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A Uniform Resource Name (URN) Namespace for Examples

Abstract

This document defines a Uniform Resource Name (URN) namespace identifier enabling the generation of URNs that are appropriate for use in documentation and in URN-related testing and experimentation.

Status of This Memo

This memo documents an Internet Best Current Practice.

This document is a product of the Internet Engineering Task Force (IETF). It represents the consensus of the IETF community. It has received public review and has been approved for publication by the Internet Engineering Steering Group (IESG). Further information on BCPs is available in Section 2 of RFC 5741.

Information about the current status of this document, any errata, and how to provide feedback on it may be obtained at <http://www.rfc-editor.org/info/rfc6963>.

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1. Introduction

The Uniform Resource Name (URN) technology [RFC2141] provides a way to generate persistent, location-independent resource identifiers. The primary "scope" of a URN is provided by its namespace identifier (NID). As specified in [RFC3406], there are three kinds of NIDs: formal, informal, and experimental. Most of the NIDs registered to date are formal. As far as is known, the few informal namespaces have not been widely used, and the experimental namespaces are by definition unregistered.

The experimental namespaces take the form "X-NID" (where "NID" is the desired namespace identifier). Because the "X-" convention has been deprecated in general [RFC6648], it seems sensible to achieve the same objective in a different way. Therefore, this document registers a formal namespace identifier of "example", similar to "example.com" and other domain names [RFC2606]. Under the "example" NID, specification authors and code developers can mint URNs for use in documentation and in URN-related testing and experimentation by assigning their own unique Namespace Specific Strings without fear of conflicts with current or future actual URNs. Such URNs are intended for use as examples in documentation, testing of code for URN and URI processing, URN-related experimentation, invalid URNs, and other similar uses. They are not intended for testing non-URI code or for building higher-level applications for use over the Internet or private networks (e.g., as XML namespace names), since it is relatively easy to mint URIs whose authority component is a domain name controlled by the person or organization that wishes to engage in such testing and experimentation.

2. Terminology

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].

3. Completed Namespace Definition Template

3.1. Namespace ID

The Namespace ID "example" has been assigned.

3.2. Registration Information

Version 1

Date: 2013-04-24

3.3. Declared Registrant of the Namespace

Registering organization: IETF

Designated contact: IESG, iesg@ietf.org

3.4. Declaration of Syntactic Structure

URNs that use the "example" NID shall have the following structure:

urn:example:{NSS}

The Namespace Specific String (NSS) is a mandatory string of ASCII characters [RFC20] that conforms to the URN syntax requirements [RFC2141] and provides a name that is useful within the relevant documentation example, test suite, or other application.

3.5. Relevant Ancillary Documentation

See [RFC6648] for information about deprecation of the "X-" convention in protocol parameters and identifiers.

3.6. Identifier Uniqueness Considerations

Those who mint example URNs ought to strive for uniqueness in the Namespace Specific String portion of the URN. However, such uniqueness cannot be guaranteed through the assignment process. Therefore, it is NOT RECOMMENDED for implementers to use example URNs for any purposes other than documentation, private testing, and truly experimental contexts.

3.7. Identifier Persistence Considerations

Once minted, an example URN is immutable. However, it is simply a string; and there is no guarantee that the documentation, test suite, or other application using the URN is immutable.

3.8. Process of Identifier Assignment

Assignment is completely open, since anyone can mint example URNs for use in documentation, private testing, and other experimental contexts.

3.9. Process for Identifier Resolution

Example URNs are not intended to be resolved, and the namespace will probably never be registered with a Resolution Discovery System (except to simply inform requesters that such URNs are merely examples).

3.10. Rules for Lexical Equivalence

No special considerations; the rules for lexical equivalence specified in [RFC2141] apply.

3.11. Conformance with URN Syntax

No special considerations

3.12. Validation Mechanism

None

3.13. Scope

The scope of an example URN is limited to the documentation in which it is found, the test in which it is used, the experiment in which it appears, etc. Example URNs have no meaning outside such strictly limited contexts.

4. Namespace Considerations

No existing formal namespace enables entities to generate URNs that are appropriate for use as examples in documentation and in URN-related testing and experimentation. It could be argued that no such formal namespace is needed, given that experimental namespaces can be minted at will. However, experimental namespaces run afoul of the trend away from using the "X-" convention in the names of protocol parameters and identifiers [RFC6648]. Additionally, in practice, specification authors often mint examples using fake NIDs that go unregistered because they are never intended to be used. To minimize the possibility of confusion, use of this dedicated example namespace is recommended for generating example URNs.

5. Community Considerations

The "example" NID is intended to provide a clean, easily recognizable space for minting examples to be used in documentation and in URN-related testing and experimentation. The NSS is best as a unique string, generated by the person, organization, or other entity that creates the documentation, test suite, or other application. There is no issuing authority for example URNs, and it is not intended that they can be resolved in any meaningful way.

The "example" NID does not obviate the need to coordinate with issuing authorities for existing namespaces (e.g., minting "urn:example:xmpp:foo" instead of requesting issuance of "urn:xmpp:foo"), to register new namespace identifiers if existing namespaces do not match one's desired functionality (e.g., minting "urn:example:sha-1:29ead03e784b2f636a23ffff95ed12b56e2f2637" instead of registering the "sha-1" NID), or to respect the basic spirit of URN NID assignment (e.g., setting up shadow NIDs such as "urn:example:MyCompany:*" instead of using, say, HTTP URIs).

6. Security Considerations

This document introduces no additional security considerations beyond those associated with the use and resolution of URNs in general.

7. IANA Considerations

This document defines a URN NID registration of "example", which IANA has added to the "Formal URN Namespaces" registry. The completed registration template can be found in Section 3.

8. References

8.1. Normative References

- [RFC20] Cerf, V., "ASCII format for network interchange", RFC 20, October 1969.
- [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997.
- [RFC2141] Moats, R., "URN Syntax", RFC 2141, May 1997.
- [RFC3406] Daigle, L., van Gulik, D., Iannella, R., and P. Faltstrom, "Uniform Resource Names (URN) Namespace Definition Mechanisms", BCP 66, RFC 3406, October 2002.

8.2. Informative References

- [RFC2606] Eastlake, D. and A. Panitz, "Reserved Top Level DNS Names", BCP 32, RFC 2606, June 1999.
- [RFC6648] Saint-Andre, P., Crocker, D., and M. Nottingham, "Deprecating the "X-" Prefix and Similar Constructs in Application Protocols", BCP 178, RFC 6648, June 2012.

Appendix A. Acknowledgements

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