**3GPP TSG-SA3 Meeting #99e *S3-201xxx***

**e-meeting, 11 -15 May 2020** *revision of S3-201229*

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **33.518** | **CR** | **0002** | **rev** | **1** | **Current version:** | **16.1.0** |  |
|  | | | | | | | | |
| *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** |

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| ***Title:*** |  | | | | | | | | | |
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| ***Source to WG:*** | Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | S3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | SCAS\_5G | | | | |  | ***Date:*** | | | 01-05-2020 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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:*** | | There is a pre-condition in the current test case in clause 4.2.2.2.1 stating that the NRF under test is configured with a policy for slice specific discovery. This is however a wrong interpretation of the related requirement in TS 23.501 clause 4.17.4.  The “discovery configuration of the Network Slice” in TS 23.501 clause 4.17.4 does not mean that the slice specific discovery policy is configured on the NRF. According to the definition in TS 29.510, it is sent to the NRF by NFs when registering at the NRF. This means that the NRF does not need to support the configuration of policies for slice specific discovery, which is wrongly implied in the current test case.  Therefore, it is proposed to update the pre-condition and the test steps for correction. | | | | | | | | |
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| ***Summary of change:*** | | Added the related stage 3 requirement from TS 29.510.  Updated the pre-condition.  Updated the test steps. | | | | | | | | |
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| ***Consequences if not approved:*** | | Wrong assumption on the NRF to be tested. | | | | | | | | |
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| ***Clauses affected:*** | | 4.2.2.2.1 | | | | | | | | |
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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:*** | |  | | | | | | | | |
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| ***This CR's revision history:*** | |  | | | | | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Start of the Change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 4.2.2.2.1 NF discovery authorization for specific slice

*Requirement Name*: NF discovery authorization for specific slice

*Requirement Reference:* TS 33.501 [3], clause 5.9.2.1, TS 23.502 [4], clause 4.17.4, and TS 29.510 [5], clause 6.2.3.2.3.1.

*Requirement Description*:

"NRF shall be able to ensure that NF Discovery and registration requests are authorized" as specified in TS 33.501 [3], clause 5.9.2.1.

"The NRF authorizes the Nnrf\_NFDiscovery\_Request. Based on the profile of the expected NF/NF service and the type of the NF service consumer, the NRF determines whether the NF service consumer is allowed to discover the expected NF instance(s). If the expected NF instance(s) or NF service instance(s) are deployed in a certain network slice, NRF authorizes the discovery request according to the discovery configuration of the Network Slice, e.g. the expected NF instance(s) are only discoverable by the NF in the same network slice".

as specified in TS 23.502 [4], clause 4.17.4.

“If included, the requester-snssais IE shall contain the list of S-NSSAI of the requester NF. The NRF shall use this to return only those NF profiles of NF Instances allowing to be discovered from the slice(s) identified by this IE, according to the "allowedNssais" list in the NF Profile and NF Service” as specified in TS 29.510 [5], clause 6.2.3.2.3.1.

*Threat References*: TR 33.926 [6], clause H.2.2.1, No slice specific authorization for NF discovery

*Test Case*:

**Test Name:** TC\_DISC\_AUTHORIZATION\_SLICE\_NRF

**Purpose:**

Verify that the NRF under test does not authorize slice specific discovery request for the NF instance which is not part of the requested slice, according to the slice specific discovery configuration of the requested NF instance.

**Procedure and execution steps:**

**Pre-Conditions:**

- Test environment with the NF1 and NF2, which may be simulated.

- The NF2 is configured with a list of S-NSSAI, which contains slice A but not slice B.

- The NF1 is configured as a NF instance belonging to slice B and is connected in emulated/real network environment.

- The NF1 and NF2 is successfully authenticated with the NRF under test.

**Execution Steps**

1. The NF2 registers at the NRF under test with a list of S-NSSAI.

2. The NF1 sends an Nnrf\_NFDiscovery\_Request to the NRF under test with the expected service name of NF2, NF type of the expected NF2.

3. The NRF under test determines that NF2 instance only allows discovery from NFs belonging to slice A, according to the "allowedNssais" list stored in NF2 Profile.

**Expected Results:**

The NRF under test returns a response with "403 Forbidden" status code, as specified in clause 5.3.2.2.2 of TS 29.510 [5].

**Expected format of evidence:**

Evidence suitable for the interface, e.g., evidence can be presented in the form of screenshot/screen-capture.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* End of the Change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*