** | Clause 5.8 is updated to enhance the NetSliceRepl feature description. |
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| ***Consequences if not approved:*** | Wrong impacts bring interoperability issues. Misalignment with stage 2. |
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| ***Clauses affected:*** | 5.8;  |
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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 ...  |
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| ***Other comments:*** | This CR introduces backwards compatible correction to the OpenAPI description of the TS29507\_Npcf\_AMPolicyControl.yaml |
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| ***This CR's revision history:*** |  |

**Additional discussion(if needed):**

**Proposed changes:**

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\*\*\* First Change \*\*\*

## 5.8 Feature negotiation

The optional features in table 5.8-1 are defined for the Npcf\_AMPolicyControl API. They shall be negotiated using the extensibility mechanism defined in clause 6.6 of 3GPP TS 29.500 [5].

Table 5.8-1: Supported Features

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| Feature number | Feature Name | Description |
| 1 | SliceSupport | Indicates the support of AM policies differentiation based on the awareness of the allowed NSSAI. |
| 2 | PendingTransaction | This feature indicates support for the race condition handling as defined in 3GPP TS 29.513 [7]. |
| 3 | UE-AMBR\_Authorization | Indicates the support of UE-AMBR control by the PCF in the serving network. |
| 4 | DNNReplacementControl | Indicates the support of DNN replacement control. |
| 5 | MultipleAccessTypes | Indicates the support of AM policies for the multiple (i.e. 3GPP and non-3GPP) access and RAT types where the served UE is camping. |
| 6 | WirelineWirelessConvergence | Indicates the support of Wireline and Wireless access convergence. |
| 7 | ImmediateReport | Indicates the support of the current applicable values report corresponding to the policy control request triggers for policy update notification. |
| 8 | ES3XX | Extended Support for 3xx redirections. This feature indicates the support of redirection for any service operation, according to Stateless NF procedures as specified in clauses 6.5.3.2 and 6.5.3.3 of 3GPP TS 29.500 [5] and according to HTTP redirection principles for indirect communication, as specified in clause 6.10.9 of 3GPP TS 29.500 [5].  |
| 9 | UE-Slice-MBR\_Authorization | Indicates the support of UE-Slice-MBR control by the PCF in the serving network. |
| 10 | AMInfluence | Indicates the support of the alternative mechanism to support informing the PCF for the UE of PDU session(s) established/terminated events via the delivery of the PCF for the UE information necessary for the PCF for the PDU session to send notifications on PDU session(s) established/terminated events through the AMF and the SMF. |
| 11 | EneNA | This feature indicates the support of NWDAF data reporting. |
| 12 | TargetNSSAI | Indicates the support for RFSP Index associated with the Target NSSAI. |
| 13 | 5GAccessStratumTime | This feature indicates the support of 5G acess stratum time distribution parameters provisioning. |
| 14 | FeatureRenegotiation | This feature indicates the support of feature renegotiation during the update of a policy association triggered by UE mobility with AMF change. |
| 15 | NetSliceRepl | This feature indicates that both UE and AMF support the network slice replacement functionality as part of the enhancements of the network slicing functionality.The following functionalities are supported:- Support the network slice replacement information management  |
| 16 | RFSPValidityTime | This feature indicates the support of the provisioning of a validity time for the RFSP Index value that indicates the EPC/E-UTRAN access is prioritized over 5GS access. |
| 17 | NetTimeSyncStatus | This feature indicates the support of network timing synchronization status and reporting. This feature requires the support of the 5GAccessStratumTime feature as well. |
| 18 | NetSliceUsageCtrl | This feature indicates the support of the network slice usage control functionality as part of the enhancements of the network slicing functionality.The following functionalities are supported:- Support the provisioning by the PCF of the network slice usage control information (e.g., slice deregistration inactivity timer value).This feature requires the support of the "SliceSupport" and/or "DNNReplacementControl" features. |
| 19 | PartNetSliceSupport | This feature indicates the partial network slice support in a Registration Area functionality as part of the enhancements of the network slicing functionality.The following functionalities are supported:- Support the reporting of the changes in the Partially Allowed NSSAI, S-NSSAI(s) rejected partially in the RA, Rejected S-NSSAI(s) in the RA and/or the Pending NSSAI to the PCF. |
| 20 | SLAMUP | This feature indicates the support of the provisioning to the AMF of the CHF information of the CHF selected by the PCF. |
| 21 | RatTypeChange | This feature indicates the support of provisioning the AM policies to the UE for the change in the RAT type within the same Access type. |
| 22 | AfNetSliceRepl | This feature indicates the support of the enhancements to support AF requested Network Slice Replacement services.The following functionalities are supported:- Support the provisioning and management of the AF requested Network Slice Replacement requirements. |
| 23 | Energy | Indicates the support of reporting the subscribed Energy Saving Indicator value changes. |
| 24 | CHFGroup | This feature indicates the support of the CHF Group ID handling for the discovery of the CHF. |
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