3GPP TSG SA WG5 Meeting 135-e TDoc S5-211195

electronic meeting, online, 25 January - 3 February 2021

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **28.130** | **CR** | **0006** | **rev** | 1 | **Current version:** | **16.0.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network | **X** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Update the business requirements to support NG-RAN sharing | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | ZTE Corporation | | | | | | | | | |
| ***Source to TSG:*** | SA5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | MANS | | | | |  | ***Date:*** | | | 2021-01-06 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | B |  | | | | | ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | NG-RAN sharing is not included in the business requirements. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. Add NG-RAN in the supported radio access technologies. 2. Add the description of the roles for NG-RAN. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The business requirements for NG-RAN sharing will not be included. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.1.1, 5.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

|  |
| --- |
| **1st of Changes** |

# 5 Business level requirements

## 5.1 Requirements

### 5.1.1 Requirements for the OAM&P of shared RAN

**REQ-NS\_GEN-CON-1** The **MOP–SR-DM** shall support a capability allowing the **MOP-NM** to manage **S-RAN** of any of the following radio access technologies:

i/ GERAN;

ii/ UTRAN;

iii/ E-UTRAN;

iV/ NG-RAN.

**REQ-NS\_GEN-CON-2** The **MOP–SR-DM** shall support a capability allowing the **MOP-NM** to manage **S-RAN** according to any of the following scenarios:

i/ Multi-Operator Core Network

ii/ Gateway Core Network.

**REQ-NS\_GEN-CON-3** The **MOP–SR-DM** shall support a capability allowing the **MOP-NM** to know which POPs the shared resources belong to.

**REQ-NS\_GEN-CON-4** The **MOP–SR-DM** shall support a capability allowing the **MOP-NM** to configure which POPs share each cell.

**REQ-NS\_GEN-CON-5**  Any POP shall be able to activate a signaling-based trace / MDT session on its subscribers, whether they are attached to the POP own RAN or to the **S-RAN**, provided:

a/ this is compliant with the RAN sharing contract; and

b/ user consent for participation in MDT is respected.

**REQ-NS\_GEN-CON-6** The MOP shall be able, on behalf of any POP, to activate an area-based trace / MDT session, on the portion of the **S-RAN** that the POP shares and on the POP subscribers only, from the MOP RAN DM or MOP NM, provided

a/ only the POP related subscriber data are collected;

b/ this is compliant with the RAN sharing contract; and

c/ user consent for participation in MDT is respected.

**REQ-NS\_GEN-CON-7**  The MOP shall be able, on behalf of multiple POPs, to activate an area-based trace / MDT session, on the portion of the **S-RAN** that each POP shares and on each POP subscribers only, from the MOP RAN DM or MOP NM, provided:

a/ each POP has access only to its subscriber data (i.e. not to other POPs' subscriber data);

b/ this is compliant with the RAN sharing contract; and

c/ user consent for participation in MDT is respected.

### 5.1.2 Requirements for the OA&M of shared core network elements

**REQ-NS\_GEN-CON-8** In theGWCNscenario, the MOP shall be able to manage **S-CORE**.

**REQ-NS\_GEN-CON-9** The MOP shall be able to know which POPs the shared core network elements belong to.

**REQ-NS\_GEN-CON-10** The MOP shall be able to configure which POPs share each core network element.

### 5.1.3 Requirements for the management of measurements for cross-operator accounting based on data volume and QoS

**REQ-NS\_PM-CON-1** The MOP shall be able to charge the POPs for the data volume used by POP’s users per selected QoS profile criteria via measurements defined for shared networks.

- The QoS profile criteria may include QCI Indicator, GBR Indicator, ARP Indicator.

- It shall be possible to differentiate between DL and UL.

**REQ-NS\_PM-CON-2** The MOP shall be able to set the reliability for the selected measurements defined for cross operator accounting purpose in shared networks.

**REQ-NS\_PM-CON-3** A maximum number of 200 counter instances (for measurements defined for cross operator accounting purpose in shared networks) can be recorded per granularity period.

## 5.2 Actor roles

For GERAN, UTRAN, and E-UTRAN:

MOP-SR-DM: An entity performing an IRPAgent role in MOCN and in GWCN.

MOP-SC-DM: An entity performing an IRPAgent role in GWCN.

MOP-NM: An entity performing the IRPManager role in MOCN and in GWCN.

For NG-RAN:

MOP-SR-DM: An entity contains domain Management Service Producersfor MOCN.

MOP-NM: An entity contains network Management Service Producers and domain Management Service Consumers for MOCN.

Editor’s Note: The actor roles for NG-RAN need to be revisited based on the discussion on management architecture for MOCN.

|  |
| --- |
| **End of Change** |