**3GPP TSG-CT WG1 Meeting #132-eC1-21xxxx**

**E-meeting, 11-15 October 2021 *was C1-215647***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.539** | **CR** | **0001** | **rev** | **2** | **Current version:** | **17.2.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network | **X** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | , Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | | 2 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | |  |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) ... Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The field of length of port parameter value in port management list is 2 octet size. However, the field of length of port parameter value in port update result information element is 1 octet size which needs to be modified to 2 octet size.  There is similar issue with the length of user plane node parameter value in user plane node update result information element. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Define extended port update contents. The length field of the extended port parameter update has 2 octet size.  Define extended user plane node update contents. The length field of the extended user plane node parameter update has 2 octet size. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | No sufficient space in port update result IE or user plane node update result IE if the parameter value exceeds to 255. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 9.5, 9.5E, 8.2.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Rev#1:  Instead of changing the size of length of port/user plane parameter value field to 2 octets, define extended port/user plance node update contents which has 2 octet length field for parameter value. | | | | | | | | |

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

## 9.5 Port update result

The purpose of the port update result information element is to report to the TSN AF the outcome of the request from the TSN AF to set one or more port parameters to a specific value.

The port update result information element is coded as shown in figure 9.5.1, figure 9.5.2, figure 9.5.3, figure 9.5.4, figure 9.5.5, figure 9.5.x, figure 9.5.y, and table 9.5.1.

The port update result information element has a minimum length of 5 octets and a maximum length of 65534 octets.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Port update result IEI | | | | | | | | octet 1 |
| Length of port update and update error contents | | | | | | | | octet 2  octet 3 |
| Port update contents | | | | | | | | octet 4  octet a |
| Port update error contents | | | | | | | | octet a+1  octet z |
| Extended port update contents | | | | | | | | octet z+1\*  octet n\* |

**Figure 9.5.1: Port update result information element**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Number of port parameters successfully updated | | | | | | | | octet 4 |
| Port parameter update 1 | | | | | | | | octet 5\*  octet b\* |
| Port parameter update 2 | | | | | | | | octet b+1\*  octet c\* |
| … | | | | | | | | octet c+1\*  …  octet d\* |
| Port parameter update N | | | | | | | | octet d+1\*  octet a\* |

**Figure 9.5.2: Port update contents**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Port parameter name | | | | | | | | octet e  octet e+1 |
| Length of Port parameter value | | | | | | | | octet e+2 |
| Port parameter value | | | | | | | | octet e+3  octet f |

**Figure 9.5.3: Port parameter update**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Number of port parameters not updated successfully | | | | | | | | octet a+1 |
| Port parameter error 1 | | | | | | | | octet a+2\*  octet a+3\* |
| Port parameter error 2 | | | | | | | | octet a+4\*  octet a+5\* |
| **…** | | | | | | | | octet a+6\*  …  octet z-2\* |
| Port parameter error N | | | | | | | | octet z-1\*  octet z\* |

**Figure 9.5.4: Port update error contents**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Port parameter name | | | | | | | | octet i  octet i+1 |
| Port management service cause | | | | | | | | octet i+2 |

**Figure 9.5.5: Port parameter error**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Length of extended port update contents | | | | | | | | octet z+1  octet z+2 |
| Extended port parameter update 1 | | | | | | | | octet z+3\*  octet g\* |
| Extended port parameter update 2 | | | | | | | | octet g+1\*  octet h\* |
| … | | | | | | | | octet j+1\*  …  octet k\* |
| Extended port parameter update N | | | | | | | | octet k+1\*  octet m\* |

**Figure 9.5.x: Extended port update contents**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Extended port parameter name | | | | | | | | octet p  octet p+1 |
| Length of extended port parameter value | | | | | | | | octet p+2  octet p+3 |
| Extended port parameter value | | | | | | | | octet p+4  octet q |

**Figure 9.5.y: Extended port parameter update**

**Table 9.5.1: Port update result information element**

|  |
| --- |
| Value part of the port update result information element (octets 4 to z) |
|  |
| Port update contents (octets 4 to a)  This field consists of zero or several port parameter updates.  Port parameter update  Port parameter name (octets e to e+1) |
|  |
| This field contains the name of the port parameter which could be set successfully, encoded over 2 octets as specified in table 9.2.1 for the DS-TT or NW-TT to TSN AF direction. |
| Length of port parameter value (octet e+2) |
|  |
| This field contains the binary encoding of the length of the port parameter value |
|  |
| Port parameter value (octets e+3 to f) |
|  |
| Port error contents (octets a+1 to z)  This field consists of zero or several port parameter errors.  Port parameter error  Port parameter name (octets i to i+1) |
|  |
| This field contains the name of the port parameter whose value could not be set successfully, encoded over 2 octets as specified in table 9.2.1 for the DS-TT or NW-TT to TSN AF direction. |
| Port management service cause (octet i+2)  This field contains the port management service cause indicating the reason why the value of the port parameter could not be set successfully, encoded as follows:  Bits  **8 7 6 5 4 3 2 1**  0 0 0 0 0 0 0 0 Reserved  0 0 0 0 0 0 0 1 port parameter not supported  0 0 0 0 0 0 1 0 Invalid port parameter value  0 1 1 0 1 1 1 1 Protocol error, unspecified  The receiving entity shall treat any other value as 0110 1111, "protocol error, unspecified". |
| Extended port update contents (NOTE)  This field consists of zero or several extended port parameter updates. Each extended port parameter update has 2 octet length field.  Length of extended port update contents (octets z+1 to z+2)  This field contains the binary encoding of the length of the extended port update contents.  Extended port parameter update  Extended port parameter name (octets p to p+1) |
| This field contains the name of the port parameter which could be set successfully, encoded over 2 octets as specified in table 9.2.1 for the DS-TT or NW-TT to TSN AF direction. |
| Length of extended port parameter value (octets p+2 to p+3) |
| This field contains the binary encoding of the length of the port parameter value. |
|  |
| Extended port parameter value (octets p+4 to q)  NOTE: The extended port update contents are used to convey the value of port parameters with a length greater than 255 octets. |

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

## 9.5E User plane node update result

The purpose of the User plane node update result information element is to report to the TSN AF the outcome of the request from the TSN AF to set one or more User plane node parameters to a specific value.

The User plane node update result information element is coded as shown in figure 9.5E.1, figure 9.5E.2, figure 9.5E.3, figure 9.5E.4, figure 9.5E.5, figure 9.5E.x, figure 9.5E.y, and table 9.5E.1.

The User plane node update result information element has a minimum length of 5 octets and a maximum length of 65530 octets.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| User plane node update result IEI | | | | | | | | octet 1 |
| Length of User plane node update and update error contents | | | | | | | | octet 2  octet 3 |
| User plane node update contents | | | | | | | | octet 4  octet a |
| User plane node update error contents | | | | | | | | octet a+1  octet z |
| Extended user plane node update contents | | | | | | | | octet z+1\*  octet n\* |

**Figure 9.5E.1: User plane node update result information element**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Number of User plane node parameters successfully updated | | | | | | | | octet 4 |
| User plane node parameter update 1 | | | | | | | | octet 5\*  octet b\* |
| User plane node parameter update 2 | | | | | | | | octet b+1\*  octet c\* |
| … | | | | | | | | octet c+1\*  …  octet d\* |
| User plane node parameter update N | | | | | | | | octet d+1\*  octet a\* |

**Figure 9.5E.2: User plane node update contents**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| User plane node parameter name | | | | | | | | octet e  octet e+1 |
| Length of User plane node parameter value | | | | | | | | octet e+2 |
| User plane node parameter value | | | | | | | | octet e+3  octet f |

**Figure 9.5E.3: User plane node parameter update**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Number of User plane node parameters not updated successfully | | | | | | | | octet a+1 |
| User plane node parameter error 1 | | | | | | | | octet a+2\*  octet a+3\* |
| User plane node parameter error 2 | | | | | | | | octet a+4\*  octet a+5\* |
| … | | | | | | | | octet a+6\*  …  octet z-2\* |
| User plane node parameter error N | | | | | | | | octet z-1\*  octet z\* |

**Figure 9.5E.4: User plane node update error contents**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| User plane node parameter name | | | | | | | | octet i  octet i+1 |
| User plane node management service cause | | | | | | | | octet i+2 |

**Figure 9.5E.5: User plane node parameter error**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Length of extended user plane node update contents | | | | | | | | octet z+1  octet z+2 |
| Extended user plane node parameter update 1 | | | | | | | | octet z+3\*  octet g\* |
| Extended user plane node parameter update 2 | | | | | | | | octet g+1\*  octet h\* |
| … | | | | | | | | octet j+1\*  …  octet k\* |
| Extended user plane node parameter update N | | | | | | | | octet k+1\*  octet m\* |

**Figure 9.5E.x: Extended user plane node update contents**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Extended user plane node parameter name | | | | | | | | octet p  octet p+1 |
| Length of extended user plane node parameter value | | | | | | | | octet p+2  octet p+3 |
| Extended user plane node parameter value | | | | | | | | octet p+4  octet q |

**Figure 9.5E.y: Extended user plane node parameter update**

**Table 9.5E.1: User plane node update result information element**

|  |
| --- |
| Value part of the User plane node update result information element (octets 4 to z) |
|  |
| User plane node update contents (octets 4 to a)  This field consists of zero or several User plane node parameter updates.  User plane node parameter update  User plane node parameter name (octets e to e+1) |
|  |
| This field contains the name of the User plane node parameter which could be set successfully, encoded over 2 octets as specified in table 9.5B.1 for the NW-TT to TSN AF direction. |
| Length of User plane node parameter value (octet e+2) |
|  |
| This field contains the binary encoding of the length of the User plane node parameter value |
|  |
| User plane node parameter value (octets e+3 to f) |
|  |
| User plane node error contents (octets a+1 to z)  This field consists of zero or several User plane node parameter errors.  User plane node parameter error  User plane node parameter name (octets i to i+1) |
|  |
| This field contains the name of the User plane node parameter whose value could not be set successfully, encoded over 2 octets as specified in table 9.5B.1 for the NW-TT to TSN AF direction. |
| User plane node management service cause (octet i+2)  This field contains the User plane node management service cause indicating the reason why the value of the User plane node parameter could not be set successfully, encoded as follows:  Bits  **8 7 6 5 4 3 2 1**  0 0 0 0 0 0 0 0 Reserved  0 0 0 0 0 0 0 1 User plane node parameter not supported  0 0 0 0 0 0 1 0 Invalid User plane node parameter value  0 1 1 0 1 1 1 1 Protocol error, unspecified  The receiving entity shall treat any other value as 0110 1111, "protocol error, unspecified". |
| Extended user plane node update contents (NOTE)  This field consists of zero or several extended user plane node parameter updates. Each extended user plane node parameter update has 2 octet length field.  Length of extended user plane node update contents (octets z+1 to z+2)  This field contains the binary encoding of the length of the extended user plane node update contents.  Extended user plane node parameter update  Extended user plane node parameter name (octets p to p+1) |
| This field contains the name of the user plane node parameter which could be set successfully, encoded over 2 octets as specified in table 9.5B.1 for the NW-TT to TSN AF direction. |
| Length of extended user plane node parameter value (octets p+2 to p+3) |
| This field contains the binary encoding of the length of the user plane node parameter value. |
|  |
| Extended user plane node parameter value (octets p+4 to q)  NOTE: The extended user plane node update contents are used to convey the value of user plane node parameters with a length greater than 255 octets. |

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

### 8.2.1 Message definition

The MANAGE PORT COMPLETE message is sent by the DS-TT or NW-TT to the TSN AF to complete the network-initiated port management procedure or the TSN AF-initiated port management procedure, see table 8.2.1.1

Message type: MANAGE PORT COMPLETE

Significance: dual

Direction: DS-TT to TSN AF, NW-TT to TSN AF

Table 8.2.1.1: MANAGE PORT COMPLETE message content

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | MANAGE PORT COMPLETE message identity | Port management service message type  9.1 | M | V | 1 |
| 70 | Port management capability | Port management capability  9.3 | O | TLV-E | 5-65534 |
| 71 | port status | Port status  9.4 | O | TLV-E | 5-65534 |
| 72 | Port update result | Port update result  9.5 | O | TLV-E | 5-65534 |

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