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ETSI Guide

ETSI object identifier tree;
Rules and registration procedures

Reference

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Foreword

This ETSI Guide (EG) has been produced by ETSI Technical Committee Services and Protocols for Advanced Networks (SPAN), and is now submitted for the ETSI standards Membership Approval Procedure.

The present document contains the rules and procedures for registering object identifier values within the ETSI object identifier tree, taking also into account the "new" ETSI deliverable types. In addition, the present document contains a table of common domain object identifier values which have been registered. This table will be updated by the ETSI Secretariat as further values are allocated.

Introduction

It is confirmed by the ETSI Secretariat that the provisional path value under the ITU-T (former CCITT) node shall be:

itu-t(0) identified-organization(4) etsi(0).

1 Scope

The present document defines the structure of the ETSI object identifier tree together with the rules and procedures for registering object identifier values for the first level of the ETSI subtree.

The object identifier tree component is applicable to all objects that cannot be imported from ITU-T (CCITT) Recommendations or ISO (ISO/IEC) standards or those objects that do not use the ECMA object identifier tree components as defined in ETSI deliverables based on ECMA standards.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies.

[1] ETSI ETR 060: "Signalling Protocols and Switching (SPS); Guidelines for using Abstract Syntax Notation One (ASN.1) in telecommunication application protocols".

[2] ITU-T Recommendation X.208: "Specification of Abstract Syntax Notation One (ASN.1)".

3 Definitions

For the purposes of the present document, the following terms and definitions apply:

common domain: set of objects, which are part of the definition of a protocol or a set of related protocols

information object: well-defined piece of information, definition, or specification, which requires a name in order to identify its use in an instance of communication (ITU-T Recommendation X.208, definition 3.31)
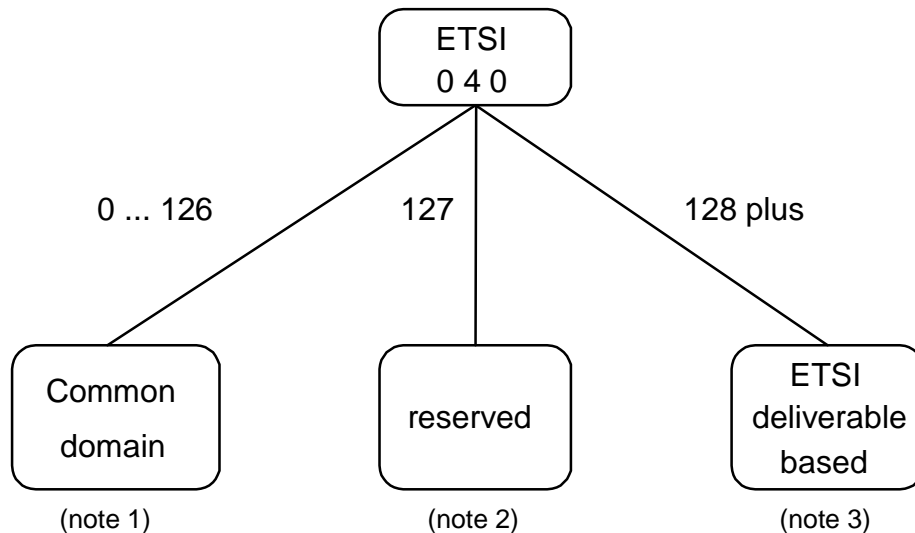
object identifier: value (distinguishable from all other such values), which is associated with an information object (ITU-T Recommendation X.208, definition 3.32)

NOTE: An object identifier consists of a sequence of integers. Each integer represents a node in the object identifier tree. So, each successive integer can be thought of as a selection of an end of a branch of the tree. The branch is traversed to get to the next level in the tree.

4 ETSI object identifier tree rules

The object identifier tree defines single octet identifiers to the ETSI level. The values are split into three groups: Common domain, reserved and ETSI deliverable based. For the ETSI deliverable-based usage, it assumes that the first 127 ETSI deliverables are not using ETSI object identifiers (as values 0 to 127 are allocated to other groups).

Figure 1 depicts the ETSI object identifier tree.

```
                         ┌──────────┐
                         │   ETSI   │
                         │  0 4 0   │
                         └──────────┘
              0 ... 126  /    127    \  128 plus
                        /      |      \
                       /       |       \
            ┌──────────┐  ┌──────────┐  ┌──────────┐
            │  Common  │  │          │  │   ETSI   │
            │          │  │ reserved │  │deliverable│
            │  domain  │  │          │  │  based   │
            └──────────┘  └──────────┘  └──────────┘
              (note 1)      (note 2)      (note 3)
```

NOTE 1:   The rules for assigning values in this domain are specified in clause 4.1.
NOTE 2:   The rules for assigning values in this domain are specified in clause 4.3.
NOTE 3:   The rules for assigning values in this domain are specified in clause 4.2.

Figure 1: ETSI object identifier tree

4.1   Common domain

An identifier in the common domain is available for use only under the following rule: that the domain consists of definitions used in two or more ETSI deliverables. Names and values shall be allocated and registered by the ETSI Secretariat. Since only 126 values are available, domains should be used only if the commonalty of such a domain justifies this. The granting of a domain value shall be upon the recommendation of the relevant Technical Body.

>   NOTE: The rules for using the common domain are interim. These rules need to be rediscussed and agreed after the first 50 values have been allocated. New allocation rules need also to provide a justification that can be used in the formulation of subsequent rules.

4.2   ETSI deliverable based domain

The object identifier tree value for a given ETSI deliverable is derived by deleting the first digit of its document number (and omitting leading zeroes). The rules and guidance for version control are described in ETR 060 [1] and are outside the scope of the present document.

>   EXAMPLE 1:   The allocated value for ETS 300 182 is "182".

>   NOTE 1:   Values allocated under the provisions of the former version of the present document (i.e. ETS 300 351) are unaffected.

>   EXAMPLE 2:   The allocated value for TS 101 123 is "1123".
>
>   The allocated value for ES 201 123 is "1123".

>   NOTE 2:   The assignment of document numbers is independent of ETSI deliverable type. Technically, TS 101 123 and ES 201 123 are just two different versions of the same document. Version control according to ETR 060 [1] applies.

>   EXAMPLE 3:   The allocated value for EN 300 182 is "182".

>   NOTE 3:   "New" document numbering starts at "x01 000" (x = 1…3), while "old" documents (typically ETSs which are converted into ENs) keep their original number. Technically, EN 300 182 is just a newer version of ETS 300 182. Version control according to ETR 060 [1] applies.

4.3   Reserved domain

This domain is used for all purposes other than those specified in clauses 4.1 and 4.2. Value 0 is used for ETSI identified organizations; values other than 0 are reserved for future use.

5   Object identifier registration procedure

5.1   Common domain

The ETSI Secretariat is responsible for the administration/documentation of all object identifiers within the ETSI subtree. For each allocated object identifier, the Technical Body acting as formal registration authority for the appropriate subtree shall send a request for registration of the object identifier to the ETSI Secretariat.

5.1.1   Technical Body

Using the criteria defined in clause 4.1, a single Technical Body shall be responsible for determining whether a set of information objects or related protocols will be granted the status of a value within the common domain.

Each Technical Body shall act as the formal registration authority for subtrees it establishes below the node allocated to it by the ETSI Secretariat. The Technical Body shall be responsible for producing appropriate ETSI deliverables (i.e. EGs), which describe these subtrees.

Where a domain spans the responsibility of more than one Technical Body, the Technical Bodies concerned have to agree which one should be responsible for the definition of the rules and the structure of the domain.

5.1.2   ETSI Secretariat

The ETSI Secretariat shall act as the formal registration authority for the first level of the ETSI subtree.

The request for a value to be allocated shall originate from a single Technical Body and be accompanied by a draft ETSI deliverable describing the structure of the domain. Any undocumented request shall be rejected.

An object identifier value once assigned shall not be re-assigned.

Duplicate domain names shall not be accepted.

On receipt of a valid application, the next available number shall be allocated. The register of allocated values is available on the ETSI web site. This register is updated as appropriate by the ETSI Secretariat. The register can be consulted at: http://www.etsi.org/ptcc/oid_list.htm

5.2   ETSI deliverable based

It shall be the responsibility of the Technical Body to ensure that each ETSI deliverable under its responsibility clearly defines the usage of the object identifier within that ETSI deliverable, using the criteria defined in clause 4.2.

NOTE: This includes ETSI deliverables for which new versions are created.

5.3   Reserved domain

5.3.1   ETSI identified organizations

The ETSI Secretariat is responsible for the administration/documentation of object identifiers in the ETSI Identified Organizations arc of the Reserved domain arc down to and including the node corresponding to an individual organization (i.e. {0 4 0 127 0 n}); the organization concerned is itself responsible for allocation of nodes beneath that level, and ETSI will not record any such organization-specific allocations.

Any organization (whether or not an ETSI Member) may request the ETSI Secretariat to allocate an object identifier for that organization on this arc. The ETSI Secretariat shall allocate a value on a first-come first-served basis, in a fair and equitable manner, based on the principles given in clause 5.3.2.

5.3.2   General

An object identifier value once assigned shall not be reassigned.

Duplicate domain names shall not be accepted.

On receipt of a valid application, the next available number shall be allocated. The register of allocated values is available on the ETSI web site. This register is updated as appropriate by the ETSI Secretariat. The register can be consulted at: http://www.etsi.org/ptcc/oid_list.htm

Annex A (informative):
Bibliography

ETSI ETR 090: "ETSI object identifier tree; Common domain; Intelligent Network (IN) domain".

ETSI ETR 091: "ETSI object identifier tree; Common domain; Mobile domain".

ETSI ETS 300 655: "ASN.1 library definition; Version 1.1".

ETSI EG 201 189: "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Master list of code points and operation values".

ETSI TR 101 764: "Broadband Radio Access Networks (BRAN); Definition of the BRAN domain".

ITU-T Recommendation X.200: "Information technology - Open Systems Interconnection - Basic Reference Model: The basic model".

ITU-T Recommendation X.209: "Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1)".

ITU-T Recommendation X.650: "Information technology - Open Systems Interconnection - Basic Reference Model: Naming and addressing".

ITU-T Recommendation X.660: "Information technology - Open Systems Interconnection - Procedures for the operation of OSI Registration Authorities - General procedures".

ITU-T Recommendation X.680: "Information technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation".

ITU-T Recommendation X.690: "Information technology - ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER), and Distinguished Encoding Rules (DER)".

ITU-T Recommendation X.700: "Management framework for Open Systems Interconnection (OSI) for CCITT applications".

History

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