**3GPP TSG-SA5 Meeting #141-e *S5-221552d4***

**e-meeting, 17 – 26 January 2022** (revision of S5-XXXXXX)

**Source: Alibaba Group**

**Title: New WID on network slice management capability exposure**

**Document for: Approval**

**Agenda Item: 6.2**

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: New WID on network slice management capability exposure

## Acronym: NSCE

## Unique identifier:

Potential target Release: {Rel-18}.

## 1 Impacts

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

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

### 2.1 Primary classification

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

### 2.2 Parent Work Item

|  |
| --- |
| Parent Work Items  |
| Unique ID | Title |
|  |  |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work Items (if any) |
| Unique ID | Title | Nature of relationship |
| 760065 | Management and Orchestration; Provisioning | SA5 work item |
| 720048 | Study on Management and Orchestration of Network Slicing for next generation network | SA5 study item |
| 860022 | Management and Orchestration; Network Slice Management Enhancement | SA5 study item |
| 890016 | Study on access control for management service | SA5 study item |

## 3 Justification

Network Slice Provider (e.g. Verticals) can have contract with Network Operator for the usage of network slice for communication service. Besides simply having contract for communication service, the users within different verticals (e.g. online conferencing, high resolution video) may further have their own requirements on certain management capabilities (e.g. information retrieval for network performance statistics and characteristics, and control functionalities) of the network slices that are needed for certain application services. How does the 3GPP management system conditionally expose MnSs to enable certain types of externals, e.g. verticals and service providers, to manage (e.g. monitor, optionally provision) the service needs to be studied. So far, there is no study in SA5 for this purpose.

SA5 has conducted a study on network slice management capability exposure in TR 28.824, which raised potential requirements on 3GPP management system according to use cases and key issues, and proposed solutions to address the related key issues. For example, TR 28.824 describes a use case where the NSC may interact with the Network Operator using the direct interface via OSS. There is an need to study how a NSC conducts authentication and authorization and consumes exposed MnS directly via OSS interface. In addition, whether MnS discovery service need to be enhanced to enable the NSC to discovery exposed MnS it requests also need to be investigated.

As recommended by the study, normative work is needed for the enablement of exposed MnS discovery and exposure directly via OSS in order to support network slice management capability exposure.

## 4 Objective

The work item will be conducted with the following objectives:

- Support for external entities (i.e. Network Slice provider) discovering MnS of an Network Operator.

- Support of network slice management capability exposure directly via OSS.

NOTE 1: Whether and how to process the customer specific information (e.g. via embedded BSS or a BSS proxy functionality on OSS) in the case of exposure directly via OSS is FFS.

NOTE 2: Existing mechanisms for access control and discovery needs to be reused when possible.

NOTE 3: How to achieve interaction between NSC and OSS for network slice related IOC (e.g. NetworkSlice) need to be studied in this WID.

## 5 Expected Output and Time scale

|  |
| --- |
| **New specifications** |
| 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 |
| 28.533 | Add management capability for MnS discovery service for NSC. Add network slice management capability exposure via OSS.  | Sept 2022(SA#97) |  |
| 28.531 | Add related use case and requirement regarding network slice management capability exposure without going through BSS. Add the use case of network slice management capability exposure with the relation among other SID/WID (MSAC, OAM\_NPN, eMEMTANE, 5GDMS) | Sept. 2022(SA#97) |  |
| 28.537 | Add related use case and requirement regarding MnS discovery service for NSC | Sept. 2022(SA#97) |  |
|  |  |  |  |

## 6 Work item Rapporteur(s)

Xiaobo Yu, Alibaba Group (shibo.yxb@alibaba-inc.com)

## 7 Work item leadership

SA5

## 8 Aspects that involve other WGs

SA3 for security aspects. Coordination with SA and RAN WGs may be needed.

## 9 Supporting Individual Members

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| Supporting IM name |
| Alibaba |
| AsiaInfo |
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