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**EN 61375-2-3**  
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ČESKÁ TECHNICKÁ NORMA

**Elektrické drážní zařízení – Vlaková komunikační síť (TCN) –  
Část 2-3: TCN komunikační profil**





EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 61375-2-3:2015/AC:2016-  
11**

November 2016

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ICS 45.060

English Version

**Electronic railway equipment - Train communication network  
(TCN) - Part 2-3: TCN communication profile  
(IEC 61375-2-3:2015/COR2:2016)**

Matériel électronique ferroviaire - Réseau embarqué de  
train (TCN) - Partie 2-3: Profil de communication TCN  
(IEC 61375-2-3:2015/COR2:2016)

Elektronische Betriebsmittel für Bahnen - Zug-  
Kommunikations-Netzwerk (TCN) - Teil 2-3: TCN-  
Kommunikationsprofil  
(IEC 61375-2-3:2015/COR2:2016)

This corrigendum becomes effective on 4 November 2016 for incorporation in the English language version of the EN.



European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

### **Endorsement notice**

The text of the corrigendum IEC 61375-2-3:2015/COR2:2016 was approved by CENELEC as EN 61375-2-3:2015/AC:2016-11 without any modification.

INTERNATIONAL ELECTROTECHNICAL COMMISSION

IEC 61375-2-3  
 Edition 1.0 2015-07

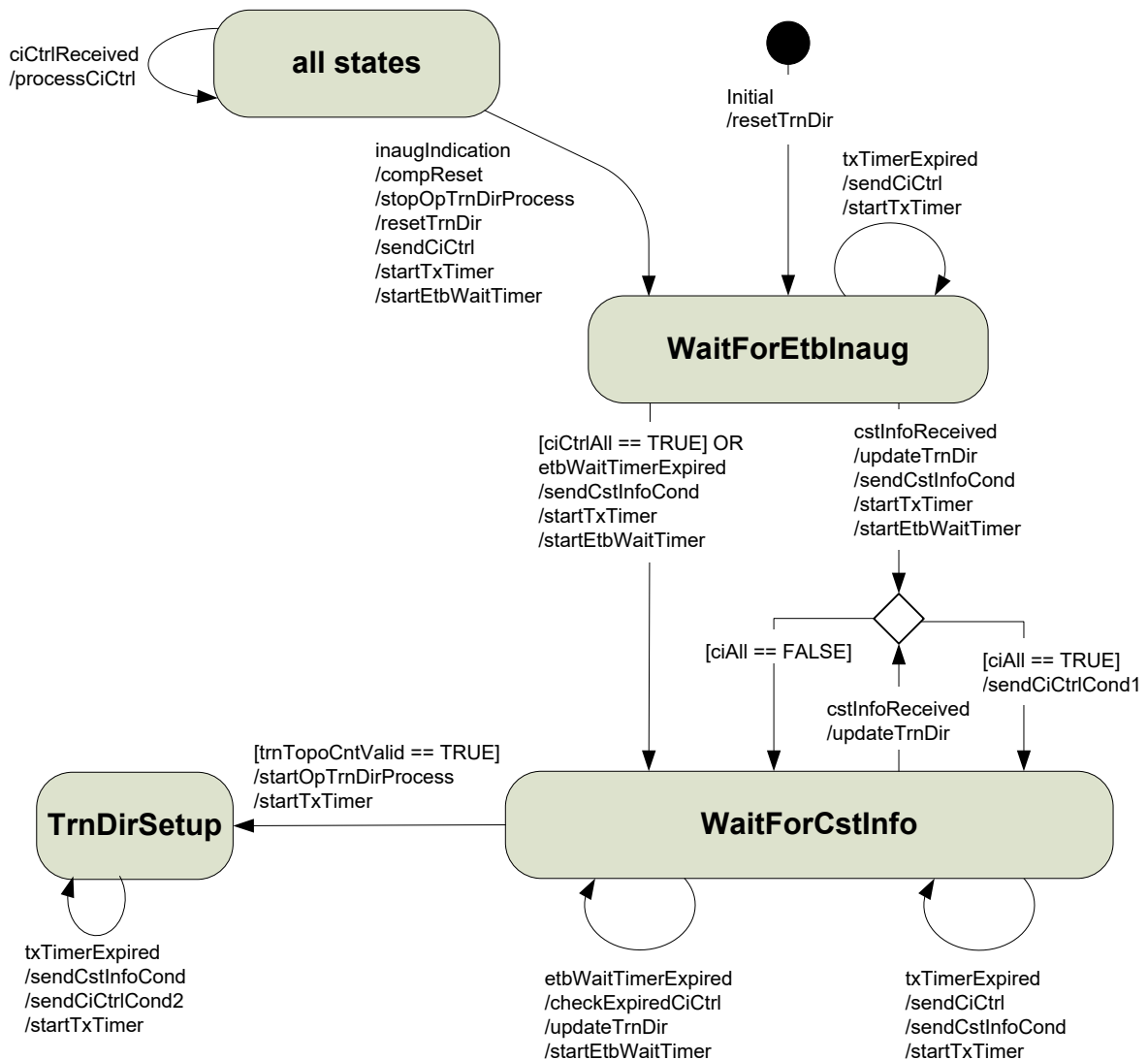
ELECTRONIC RAILWAY EQUIPMENT – TRAIN COMMUNICATION NETWORK (TCN) –

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).

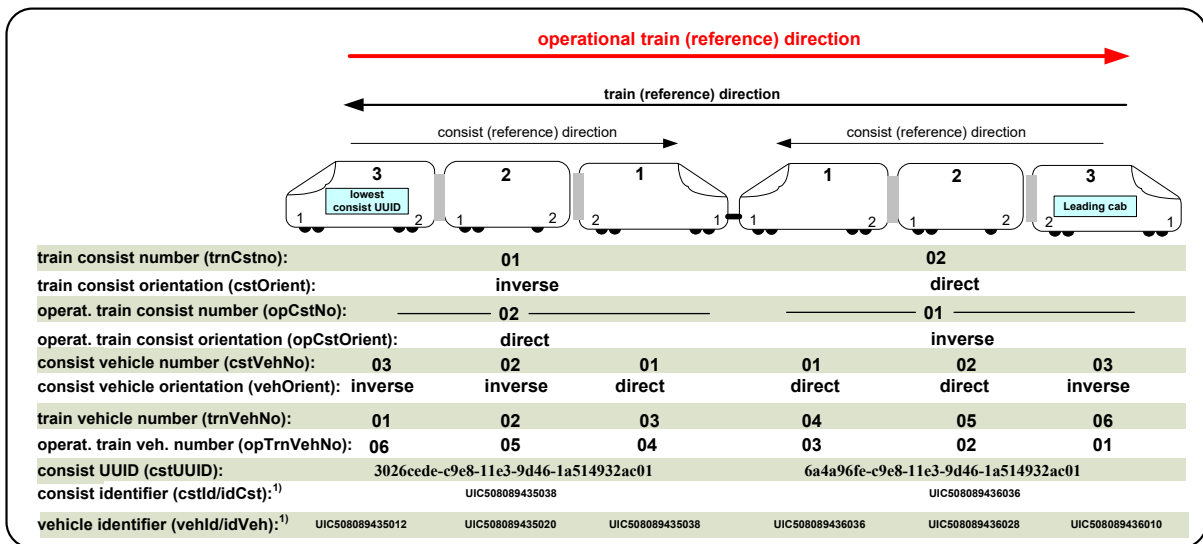
**5.3.3.2.16, item d)**

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.



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

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**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, 2<sup>nd</sup> column, 2<sup>nd</sup> box

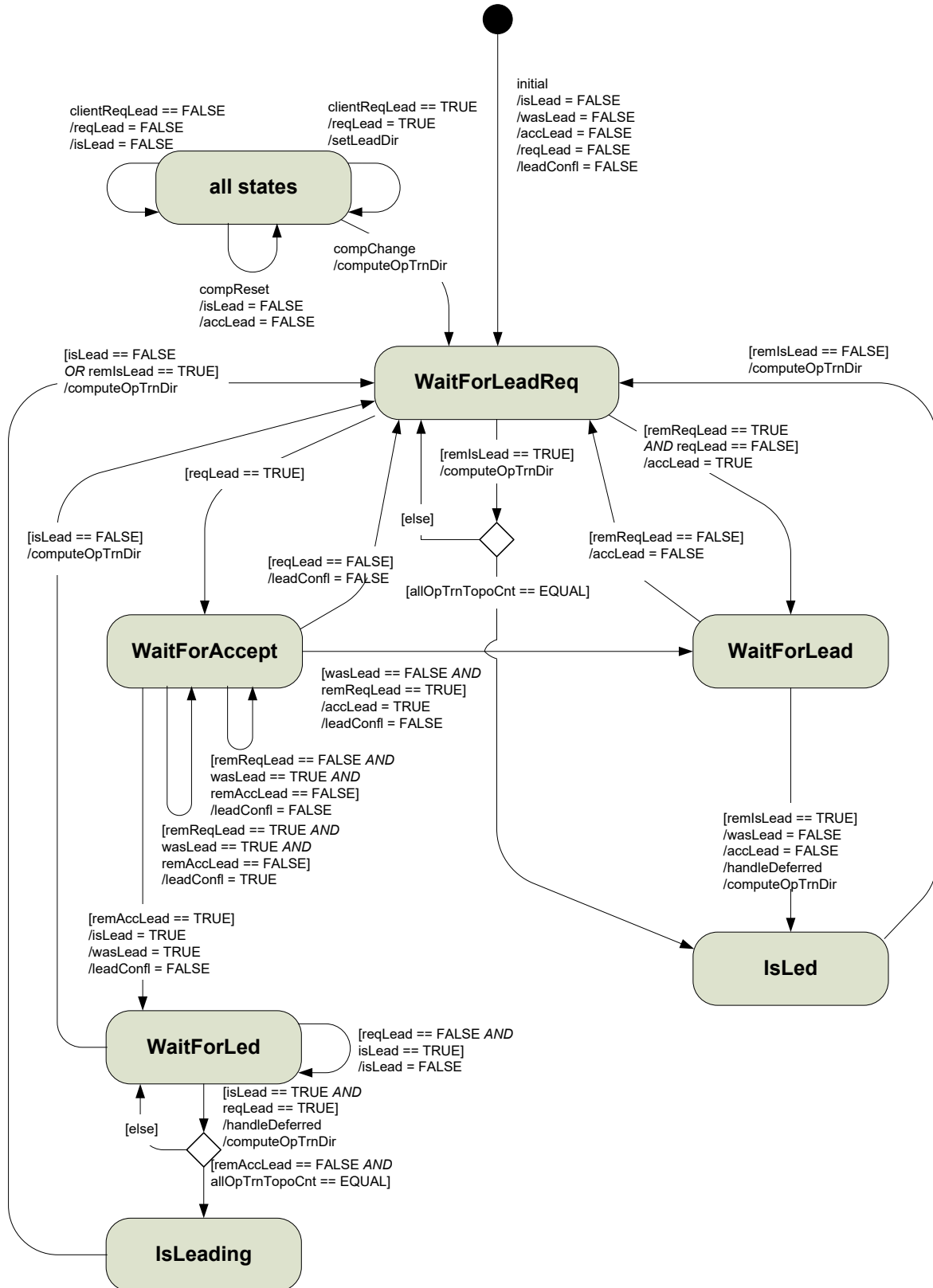
*Replace the existing text by the following new text.*

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.*





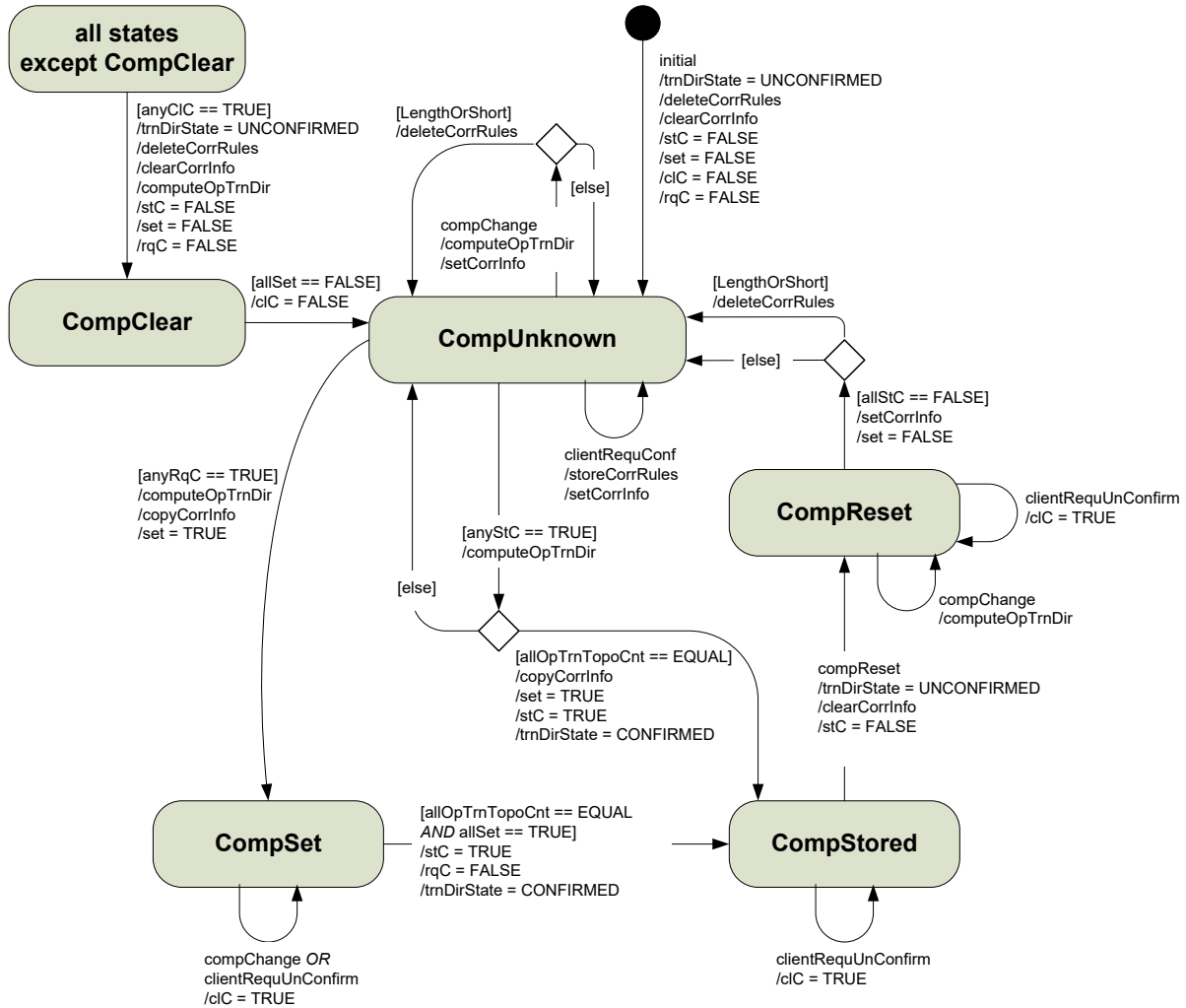
**Table 35**

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.



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**Table 42**

Add the following entry to Table 42.

Trigger	Description
compReset	Confirmed composition reset

**Table 43**

*Replace the existing 3<sup>rd</sup> and 4<sup>th</sup> 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, 1<sup>st</sup> column, 1<sup>st</sup> box**

*Replace the existing text by the following new text.*

determineOpTrainDirection

**Clause A.5, 2<sup>nd</sup> 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, 6<sup>th</sup> 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**

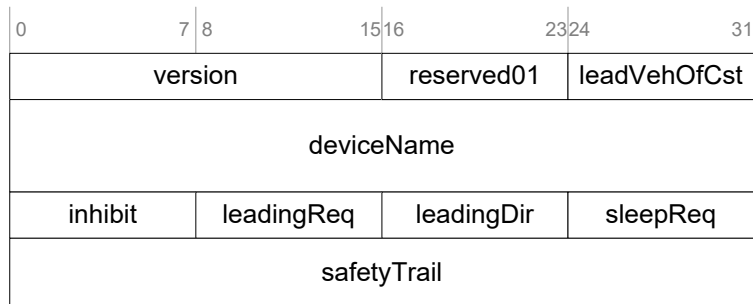
Replace existing Table A.15 by the following new table.

**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
}
    
```

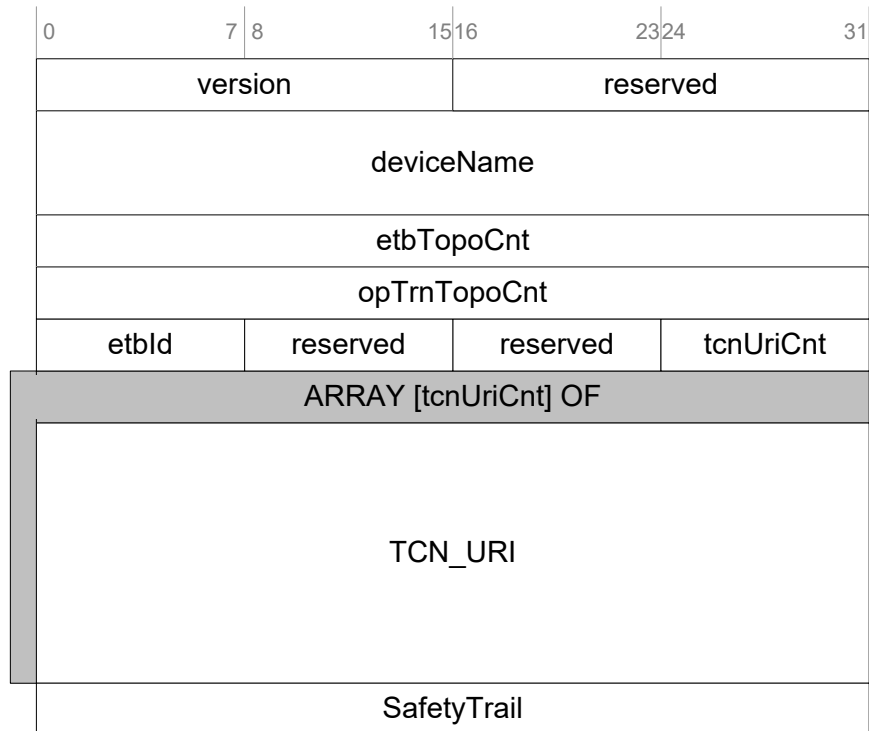
**E.5.2.2, penultimate paragraph**

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

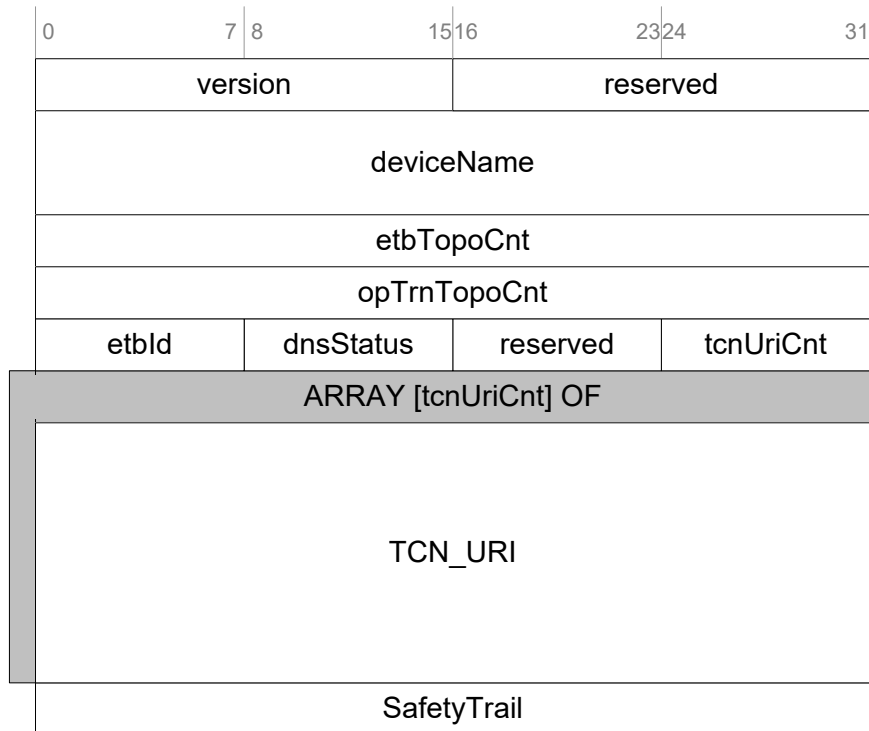
    opTrnTopoCnt    UINT32            -- operational train topography counter
                                needed for TCN-URIs related to the
                                operational train view
                                = 0 if not used

```

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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

    •

    •
    
```



**U p o z o r n ě n í :** Změny a doplňky, jakož i zprávy o nově vydaných normách jsou uveřejňovány ve Věstníku Úřadu pro technickou normalizaci, metrologii a státní zkušebnictví.

Vaše názory, podněty a připomínky týkající se technických norem a zájem o možnou účast v procesech technické normalizace lze zaslat na e-mailovou adresu [info@unmz.cz](mailto:info@unmz.cz).

### **ČSN EN 61375-2-3 OPRAVA 1**

Vydal Úřad pro technickou normalizaci, metrologii a státní zkušebnictví, Praha  
Rok vydání 2017, 16 stran

**501844** Cenová skupina 411



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