**3GPP TSG-SA WG2 Meeting #147E e-meetingS2-210xxxx**

**Elbonia, 18-22 Oct, 2021** (was S2-210xxxx)

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **23.502** | **CR** |  | **rev** |  | **Current version:** | **17.2.0** |  |
|  | | | | | | | | |
| *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** |
|  | | | | | | | | | | | | | | | | | |
| ***Title:*** | Editorial Changes on eNS\_Ph2 | | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | | | | | |
| ***Source to WG:*** | ZTE | | | | | | | | | | | | | | | | |
| ***Source to TSG:*** | SA2 | | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | | | | | |
| ***Work item code:*** | eNS\_Ph2 | | | | | | | | |  | ***Date:*** | | | 2021-10-09 | | | |
|  |  | | | | |  | | | | |  | | |  | | | |
| ***Category:*** | **D** |  | | | | | | | | | ***Release:*** | | | Rel-17 | | | |
|  | *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)* | | | | |
|  |  | | | | | | | | | | | | | | | | |
| ***Reason for change:*** | | The use of NSAC is not consistent.  In table 5.2.21.1-1 the service operation name is not correct. | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | |
| ***Summary of change:*** | | Editorial changes on eNS\_Ph2 | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | |
| ***Consequences if not approved:*** | | The specification is not consistent | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | |
| ***Clauses affected:*** | | 4.2.11.5.1, 4.2.11.5.2, 5.2.21.1 | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | | | | | | | | |

**\* \* \* \* start of 1st change \* \* \* \***

#### 4.2.11.5 Network Slice Admission Control Support for Roaming

##### 4.2.11.5.1 NSACF Support for Roaming by VPLMN

For Network Slice Admission Control of roaming UEs, a maximum number of allowed UEs per mapped S-NSSAI in HPLMN and/or a maximum number of allowed PDU Sessions in LBO mode per mapped S-NSSAI in HPLMN is allocated to the VPLMN for each S-NSSAI in HPLMN and stored in one NSCAF in the VPLMN responsible for Network Slice Admission Control for the S-NSSAI in the HPLMN, subject to NSAC.

Editor's note: Whether it is required to interact V-NSACF and H-NSACF for the NSAC of roaming UEs managed by the HPLMN for 'maximum number of UEs per network slice' is FFS.

The maximum number of UEs registered with a network slice monitoring and enforcement is done in the VPLMN by the NSACF in the VPLMN as per the description in Figure 4.2.11.2-1 with the following differences:

- Step 2, in the Nnsacf\_NSAC\_NumOfUEsUpdate\_Request service operation the AMF provides both the S-NSSAI in VPLMN, and the corresponding mapped S-NSSAI in HPLMN to the NSACF in the VPLMN.

- Step 3, the NSACF in the VPLMN performs NSAC for both the S-NSSAI in VPLMN and the corresponding mapped S-NSSAI in HPLMN based on the SLA between VPLMN and HPLMN.

For LBO, enforcement of the maximum number of PDU Sessions established for an S-NSSAI is performed in the VPLMN by the NSACF in the VPLMN as per the description in Figure 4.2.11.4-1 with the following differences:

- Step 2, in the Nnsacf\_NSAC\_NumOfPDUsUpdate\_Request service operation the V-SMF provides both the S-NSSAI in VPLMN, and the corresponding mapped S-NSSAI in HPLMN to the NSACF in the VPLMN.

- Step 3, the NSACF in the VPLMN performs NSAC for both the S-NSSAI in VPLMN and the corresponding mapped S-NSSAI in HPLMN based on the SLA between VPLMN and HPLMN.

##### 4.2.11.5.2 NSACF Support for Roaming by HPLMN

For PDU sessions in the home-routed roaming case, the SMF in HPLMN performs Network Slice Admission Control for the S-NSSAI(s) subject to NSAC.

**\* \* \* \* End of 1st change \* \* \* \***

**\* \* \* \* Start of 2nd change \* \* \* \***

### 5.2.21 NSACF services

#### 5.2.21.1 General

The following table illustrates the NSACF services.

Table 5.2.21.1-1: List of NSACF services

|  |  |  |  |
| --- | --- | --- | --- |
| Service Name | Service Operations | Operation Semantics | Example Consumer(s) |
| Nnsacf\_NSAC | NumOfUEsUpdate | Request/Response | AMF, SMF (NOTE 1) |
|  | NumOfPDUsUpdate |  | SMF |
|  | EACNotify |  | AMF |
| Nnsacf\_SliceEventExposure | Subscribe | Subscribe/Notify | NEF, AF (NOTE 2) |
|  | Unsubscribe |  | NEF, AF |
|  | Notify |  | NEF, AF |
| Nnsacf\_SliceStatus | Retrieval | Request/Response | NEF, AF |
| NOTE 1: If EPS counting is required for the S-NSSAI, the SMF+PGW-C uses the Nnsacf\_NumberOfUEsUpdate services operation and Nnsacf\_NumberOfPDUsUpdate at PDN connection establishment procedure.  NOTE 2: The AF can access NSACF services either via NEF to NSACF in case of untrusted AF or directly in case of trusted AF. | | | |

**\* \* \* \* end of 2nd change \* \* \* \***