**3GPP TSG-WG SA2 Meeting #170 *S2-250xxxx***

**Goteborg, SE, 25th Aug – 29th Aug, 2025 (revision of S2-250xxxx)**

**Source: Huawei, HiSilicon**

**Title: WT2 KI Support of DO-A Capable AIoT Devices**

**Document for: Approval**

**Agenda Item: 20.5.1**

**Work Item / Release: FS\_AmbientIoT\_Ph2\_ARC / Rel-20**

*Abstract: KI for WT2 on support of DO-A Capable AIoT Devices*

# 1. Introduction/Discussion

The following is the Key Issue relating to the following WT in Study on Architecture support of Ambient power-enabled Internet of Things - Phase 2:

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| **WT#2: Study the support of DO-A Capable AIoT Devices**, including:  - Support of the AIoT Device informing the network of its presence autonomously (e.g., an AIoT Device initiated registration-like procedure).  - Support for an autonomous AIoT Device originated procedure to send data to the AIOTF, and support for routing the received data by AIOTF.  - Naiotf and Nnef interface enhancements to provide the data received from an AIoT Device to the AF.  NOTE 4: topology 2 aspect of WT#2 has dependency on WT#1. |

# 2. Text Proposal

It is proposed to capture the following changes vs. TR 23.700-30.

\* \* \* \* First change (all new) \* \* \* \*

## 5.X Key Issue #X: Support of DO-A Capable Ambient IoT Devices

This key issue will study the system architecture to support DO-A capable Ambient IoT Devices in Topology 1 and Topology 2.

The following aspects will be studied:

- Support of the AIoT Device informing the network of its presence autonomously (e.g., an AIoT Device initiated registration-like procedure).

- Support for an autonomous AIoT Device originated procedure to send data to the AIOTF, and support for routing the received data by AIOTF.

- Naiotf and Nnef interface enhancements to provide a monitoring capability for AIoT Devices to, e.g., indicate when data can be sent to the AIoT Device, and data received from an AIoT Device.

NOTE: Topology 2 aspects from Key Issue 1 and Rel-19 TR 23.700-19 [x] are assumed to be used as the basis for topology 2 support of DO-A capable Ambient IoT Devices.

\* \* \* \* End of changes \* \* \* \*