**3GPP TSG SA5 Meeting #148-e *S5-233365r1***

e-meeting, 17-25 April 2023

**Source: Nokia**

**Title: Discusion Paper on Service Management**

**Document for: Agreement**

**Agenda Item: 5.2**

# 1 Decision/action requested

***The group is asked to agree the detailed agreements in section 4.***

# References

1. S5-232766: Service Management

# 3 Discussion

For several meetings cycles there has been discussion if Service Management (SM) is in the scope of 3GPP SA5. And if SM is within the scope of 3GPP SA5, then which services fall within this scope. This discussion paper provides an additional point of view.

## 3.1 Background

It has been proposed that SM is in scope of SA5 for services that have stage 1, 2 and 3 solutions [1]. One proposal is that a capability or set of capabilities can only be considered a “Service” if a description of the service from a user’s perspective is defined (stage 1), and if an architecture and signal flow description is defined (stage 2), and if procedures, messages and information elements are fully specified to allow implementation (stage 3). It is further proposed that each stage 1, stage 2 and stage 3 definitions should be specified by 3GPP. This proposal is a reasonable starting point but might not be a comprehensive method to identify all Services which should be within the scope of SA5.

## 3.1 A Management view of a Service

When considering the definition of a Service from the SA5 point of view, we recognize that the Service is a sequence of actions or events, observable at the UE or observable by the user of the UE, as carried out or “actioned” by one or more components of a 3GPP system. These system components represent the totality of objects that can be managed by a 3GPP management system.

**Observation #1**: a necessary step to define a Service is to identify the components of a 3GPP system that “action” the service. These system components are typically identified by the architecture defined in the stage 2 service description.

All system components of a functional 3GPP system have a configuration at run-time. This might be a default configuration (as chosen by the MNO) or Service-specific configuration applied to one or more system components that “action” the Service. The configuration of the components of a 3GPP system is the responsibility of a 3GPP management system.

**Observation #2**: a necessary step to define a Service is to identify the system components which can be configured to Service-specific settings by a 3GPP management system. These system components and their allowed Service-specific configuration settings are typically identified by signaling messages and their included information elements as defined in the stage 2 service description. The configuration parameters and thus possible values are specified in the stage 3 service description. In a 3GPP management system these parameters are mapped to objects.

During execution of the Service or “run time” of the Service, the UE and the 3GPP network may negotiate the configuration data in the UDM. This process is according to procedures and protocols defined by 3GPP and outside the scope of the 3GPP management system. Beyond the initial configuration of the components of the 3GPP system and run time negotiation between the UE and the 3GPP system, an external player (e.g., an app in installed on the UE, an app provider external to the 3GPP system, the 3rd party provider of the Service) potentially can request the 3GPP management system to change the configuration of one or more of the components of the 3GPP system. This is the concept of exposing 3GPP management services and an example of “managing” a Service.

**Observation #3**: in terms of a 3GPP management system, Serivce Management encompasses making necessary configuration changes to system components of a 3GPP system via managed objects both in an initial setup phase through configuration management and in a run time phase through exposure of 3GPP management services. Service Management may also encompass service assurance, if such assurance is negotiated (quantified and agreed) between the consumer and provider.

# 4 Detailed proposal

**Proposal:** A capability or set of capabilities is recognized by SA5 as a Service and suitable candidate for Service Management in SA5 when an architecture is defined, signalling messages and information elements are defined and fully specified, as stage 2 and stage 3 service descriptions by 3GPP or one of the recognized partner SDOs of 3GPP. Exceptions are possible on a case by case basis, subject to consensus of SA5.