**3GPP TSG-SA5 Meeting #154 *S5-242020d1***

Changsha, China, 15 - 19 April 2024

**Source: China Mobile, Huawei**

**Title: Add use case of visualization of network topology and traffic for TR 28.915**

**Document for: Approval**

**Agenda Item: 6.19.5**

# 1 Decision/action requested

***The group is asked to discuss and approval.***

# 2 References

[1] 3GPP draft TR 28.915: “Management and orchestration; Study on management aspects of Network Digital Twin v0.1.0”.

[2] SP-231727 "New Study on management aspects of Network Digital Twin"

# 3 Rationale

This contribution proposes to add key issue for TR 28.915 based on SP-231727 [2]

# 4 Detailed proposal

It proposes to make the following changes to TR 28.915[1].

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| **1st Change** |

# 5 Use cases

## 5.X Use case#x: Visualization of network topology and traffic

### 5.X.1 Description

The visualization of the network is helpful for the network operators. For example, the visualization of network shows the network topology and information of each contained NFs including the overall performance status (including the number of UEs and PDU sessions), this helps to knowledge the real time status of the network. Another example is that based on the visualization of traffic traceability, it helps to quickly detect abnormal traffic and root cause of a fault.

By collecting the real time data from the mobile network, the management system can create a network digital twin. The created network digital twin can provide the visualization of the network, which not only can observe the overall network elements (e.g., 5GC NFs or gNB), network topology information and infrastructure resource information , but also the dynamic performance and alarm information of the network. With the help of visualization of the network, the network running status and health status can be perceived more clearly.

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### 5.X.2 Potential requirements

### 5.X.3 Potential solutions

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| **End of Changes** |