**3GPP TSG-CT WG1 Meeting #128-eC1-211157**

**Electronic meeting, 25 February – 5 March 2021**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.519** | **CR** | **0025** | **rev** | **1** | **Current version:** | **16.3.0** |  |
|  | | | | | | | | |
| *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** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Location of the Ethernet port parameter name and bridge parameter name | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI17, Vertical\_LAN | | | | |  | ***Date:*** | | | 2021-02-25 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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:*** | | Location of the Ethernet port parameter name and bridge parameter name in the IEs described in clauses 9.4, 9.5, and 9.5D is not indicated correctly. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | (octets to i+1) 🡪 (octets i to i+1) | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Error in indicating the location of the Ethernet port parameter name and bridge parameter name | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 9.4, 9.5, 9.5D | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

## 9.4 Ethernet port status

The purpose of the Ethernet port status information element is to report the values of Ethernet port parameters of the DS-TT or NW-TT to the TSN AF.

The Ethernet port status information element is coded as shown in figure 9.4.1, figure 9.4.2, figure 9.4.3, figure 9.4.4, figure 9.4.5, and table 9.4.1.

The Ethernet port status information element has a minimum length of 5 octets and a maximum length of 65534 octets.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Ethernet port status IEI | | | | | | | | octet 1 |
| Length of Ethernet port status and error contents | | | | | | | | octet 2  octet 3 |
| Ethernet port status contents | | | | | | | | octet 4  octet a |
| Ethernet port error contents | | | | | | | | octet a+1  octet z |

Figure 9.4.1: Ethernet port status information element

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

Figure 9.4.2: Ethernet port status contents

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

Figure 9.4.3: Ethernet port parameter status

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

Figure 9.4.4: Ethernet port error contents

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

Figure 9.4.5: Ethernet port parameter error

Table 9.4.1: Ethernet port status information element

|  |
| --- |
| Value part of the Ethernet port status information element (octets 4 to z) |
|  |
| Ethernet port status contents (octets 4 to a)  This field consists of zero or several Ethernet port parameter statuses.  Ethernet port parameter status  Ethernet port parameter name (octets e to e+1) |
|  |
| This field contains the name of the Ethernet port parameter which could be read 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 Ethernet port parameter value (octets e+2 to e+3) |
|  |
| This field contains the binary encoding of the length of the Ethernet port parameter value |
|  |
| Ethernet port parameter value (octets e+4 to f) |
|  |
| This field contains the value for the Ethernet port parameter, encoded as specified in table 9.2.1. |
| Ethernet port error contents (octets a+1 to z)  This field consists of zero or several Ethernet port parameter errors.  Ethernet port parameter error  Ethernet port parameter name (octets i to i+1) |
|  |
| This field contains the name of the Ethernet port parameter whose value could not be read successfully, encoded over 2 octets as specified in table 9.2.1 for the DS-TT or NW-TT to TSN AF direction. |
| Ethernet port management service cause (octet i+2)  This field contains the Ethernet port management service cause indicating the reason why the value of the Ethernet port parameter could not be read 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 Ethernet port parameter not supported  0 0 0 0 0 0 1 0 Invalid Ethernet 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". |

\*\*\*\*\* Next change \*\*\*\*\*

## 9.5 Ethernet port update result

The purpose of the Ethernet 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 Ethernet port parameters to a specific value.

The Ethernet 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, and table 9.5.1.

The Ethernet 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 |  |
| Ethernet port update result IEI | | | | | | | | octet 1 |
| Length of Ethernet port update and update error contents | | | | | | | | octet 2  octet 3 |
| Ethernet port update contents | | | | | | | | octet 4  octet a |
| Ethernet port update error contents | | | | | | | | octet a+1  octet z |

Figure 9.5.1: Ethernet port update result information element

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

Figure 9.5.2: Ethernet port update contents

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

Figure 9.5.3: Ethernet port parameter update

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

Figure 9.5.4: Ethernet port update error contents

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

Figure 9.5.5: Ethernet port parameter error

Table 9.5.1: Ethernet port update result information element

|  |
| --- |
| Value part of the Ethernet port update result information element (octets 4 to z) |
|  |
| Ethernet port update contents (octets 4 to a)  This field consists of zero or several Ethernet port parameter updates.  Ethernet port parameter update  Ethernet port parameter name (octets e to e+1) |
|  |
| This field contains the name of the Ethernet 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 Ethernet port parameter value (octet e+2) |
|  |
| This field contains the binary encoding of the length of the Ethernet port parameter value |
|  |
| Ethernet port parameter value (octets e+3 to f) |
|  |
| Ethernet port error contents (octets a+1 to z)  This field consists of zero or several Ethernet port parameter errors.  Ethernet port parameter error  Ethernet port parameter name (octets i to i+1) |
|  |
| This field contains the name of the Ethernet 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. |
| Ethernet port management service cause (octet i+2)  This field contains the Ethernet port management service cause indicating the reason why the value of the Ethernet 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 Ethernet port parameter not supported  0 0 0 0 0 0 1 0 Invalid Ethernet 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". |

\*\*\*\*\* Next change \*\*\*\*\*

## 9.5D Bridge status

The purpose of the Bridge status information element is to report the values of Bridge parameters of the NW-TT to the TSN AF.

The Bridge status information element is coded as shown in figure 9.5D.1, figure 9.5D.2, figure 9.5D.3, figure 9.5D.4, figure 9.5D.5, and table 9.5D.1.

The Bridge status information element has a minimum length of 5 octets and a maximum length of 65530 octets.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Bridge status IEI | | | | | | | | octet 1 |
| Length of Bridge status and error contents | | | | | | | | octet 2  octet 3 |
| Bridge status contents | | | | | | | | octet 4  octet a |
| Bridge error contents | | | | | | | | octet a+1  octet z |

Figure 9.5D.1: Bridge status information element

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Number of Bridge parameters successfully read | | | | | | | | octet 4 |
| Bridge parameter status 1 | | | | | | | | octet 5\*  octet b\* |
| Bridge parameter status 2 | | | | | | | | octet b+1\*  octet c\* |
| … | | | | | | | | octet c+1\*  …  octet d\* |
| Bridge parameter status N | | | | | | | | octet d+1\*  octet a\* |

Figure 9.5D.2: Bridge status contents

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

Figure 9.5D.3: Bridge parameter status

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

Figure 9.5D.4: Bridge error contents

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

Figure 9.5D.5: Bridge parameter error

Table 9.4.1: Bridge status information element

|  |
| --- |
| Value part of the Bridge status information element (octets 4 to z) |
|  |
| Bridge status contents (octets 4 to a)  This field consists of zero or several Bridge parameter statuses.  Bridge parameter status  Bridge parameter name (octets e to e+1) |
|  |
| This field contains the name of the Bridge parameter which could be read successfully, encoded over 2 octets as specified in table 9.2.1 for the NW-TT to TSN AF direction. |
| Length of Bridge parameter value (octets e+2 to e+3) |
|  |
| This field contains the binary encoding of the length of the Bridge parameter value |
|  |
| Bridge parameter value (octets e+4 to f) |
|  |
| This field contains the value for the Bridge parameter, encoded as specified in table 9.2.1. |
| Bridge error contents (octets a+1 to z)  This field consists of zero or several Bridge parameter errors.  Bridge parameter error  Bridge parameter name (octets i to i+1) |
|  |
| This field contains the name of the Bridge parameter whose value could not be read successfully, encoded over 2 octets as specified in table 9.2.1 for the NW-TT to TSN AF direction. |
| Bridge management service cause (octet i+2)  This field contains the Bridge management service cause indicating the reason why the value of the Bridge parameter could not be read 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 Bridge parameter not supported  0 0 0 0 0 0 1 0 Invalid Bridge 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". |