**3GPP TSG-SA3 Meeting #148e *S3-233510rev3***

**Electronic meeting, Online, 17 -25 April 2023**

**Source: China Unicom, Ericsson, Huawei, ZTE, CMCC, China Telecom, AsiaInfo**

**Title: New WID on Management Aspects of 5G Network Sharing Phase2**

**Document for: Approval**

**Agenda Item: 6.2.2**

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: Management Aspects of 5G Network Sharing Phase2

Acronym: MANS\_ph2

Unique identifier:

Potential target Release: Rel-18

# 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

### This work item is a

|  |  |
| --- | --- |
|  | Study  |
| X | Normative – Stage 1 |
| X | Normative – Stage 2 |
| X | Normative – Stage 3 |
|  | Normative – Other\* |

**\* Other = e.g. testing**

## 2.2 Parent Work Item

For a brand-new topic, use “N/A” in the table below. Otherwise indicate the parent Work Item.

|  |
| --- |
| Parent Work / Study Items  |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| FS\_MANS\_ph2 | SA5 | 950033 | Study on Management Aspects of 5G MOCN Network Sharing Phase2 |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work /Study Items (if any) |
| Unique ID | Title | Nature of relationship |
| 900021 | Management Aspects of 5G Network sharing | SA5 work item |
| 920018 | Study on Management Aspects of 5G Network Sharing | SA5 study item |

**Dependency on non-3GPP (draft) specification:** none

# 3 Justification

In Rel-17 TS 32.130, the following content is specified for management aspects of 5G network sharing:

* The concept for network sharing, management architecture and management workflows for MOCN.
* Typical scenarios and corresponding requirements for network sharing, including: OAM&P of shared RAN(NG-RAN), OA&M of shared core network elements, management support for NG-RAN MOCN network sharing scenario, and management of measurements for cross-operator accounting.
* Typical use cases definition, including fully pooled radio resources definition and radio resources partitioning between two POPs, handing of alarm raised on a shared cell, and Single DM for managing S-RAN and POP own RAN.

Based on above content specified in Rel-17 TS 32.130 and other specifications, TR 28.835 has studied following aspects and recommended to do the normative work.

* New requirements of management architecture for MOCN.
* New scenarios and corresponding requirements and solutions for MOCN in TS 32.130, including: Management requirements between MOP-NM and MOP-SR-DM, remote access of MOP-SR-DM, defining data flow of configuration and performance measurements raised on shared cell.
* New management aspect requirements and solutions in TS 28.541, TS 28.532, TS 28.622 and TS 28.552, including solution for enhancement of NRM to support MOCN, and PLMN-related attribute and 5QI-related attribute for operator specific IOC, and adding PLMN granularity of performance measurements, etc.

Therefore, SA5 should start normative work on management aspect of 5G Network Sharing based on conclusion and recommendation documented in TR 28.835.

# 4 Objective

The objective of this work item is to enhance the management aspects of 5G network sharing by specifying the following aspects:

* Specify new requirements and solutions for enhancement of 5G network sharing in TS 32.130:
* Requirements and corresponding solutions for the OAM&P of 5G network sharing, including:
	+ Remote access requirement of MOP.
	+ Management requirements between MOP-NM and MOP-SR-DM, and use cases of data flows for configuration, performance measurements and alarm.
	+ Management requirements between MOP-NM and POP.
* Enhancement of MOCN management architecture based on SBMA for NG-RAN.
* Specify solutions for the management aspect requirements in TS 28.541:
* Solution for enhancement of NRM to support MOCN network sharing.
* Solution for PLMN-related attribute requirement for operator specific IOC.
* Solution for 5QI-related attribute requirement for operator specific IOC.
* Specify solutions for the management aspect requirements in TS 28.532 and TS 28.552:
* Solution for different POP’s data requirements for MOCN.
* Specifying PLMN granularity of existing performance measurement for MOCN.

# 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# | Rapporteur |
|  |  |  |  |  |  |

|  |
| --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} |
| TS/TR No. | Description of change  | Target completion plenary# | Remarks |
| TS 32.130 | -Add new requirements and solutions for enhancement of 5G network sharing | Mar. 2024(SA#103) |  |
| TS 28.541 | -Add solution for the management aspect requirements for MOCN | Mar. 2024(SA#103) |  |
| TS 28.532 | -Add solution for different POP’s data requirements for MOCN | Mar. 2024(SA#103) |  |
| TS 28.552 | -Add PLMN granularity of existing performance measurements  | Mar. 2024(SA#103) |  |

# 6 Work item Rapporteur(s)

Wang Zhaoning, China Unicom, wangzn18@chinaunicom.cn, primary rapportuer, responsible for use cases and requirements for MOCN.

Mark Scott, Ericsson, mark.scott@ericsson.com, secondary rapportuer, responsilbe for NRM and performance management for MOCN.

# 7 Work item leadership

SA WG5

# 8 Aspects that involve other WGs

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| China Unicom |
| Ericsson |
| Huawei |
| ZTE |
| CMCC |
| China Telecom |
| CATT |
| AsiaInfo |