**3GPP TSG-SA5 Meeting #130-es *S5-202155***

**Online, , 20th Apr 2020 - 28th Apr 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **28.530** | **CR** | **0022** | **rev** | **-** | **Current version:** | **16.1.0** |  |
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| *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 | **x** | Core Network | **x** |

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| ***Title:***  | Extend roles related to 5G networks and network slicing management |
|  |  |
| ***Source to WG:*** | Huawei |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | MEMTANE |  | ***Date:*** | 2020-04-10 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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 canbe 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:*** | Chapter 4.8 describes the roles related to 5G networks and network slicing management, but without clarifying the tenant related roles. This missing information needs to be captured in 4.8 chapter.  |
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| ***Summary of change:*** | Extending the roles related to 5G network and network slicing management with tenant related roles. |
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| ***Consequences if not approved:*** | It is unclear how roles related to 5G networks and network slicing management are reletad to tenant |
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| ***Clauses affected:*** | 4.8 |
|  |  |
|  | **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:*** |  |

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| **1st change** |

## 4.8 Roles related to 5G networks and network slicing management

In the context of next generation networks, responsibilities regarding operations have to be clearly defined and assigned to roles. The roles related to 5G networks and network slicing management include:

- Communication Service Customer (CSC): Uses communication services.

 - E.g. Tenant might take the role of CSC end user.

- Communication Service Provider (CSP): Provides communication services. Designs, builds and operates its communication services. The CSP provided communication service can be built with or without network slice.

- Network Operator (NOP): Provides network services. Designs, builds and operates its networks to offer such services.

- Network Equipment Provider (NEP): Supplies network equipment to network. For sake of simplicity, VNF Supplier is considered here as a type of Network Equipment Provider. This can be provided also in the form of one or more appropriate VNF(s).

- Virtualization Infrastructure Service Provider (VISP): Provides virtualized infrastructure services. Designs, builds and operates its virtualization infrastructure(s). Virtualization Infrastructure Service Providers may also offer their virtualized infrastructure services to other types of customers including to Communication Service Providers directly, i.e. without going through the Network Operator.

- Data Centre Service Provider (DCSP): Provides data centre services. Designs, builds and operates its data centres.

- NFVI Supplier: Supplies network function virtualization infrastructure to its customers.

- Hardware Supplier: Supplies hardware.

Depending on actual scenarios:

- each role can be played by one or more organizations simultaneously;

- an organization can play one or several roles simultaneously (for example, a company can play CSP and NOP roles simultaneously).

Communication Service Customer

Communication Service Provider

Network Operator

Virtualization Infrastructure Service Provider

Client

E.g.: End user,

 Small & Medium Entreprise,

 Large entreprise,

 Vertical,

 Other CSP, etc.

Provider

Client

Client

Provider

Provider

Data Center Service Provider

Client

Provider

Network Equipment Provider

(incl. VNF Supplier)

NFVI Supplier

Hardware Supplier

Client

Provider

Client

Provider

Client

Provider

Figure 4.8.1: High-level model of roles

In case of Network Slice as a Service (NSaaS) (cf. clause 4.1.6), the Communication Service Provider (CSP) role can be refined into NSaaS Provider (NSaaSP) role – or, in short, Network Slice Provider (NSP) - and the Communication Service Customer (CSC) role can be refined into NSaaS Customer (NSaaSC) role – or, in short, Network Slice Customer (NSC). A NSC can, in turn, offer its own communication services to its own customers (e.g. tenants), being thus CSP at the same time.

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|  **End of changes** |