**3GPP TSG-CT WG1 Meeting #134-eC1-221656 rev2**

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

**Source: China Mobile**

**Title: pCR on Messaging Procedures for Constrained device on MSGin5G Relay UE**

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

**Agenda item: 17.2.30**

**Document for: Agreement**

**1. Introduction**

This pCR is to propose the Messaging Procedures for Constrained device on MSGin5G Relay UE.

**2. Reason for Change**

The constrained devices may communicate with the MSGin5G Server over either MSGin5G-5 or MSGin5G-6 reference point:

* over the MSGin5G-5 interface between the Application Client on the constrained device and the MSGin5G Client on the MSGin5G Relay UE; or
* over the MSGin5G-6 interface between the MSGin5G Client on the constrained device and the MSGin5G Client of the MSGin5G Relay UE.

This pCR proposes the procedures for receiving a message to Constrained device on the MSGin5G Relay UE when MSGin5G-6 reference point is used. As agreed in CC on Feb.28 2022, CoAP is also used in MSGn5G-6 reference point and the whole CoAP message will not be changed on MSGin5G Relay UE.

**3. Conclusions**

<Conclusion part (optional)>

**4. Proposal**

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

**\*\*\*\*\*\*\***

**Formatting instructions (remove this section after drafting a pCR)**

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| Use this style | For this type of element |
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| **Normal** | Standard paragraph, Definition |
| **EX** | Reference, Example → |
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| **NF** | Note in figure → |
| **TAN** | Note in table → |
| **TH** | Table title, Figures |
| **TAH** | Heading within table |
| **TAC** | Centred text within table |
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| **PL** | Programming language |
| **EQ** | Equation |
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**Please do not create new styles!**

**\*\*\*\*\*\*\***

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

### 6.4.2 Message delivery for Constrained device

#### 6.4.2.x Procedure at MSGin5G Relay UE

##### 6.4.2.x.1 Sending of an MSGin5G message to Constrained device with MSGin5G Client

When the MSGin5G Client-1 on the MSGin5G Relay UE receives a CoAP POST request from UDP port XXX and the recipient’s address included in the CoAP Option is set to another MSGin5G Client-2 which has established a connection for One-to-one ProSe Direct Communication with it as specified in 3GPP  TS 23.304[X], the MSGin5G Relay UE acts as either 5G ProSe Layer-2 and Layer-3 UE-to-Network Relay entity as specified in 3GPP TS 23.304 [X] and relays the CoAP POST request as a downlink traffic to the MSGin5G Client-2, Otherwise the MSGin5G Client-1 shall discard the CoAP POST request and may send a CoAP 4.04 (Not Found) response to the MSGin5G Server.

Editor's note: The exact UDP port number on which the message is sent, is FFS.

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

##### 6.4.2.x.2 Reception of an MSGin5G message from Constrained device with MSGin5G Client

When the the MSGin5G Client on the MSGin5G Relay UE receives a CoAP POST request from UDP port XXX and the recipient’s address included in the CoAP Option is set to the MSGin5G Server, the MSGin5G Relay UE acts as either 5G ProSe Layer-2 and Layer-3 UE-to-Network Relay entity as specified in 3GPP TS 23.304 [X] and relays the CoAP POST request as a uplink traffic to the MSGin5G Server.

Editor's note: The exact UDP port number on which the message is sent, is FFS.

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

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 23.554: "Application architecture for MSGin5G Service; Stage 2;".

[3] 3GPP TS 23.434: "Service Enabler Architecture Layer for Verticals".

[4] IETF RFC 7641: "Observing Resources in the Constrained Application Protocol (CoAP)".

[5] IETF RFC 7252: "The Constrained Application Protocol (CoAP)".

[6] 3GPP TS 24.546: "Configuration management - Service Enabler Architecture Layer for Verticals (SEAL); Protocol specification".

[x] 3GPP TS 23.304: "Proximity based Services (ProSe) in the 5G System (5GS)".

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