**3GPP SA WG2 Meeting #161** **S2-2402977**

**Athens, February 26- March 1, 2024**

**Source: Nokia, Nokia Shanghai Bell (Rapporteur)**

**Title:** **Draft New WID: TEI19\_TPlmnNfSel; NF discovery and selection by target PLMN**

**Document for: Agreement**

**Agenda Item: 30.2**

3GPP™ Work Item Description

Information on Work Items can be found at <http://www.3gpp.org/Work-Items>   
See also the [3GPP Working Procedures](http://www.3gpp.org/specifications-groups/working-procedures), article 39 and the TSG Working Methods in [3GPP TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm)

# Title: NF discovery and selection by target PLMN

## Acronym: TEI19\_TPlmnNfSel

## Unique identifier:

Potential target Release: Rel-19

Note that this field above indicates the proposed Release at the time of submission of the WID to TSG approval. It can later be changed without a need to revise the WID. The updated target Release is indicated in the Work Plan.

## 1 Impacts

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Affects:** | UICC apps | ME | AN | CN | Others (specify) |
| **Yes** |  |  |  | x |  |
| **No** | x | x | x |  | x |
| **Don’t know** |  |  |  |  |  |

## 2 Classification of the Work Item and linked work items

### 2.1 Primary classification

|  |  |
| --- | --- |
| X | Feature |
|  | Building Block |
|  | *Work Task* |
|  | Study Item |

### 2.2 Parent Work Item

|  |  |  |  |
| --- | --- | --- | --- |
| Parent Work / Study Items | | | |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
|  |  |  |  |

### 2.3 Other related Work Items and dependencies

|  |  |  |
| --- | --- | --- |
| Other related Work Items (if any) | | |
| Unique ID | Title | Nature of relationship |
| N/A | N/A |  |

**Dependency on non-3GPP (draft) specification**:

## 3 Justification

In scenarios where NFc and NFp pertain to different domains (e.g. different PLMNs, NPNs, or different regional organizations in a same PLMN) and using Indirect Comunication with Delegated Discovery, the operator (or organization) of the target domain may prefer to perform the discovery and selection of the NFp in the target domain, e.g. for the following reasons:

* to avoid disclosing information about candidate NFp that may be sensitive or that changes frequently (e.g. load and capacity info);
* to enable the operator of the target domain to deploy its own discovery/selection policies, independently from NF implementations in other domains;
* because SCPs in the target domain have the best knowledge about candidate NFp instances and sets, incl. load and capacity info, NF service status, etc.

It should be noted that while for intra-PLMN scenarios, an SCPc may discover (through SCP profiles registered in NRF) whether an SCPp supports delegated discovery, this is not possible for inter-PLMN scenarios (an SCP profile can only be discovered by another SCP in the same PLMN).

## 4 Objective

For 5GC, enable target domain PLMN/domain to perform target NF producer selection based on target operator's policy, using indirect communication with or without delegated discovery (in the latter case, when the request indicates the NF set, the selection of the target NF instance in the set is delegated to the SCP of the target domain).

This work item will require 0.5 TU(s) to discuss and agree on the corresponding CRs.

## 5 Expected Output and Time scale

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **New specifications** *{One line per specification. Create/delete lines as needed}* | | | | | |
| Type | TS/TR number | Title | For info  at TSG# | For approval at TSG# | Remarks |
|  |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Impacted existing TS/TR** *{One line per specification. Create/delete lines as needed}* | | | |
| TS/TR No. | Description of change | Target completion plenary# | Remarks |
| TS 23.501 | Updates to clause 6.3.1 for NF discovery and selection by target PLMN. | TSG#104 |  |
| TS 23.502 | Update to clauses 4.17.10 and 5.2.7.3 for NF discovery and selection by target PLMN . | TSG#104 |  |

## 6 Work item Rapporteur(s)

Dr. Thomas Belling, Nokia, thomas (dot) belling (at) nokia (dot) com

## 7 Work item leadership

SA2

## 8 Aspects that involve other WGs

None.

## 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| Nokia |
| Nokia Shanghai Bell |
| InterDigital |
| Oracle |
| Ericsson |
| Huawei |
| ZTE |
|  |
|  |