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URN Namespace for IEEE

Abstract

This document describes the Namespace Identifier (NID) 'ieee' for Uniform Resource Names (URNs) used to identify resources published by the Institute of Electrical and Electronics Engineers (IEEE). IEEE specifies and manages resources that utilize this URN identification model. Management activities for these and other resources types are handled by the manager of the IEEE Registration Authority.

Status of This Memo

This document is not an Internet Standards Track specification; it is published for informational purposes.

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1. Introduction

The Institute of Electrical and Electronic Engineers (IEEE) is an organization whose objectives include the educational and technical advancement of electrical and electronic engineering, telecommunications, computer engineering, and allied disciplines. Within IEEE, standardization activities are organized into sponsors, such as the LAN/MAN Standards Committee, and then working groups such as 802.1 and 802.3. See <<http://standards.ieee.org>>.

As part of these specification efforts, there is a need to maintain identifiers in a managed namespace that is unique and persistent. To ensure that this namespace's uniqueness is absolute, a registration of a specific URN Syntax [RFC2141] Namespace Identifier (NID) for use by IEEE is specified in this document, in full conformance with the NID registration process specified in URN Namespace Definition Mechanisms [RFC3406].

1.1. Terminology

Acronym	Meaning
IEEE	Institute of Electrical and Electronics Engineers
NID	Namespace Identifier
URN	Uniform Resource Name

2. URN Specification for IEEE

Namespace ID:

ieee

Registration information:

registration version number: 1

registration date: 2016-12-05

Declared registrant of the namespace:

Registering organization:

Name:

Institute of Electrical and Electronics Engineers

Address:

445 Hoes Lane
Piscataway, NJ 08854
USA

Designated contact person:

Angela Thomas
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Declaration of syntactic structure:

The Namespace Specific String (NSS) of all URNs that use the IEEE NID will have the following structure:

```
urn:ieee:{IEEEresource}:{ResourceSpecificString}
```

where "IEEEresource" is a US-ASCII string that conforms to the URN syntax requirements [RFC2141] and defines a specific class of resource type. Each resource type has a specific labeling scheme that is covered by "ResourceSpecificString", which also conforms to the naming requirements [RFC2141].

IEEE maintains a registration authority, the IEEE Registration Authority (IEEE RA), that will manage the assignment of "IEEEresource" and the specific registration values assigned for each resource class.

Relevant ancillary documentation:

The IEEE Registration Authority (IEEE RA) provides information on the registered resources and the registrations for each. More information about this registry and the procedures to be followed are available at:

<http://standards.ieee.org/develop/regauth/tut/ieeurn.pdf>

Identifier uniqueness considerations:

The IEEE RA will manage resources using the IEEE NID and will be the authority for managing the resources and subsequent associated strings. In the associated procedures, the IEEE RA will ensure the uniqueness of the strings themselves or will permit secondary responsibility for management of well-defined sub-trees.

Identifier persistence considerations:

IEEE will update documentation of the registered uses of the IEEE NID as needed. This will be structured such that each "IEEEresource" will have a separate description and registration table.

The registration tables and information are published and maintained by the IEEE RA on its web site.

Process of identifier assignment:

IEEE RA will provide procedures for registration of each type of resource that it maintains.

Process for identifier resolution:

The namespace is not listed with an RDS; this is not relevant.

Rules for Lexical Equivalence:

The strings used as values for "IEEEresource" and "ResourceSpecificString" are case insensitive.

Conformance with URN Syntax:

No special considerations.

Validation mechanism:

None specified. URN assignment will be handled by procedures implemented in support of IEEE activities.

Scope:

Global

3. Examples

The following examples are representative URNs that could be assigned by the IEEE RA. While support for YANG [RFC6020] [RFC7950] was a catalyst for the creation of the namespace, the following are not necessarily the strings that would be assigned.

```
urn:ieee:std:802.5:yang
```

```
urn:ieee:foobar
```

4. Security Considerations

There are no additional security considerations other than those normally associated with the use and resolution of URNs in general, which are described in Functional Requirements for URNs [RFC1737], URN Syntax [RFC2141], and URN Namespace Definition Mechanisms [RFC3406].

5. IANA Considerations

This document adds "ieee" to the "Formal URN Namespaces" registry <<http://www.iana.org/assignments/urn-namespaces>>. This is the defining document.

6. References

6.1. Normative References

- [RFC3406] Daigle, L., van Gulik, D., Iannella, R., and P. Faltstrom, "Uniform Resource Names (URN) Namespace Definition Mechanisms", BCP 66, RFC 3406, DOI 10.17487/RFC3406, October 2002, <<http://www.rfc-editor.org/info/rfc3406>>.
- [RFC2141] Moats, R., "URN Syntax", RFC 2141, DOI 10.17487/RFC2141, May 1997, <<http://www.rfc-editor.org/info/rfc2141>>.

6.2. Informative References

- [RFC1737] Sollins, K. and L. Masinter, "Functional Requirements for Uniform Resource Names", RFC 1737, DOI 10.17487/RFC1737, December 1994, <<http://www.rfc-editor.org/info/rfc1737>>.
- [RFC6020] Bjorklund, M., Ed., "YANG - A Data Modeling Language for the Network Configuration Protocol (NETCONF)", RFC 6020, DOI 10.17487/RFC6020, October 2010, <<http://www.rfc-editor.org/info/rfc6020>>.
- [RFC7950] Bjorklund, M., Ed., "The YANG 1.1 Data Modeling Language", RFC 7950, DOI 10.17487/RFC7950, August 2016, <<http://www.rfc-editor.org/info/rfc7950>>.

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