

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTRONIC RAILWAY EQUIPMENT – TRAIN COMMUNICATION NETWORK (TCN) –

Part 2-3: TCN communication profile

CORRIGENDUM 2

5.3.2.3

Replace existing Figure 15 by the following new Figure.

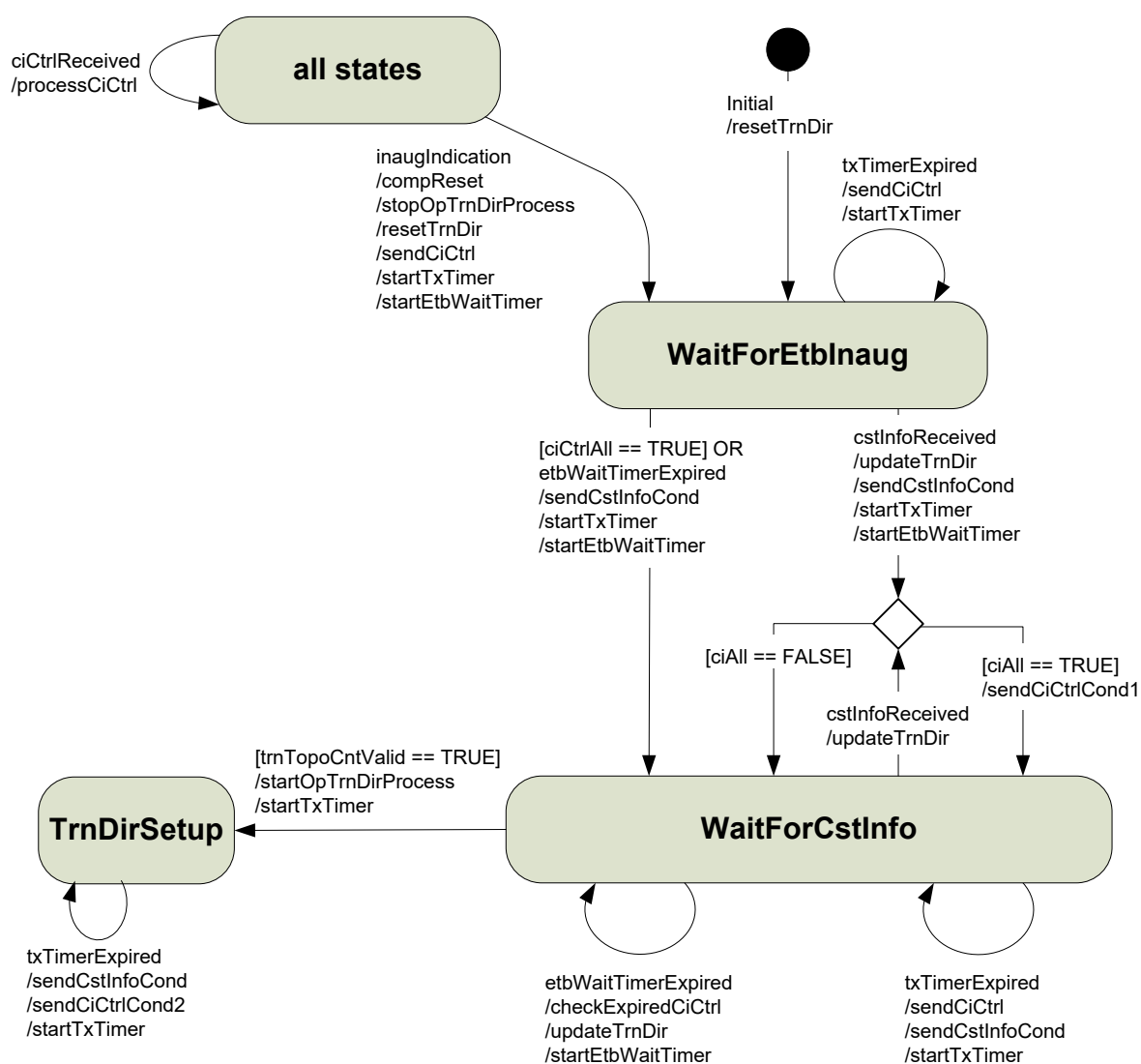


Table 5

Add the following entry at the end of the table.

Action	Description
compReset	Reset the composition by triggering the event 'compReset' in the leading function state machine (see 6.5.3.2) and the confirmation/correction state machine (see 6.6.4).

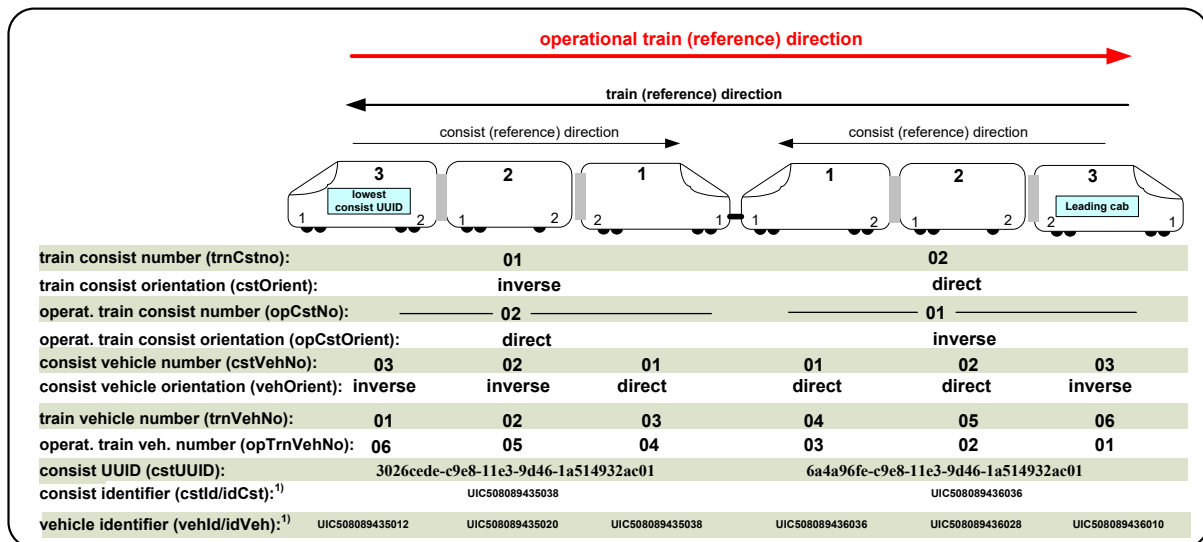
5.3.3.2.16, item d)

Replace existing item d) by the following new text.

d) Setting the topography counter to a value of 0 declares the topography counter to be invalid.

5.4.4.6.1

Replace existing Figure 20 by the following new figure.



¹⁾ Identifiers as defined by UIC are used in these examples, e.g. 'UIC508089435038' corresponds to UIC identifier '50 80 89 – 43 503 - 8'

IEC

5.4.5.2, second paragraph following note 1

Replace the existing text by the following new text.

The decomposition for ETB-related groups is defined as:
11101111.11000001.bbgggggg.gggggggg

5.4.5.2, second paragraph following Table 20

Replace the existing text by the following new text.

The decomposition for ETB-related groups is defined as:
11101111.11000010.bbgggggg.gggggggg

5.5.3 Examples, last bullet item preceding Figure 21

Replace the existing text by the following new text.

- group doorCTRL@fctDoor.anyVeh.cst03.anyCITrn.ITrn in consist 'E'

5.5.3, Example 3, first two sentences

Replace the existing text by the following new text.

The following example shows how a TCN-URI can be resolved to a train wide multicast group address. Here it is assumed that the IP MC group 'fctDoor' has been defined as a train wide group with a group Id = 50.

5.5.3, Example 4, text preceding Table 26

Replace the existing text by the following new text.

The following example shows how a TCN-URI can be resolved to a consist-limited multicast group address. Here it is assumed that the two door controllers in consist E form a multicast group with group Id = 50. For resolving the TCN-URI 'doorCTRL@fctDoor.anyVeh.cst03.anyCITrn.ITrn' the ETB0 DNS server has to execute the steps as listed in Table 26:

Table 26, step 1, last column

Replace the existing text by the following new text.

= "fctDoor.anyVeh.cst03

Table 26, step 2, second column

Replace the existing text by the following new text.

Lookup 'cstUUID' of label 'cstNo' = 3 in the train directory of the local TTDB

6.4.5.2, Table 28, 2nd column, 2nd box

Replace the existing text by the following new text.

Stop processing of the operational train directory, triggered by the train directory computation state machine, see .5.3.2.

If the transmission of ETBCTRL telegram continues, telegram parameter 'trnTopoCnt' shall be set to 0 until processing of the operational train directory is restarted (trigger 'startOpTrnDirProcess')

6.5.3.2, Figure 30

Replace existing Figure 30 by the following new figure.

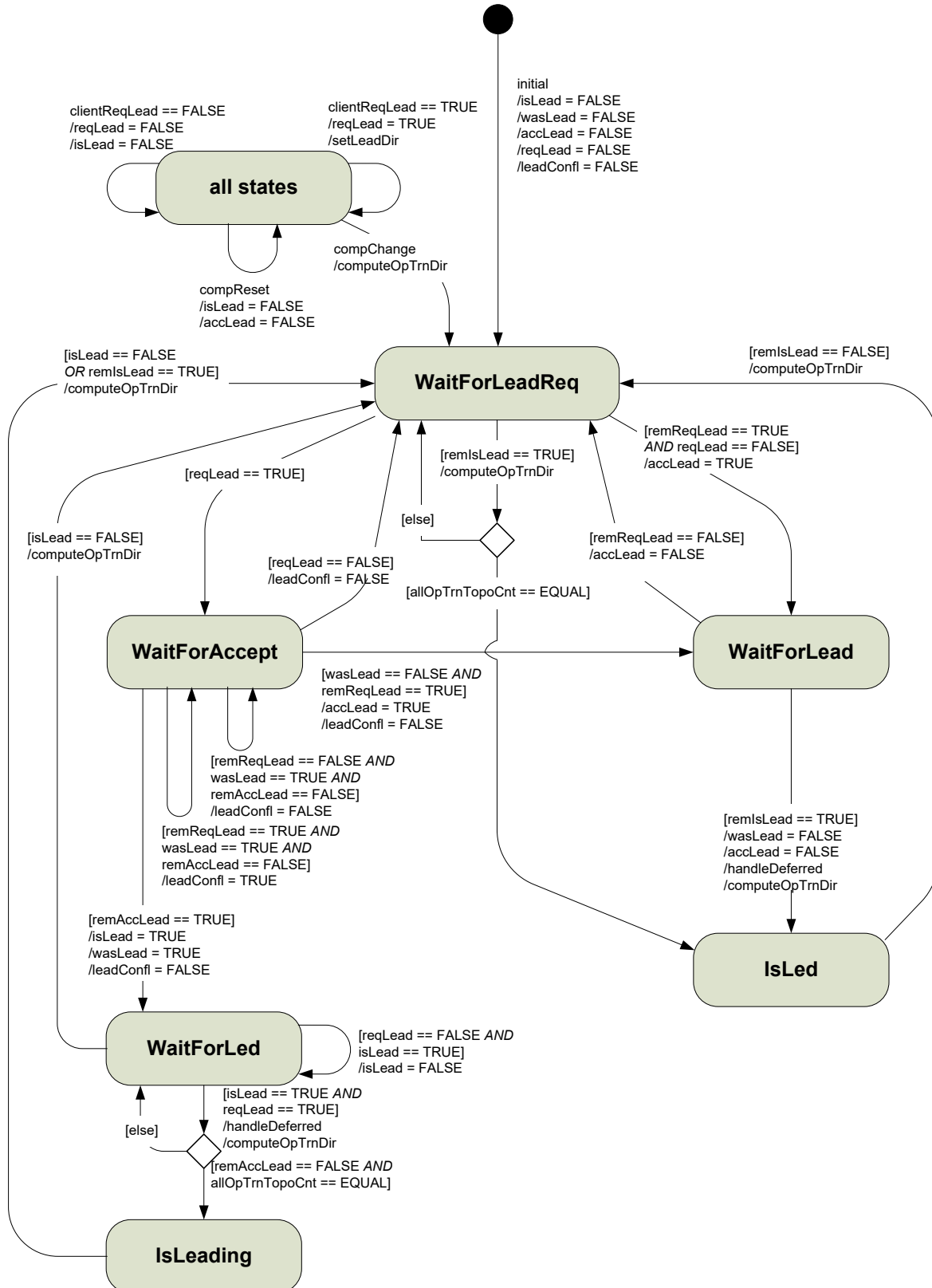


Table 35

Add the following entry to Table 35.

Trigger	Description
compReset	composition reset

6.6.4, Figure 35

Replace existing Figure 35 by the following new figure.

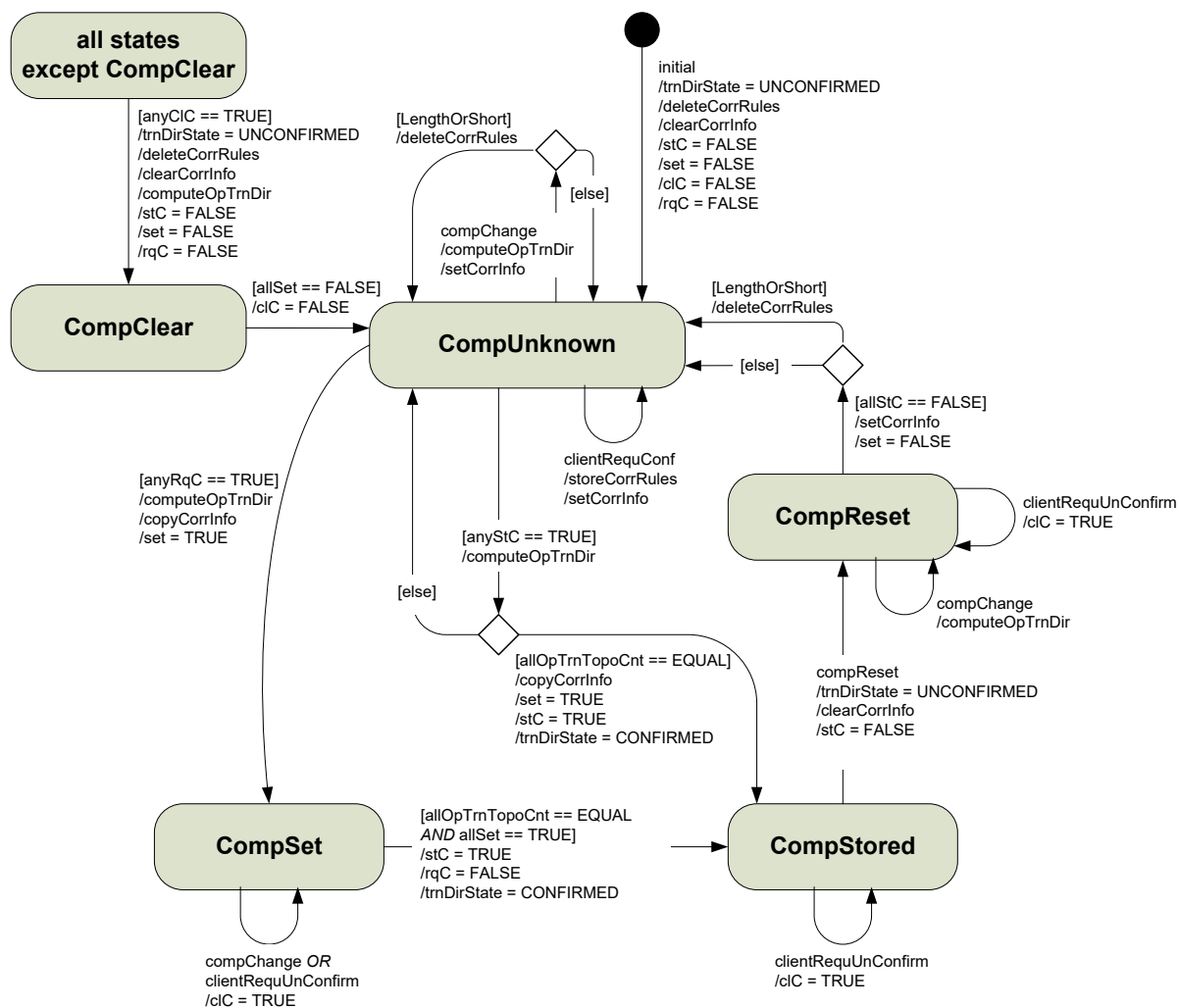


Table 42

Add the following entry to Table 42.

Trigger	Description
compReset	Confirmed composition reset

Table 43

Replace the existing 3rd and 4th entries by the following.

allStC == FALSE	Logical OR over the 'stC' control flags in all ETBCTRL telegrams equals FALSE
allSet == FALSE	Logical OR over the 'set' control flags in all ETBCTRL telegrams equals FALSE for a time of at least 3 ETBCTRL cycles. NOTE This time condition shall ensure that also reinserted ECSP properly enter state CompUnknown.

6.7.3.2, Table 48, 1st column, 1st box

Replace the existing text by the following new text.

determineOpTrainDirection

Clause A.5, 2nd paragraph

Replace the existing text by the following new text

The ComId forms, together with source IP address and destination IP address, a unique identifier of the PDU within the train.

A.6.6.3, 6th paragraph

Replace the existing text by the following new text.

Topography counters of an incoming request telegram shall be checked in accordance to A.6.7.

A.6.8.2, Table A.10

Replace existing Table A.10 by the following new table.

Table A.10 – PD publisher state diagram – guards

Guards	Description
checkTopoCounts	Check the topography counters submitted with the request against the actual topography counters. At least one of the cases listed in Table A.5 for the topography counters shall be fulfilled.

A.6.8.3, Table A.15

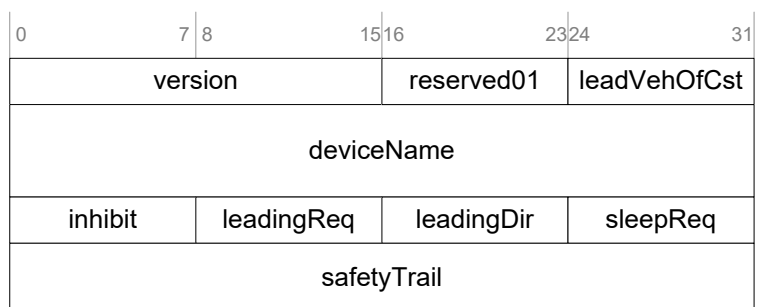
Replace existing Table A.15 by the following new table.

Table A.15 – PD subscriber state diagram – guards

Guards	Description
pattern	configured communication pattern for the PD-PDU exchange Values: PUSH PULL
checkTopoCounts	Check the topography counters of the received telegram against the topography counters submitted with the subscription. At least one of the cases listed in Table A.5 for the topography counters shall be fulfilled.

E.3.2, Figure E.3

Replace existing Figure E.3 by the following new figure.



IEC

Introduce the related corrected record definition with additional entry ('leadVehOfCst') as follows:

```

ECSP_CTRL ::= RECORD
{
    version      UINT16      -- telegram version information
                           (vvr, v-version, r-release)
                           version = 1
                           release = 0

    reserved01   UINT8       -- reserved (= 0)

    leadVehOfCst  UINT8      -- position of leading vehicle in consist
                           value range 0..32
                           0 = not defined
                           (1 = first vehicle in consist in
                           Direction 1, 2 = second vehicle, etc.)

    deviceName   LABEL      -- function device of ECSC which sends
                           the telegram
}

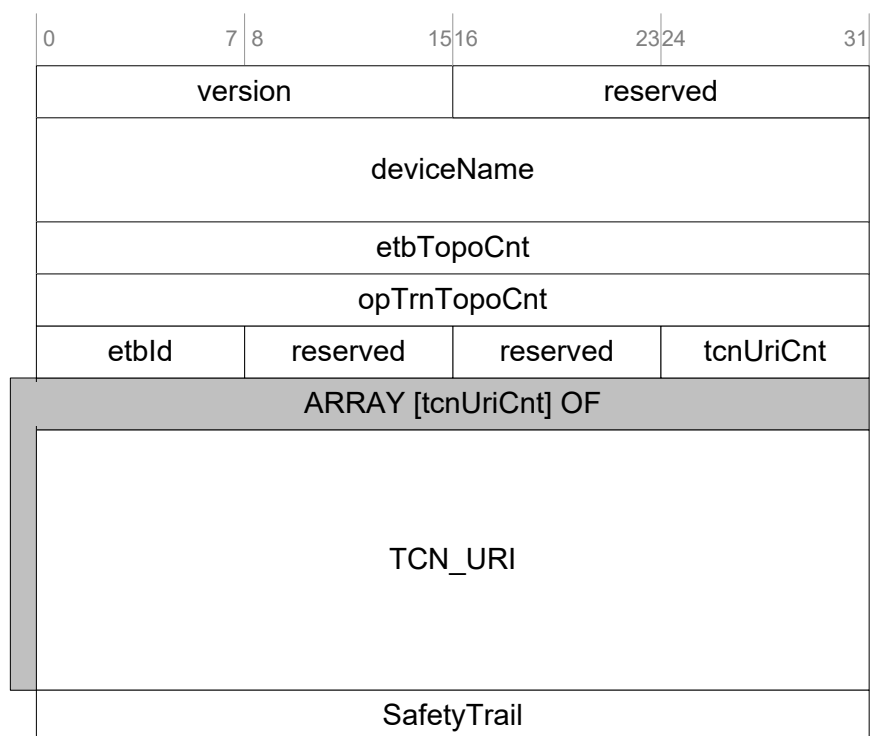
```

E.5.2.2, penultimate paragraph

Replace the existing text by the following new text.

E.5.2.3, Figure E.9

Replace existing Figure E.9 by the following new figure.



IEC

Introduce the related corrected record with additional entry ('etbTopoCnt').

```

DNS_REQUEST ::= RECORD
{
    version          VERSION          -- telegram version information
                                   mainVersion = 1
                                   subVersion = 0

    reserved01       INT16            -- reserved (= 0)

    deviceName       LABEL            -- function device of ED which sends
                                   the telegram

    etbTopoCnt       UINT32           -- ETB topography counter

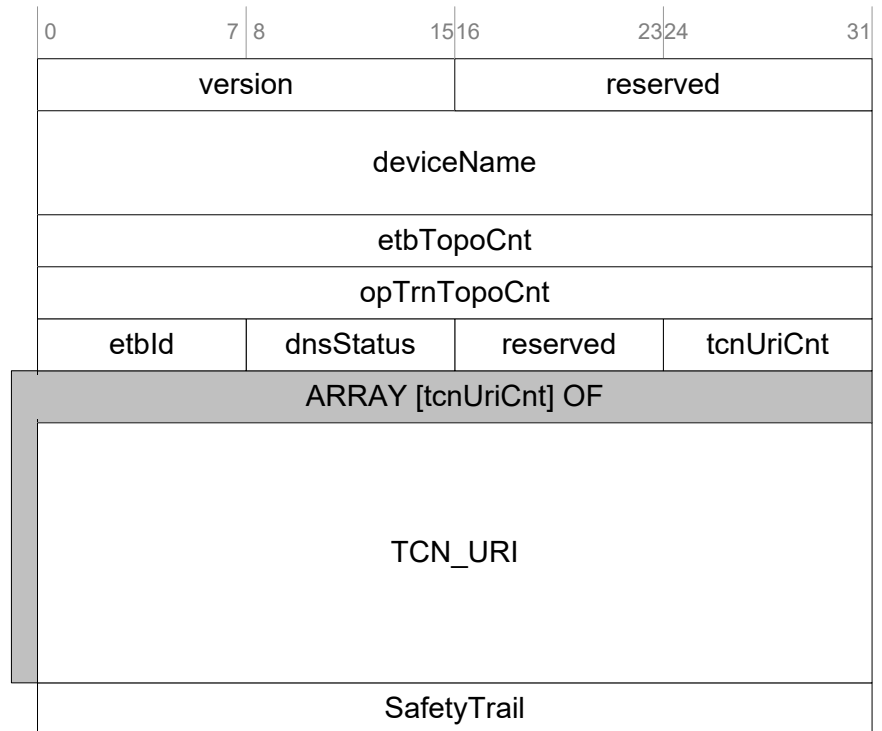
    opTrnTopoCnt     UINT32           -- operational train topography counter
                                   needed for TCN-URIs related to the
                                   operational train view
                                   = 0 if not used

```

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E.5.2.3, Figure E.10

Replace existing Figure E.10 by the following new figure.



IEC

Introduce the related corrected record with additional or corrected entry ('etbTopoCnt', 'dnsStatus').

```

DNS_REPLY ::= RECORD
{
    version          VERSION          -- telegram version information
                                   mainVersion = 1
                                   subVersion = 0

    reserved01       UINT16           -- reserved (= 0)

    deviceName       LABEL            -- function device of DNS which sends
                                   the telegram

    etbTopoCnt       UINT32           -- ETB topography counter

    opTrnTopoCnt     UINT32           -- operational train topography counter
                                   = 0 if not known

    • etbId          UINT8            -- identification of the related ETB
                                   0 = ETB0 (operational network)
                                   1 = ETB1 (multimedia network)
                                   2 = ETB2 (other network)
                                   3 = ETB3 (other network)

    dnsStatus        INT8            -- status of reply:
                                   0 = OK
                                   -1 = DNS Server not ready
                                   -2 = Inauguration in progress

    •

    •
    
```