**3GPP TSG-SA5 Meeting #162 *S5-254023***

Goteborg, Sweden, 25 - 29 August 2025

**Source: Ericsson Korea Partners Co Ltd, China Mobile**

**Title: Clarify NDT definition and collaborative NDT use case**

**Document for: Approval**

**Agenda item: 6.19.5.1**

**Spec: TS 28.561**

**Version: 1.0.0**

**Work Item: NDT**

**Comments**

Improve the description of collaborative NDTs. The MnS Consumer and MnS Producer should jointly establish the relationship that will allow the fulfillment of the scenario modelling. The existing text about benefits does not describe any advantage of the collaboration.

**Proposed Changes**

\* \* \* First Change \* \* \* \*

# 3 Definitions of terms, symbols and abbreviations

## 3.1 Terms

For the purposes of the present document, the terms given in TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in TR 21.905 [1].

**Network Digital Twin (NDT):** virtual replica of a mobile network or part of one, that captures its attributes, behaviour and interactions

NOTE 1: Mobile network includes both RAN and Core Network.

NOTE 2: An NDT can collaborate with other NDTs during simulation or emulation activities, and dynamically adapt its internal behaviour accordingly.

\* \* \* Next Change \* \* \* \*

### 5.5.2 Use Cases

#### 5.5.2.1 Collaboration between NDTs - NDTADV\_01

A single NDT Function might not be able to fulfil a task by itself and may depend on or need to use the service or outputs of another NDT Function during the simulation/emulation activity. This means that NDT Functions may have the capability to collaborate with each other, exchanging information and dynamically adapting their behavior according to the exchanged information. The collaborations between multiple NDT Functions can be within the same management domain or between different management domains.

The NDT MnS Consumer may express its preferences regarding relationships between NDT Functions to jointly fulfil the scenario to be modelled. Based on the NDT MnS Consumer's input, the NDT MnS Producer may evaluate whether such collaboration is necessary and determines how it can be realized.

The benefits of collaboration between NDTs Functions are:

- NDT Functions collaboration may lead to a broader system awareness and promotes flexibility

- Complex scenarios can be fulfilled jointly by collaborating NDT Functions instances.

\* \* \* End of Changes \* \* \* \*