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AMENDMENT 1
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**Intelligent transport systems —
Automatic vehicle and equipment
identification — Interfaces**

AMENDMENT 1

*Systèmes intelligents de transport — Identification automatique des
véhicules et de leurs équipements — Interfaces*

AMENDEMENT 1

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This document was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*.

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Intelligent transport systems — Automatic vehicle and equipment identification — Interfaces

AMENDMENT 1

Page 5, Table 1

For the service primitive "Initialization", replace the required feature during transaction

"Optional"

by

"Conditional"

Page 5, Table 2

For the service primitive "Initialization", replace the required feature during transaction

"Optional"

by

"Conditional"

Page 6, A.2.2

Replace the two list items with:

- EID shall not be transmitted in the BST related to the AVI/AI application;
- no Parameter shall be transmitted in the BST related to the AVI/AEI application.

Page 6, A.2.3

Replace

"Each AVI/AEI application and corresponding contract shall"

by

"Each AVI/AEI application, and if applicable corresponding contract, shall"

Page 7, A.2.3

Replace in 2nd list item:

"the EID value may be unique"

by

"the EID value shall be unique"

Page 7, A.2.3

Replace the 2nd list item by

- the EID value shall be unique within the OBE throughout the complete DSRC session, and may be logically associated with the corresponding, e.g. "AVI-ContextMark" contained in the "Parameter";

Page 7, A.2.3

Replace the 3rd list item by

- the "Parameter" shall be of Container CHOICE type OCTET STRING and shall comprise the "AVI-ContextMark" as defined below, and may also be configured to carry additional data types in accordance with the value of aVIPProfile in the AVI-ContextMark.

Page 7, A.2.3

Replace the definition of AVI-ContextMark by

```
AVI-ContextMark ::= SEQUENCE {
    aVIPProfile      AVIProfile,
    profileVersion   INTEGER(0..255) -- Version control can be added
}

AVIProfile ::= INTEGER {
    attributeInTransactionPhaseOnly (0),
    iso14816CS1AttrPointer (1), --CS1 appended in VST
    iso14816CS2AttrPointer (2), --CS2 appended in VST
    iso14816CS3AttrPointer (3), --CS3 appended in VST
    iso14816CS4AttrPointer (4), --CS4 appended in VST
    iso14816CS5AttrPointer (5), --CS5 appended in VST
    iso14816CS6AttrPointer (6), --CS6 appended in VST
    iso14816CS7AttrPointer (7), --CS7 appended in VST
    iso14816CS8AttrPointer (8), --CS8 appended in VST
    reservedforFutureISOUse1 (9),
    reservedforFutureISOUse2 (10),
    reservedforFutureISOUse3 (11),
    enIso19061 (12) -- VST according to EN ISO 19061
    reservedforFutureISOUse5 (13),
    reservedforFutureISOUse6 (14),
    reservedforFutureISOUse7 (15),
    reservedforFutureISOUse8 (16),
    reservedforFutureISOUse9 (17),
    private18To65535 (18)
} (0..65535) --Private profiles
```

Page 7

Replace paragraph above NOTE 1 by:

The value of aVIPProfile determines which data type is concatenated to the AVI-ContextMark in the VST "**Parameter**". The data type corresponds to an AVI attribute but does not included its attribute Id or container type.

Page 7

Replace NOTE 1 by

NOTE 1 If the aVIPProfile value is set to the values 1 to 8, ISO 14816 data types are included in the VST, if aVIPProfile value is set to 0, the attributes are sent in the data exchange phase. If the value of aVIPProfile is set to 12, the OBE is compliant to the definition of the ApplicationContextMark of ISO 19061.

Page 8, Definition of VST

Replace AVIPProfile by aVIPProfile.

Page 8, Definition of VST

Delete the sentence above NOTE 3.

Page 10, Table A.1

Replace

EuTwoOrThreeWheelCategory

by

EuTwoOrThreeWheelCategory
(=EuVehicleCategoryL)

Page 11

Add below NOTE 2:

NOTE 3 Some of the attributes are elements of other attributes.

It is recommended not to use attribute 14 "Position" stand-alone.

NOTE 4 Attribute 31 "OfficialVehcileTestData" and other potentially large attributes require profiling. Profiling is not specified in this document.

Page 11, A.5

Replace the whole clause by

The AVI/AEI data types and associated coding related to the AVI/AEI action parameters, response parameters and attributes, are defined using the "Abstract Syntax Notation One" (ASN.1) technique according to ISO/IEC 8824-1:

- AVIAEINumberingAndDataStructures is ISO 14816;
- AVIAEIIntermodalNumberingAndDataStructures is ISO 17262;
- ElectronicRegistrationIdentificationVehicleDataModule is ISO 24534-3;
- ElectronicRegistrationIdentificationTransactionsModule is ISO 24534-4;
- EriSecretKeyTransactionsModule is ISO 24534-55.

In case the ASN.1 specification of AVIAEIDSRInterfaceModule given in this Annex is not compliant with illustrations or specifications provided elsewhere in this document, the specifications given in this Annex shall prevail.

The ASN.1 module AVIAEIDSRInterfaceModule contained in this Annex will be published on <http://standards.iso.org/iso/17264>.

In all definitions

fill BIT STRING (SIZE(x))

each bit of the BIT STRING shall be set to the value '0'b.

```
AVIAEIDSRInterfaceModule {iso (1) standard(0) iso17264(17264) version1 (1)}
DEFINITIONS AUTOMATIC TAGS ::= BEGIN

IMPORTS
AviEriDateTime, CS1, CS2, CS3, CS4, CS5, CS7, CS8 FROM AVIAEINumberingAndDataStructures
{iso(1) standard(0) iso14816(14816) asn1(1) version1(1)}

AccessControlStatus, AEIMessageType, CS9, DisplayMessageType, TransportComponentStatus,
MsgInfo, Position, ReaderLocation, TerminalMonitoringType, TransportObjectIdentifier,
TransportObjectMessageType, TransportObjectType, UNLocode FROM
AVIAEIIntermodalNumberingAndDataStructures {iso(1) standard(0) iso17262(17262) version2
(2)}

VehicleId, RaSpecificVehicleId, EriData, Iso3833VehicleType, EuVehicleCategoryCode,
EuVehicleCategoryM, EuVehicleCategoryN, EuVehicleCategoryO,
EuVehicleCategoryL, EuroType, OfficialVehicleTestData, PowerSource FROM
ElectronicRegistrationIdentificationVehicleDataModule {iso(1) standard(0) iso24534 (24534)
vehicleData (1) version1 (1)}

EriRequestPdu, EriResponsePdu FROM ElectronicRegistrationIdentificationTransactionsModule
{iso(1) standard(0) iso24534 (24534) transactions (2) version1 (1)}

SecretKeyEriReqPdu, SecretKeyEriRspPdu FROM EriSecretKeyTransactionsModule {iso(1)
standard(0) iso24535 (24534) secretKeyTransactions (5) version1 (1)}
;
-- bug fixes done in Amd.1:2015

EuTwoOrThreeWheelCategory ::= EuVehicleCategoryL

CS6 ::= NULL -- dummy type

-- end of bug fixes

AVI-ContextMark ::= SEQUENCE {
aVIPProfile AVIProfile,
profileVersion INTEGER(0..255) -- Version control can be added
}

AVIProfile ::= INTEGER {
attributeInTransactionPhaseOnly (0),
iso14816CS1AttrPointer (1), --CS1 appended in VST
iso14816CS2AttrPointer (2), --CS2 appended in VST
iso14816CS3AttrPointer (3), --CS3 appended in VST
iso14816CS4AttrPointer (4), --CS4 appended in VST
iso14816CS5AttrPointer (5), --CS5 appended in VST
iso14816CS6AttrPointer (6), --CS6 appended in VST
iso14816CS7AttrPointer (7), --CS7 appended in VST
iso14816CS8AttrPointer (8), --CS8 appended in VST
-- reservedforFutureISOUse1 (9),
-- reservedforFutureISOUse2 (10),
-- reservedforFutureISOUse3 (11),
enIso19061 (12) -- VST according to EN ISO 19061
-- reservedforFutureISOUse5 (13),
-- reservedforFutureISOUse6 (14),
-- reservedforFutureISOUse7 (15),
-- reservedforFutureISOUse8 (16),
-- reservedforFutureISOUse9 (17),
-- private18To65535 (18)
} (0..65535) --Private profiles
```



```
-- The subsequent XXx definitions and the Container cause problems with future revisions.
--XX1 .. XX8 are reserved for future use
XX1 ::= NULL
XX2 ::= NULL
XX3 ::= NULL
XX4 ::= NULL
XX5 ::= NULL
XX6 ::= NULL
XX7 ::= NULL
XX8 ::= NULL
```

```
EmbeddedERIType{ERIType} ::= OCTET STRING (CONTAINING ERIType)
```

```
BooleanType ::= INTEGER{
false          (0),
true           (255)
} (0..255)
```

```
Container ::= SEQUENCE{
fill          BIT STRING (SIZE(1)),
-- '0': together with CHOICE tag and extension bit this is one octet
select        CHOICE {
int           [0] INTEGER,
bitstr        [1] BIT STRING, -- shall be an integer multiple of 8 bits.
octstr        [2] OCTET STRING (SIZE(0 .. 127, ...)),
unitstr       [3] UniversalString (SIZE(0 .. 127, ...)),
utctime       [4] AvEriDateTime,
real          [5] REAL,
bool          [6] BooleanType,
objid         [7] OBJECT IDENTIFIER,
sequ          [8] SEQUENCE SIZE(0 .. 127, ...) OF OCTET STRING,
null          [9] NULL,
xx1           [10] XX1,
xx2           [11] XX2,
xx3           [12] XX3,
xx4           [13] XX4,
xx5           [14] XX5,
xx6           [15] XX6,
xx7           [16] XX7,
xx8           [17] XX8,
avicm         [18] AVI-ContextMark,
cs1           [19] CS1,
cs2           [20] CS2,
cs3           [21] CS3,
cs4           [22] CS4,
cs5           [23] CS5,
cs6           [24] CS6,
cs7           [25] CS7,
cs8           [26] CS8,
cs9           [27] CS9,
acst          [28] AccessControlStatus,
amt           [29] AEIMessageType,
dmt           [30] DisplayMessageType,
tcs           [31] TransportComponentStatus,
mi            [32] MsgInfo,
pos           [33] Position,
rl            [34] ReaderLocation,
tmt           [35] TerminalMonitoringType,
tmi           [36] TransportObjectIdentifier,
tomt          [37] TransportObjectMessageType,
tot           [38] TransportObjectType,
unlocode      [39] UNLocode,
vi            [40] EmbeddedERIType{VehicleId},
rsvi          [41] RaSpecificVehicleId,
ed            [42] EmbeddedERIType{EriData},
ivt           [43] Iso3833VehicleType,
evcc          [44] EmbeddedERIType{EuVehicleCategoryCode},
evcm          [45] EmbeddedERIType{EuVehicleCategoryM},
evcn          [46] EmbeddedERIType{EuVehicleCategoryN},
evco          [47] EmbeddedERIType{EuVehicleCategoryO},
ettwc         [48] EmbeddedERIType{EuTwoOrThreeWheelCategory},
```