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## Uniform Resource Name (URN) Namespace Registration Transition

### Abstract

The original registration procedure for formal Uniform Resource Name (URN) namespaces required IETF Consensus. That requirement discouraged some registrations and increased the risk for problems that could occur as a result. The requirements have now been changed by RFC 8141, which adopts a different model, focusing on encouraging registration and publication of information for all appropriate namespaces. This document clarifies the status of relevant older RFCs and confirms and documents advice to IANA about selected existing registrations. This document also obsoletes RFCs 3044 and 3187 and moves them to Historic status. These RFCs describe the ISSN and ISBN namespaces, which are now outdated because the descriptions reside in registration templates.

### Status of This Memo

This is an Internet Standards Track document.

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## 1. Introduction

As a part of the initial development of the Uniform Resource Name (URN) system in the late 1990s, the IETF URN Working Group agreed that it was important to demonstrate that the URN syntax could accommodate existing identifier systems. RFC 2288 [RFC2288] showed the feasibility of using International Standard Book Number (ISBN), International Standard Serial Number (ISSN), and Serial Item and Contribution Identifier (SICI) [ANSI-SICI] as URNs; however, it did not formally register corresponding URN namespaces. This was in part due to the still-evolving process to formalize criteria for namespace definition documents and registration, consolidated later by the IETF into successive Namespace Definition Mechanism documents [RFC2611] [RFC3406].

URN namespaces were subsequently registered for ISBN [RFC3187] and ISSN [RFC3044] as well as for a fairly large collection of other identifiers including National Bibliography Number (NBN) [RFC3188]. The comprehensive list can be found in the IANA Uniform Resource Names (URN) Namespaces registry [IANA-URN] (see also Section 4).

While a URN namespace for SICI could be registered at any time, the SICI standard has not gained broad international acceptance and has not had a namespace defined to date.

The predecessor registration procedure for URN namespaces [RFC3406] required IETF Consensus for formal namespaces. That requirement discouraged some registrations and increased the risk for problems, including use of names without registration ("squatting"). If names are not registered in a consistent way, there is a possibility of the same name being used to identify different namespaces with different rules, resulting in considerable confusion. The requirements have now been changed in RFC 8141 [RFC8141] to adopt a different model that focuses more on encouraging registration of all namespaces that follow the formal namespace syntax, with as much information collected as possible consistent with that goal.

Therefore, this document does the following:

- o Describes the instructions developed with IANA to adapt selected existing registrations to the new model. Those registration updates have been completed for ISBN and ISSN Namespace Identifiers (NIDs) and URN namespaces.
- o Obsoletes the separate RFCs that specify the namespaces for ISSNs and ISBNs to eliminate any ambiguity about the status of new templates and updated registrations.

- o Provides information about the status of NBNs under the new definitions.
- o Provides suggestions to IANA about the handling of other existing registrations not explicitly discussed in this document.

## 2. Obsolete Older Registration RFCs for ISSNs and ISBNs

The existing RFCs that describe URN namespaces for ISSNs [RFC3044] and ISBNs [RFC3187] have been identified as "Historic" concurrent with publication of this document. The new registration templates for those namespaces have already been submitted and incorporated into the URN Namespaces registry by IANA.

Those updated templates reflect not only the new template formats but substantive changes to the definitions of the namespaces. The significant changes are summarized in the subsections that follow.

For both ISSN and ISBN namespaces, URN registration practices within them are expected to evolve along with the ISO ISBN and ISSN standards without requiring resubmission of the templates or other formal IETF or IANA URN namespace registration update approval procedures. The subsections that follow clarify the relationship between the original URN namespace registrations for ISBN and ISSN and the recently registered templates that follow the principles of RFC 8141. Approval and registration of those new templates made the older templates obsolete.

### 2.1. ISBN URN Changes

The revised ISBN namespace reflects the latest version of the ISO ISBN standard, ISO 2108:2017 [ISO-ISBN-b]. The namespace allows for the use of both the old ten-character ISBN numbers described in RFC 3187 and ISO 2108:1992 [ISO-ISBN-a] (formerly known as ISBN-10) and the thirteen-character identifiers introduced in ISO 2108:2005 [ISO-ISBN-c] (formerly known as ISBN-13).

For more details, review the new ISBN registration template and associated documentation [ISBN-Template].

### 2.2. ISSN URN Changes

The updated ISSN namespace reflects the changes between the current ISSN standard [ISO-ISSN] and its predecessor on which RFC 3044 was based. ISO 3297:2007 introduced the linking ISSN (ISSN-L), which is designated for all media of a serial publication, irrespective of how many there are. Traditional ISSN applies to a single medium only, such as the printed version of a serial.

For more details, review the new ISSN registration template and associated documentation [ISSN-Template].

### 3. The Older Registration RFC for NBNs

NBN is not a formal international standard or even a single identifier system but an umbrella concept that covers all of the identifier systems the adopting national libraries and their partners use to identify resources that do not have other identifiers. For instance, if a book received via legal deposit does not have an ISBN, the national library gives it a local identifier. The NBN specification provides a simple means of expressing these local identifiers so that they become globally unique URNs, such as `urn:nbn:fi-fe19981001`.

In addition to the namespace registration itself, RFC 3188 provides some generic information about NBNs and their use and specifies the syntax of URN:NBNs. That syntax guarantees uniqueness by requiring the usage of country codes and institutional identifiers as a part of the Namespace Specific String (NSS). When RFC 3188 is revised, it should be accompanied with a template that revises the registration of the URN:NBN namespace.

### 4. Other Existing URN Registrations and RFCs

The RFC Series and the IANA URN Namespaces registry contain many URN namespace registrations in addition to those for which this document calls out explicit actions. In general, those existing registrations are still appropriate but omit some information called for in RFC 8141 [RFC8141]. Reregistration with new templates is recommended but not required. Until and unless those registrations are updated as provided for in RFC 8141, the existing registration templates should be read as not requiring or allowing any features that were not allowed and specified by the earlier URN [RFC2141] and registration [RFC3406] specifications.

### 5. Registration Examples

For examples of registrations using the new model and for information and help in understanding other parts of this document, review the new ISBN and ISSN registration templates [ISBN-Template] [ISSN-Template] and associated documentation in the IANA URN Namespaces registry.

## 6. IANA Considerations

IANA has completed updates for the registry entries for URN ISSN and ISBN namespaces to reflect the new templates that are compliant with RFC 8141. With respect to namespaces other than those listed above, when registrations and templates are available that conform to the newer rules, they may be substituted for the older ones. However, neither this document nor RFC 8141 supersedes any existing registrations (those for ISBN and ISSN are superseded by the recently registered templates). Therefore, IANA needs to be prepared to maintain a registry whose contents reflect old-style templates for some namespaces and the newer ones for others.

IANA should also note that the portions of the ISBN and ISSN registrations that point to ISO Standards are intended to identify current versions (which may change) rather than only the versions that are active at the time this document is approved (see Section 2). That provision relies on ISO TC 46 and its respective registration authorities to maintain stability of URN references discussed in this document.

## 7. Security Considerations

While particular URN namespaces and their registrations might conceivably have security implications, this specification merely specifies a transition of a set of namespace registrations and does not have such implications. The security implications associated with particular namespaces are expected to be listed in registration templates as specified in RFC 8141.

## 8. References

### 8.1. Normative References

[RFC8141] Saint-Andre, P. and J. Klensin, "Uniform Resource Names (URNs)", RFC 8141, DOI 10.17487/RFC8141, April 2017, <<https://www.rfc-editor.org/info/rfc8141>>.

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- [RFC3406] Daigle, L., van Gulik, D., Iannella, R., and P. Faltstrom, "Uniform Resource Names (URN) Namespace Definition Mechanisms", RFC 3406, DOI 10.17487/RFC3406, October 2002, <<https://www.rfc-editor.org/info/rfc3406>>.

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## Contributors

Alfred Hoenes was the editor and co-author of two of the documents from which this one is, in part, derived. This document would not have been possible without his contributions.



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