**3GPP TSG-CT WG1 Meeting #136-eC1-223856**

**E-Meeting, 12th – 20th May 2022**

**Source: ZTE**

**Title: Correction of IE coding of Target Address**

**Spec: 3GPP TS 24.538 v1.1.0**

**Agenda item: 17.2.30**

**Document for: Agreement**

**1. Introduction**

The min value of the length of the IE of “Target Address” is incorrect and the max value is unnecessary. Thus it is proposed to allocate a proper value of this IE.

**2. Reason for Change**

The message sent from the Application Client on the constrained device to the MSGin5G Client on MSGin5G GW UE shall contain the IE of “Target Address”. This IE is used for the MSGin5G Client on MSGin5G GW UE to generate the Recipient UE/AS/Group Service ID in the MSGin5G message request. CoAP is used as the basic transport protocol of MSGin5G service over MSGin5G-1 interface. Thus the target address should either an IPv4 address, an IPv6 address or a FQDN.

If the target address is an IPv4 address, the length of an IPv4 address is 4 octets. If the target address is an IPv6 address, the length of an IPv6 address is 16 octets. If the target address is a FQDN, an EN is added to indicate that whether to introduce FQDN for MSGin5G in 3GPP TS 23.003 is FFS. Thus min value of the length of the IE of “Target Address” should be 6 octets and the max value depends on the length of FQDN.

**3. Conclusions**

Correct the length of the IE of “Target Address”.

**4. Proposal**

It is proposed to agree the following changes to 3GPP TS 24.538 v1.1.0.

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

#### A.2.1.1 for sending a message to MSGin5G Client

For sending a message to MSGin5G Client, the Application Client may use the message content specified in Table A.2.1.1-1

Table A.2.1.1-1: message content for sending a message to MSGin5G Client

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | Message Type | Message Type  A.2.2.1 | M | V | 1 |
|  | Target address | Target address  A.2.2.2 | M | LV | 6-n |
|  | Message ID | Message ID A.2.2.4 | M | V | 16 |
|  | Payload | Payload  A.2.2.5 | M | LV-E | 3-x |
| A | Application ID | Application ID A.2.2.3 | O | TV | 1 |
| B | Delivery status required | Delivery status required  A.2.2.6 | O | TV | 1 |
| D | Target Type | Target Type  A.2.2.7 | O | TV | 1 |

If using the message content specified in table A.2.1.1-1, the Application Client may generate a message according to 6.4.2.3.1 and send the generated message as a UDP message to the MSGin5G Client.

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

#### A.2.2.2 Target Address

The Target Address information element is used to indicate address of target recipient or target group while sending message from constrained device.

The Target Address information element is coded as shown in Figure A.2.2.2-1 and Table A.2.2.2-1.

The Target Address information element is a type 4 information element.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Length of Target Address contents | | | | | | | | octet 1 |
| Target Address type value | | | | | | | | octet 2 |
|  | | | | | | | | octet 3 |
| Target Address contents | | | | | | | |  |
|  | | | | | | | | octet n |

Figure A.2.2.2-1: Target Address information element

Table A.2.2.2-1: Target Address information element

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Target Address type value (octet 2)  Bits | | | | | | | | | |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |  |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |  | IPv4 address |
| 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |  | IPv6 address |
| 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |  | FQDN |
| All other values are reserved. | | | | | | | | | |
| Target Address content is contained in octet 6 to octet n; Max value depends on the length of FQDN. | | | | | | | | | |
| If Target Address type value indicates IPv4 address, the Target Address content in octet 3 to octet 6 contains an IPv4 address.  If Target Address type value indicates IPv6 address, the Target Address content in octet 3 to octet 18 contains an IPv6 address.  If Target Address type indicates FQDN, the Target Address content in octet 3 to octet n contains an FQDN. | | | | | | | | | |

Editor's note: whether to introduce FQDN for MSGin5G in 3GPP TS 23.003 is FFS.

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