                    A URN Namespace of Object Identifiers

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Abstract

   This document describes a Uniform Resource Names (URN) namespace that
   contains Object Identifiers (OIDs).

1. Introduction

   An Object Identifier is a series of digits delimited in some way.
   The rules roughly state that once an entity is assigned an Object
   Identifier (OID) it has sole discretion to further subdelegate off of
   that OID. Some examples of OIDs include:

   o 1.3.6.1 - the Internet OID
   o 1.3.6.1.4.1 - IANA-assigned company OIDs, used for private MIBs
      and such things
   o 1.3.6.1.2.1.27 - The Applications MIB
   o 0.9.2342.19200300.100.4 - Object ID's used in the directory pilot
      project to identify X.500 Object Classes. Mostly defined in RFC-
      1274.

   This document specifies the "oid" URN namespace [1]. This namespace
   is for encoding an Object Identifier as specified in ASN.1 [2] as a
   URI.

   The namespace specification is for a formal namespace.

2. Specification Template

   Namespace ID:

      "oid" requested.

Registration Information:

   Registration Version Number: 1
   Registration Date: 2000-04-30

Declared registrant of the namespace:

   I need help here. I'm not comfortable being the 'registrant'. So
   who do I actually put here?

   The ISO/IEC Joint Technical Committee 1 - SubCommittee 6 The
   actual real authority is the ASN.1 specification itself but at
   present SC6 is the committee that has the authority to interpret
   what that means.

Declaration of structure:

   The NSS portion of the identifier follows the string encoding
   rules found in RFC 1778 Section 2.15 [3] which specifies a series
   of digits separated by a period with the most significant digit
   being at the left and the least significant being at the right.

   No changes are anticipated since Object Identifiers are fairly
   simple and have been standardized with no changes for many years.

Relevant ancillary documentation:

   Relevant documentation can be found in X.660/Amd 2 | ISO/IEC
   9834-1/Amd 2 [2].

Identifier uniqueness considerations:

   The rules for assignment of OIDs requires that each OID be unique
   to the OID space and that it cannot be reassigned or reused. By
   reference this URN namespace inherents those rules.

Identifier persistence considerations:

   The rules concerning the use of OIDs requires that they not be
   reused once assigned. By reference this URN namespace inherents
   those rules.

Process of identifier assignment:

   Once an OID is assigned to some entity, that entity can then
   create and assign new OIDs below that particular OID. There are
   multiple entities that assign new OIDs to the general public. The
   top three levels are pre-assigned as follows:

          0 - ITU-T assigned
          1 - ISO assigned
          2 - Joint ISO/ITU-T assignment

     several assigned OIDs that are of importance to the Internet are:

          1.3.6.1 - the Internet OID
          1.3.6.1.4.1 - IANA-assigned company OIDs, used for private
                        MIBs and such things

   Process of identifier resolution:

      At this time no resolution mechanism is defined.

   Rules for Lexical Equivalence:

      OIDs are composed of multiple occurrences of digits and the "."
      character. Lexical equivalence is achieved by exact string match.

   Conformance with URN Syntax:

      There are no additional characters reserved.

   Validation mechanism:

      None.

   Scope:

      Global

3. Examples

   The following examples are taken from the example OIDs from the
   Introduction:

      urn:oid:1.3.6.1
      urn:oid:1.3.6.1.4.1
      urn:oid:1.3.6.1.2.1.27
      URN:OID:0.9.2342.19200300.100.4

4. Security Considerations

   None not already inherent to using unverifiable OIDs

5. Acknowledgements

   The author would like to thank Harald Alvestrand for the use of his
   OID database as a source for examples and references.

References

   [1]   Moats, R., "URN Syntax", RFC 2141, May 1997.

   [2]   CCITT, "Specification of Basic Encoding Rules for Abstract
         Syntax Notation One (ASN.1)", CCITT Recommendation X.209,
         January 1988.

   [3]   Howes, T., Kille, S., Yeong, W. and C. Robbins, "The String
         Representation of Standard Attribute Syntaxes", RFC 1778, March
         1995.

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