**3GPP TSG-CT WG1 Meeting #134-eC1-221748**

**E-meeting, 17th – 25th February 2022 (revision of C1-221668)**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.519** | **CR** | **0033** | **rev** | **1** | **Current version:** | **16.4.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Intel, Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | Vertical\_LAN | | | | |  | ***Date:*** | | | 21-FEB-2022 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **C** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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:*** | | SA2 has agreed in CR 3356 to TS 23.501 clause 5.28.3.1 (see S2-2109060) to support for deletion of selected entries of certain UMIC/PMIC parameters:  *[..]*  *Exchange of port and bridge management information between TSN AF and NW-TT or DS-TT allows TSN AF to:*  *[..]*  *4) delete selected entries in the following data structures:*  *- “DS-TT port neighbor discovery configuration for DS-TT port” in BMIC using the DS-TT port number to reference the selected entry.*  *- “Stream Filter Instance Table” in PMIC using the Stream Filter Instance ID to reference the selected entry.*  *- “Stream Gate Instance Table” in PMIC using the Stream Gate Instance ID to reference the selected entry.*  *- “Static Filtering Entries table” in BMIC using the (MAC address, VLAN ID) pair to reference the selected entry.*  *[..]* | | | | | | | | |
| ***;*** | |  | | | | | | | | |
| ***Summary of change:*** | | Add support for deletion of entries of Static filtering entries, Stream filter instance table, Stream gate instance table, and DS-TT port neighbor discovery configuration for DS-TT ports.  Backwards compatibility analyses  The proposed changes are backward compatible as a spare value in the operation code is used for the newly proposed operation “Delete parameter-entry” and hence no error will be caused in a TT compliant to the current version of the specification. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | No support of deletion of port and bridge management parameter entries. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 3.1, 5.2.1.1, 5.2.1.2, 5.2.1.3, 6.2.1.1, 6.2.1.2, 6.2.1.3, 6.3.1.1, 6.3.1.2, 6.3.1.3, 9.2, 9.5B, 9.6, 9.8, 9.9, 9.10 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

\*\*\* First change \*\*\*

## 3.1 Terms

For the purposes of the present document, the terms given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

**example:** text used to clarify abstract rules by applying them literally.

**Parameter-entry:** entry of a port parameter or bridge management parameter data structure supporting instantiation. For example:

- Static filtering entry is a parameter-entry of Static filtering entries as specified in clause 9.6 referred by a combination of MacAddress value and VID value;

- Stream filter instance is a parameter-entry of Stream filter instance table as specified in clause 9.8 referred by DS-TT port number value;

- Stream gate instance is a parameter-entry of Stream gate instance table as specified in clause 9.9 referred by StreamGateInstance value; or

- DS-TT port neighbor discovery configuration for DS-TT ports instance is a parameter-entry of DS-TT port neighbor discovery configuration for DS-TT ports as specified in clause 9.10 referred by DS-TT port number value.

For the purposes of the present document, the following terms and definitions given in 3GPP TS 23.501 [2] apply:

**5G System**

**Time Sensitive Communication**

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

#### 5.2.1.1 General

The purpose of the network-requested Ethernet port management procedure is to enable the TSN AF to:

a) obtain the list of port management parameters supported by the DS-TT;

b) obtain the current values of port management parameters at the DS-TT Ethernet port;

c) set the values of port management parameters at the DS-TT Ethernet port;

d) subscribe to be notified by the DS-TT if the values of certain port management parameters change at the DS-TT Ethernet port;

e) unsubscribe to be notified by the DS-TT for one or more port management parameters; or

f) delete a port management parameter-entry at the DS-TT Ethernet port.

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

#### 5.2.1.2 Network-requested Ethernet port management procedure initiation

In order to initiate the network-requested Ethernet port management procedure, the TSN AF shall:

a) encode the information about the port management parameters values to be read, the port management parameters values to be set, the port management parameters changes to (un)subscribe to, the port management parameter-entry to be deleted and whether the TSN AF requests the list of port management parameters supported by the DS-TT in an Ethernet port management list IE as specified in clause 9.2 and include it in a MANAGE ETHERNET PORT COMMAND message;

c) send the MANAGE ETHERNET PORT COMMAND message to the UE via the PCF and the SMF as specified in 3GPP TS 23.502 [3]; and

d) start timer T100 (see example in figure 5.2.1.2.1).



Figure 5.2.1.2.1: Network-requested Ethernet port management procedure

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

#### 5.2.1.3 Network-requested Ethernet port management procedure completion

Upon receipt of the MANAGE ETHERNET PORT COMMAND message, for each operation included in the Ethernet port management list IE, the DS-TT shall:

a) if the operation code is "get capabilities", include the list of Ethernet port management parameters supported by the DS-TT in the Ethernet port management capability IE of the MANAGE ETHERNET PORT COMPLETE message;

b) if the operation code is "read parameter", attempt to read the value of the parameter at the DS-TT Ethernet port, and:

1) if the value of the parameter at the DS-TT Ethernet port is read successfully, include the parameter and its current value in the Ethernet port status IE of the MANAGE ETHERNET PORT COMPLETE message; and

2) if the value of the parameter at the DS-TT Ethernet port was not read successfully, include the parameter and associated Ethernet port management service cause value in the Ethernet port status IE of the MANAGE ETHERNET PORT COMPLETE message;

c) if the operation code is "set parameter", attempt to set the value of the parameter at the DS-TT Ethernet port to the value specified in the operation, and:

1) if the value of the parameter at the DS-TT Ethernet port is set successfully, include the parameter and its current value in the Ethernet port update result IE of the MANAGE ETHERNET PORT COMPLETE message; and

2) if the value of the parameter at the DS-TT Ethernet port was not set successfully, include the parameter and associated Ethernet port management service cause value in the Ethernet port update result IE of the MANAGE ETHERNET PORT COMPLETE message;

d) if the operation code is "subscribe-notify for parameter", store the request from the TSN AF to be notified of changes in the value of the corresponding parameter;

e) if the operation code is "unsubscribe for parameter", delete the stored request from the TSN AF to be notified of changes in the value of the corresponding parameter, if any;

f) if the operation code is "delete parameter-entry", attempt to delete the referred parameter-entry of the parameter at the DS-TT Ethernet port; and

1) if the parameter-entry of the parameter at the DS-TT Ethernet port is deleted successfully, include the parameter and its current value in the Ethernet port update result IE of the MANAGE ETHERNET PORT COMPLETE message; and

2) if the parameter-entry of the parameter at the DS-TT Ethernet port was not deleted successfully, include the parameter and associated Ethernet port management service cause value in the Ethernet port update result IE of the MANAGE ETHERNET PORT COMPLETE message; and

g) send the MANAGE ETHERNET PORT COMPLETE to the TSN AF via the SMF and the PCF as specified in 3GPP TS 23.502 [3].

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

#### 6.2.1.1 General

The purpose of the TSN AF-requested Ethernet port management procedure is to enable the TSN AF to:

a) obtain the list of port management parameters supported by the NW-TT;

b) obtain the current values of port management parameters at the NW-TT Ethernet port;

c) set the values of port management parameters at the NW-TT Ethernet port; or

d) subscribe to be notified by the NW-TT if the values of certain port management parameters change at the NW-TT Ethernet port;

e) unsubscribe to be notified by the NW-TT for one or more port management parameters; or

f) delete a port management parameter-entry at the NW-TT Ethernet port.

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

#### 6.2.1.2 TSN AF-requested Ethernet port management procedure initiation

In order to initiate the TSN AF-requested Ethernet port management procedure, the TSN AF shall:

a) encode the information about the port management parameters values to be read, the port management parameters values to be set, the port management parameters changes to (un)subscribe to, the port management parameter-entry to be deleted and whether the TSN AF requests the list of port management parameters supported by the NW-TT in an Ethernet port management list IE as specified in clause 9.2 and include it in a MANAGE ETHERNET PORT COMMAND message;

b) send the MANAGE ETHERNET PORT COMMAND message to the NW-TT via the PCF and the SMF as specified in 3GPP TS 23.502 [3]; and

c) start timer T100 (see example in figure 6.2.1.2.1).



Figure 6.2.1.2.1: TSN AF-requested Ethernet port management procedure

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

#### 6.2.1.3 TSN AF-requested Ethernet port management procedure completion

Upon receipt of the MANAGE ETHERNET PORT COMMAND message, for each operation included in the Ethernet port management list IE, the NW-TT shall:

a) if the operation code is "get capabilities", include the list of Ethernet port management parameters supported by the NW-TT in the Ethernet port management capability IE of the MANAGE ETHERNET PORT COMPLETE message;

b) if the operation code is "read parameter", attempt to read the value of the parameter at the NW-TT Ethernet port, and:

1) if the value of the parameter at the NW-TT Ethernet port is read successfully, include the parameter and its current value in the Ethernet port status IE of the MANAGE ETHERNET PORT COMPLETE message; and

2) if the value of the parameter at the NW-TT Ethernet port was not read successfully, include the parameter and associated Ethernet port management service cause value in the Ethernet port status IE of the MANAGE ETHERNET PORT COMPLETE message;

c) if the operation code is "set parameter", attempt to set the value of the parameter at the NW-TT Ethernet port to the value specified in the operation, and:

1) if the value of the parameter at the NW-TT Ethernet port is set successfully, include the parameter and its current value in the Ethernet port update result IE of the MANAGE ETHERNET PORT COMPLETE message; and

2) if the value of the parameter at the NW-TT Ethernet port was not set successfully, include the parameter and associated Ethernet port management service cause value in the Ethernet port update result IE of the MANAGE ETHERNET PORT COMPLETE message;

d) if the operation code is "subscribe-notify for parameter", store the request from the TSN AF to be notified of changes in the value of the corresponding parameter;

e) if the operation code is "unsubscribe for parameter", delete the stored request from the TSN AF to be notified of changes in the value of the corresponding parameter, if any;

i) if the operation code is "delete parameter-entry", attempt to delete the referred parameter-entry of the parameter at the NW-TT Ethernet port; and

1) if the parameter-entry of the parameter at the NW-TT Ethernet port is deleted successfully, include the parameter and its current value in the Ethernet port update result IE of the MANAGE ETHERNET PORT COMPLETE message; and

2) if the parameter-entry of the parameter at the NW-TT Ethernet port was not deleted successfully, include the parameter and associated Ethernet port management service cause value in the Ethernet port update result IE of the MANAGE ETHERNET PORT COMPLETE message; and

f) send the MANAGE ETHERNET PORT COMPLETE to the TSN AF via the SMF and the PCF as specified in 3GPP TS 23.502 [3].

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

#### 6.3.1.1 General

The purpose of the TSN AF-requested Bridge management procedure is to enable the TSN AF to:

a) obtain the list of bridge management parameters supported at the NW-TT;

b) obtain the current values of bridge management parameters at the NW-TT;

c) set the values of bridge management parameters at the NW-TT; or

d) subscribe to be notified by the NW-TT if the values of certain bridge management parameters change at the NW-TT;

e) unsubscribe to be notified by the NW-TT for one or more bridge management parameters; or

f) delete a bridge management parameter-entry at the NW-TT.

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

#### 6.3.1.2 TSN AF-requested Bridge management procedure initiation

In order to initiate the TSN AF-requested Bridge management procedure, the TSN AF shall:

a) encode the information about the bridge management parameters values to be read, the bridge management parameters values to be set, the bridge management parameters changes to (un)subscribe to, the bridge management parameter-entry to be deleted and whether the TSN AF requests the list of bridge management parameters supported by the NW-TT in an Bridge management list IE as specified in clause 9.5B and include it in a MANAGE BRIDGE COMMAND message;

b) send the MANAGE BRIDGE COMMAND message to the NW-TT via the PCF and the SMF as specified in 3GPP TS 23.502 [3]; and

c) start timer T150 (see example in figure 6.3.1.2.1).



Figure 6.3.1.2.1: TSN AF-requested Bridge management procedure

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

#### 6.3.1.3 TSN AF-requested Bridge management procedure completion

Upon receipt of the MANAGE BRIDGE COMMAND message, for each operation included in the Bridge management list IE, the NW-TT shall:

a) if the operation code is "get capabilities", include the list of Bridge management parameters supported by the NW-TT in the Bridge management capability IE of the MANAGE BRIDGE COMPLETE message;

b) if the operation code is "read parameter", attempt to read the value of the bridge management parameter at the NW-TT, and:

1) if the value of the parameter at the NW-TT is read successfully, include the parameter and its current value in the Bridge status IE of the MANAGE BRIDGE COMPLETE message; and

2) if the value of the parameter at the NW-TT was not read successfully, include the parameter and associated Bridge management service cause value in the Bridge status IE of the MANAGE BRIDGE COMPLETE message;

c) if the operation code is "set parameter", attempt to set the value of the bridge management parameter at the NW-TT to the value specified in the operation, and:

1) if the value of the parameter at the NW-TT is set successfully, include the parameter and its current value in the Bridge update result IE of the MANAGE BRIDGE COMPLETE message; and

2) if the value of the parameter at the NW-TT was not set successfully, include the parameter and associated Bridge management service cause value in the Bridge update result IE of the MANAGE BRIDGE COMPLETE message;

d) if the operation code is "subscribe-notify for parameter", store the request from the TSN AF to be notified of changes in the value of the corresponding bridge management parameter;

e) if the operation code is "unsubscribe for parameter", delete the stored request from the TSN AF to be notified of changes in the value of the corresponding bridge management parameter, if any;

f) if the operation code is "delete parameter-entry", attempt to delete the referred parameter-entry of the parameter at the NW-TT, and

1) if the parameter-entry of the parameter at the NW-TT is deleted successfully, include the parameter and its current value in the Bridge update result IE of the MANAGE BRIDGE COMPLETE message; and

2) if the parameter-entry of the parameter at the NW-TT was not deleted successfully, include the parameter and associated Bridge management service cause value in the Bridge update result IE of the MANAGE BRIDGE COMPLETE message; and

g) send the MANAGE BRIDGE COMPLETE to the TSN AF via the SMF and the PCF as specified in 3GPP TS 23.502 [3].

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

## 9.2 Ethernet port management list

The purpose of the Ethernet port management list information element is to transfer from the TSN AF to the DS-TT or NW-TT a list of operations related to Ethernet port management of the DS-TT or NW-TT to be performed at the DS-TT or NW-TT.

The Ethernet port management list information element is coded as shown in figure 9.2.1, figure 9.2.2, figure 9.2.3, figure 9.2.4, figure 9.2.5, and table 9.2.1.

The Ethernet port management list information element has a minimum length of 4 octets and a maximum length of 65535 octets.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Ethernet port management list IEI | | | | | | | | octet 1 |
| Length of Ethernet port management list contents | | | | | | | | octet 2  octet 3 |
| Ethernet port management list contents | | | | | | | | octet 4  octet z |

Figure 9.2.1: Ethernet port management list information element

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Operation 1 | | | | | | | | octet 4  octet a |
| Operation 2 | | | | | | | | octet a+1\*  octet b\* |
| … | | | | | | | | octet b+1\*  …  octet c\* |
| Operation N | | | | | | | | octet c+1\*  octet z\* |

Figure 9.2.2: Ethernet port management list contents

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Operation code | | | | | | | | octet d |

Figure 9.2.3: Operation for operation code set to "00000001"

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Operation code | | | | | | | | octet d |
| Ethernet port parameter name | | | | | | | | octet d+1  octet d+2 |

Figure 9.2.4: Operation for operation code set to "00000010", "00000100", or "00000101"

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

Figure 9.2.5: Operation for operation code set to "00000011" and "00001001"

Table 9.2.1: Ethernet port management list information element

|  |
| --- |
| Value part of the Ethernet port management list information element (octets 4 to z) |
|  |
| The value part of the Ethernet port management list information element consists of one or several operations. |
|  |
| Operation |
|  |
| Operation code (octet d) |
| 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 Get capabilities  0 0 0 0 0 0 1 0 Read parameter  0 0 0 0 0 0 1 1 Set parameter (NOTE)  0 0 0 0 0 1 0 0 Subscribe-notify for parameter |
| 0 0 0 0 0 1 0 1 Unsubscribe for parameter  0 0 0 0 0 1 1 0 Spare  0 0 0 0 0 1 1 1 Spare  0 0 0 0 1 0 0 0 Spare  0 0 0 0 1 0 0 1 Delete parameter-entry |
| All other values are spare. |
|  |
| Ethernet port parameter name (octets d+1 to d+2) |
|  |
| This field contains the name of the Ethernet port parameter to which the operation applies, encoded as follows:  - 0000H Reserved;  - 0001H txPropagationDelay;  - 0002H Traffic class table;  - 0003H GateEnabled;  - 0004H AdminBaseTime;  - 0005H AdminControlListLength;  - 0006H AdminControlList;  - 0007H AdminCycleTime;  - 0008H Tick granularity;  - 0009H txPropagationDelayDeltaThreshold;  - 000 AH  to Spare  - 003FH  - 0040H lldpV2PortConfigAdminStatusV2;  - 0041H lldpV2LocChassisIdSubtype;  - 0042H lldpV2LocChassisId;  - 0043H lldpV2MessageTxInterval;  - 0044H lldpV2MessageTxHoldMultiplier;  - 0045H  to Spare  - 005FH  - 0060H lldpV2LocPortIdSubtype;  - 0061H lldpV2LocPortId;  - 0062H  to Spare  - 009FH  - 00A0H lldpV2RemChassisIdSubtype;  - 00A1H lldpV2RemChassisId;  - 00A2H lldpV2RemPortIdSubtype;  - 00A3H lldpV2RemPortId;  - 00A4H lldpTTL;  - 00A5H  to Spare  - 00CFH  - 00D0H PSFPMaxStreamFilterInstances;  - 00D1H PSFPMaxStreamGateInstances;  - 00D2H PSFPMaxFlowMeterInstances;  - 00D3H PSFPSupportedListMax;  - 00D4H TSN time domain number;  - 00D5H  to Spare  - 00DFH  - 00E0H Stream filter instance table  - 00E1H Stream gate instance table  - 00E2H  to Spare  - 7FFFH  - 8000H  to Reserved for deployment specific parameters  - FFFFH |
| Length of Ethernet port parameter value (octets d+3 to d+4) |
|  |
| This field contains the binary encoding of the length of the Ethernet port parameter value |
|  |
| Ethernet port parameter value (octet d+5 to e) |
|  |
| This field contains the value to be set for the Ethernet port parameter.  When the Ethernet port parameter name indicates txPropagationDelay, the Ethernet port parameter value field contains the binary representation of the txPropagationDelay as defined in IEEE Std 802.1Qcc [9], expressed in unit of nanoseconds and multiplied by 216, with the LSB bit included in bit 1 of the first octet. If the txPropagationDelay is too big to be represented, all bits of the Ethernet port parameter value field shall be coded as "1" except the MSB bit. The length of Ethernet port parameter value indicates a value of 8.  When the Ethernet port parameter name indicates Traffic class table, the Ethernet port parameter value field contains the traffic class table as defined in IEEE Std 802.1Q [7], encoded as the value part of the Traffic class information element as specified in clause 9.7.  When the Ethernet port parameter name indicates GateEnabled, the Ethernet port parameter value field contains the value of GateEnabled as defined in IEEE Std 802.1Q [7], with a Boolean value of FALSE encoded as "00000000" and a Boolean value of TRUE encoded as "00000001". The length of Ethernet port parameter value field indicates a value of 1.  When the Ethernet port parameter name indicates AdminBaseTime, the Ethernet port parameter value field contains the value of the administrative base time as specified in IEEE Std 802.1Q [7]. The length of Ethernet port parameter value field indicates a value of 10.  When the Ethernet port parameter name indicates AdminControlListLength, the Ethernet port parameter value field contains the value of the AdminControlListLength as specified in IEEE Std 802.1Q [7]. The length of Ethernet port parameter value field indicates a value of 2.  When the Ethernet port parameter name indicates AdminControlList, the Ethernet port parameter value field contains the concatenation of AdminControlListLength entries, each encoded as a GateControlEntry as specified in IEEE Std 802.1Q [7].  When the Ethernet port parameter name indicates AdminCycleTime, the Ethernet port parameter value field contains the value of the AdminCycleTime as specified in IEEE Std 802.1Q [7]. The length of Ethernet port parameter value field indicates a value of 8.  When the Ethernet port parameter name indicates Tick granularity, the Ethernet port parameter value field contains the value of the Tick granularity as specified in IEEE Std 802.1Q [7]. The length of Ethernet port parameter value field indicates a value of 4.  When the Ethernet port parameter name indicates txPropagationDelayDeltaThreshold, the Ethernet port parameter value field contains the binary representation of the txPropagationDelayDeltaThreshold as defined in 3GPP TS 23.501 [2] table 5.28.3.1-1, expressed in unit of nanoseconds and multiplied by 216, with the LSB bit included in bit 1 of the first octet. The length of Ethernet port parameter value indicates a value of 8.  When the Ethernet port parameter name indicates lldpV2PortConfigAdminStatusV2, the Ethernet port parameter value field contains values of lldpV2PortConfigAdminStatusV2 as specified in IEEE Std 802.1AB [6] clause 9.2.5.1 with value of txOnly encoded as 01H, rxOnly encoded as 02H, txAndRx encoded as 03H, and disabled encoded as 04H. The length of Ethernet port parameter value field indicates a value of 1.  When the Ethernet port parameter name indicates lldpV2LocChassisIdSubtype, the Ethernet port parameter value field contains values of lldpV2LocChassisIdSubtype as specified in IEEE Std 802.1AB [6] clause 8.5.2.2. The length of Ethernet port parameter value field indicates a value of 1.  When the Ethernet port parameter name indicates lldpV2LocChassisId, the Ethernet port parameter value field contains values of lldpV2LocChassisId in the form of an octet string as specified in IEEE Std 802.1AB [6] clause 8.5.2.3. The length of Ethernet port parameter value field indicates the length of the octet string with a maximum value of 255.  When the Ethernet port parameter name indicates lldpV2MessageTxInterval, the Ethernet port parameter value field contains the value of lldpV2MessageTxInterval as specified in IEEE Std 802.1AB [6] table 11-2. The length of Ethernet port parameter value field indicates a value of 2.  When the Ethernet port parameter name indicates lldpV2MessageTxHoldMultiplier, the Ethernet port parameter value field contains the value of lldpV2MessageTxHoldMultiplier as specified in IEEE Std 802.1AB [6] table 11-2. The length of Ethernet port parameter value field indicates a value of 1.  When the Ethernet port parameter name indicates lldpV2LocPortIdSubtype, the Ethernet port parameter value field contains values of lldpV2LocPortIdSubtype as specified in IEEE Std 802.1AB [6] clause 8.5.3.2. The length of Ethernet port parameter value field indicates a value of 1.  When the Ethernet port parameter name indicates lldpV2LocPortId, the Ethernet port parameter value field contains values of lldpV2LocPortId in the form of an octet string as specified in IEEE Std 802.1AB [6] clause 8.5.3.3. The length of Ethernet port parameter value field indicates the length of the octet string with a maximum value of 255.  When the Ethernet port parameter name indicates lldpV2RemChassisIdSubtype, the Ethernet port parameter value field contains values of lldpV2RemChassisIdSubtype as specified in IEEE Std 802.1AB [6] clause 8.5.2.2. The length of Ethernet port parameter value field indicates a value of 1.  When the Ethernet port parameter name indicates lldpV2RemChassisId, the Ethernet port parameter value field contains values of lldpV2RemChassisId in the form of an octet string as specified in IEEE Std 802.1AB [6] clause 8.5.2.3. The length of Ethernet port parameter value field indicates the length of the octet string with a maximum value of 255.  When the Ethernet port parameter name indicates lldpV2RemPortIdSubtype, the Ethernet port parameter value field contains values of lldpV2RemPortIdSubtype as specified in IEEE Std 802.1AB [6] clause 8.5.3.2. The length of Ethernet port parameter value field indicates a value of 1.  When the Ethernet port parameter name indicates lldpV2RemPortId, the Ethernet port parameter value field contains values of lldpV2RemPortId in the form of an octet string as specified in IEEE Std 802.1AB [6] clause 8.5.3.3. The length of Ethernet port parameter value field indicates the length of the octet string with a maximum value of 255.  When the Ethernet port parameter name indicates lldpTTL, the Ethernet port parameter value field contains the value of TTL as specified in IEEE Std 802.1AB [6] clause 8.5.4. The length of Ethernet port parameter value field indicates a value of 2.  When the Ethernet port parameter name indicates PSFPMaxStreamFilterInstances, the Ethernet parameter value field contains the value of MaxStreamFilterInstances as specified in IEEE Std 802.1Q [7] clause 12.31.1.1. The length of Ethernet port parameter value field indicates a value of 4.  When the Ethernet port parameter name indicates PSFPMaxStreamGateInstances, the Ethernet parameter value field contains the value of MaxStreamGateInstances as specified in IEEE Std 802.1Q [7] clause 12.31.1.2. The length of Ethernet port parameter value field indicates a value of 4.  When the Ethernet port parameter name indicates PSFPMaxFlowMeterInstances, the Ethernet parameter value field contains the value of MaxFlowMeterInstances as specified in IEEE Std 802.1Q [7] clause 12.31.1.3. The length of Ethernet port parameter value field indicates a value of 4.  When the Ethernet port parameter name indicates PSFPSupportedListMax, the Ethernet parameter value field contains the value of SupportedListMax as specified in IEEE Std 802.1Q [7] clause 12.31.1.4. The length of Ethernet port parameter value field indicates a value of 4.  When the Ethernet port parameter name indicates TSN time domain number, the Ethernet port parameter value field contains the binary representation of the TSN time domain number as defined in 3GPP TS 23.501 [2] table 5.28.3.1-1. The length of Ethernet port parameter value field indicates a value of 1.  When the Ethernet port parameter name indicates Stream filter instance table, the Ethernet port parameter value field contains a Stream filter instance table as defined in 3GPP TS 23.501 [2] table 5.28.3.1-1, encoded as the value part of the Stream filter instance table information element as specified in clause 9.8.  When the Ethernet port parameter name indicates Stream gate instance table, the Ethernet port parameter value field contains a Stream gate instance table as defined in 3GPP TS 23.501 [2] table 5.28.3.1-1, encoded as the value part of the Stream gate instance table information element as specified in clause 9.9.  When the hexadecimal encoding of the Ethernet port parameter name is in the "8000H" to "FFFFH" range, the encoding of the Ethernet port parameter value field and the value of the length of Ethernet port parameter value field are deployment-specific. |
|  |
| NOTE: The "Set parameter" operation shall not be applicable for the following Ethernet port parameter names: - 0001H txPropagationDelay; - 0008H Tick granularity; - 00A0H lldpV2RemChassisIdSubtype; - 00A1H lldpV2RemChassisId; - 00A2H lldpV2RemPortIdSubtype; - 00A3H lldpV2RemPortId; - 00A4H lldpTTL; - 00D0H PSFPMaxStreamFilterInstances; - 00D1H PSFPMaxStreamGateInstances; - 00D2H PSFPMaxFlowMeterInstances; and - 00D3H PSFPSupportedListMax. |

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

## 9.5B Bridge management list

The purpose of the Bridge management list information element is to transfer from the TSN AF to the NW-TT a list of operations related to Bridge management of the NW-TT to be performed at the NW-TT.

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

The Bridge management list information element has a minimum length of 4 octets and a maximum length of 65530 octets.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Bridge management list IEI | | | | | | | | octet 1 |
| Length of Bridge management list contents | | | | | | | | octet 2  octet 3 |
| Bridge management list contents | | | | | | | | octet 4  octet z |

Figure 9.5B.1: Bridge management list information element

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Operation 1 | | | | | | | | octet 4  octet a |
| Operation 2 | | | | | | | | octet a+1\*  octet b\* |
| … | | | | | | | | octet b+1\*  …  octet c\* |
| Operation N | | | | | | | | octet c+1\*  octet z\* |

Figure 9.5B.2: Bridge management list contents

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Operation code | | | | | | | | octet d |

Figure 9.5B.3: Operation for operation code set to "00000001"

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Operation code | | | | | | | | octet d |
| Bridge parameter name | | | | | | | | octet d+1  octet d+2 |

Figure 9.5B.4: Operation for operation code set to "00000010", "00000100", or "00000101"

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

Figure 9.5B.5: Operation for operation code set to "00000011" and "00001001"

Table 9.5B.1: Bridge management list information element

|  |
| --- |
| Value part of the Bridge management list information element (octets 4 to z) |
|  |
| The value part of the Bridge management list information element consists of one or several operations. |
|  |
| Operation |
|  |
| Operation code (octet d) |
| 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 Get capabilities  0 0 0 0 0 0 1 0 Read parameter  0 0 0 0 0 0 1 1 Set parameter (NOTE 1)  0 0 0 0 0 1 0 0 Subscribe-notify for parameter |
| 0 0 0 0 0 1 0 1 Unsubscribe for parameter  0 0 0 0 0 1 1 0 Spare  0 0 0 0 0 1 1 1 Spare  0 0 0 0 1 0 0 0 Spare  0 0 0 0 1 0 0 1 Delete parameter-entry |
| All other values are spare. |
|  |
| Bridge parameter name (octets d+1 to d+2) |
|  |
| This field contains the name of the Bridge parameter to which the operation applies, encoded as follows:  - 0000H Reserved;  - 0001H Bridge Address;  - 0002H Spare (NOTE 2)  - 0003H Bridge ID;  - 0004H NW-TT port numbers;  - 0005H  to Spare  - 0009H  - 0010H Spare (NOTE 3)  - 0010H Spare (NOTE 4)  - 0012H Static filtering entries;  - 0013H  to Spare  - 0019H  - 0020H lldpV2PortConfigAdminStatusV2;  - 0021H lldpV2LocChassisIdSubtype;  - 0022H lldpV2LocChassisId;  - 0023H lldpV2MessageTxInterval;  - 0024H lldpV2MessageTxHoldMultiplier;  - 0025H  to Spare  - 004FH  - 0050H DS-TT port neighbor discovery configuration for DS-TT ports  - 0051H Discovered neighbor information for DS-TT ports  - 0052H  to Spare  - 006FH  - 0070H PSFPMaxStreamFilterInstances;  - 0071H PSFPMaxStreamGateInstances;  - 0072H PSFPMaxFlowMeterInstances;  - 0073H PSFPSupportedListMax;  - 0074H  to Spare  - 7FFFH  - 8000H  to Reserved for deployment specific parameters  - FFFFH |
| Length of Bridge parameter value (octets d+3 to d+4) |
|  |
| This field contains the binary encoding of the length of the Bridge parameter value |
|  |
| Bridge parameter value (octet d+5 to e) |
|  |
| This field contains the value to be set for the Bridge parameter.  When the Bridge parameter name indicates Bridge Address, the Bridge parameter value field contains the values of Bridge Address as defined in IEEE Std 802.1Q [7] clause 8.13.8. The length of Bridge parameter value field indicates a value of 6.  When the Bridge parameter name indicates Bridge ID, the Bridge parameter value field contains the values of Bridge Identifier as defined in IEEE Std 802.1Q [7] clause 14.2.5. The length of Bridge parameter value field indicates a value of 8.  When the Bridge parameter name indicates NW-TT port numbers, the Bridge parameter value field contains NW-TT port numbers as defined in 3GPP TS 23.501 [2] table 5.28.3.1-2, encoded as the value part of the NW-TT port numbers information element as specified in clause 9.14.  When the Bridge parameter name indicates Static filtering entries, the Bridge parameter value field contains Static filtering entries as defined in 3GPP TS 23.501 [2] table 5.28.3.1-2, encoded as the value part of the Static filtering entries information element as specified in clause 9.6.  When the Bridge parameter name indicates lldpV2PortConfigAdminStatusV2, the Bridge parameter value field contains values of lldpV2PortConfigAdminStatusV2 as specified in IEEE Std 802.1AB [6] clause 9.2.5.1 with value of txOnly encoded as 01H, rxOnly encoded as 02H, txAndRx encoded as 03H, and disabled encoded as 04H. The length of Bridge parameter value field indicates a value of 1.  When the Bridge parameter name indicates lldpV2LocChassisIdSubtype, the Bridge parameter value field contains values of lldpV2LocChassisIdSubtype as specified in IEEE Std 802.1AB [6] clause 8.5.2.2. The length of Bridge parameter value field indicates a value of 1.  When the Bridge parameter name indicates lldpV2LocChassisId, the Bridge parameter value field contains values of lldpV2LocChassisId in the form of an octet string as specified in IEEE Std 802.1AB [6] clause 8.5.2.3. The length of Bridge parameter value field indicates the length of the octet string with a maximum value of 255.  When the Bridge parameter name indicates lldpV2MessageTxInterval, the Bridge parameter value field contains the value of lldpV2MessageTxInterval as specified in IEEE Std 802.1AB [6] table 11-2. The length of Bridge parameter value field indicates a value of 2.  When the Bridge parameter name indicates lldpV2MessageTxHoldMultiplier, the Bridge parameter value field contains the value of lldpV2MessageTxHoldMultiplier as specified in IEEE Std 802.1AB [6] table 11-2. The length of Bridge parameter value field indicates a value of 1.  When the Bridge parameter name indicates DS-TT port neighbor discovery configuration for DS-TT ports, the Bridge parameter value field contains DS-TT port neighbor discovery configuration for DS-TT ports as defined in 3GPP TS 23.501 [2] table 5.28.3.1-2, encoded as the value part of the DS-TT port neighbor discovery configuration for DS-TT ports information element as specified in clause 9.10.  When the Bridge parameter name indicates Discovered neighbor information for DS-TT ports, the Bridge parameter value field contains Discovered neighbor information for DS-TT ports as defined in 3GPP TS 23.501 [2] table 5.28.3.1-2, encoded as the value part of the Discovered neighbor information for DS-TT ports information element as specified in clause 9.11.  When the Bridge parameter name indicates MaxStreamFilterInstances, the Bridge parameter value field contains the value of PSFPMaxStreamFilterInstances as specified in IEEE Std 802.1Q [7] clause 12.31.1.1. The length of Bridge parameter value field indicates a value of 4.  When the Bridge parameter name indicates PSFPMaxStreamGateInstances, the Bridge parameter value field contains the value of MaxStreamGateInstances as specified in IEEE Std 802.1Q [7] clause 12.31.1.1. The length of Bridge parameter value field indicates a value of 4.  When the Bridge parameter name indicates PSFPMaxFlowMeterInstances, the Bridge parameter value field contains the value of MaxFlowMeterInstances as specified in IEEE Std 802.1Q [7] Table 12-31. The length of Bridge parameter value field indicates a value of 4.  When the Bridge parameter name indicates PSFPSupportedListMax, the Bridge parameter value field contains the value of SupportedListMax as specified in IEEE Std 802.1Q [7] clause 12. 31.1.4. The length of Bridge parameter value field indicates a value of 4.  When the hexadecimal encoding of the Bridge parameter name is in the "8000H" to "FFFFH" range, the encoding of the Bridge parameter value field and the value of the length of Bridge parameter value field are deployment-specific. |
|  |
| NOTE 1: The "Set parameter" operation shall not be applicable for the following bridge parameter names: - 0001H Bridge Address; - 0003H Bridge ID; - 0004H NW-TT port numbers; - 0051H Discovered neighbor information for DS-TT ports; - 0070H PSFPMaxStreamFilterInstances; - 0071H PSFPMaxStreamGateInstances; - 0072H PSFPMaxFlowMeterInstances; and - 0073H PSFPSupportedListMax.  NOTE 2: Implementations compliant with earlier versions of this release of the specification can interpret these values as signalling the Bridge Name.  NOTE 3: Implementations compliant with earlier versions of this release of the specification can interpret these values as signalling the Chassis ID subtype.  NOTE 4: Implementations compliant with earlier versions of this release of the specification can interpret these values as signalling the Chassis ID. |

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

## 9.6 Static filtering entries

The purpose of the Static filtering entries information element is to convey Static filtering entries as defined in 3GPP TS 23.501 [2] table 5.28.3.1-2.

The Static filtering entries information element is coded as shown in figure 9.6.1, figure 9.6.2 and table 9.6.1.

The Static filtering entries information element has a minimum length of 3 octets.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Static filtering entries IEI | | | | | | | | octet 1 |
| Length of Static filtering entries contents | | | | | | | | octet 2  octet 3 |
| Static filtering entry 1 | | | | | | | | octet 4  octet 13 |
| … | | | | | | | |  |
| Static filtering entry n | | | | | | | | octet 10n-6  octet 10n+3 |

Figure 9.6.1: Static filtering entries information element

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| MacAddress value | | | | | | | | octet 4  octet 9 |
| VID value | | | | | | | | octet 10  octet 11 |
| Port value | | | | | | | | octet 12  octet 13 |

Figure 9.6.2: Static filtering entry

Table 9.6.1: Static filtering entries

|  |
| --- |
| Value part of the Static filtering entries information element (octets 4 to 10n+3) |
|  |
| Static filtering entries contents (octets 4 to 10n+3)  This field consists of zero or more Static filtering entries. |
|  |
| Static filtering entry (octets 4 to 13) |
|  |
| MacAddress value (octets 4 to 9)  MacAddress value contains the value of MAC address as specified in IEEE Std 802.1Q [7] clause 8.8.1. |
|  |
| VID value (octets 10 to 11)  VID value contains the value of VID specification as specified in IEEE Std 802.1Q [7] clause 8.8.1. |
|  |
| Port value (octets 12 to 13)  Port value contains the value of outbound Port as specified in IEEE Std 802.1Q [7] clause 8.8.1. |
| NOTE: When Static filtering entries is received in a bridge management list and associated with operation code "delete parameter-entry" then port value is ignored by the receiver. |

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

## 9.8 Stream filter instance table

The purpose of the Stream filter instance table information element is to convey a Stream filter instance table as defined 3GPP TS 23.501 [2] table 5.28.3.1-1.

The Stream filter instance table information element is coded as shown in figure 9.8.1, figure 9.8.2, figure 9.8.3, figure 9.8.4, figure 9.8.5, and table 9.8.1.

The Stream filter instance table is a type 6 information element with a minimum length of 3 octets.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Stream filter instance table IEI | | | | | | | | octet 1 |
| Length of Stream filter instance table contents | | | | | | | | octet 2  octet 3 |
| Stream filter instance 1 | | | | | | | | octet 4\*  octet m\* |
| … | | | | | | | |  |
| Stream filter instance n | | | | | | | | octet n\*  octet o\* |

Figure 9.8.1: Stream filter instance table information element

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Length of Stream filter instance contents | | | | | | | | octet 4 |
| PrioritySpec value | | | | | | | | octet 5  octet 8 |
| StreamGateInstanceID value | | | | | | | | octet 9  octet 12 |
| tsnStreamIdIdentificationType value | | | | | | | | octet 13  octet 16 |
| tsnStreamIdParameters | | | | | | | | octet 17  octet m-4 |
| StreamFilterInstanceIndex value (NOTE 1) | | | | | | | | octet m-3\*  octet m\* |

Figure 9.8.2: Stream filter instance

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Length of tsnStreamIdParameters contents | | | | | | | | octet 17 |
| tsnCpeNullDownDestMac value | | | | | | | | octet 18  octet 23 |
| tsnCpeNullDownTagged value | | | | | | | | octet 24 |
| tsnCpeNullDownVlan value | | | | | | | | octet 25  octet 26 |

Figure 9.8.3: tsnStreamIdParameters for tsnStreamIdIdentificationType = 00-80-C2 01

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Length of tsnStreamIdParameters contents | | | | | | | | octet 17 |
| tsnCpeSmacVlanDownSrcMac value | | | | | | | | octet 18  octet 23 |
| tsnCpeSmacVlanDownTagged value | | | | | | | | octet 24 |
| tsnCpeSmacVlanDownVlan value | | | | | | | | octet 25  octet 26 |

Figure 9.8.4: tsnStreamIdParameters for tsnStreamIdIdentificationType = 00-80-C2 02

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Length of tsnStreamIdParameters contents | | | | | | | | octet 17 |
| tsnCpeDmacVlanDownDestMac value | | | | | | | | octet 18  octet 23 |
| tsnCpeDmacVlanDownTagged value | | | | | | | | octet 24 |
| tsnCpeDmacVlanDownVlan value | | | | | | | | octet 25  octet 26 |
| tsnCpeDmacVlanDownPriority value | | | | | | | | octet 27 |
| tsnCpeDmacVlanUpDestMac value | | | | | | | | octet 28  octet 33 |
| tsnCpeDmacVlanUpTagged value | | | | | | | | octet 34 |
| tsnCpeDmacVlanUpVlan value | | | | | | | | octet 35  octet 36 |
| tsnCpeDmacVlanUpPriority value | | | | | | | | octet 37 |

Figure 9.8.5: tsnStreamIdParameters for tsnStreamIdIdentificationType = 00-80-C2 03

Table 9.8.1: Stream filter instance table

|  |
| --- |
| Value part of the Stream filter instance table information element (octets 4 to o) |
|  |
| Stream filter instance table contents (octets 4 to o)  This field consists of zero or more Stream filter instances. |
|  |
| Stream filter instance (octets 4 to m) |
|  |
| Length of Stream filter instance contents (octet 4)  Length of Stream filter instance contents contains the length of the value part of Stream filter instance in octets. |
|  |
| PrioritySpec value (octets 5to 8)  PrioritySpec value contains the value of PrioritySpec as specified in IEEE Std 802.1Q [7] table 12-32. |
|  |
| StreamGateInstanceID value (octets 9 to 12)  StreamGateInstanceID value contains the value of StreamGateInstanceID as specified in IEEE Std 802.1Q [7] table 12-32.  tsnStreamIdIdentificationType value (octets 13 to 16)  tsnStreamIdIdentificationType value contains the value of tsnStreamIdIdentificationType in the form of four octets as specified in IEEE Std 802.1CB [10] clause 9.1.1.6. The first 3 octets contain the binary encoding of Organizationally Unique Identifier (OUI) or Company ID (CID). The 4th octet contains the binary encoded value of type number. In this document only OUI/CID value 00-80-C2 with type number value 1, 2 and 3 are specified. Other type number values are reserved. Other OUI/CID values are outside the scope of the present document.  tsnStreamIdParameters (octets 17 to m-4)  Length of tsnStreamIdParameters (octet 17)  Length of tsnStreamIdParameters contents contains the length of the value part of tsnStreamIdParameters in octets.  tsnCpeNullDownDestMac value (octets 18 to 23)  tsnCpeNullDownDestMac value contains the value of tsnCpeNullDownDestMac as specified in IEEE Std 802.1CB [10] clause 9.1.2.1.  tsnCpeNullDownTagged value (octet 24)  tsnCpeNullDownTagged value contains an enumerated value of tsnCpeNullDownTagged as specified in IEEE Std 802.1CB [10] clause 9.1.2.2 in the form of a binary encoded octet. Value “tagged” is encoded as binary 0, value “priority” is encoded as binary 1, and value “all” is encoded as binary 2. All other values are reserved.  tsnCpeNullDownVlan value (octets 25 to 26)  tsnCpeNullDownVlan value contains the value of tsnCpeNullDownVlan as specified in IEEE Std 802.1CB [10] clause 9.1.2.3.  tsnCpeSmacVlanDownSrcMac value (octets 18 to 23)  tsnCpeSmacVlanDownSrcMac value contains the value of tsnCpeSmacVlanDownSrctMac as specified in IEEE Std 802.1CB [10] clause 9.1.3.1. tsnCpeSmacVlanDownTagged value (octet 24)  tsnCpeSmacVlanDownTagged value contains an enumerated value of tsnCpeSmacVlanDownTagged as specified in IEEE Std 802.1CB [10] clause 9.1.3.2 in the form of a binary encoded octet. Value “tagged” is encoded as binary 0, value “priority” is encoded as binary 1, and value “all” is encoded as binary 2. All other values are reserved.  tsnCpeSmacVlanDownVlan value (octets 25 to 26)  tsnCpeSmacVlanDownVlan value contains the value of tsnCpeSmacVlanDownVlan as specified in IEEE Std 802.1CB [10] clause 9.1.3.3.  tsnCpeDmacVlanDownDestMac value (octets 18 to 23)  tsnCpeDmacVlanDownDestMac value contains the value of tsnCpeDmacVlanDownDestMac as specified in IEEE Std 802.1CB [10] clause 9.1.4.1.  tsnCpeDmacVlanDownTagged value (octet 24)  tsnCpeDmacVlanDownTagged value contains an enumerated value of tsnCpeDmacVlanDownTagged as specified in IEEE Std 802.1CB [10] clause 9.1.4.2 in the form of a binary encoded octet. Value “tagged” is encoded as binary 0, value “priority” is encoded as binary 1, and value “all” is encoded as binary 2. All other values are reserved.  tsnCpeDmacVlanDownVlan value (octets 25 to 26)  tsnCpeDmacVlanDownVlan value contains the value of tsnCpeDmacVlanDownVlan as specified in IEEE Std 802.1CB [10] clause 9.1.4.3.  tsnCpeDmacVlanDownPriority value (octet 27)  tsnCpeDmacVlanDownPriority value contains the value of tsnCpeDmacVlanDownPriority as specified in IEEE Std 802.1CB [10] clause 9.1.4.4.  tsnCpeDmacVlanUpDestMac value (octets 28 to 33)  tsnCpeDmacVlanUpDestMac value contains the value of tsnCpeDmacVlanUpDestMac as specified in IEEE Std 802.1CB [10] clause 9.1.4.5.  tsnCpeDmacVlanUpTagged value (octet 34)  tsnCpeDmacVlanUpTagged value contains an enumerated value of tsnCpeDmacVlanUpTagged as specified in IEEE Std 802.1CB [10] clause 9.1.4.6 in the form of a binary encoded octet. Value “tagged” is encoded as binary 0, value “priority” is encoded as binary 1, and value “all” is encoded as binary 2. All other values are reserved.  tsnCpeDmacVlanUpVlan value (octets 35 to 36)  tsnCpeDmacVlanUpVlan value contains the value of tsnCpeDmacVlanUpVlan as specified in IEEE Std 802.1CB [10] clause 9.1.4.7.  tsnCpeDmacVlanUpPriority value (octet 37)  tsnCpeDmacVlanUpPriority value contains the value of tsnCpeDmacVlanUpPriority as specified in IEEE Std 802.1CB [10] clause 9.1.4.8. |
| StreamFilterInstanceIndex value (octet m-3 to m)  StreamFilterInstanceIndex value contains the value of StreamFilterInstance as specified in IEEE Std 802.1Q [7] table 12-32. |
| NOTE 1: A sender compliant with this release of the specification shall include the StreamFilterInstanceIndex value in the Stream filter instance of the Stream filter instance table information element. A sender compliant with earlier versions of this specification does not include the StreamFilterInstanceIndex value in the Stream filter instance of the Stream filter instance table information element.  NOTE 2: When Stream filter instance table is received in a port management list and associated with operation code "delete parameter-entry" then PrioritySpec value, StreamGateInstanceID value, tsnStreamIdIdentificationType value and tsnStreamIdParameters are ignored by the receiver. |

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

## 9.9 Stream gate instance table

The purpose of the Stream gate instance table information element is to convey a Stream gate instance table as defined in 3GPP TS 23.501 [2] table 5.28.3.1-1.

The Stream gate instance table information element is coded as shown in figure 9.9.1, figure 9.9.2, and table 9.9.1.

The Stream gate instance table is a type 6 information element with a minimum length of 3 octets.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Stream gate instance table IEI | | | | | | | | octet 1 |
| Length of Stream gate instance table contents | | | | | | | | octet 2  octet 3 |
| Stream gate instance 1 | | | | | | | | octet 4\*  octet a\* |
| … | | | | | | | |  |
| Stream gate instance N | | | | | | | | octet b\*  octet c\* |

Figure 9.9.1: Stream gate instance table information element

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Length of Stream gate instance contents | | | | | | | | octet 4  octet 5 |
| StreamGateInstance | | | | | | | | octet 6  octet 9 |
| PSFPAdminBaseTime value | | | | | | | | octet 10  octet 19 |
| PSFPAdminCycleTime value | | | | | | | | octet 20  octet 27 |
| PSFPTickGranularity value | | | | | | | | octet 28  octet 31 |
| PSFPAdminControlListLength value | | | | | | | | octet 32  octet 33 |
| PSFPAdminControlList contents | | | | | | | | octet 34  octet a |

Figure 9.9.2: Stream gate instance

Table 9.9.1: Stream gate instance table

|  |
| --- |
| Value part of the Stream gate instance table information element (octets 4 to c) |
|  |
| Stream gate instance table contents (octets 4 to c)  This field consists of zero or more Stream gate instances. |
|  |
| Stream gate instance (octets 4 to a) |
|  |
| Length of Stream gate instance (octets 4 to 5)  Length of Stream gate instance contents contains the length of the vale part of Stream gate instance in octets. |
|  |
| StreamGateIndexInstance value (octets 6 to 9)  StreamGateIndexInstance value contains the value of StreamGateInstance as specified in IEEE Std 802.1Q [7] table 12-33. |
|  |
| PSFPAdminBaseTime value (octets 10 to 19)  PSFPAdminBaseTime value contains the value of PSFPAdminBaseTime as specified in IEEE Std 802.1Q [7] table 12-33. |
|  |
| PSFPAdminCycleTime value (octets 20 to 27)  PSFPAdminCycleTime value contains the value of PSFPAdminCycleTime as specified in IEEE Std 802.1Q [7] table 12-33. |
|  |
| PSFPTickGranularity value (octets 28 to 31)  PSFPTickGranularity value contains the value of PSFPTickGranularity as specified in IEEE Std 802.1Q [7] table 12-33. |
|  |
| PSFPAdminControlListLength value (octets 32 to 33)  PSFPAdminControlListLength value contains the value of PSFPAdminControlListLength as specified in IEEE Std 802.1Q [7] table 12-33. |
|  |
| PSFPAdminControlList contents (octets 34 to a)  This field contains the concatenation of entries, each encoded as a PSFPGateControlEntry as specified in IEEE Std 802.1Q [7] table 12-33. PSFPAdminControlListLength value indicates number of entries in this field. |
|  |
| NOTE: When Stream gate instance table is received in a port management list and associated with operation code "delete parameter-entry" then PSFPAdminBaseTime value, PSFPAdminCycleTime value, PSFPTickGranularity value and PSFPAdminControlList contents are ignored by the receiver. |

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

## 9.10 DS-TT port neighbor discovery configuration for DS-TT ports

The purpose of the DS-TT port neighbor discovery configuration for DS-TT ports information element is to convey DS-TT port neighbor discovery configuration for DS-TT ports as defined in 3GPP TS 23.501 [2] table 5.28.3.1-2.

The DS-TT port neighbor discovery configuration for DS-TT ports information element is coded as shown in figure 9.10.1, figure 9.10.2 and table 9.10.1.

The DS-TT port neighbor discovery configuration for DS-TT ports information element has a minimum length of 3 octets.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| DS-TT port neighbor discovery configuration for DS-TT ports IEI | | | | | | | | octet 1 |
| Length of DS-TT port neighbor discovery configuration for DS-TT ports contents | | | | | | | | octet 2  octet 3 |
| DS-TT port neighbor discovery configuration for DS-TT ports instance 1 | | | | | | | | octet 4\*  octet x\* |
| … | | | | | | | |  |
| DS-TT port neighbor discovery configuration for DS-TT ports instance n | | | | | | | | octet y\*  octet z\* |

Figure 9.10.1: DS-TT port neighbor discovery configuration for DS-TT ports information element

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Length of DS-TT port neighbor discovery configuration for DS-TT ports instance | | | | | | | | octet 4  octet 5 |
| DS-TT port number value | | | | | | | | octet 6  octet 7 |
| lldpV2LocPortIdSubtype value | | | | | | | | octet 8 |
| Length of lldpV2LocPortId value | | | | | | | | octet 9 |
| lldpV2LocPortId value | | | | | | | | octet 10  octet x |

Figure 9.10.2: DS-TT port neighbor discovery configuration for DS-TT ports instance

Table 9.10.1: DS-TT port neighbor discovery configuration for DS-TT ports

|  |
| --- |
| Value part of the DS-TT port neighbor discovery configuration for DS-TT ports information element (octets 4 to z) |
|  |
| DS-TT port neighbor discovery configuration for DS-TT ports contents (octets 4 to z)  This field consists of zero or more DS-TT port neighbor discovery configuration for DS-TT ports instances. |
|  |
| DS-TT port neighbor discovery configuration for DS-TT ports instance (octets 4 to x) |
|  |
| Length of DS-TT port neighbor discovery configuration for DS-TT ports instance (octets 4 to 5)  Length of DS-TT port neighbor discovery configuration for DS-TT ports instance contains the length of the vale part of DS-TT port neighbor discovery configuration for DS-TT ports instance in octets. |
|  |
| DS-TT port number value (octets 6 to 7)  DS-TT port number value contains the value of Port Number as specified in IEEE Std 802.1Q [7]. |
|  |
| lldpV2LocPortIdSubtype value (octet 8)  lldpV2LocPortIdSubtype value contains the value of lldpV2LocPortIdSubtype as specified in IEEE Std 802.1AB [6] clause 8.5.3.2. |
|  |
| Length of lldpV2LocPortId value (octet 9)  Length of lldpV2LocPortId value contains the binary coded length in octets of lldpV2LocPortId value. |
|  |
| lldpV2LocPortId value (octets 10 to x)  lldpV2LocPortId value contains the value of lldpV2LocPortId in the form of an octet string as specified in IEEE Std 802.1AB [6] clause 8.5.3.3. |
|  |
| NOTE: When DS-TT port neighbor discovery configuration for DS-TT ports is received in a bridge management list and associated with operation code "delete parameter-entry" then lldpV2LocPortIdSubtype value, and lldpV2LocPortId value are ignored by the receiver. |