**3GPP TSG-CT WG1 Meeting #134-eC1-221363**

**E-Meeting, 17th – 25th February 2022**

**Source: ZTE**

**Title: De-registration for constrained devices via MSGin5G Gateway UE**

**Spec: 3GPP TS 24.538 v0.3.0**

**Agenda item: 17.2.30**

**Document for: Agreement**

**1. Introduction**

De-registration procedure for MSGin5G UE in MSGin5G-1 has been introduced in TS 24.538. The de-registration procedure for the constrained devices which do not have enough capability to communicate with MSGin5G Server has not been covered.

**2. Reason for Change**

The constrained devices may not have enough capability to communicate with the MSGin5G Server. If allowed by configuration, the constrained devices communicates with the MSGin5G Server via an unconstrained MSGin5G UE:

a) over the MSGin5G-5 interface between the Application Client of the constrained device and the MSGin5G Client of the unconstrained MSGin5G UE; or

b) over the MSGin5G-6 interface between the MSGin5G Client of the constrained device and the MSGin5G Client of the unconstrained MSGin5G UE.

This paper focuses on the case a. In case a, the unconstrained UE acts as a Gateway UE. This paper focuses on the case a. In case a, the unconstrained UE acts as a Gateway UE. This contribution defines the de-registration procedure between the constrained device and the MSGin5G Gateway UE.

**3. Conclusions**

Complete de-registration procedure for constrained devices.

**4. Proposal**

It is proposed to agree the following changes to 3GPP TS 24.538 v0.3.0.

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

##### 6.3.2.1.2 Constrained device de-registration to use MSGin5G Gateway UE

Upon reception of de-registration request from the constrained device, the MSGin5G Gateway UE:

a) removes the mapping between Application ID and Layer-2 ID of the UE-2 based on the Registration ID included in the de-registration request; and

b) constructs the de-registration response including:

1) the De-registration Result indicating whether the de-registration is accepted or not;

2) the Registration ID included in the de-registration request, if the de-registration is accepted by the MSGin5G Gateway UE; and

3) the Failure Reason indicating an appropriate reason why the de-registration request is rejected by the MSGin5G Gateway UE, if the de-registration is not accepted by the MSGin5G Gateway UE.NOTE: Based on the connection mode, e.g. L2 connection or L3 connection, the MSGin5G Gateway UE may allocated a specified MAC address or UDP port for exchange information between the MSGin5G Gateway UE and the constrained device. The transport mechanism is based on the legacy transport protocol.

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

##### 6.3.2.2.2 Constrained device de-registration to use MSGin5G Gateway UE

In order to de-register constrained device to the MSGin5G Gateway UE, the Application Client sends a de-registration request to the MSGin5G Client of the MSGin5 Gateway UE. The de-registration request shall include the "Registration ID" which has been allocated by the MSGin5G Gateway UE during the registration procedure.

NOTE: If a specified MAC address or UDP port is configured for exchange information between the MSGin5G Gateway UE and the constrained device, the constrained device shall send the de-registration request to the specified MAC address or UDP port.

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