Registration Procedures for URL Scheme Names

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Abstract

   This document defines the process by which new URL schemes are
   registered.

1.0 Introduction

   A Uniform Resource Locator (URL) is a compact string representation
   of the location for a resource that is available via the Internet.
   RFC [URI-SYNTAX] defines the general syntax and semantics of URIs,
   and, by inclusion, URLs. URLs are designated by including a
   "scheme" and then a "scheme-specific part". Many URL schemes are
   already defined, however, new schemes may need to be defined in the
   future in order to accommodate new Internet protocols and/or
   procedures.

   A registration process is needed to ensure that the names of all

such new schemes are guaranteed not to collide. Further, the
registration process ensures that URL schemes intended for wide
spread, public use are developed in an orderly, well-specified,
and public manner.

This document defines registration procedures which use the Internet
Assigned Numbers Authority (IANA) as a central registry for such URL
scheme names and the IETF RFC mechanism for scheme review, where
appropriate.

2.0 URL Scheme Name Registration

Registration of a new URL scheme name starts with the construction
of a registration proposal. Registration may occur in several
different registration trees, which have different requirements as
discussed below. In general, the new registration proposal is
circulated and reviewed in a fashion appropriate to the tree
involved. The URL scheme name is then registered if the proposal is
acceptable. The following sections describe the requirements and
procedures used for each of the different registration trees.

2.1. Registration Trees and URL Schemes

In order to increase the efficiency and flexibility of the
registration process, three different formats of URL scheme names
may be registered. The registration requirements for each format
differ allowing the registration procedure to accommodate the
different natural requirements for URL schemes. For example, a
scheme that will be recommended for wide support and implementation
by the Internet Community requires a more complete review than a
scheme that is used with resources associated with proprietary
software. The following subsections define registration "trees" and
the associated URL scheme name formats available at this time. Note
that some URL schemes defined prior to this document do not conform
to the naming conventions described below. See Appendix A for a
discussion of those schemes.

2.1.1. IETF Tree

The IETF tree is intended for URL schemes of general interest to the
Internet Community. Registration in the IETF tree requires approval
by the IESG and publication of the URL scheme syntax and semantics
as some form of RFC, usually a standards track RFC.

URL scheme names in the IETF tree are normally denoted by names that
are not explicitly faceted, i.e., do not contain period (".")
characters.

The "owner" of a URL scheme name registration in the IETF tree is

assumed to be the IETF itself. Modification or alteration of the
specification requires the same level of processing (e.g. standards
track) as required for the initial registration.

[2.1.2](). Vendor Tree

The vendor tree is used for URL schemes associated with commercially
available products. "Vendor" or "producer" are construed as
equivalent and very broadly in this context.

A registration may be placed in the vendor tree by anyone who needs
to identify a scheme for (1) specifying the location of a resource
available via the Internet (2) which may be accessed using a
protocol for which there is not currently a URL scheme registered.
The registration formally belongs to the vendor or organization
registering the scheme name. Changes to the specification will be
made at their request, as discussed in subsequent sections.

Registrations in the vendor tree will be distinguished by the
leading facet "vnd.". That must be followed by an IANA-approved
designation of the producer's name, which is then followed by a URL
scheme name or product designation
(e.g., vnd.bigcompany.funnypictures).

While public exposure and review of URL scheme names to be
registered in the vendor tree is not required, using the ietf-types
list for review is strongly encouraged to improve the quality of
those specifications. Registrations in the vendor tree may be
submitted directly to the IANA.

[2.1.3](). Personal or Vanity Tree

Registrations for URL schemes created experimentally or as part of
products that are not distributed commercially may be registered in
the personal or vanity tree. The registrations are distinguished by
the leading facet "prs.".

The owner of "personal" registrations and associated specifications
is the person or entity making the registration, or one to whom
responsibility has been transferred as described below.

While public exposure and review of URL scheme names to be
registered in the personal tree is not required, using the
ietf-types list for review is strongly encouraged to improve the
quality of those specifications. Registrations in the personal tree
may be submitted directly to the IANA.

[2.1.4](). Additional Registration Trees

From time to time and as required by the community, the IANA may, with the advice and consent of the IESG, create new top-level registration trees. It is explicitly assumed that these trees may be created for external registration and management by well-known permanent bodies, such as scientific societies, for URL schemes specific to the sciences they cover. In general, the quality of review of specifications for one of these additional registration trees is expected to be equivalent to that which IETF would give to registrations in its own tree. Establishment of these new trees will be announced through RFC publication approved by the IESG.

2.2. Registration Requirements

URL scheme name registration proposals are all expected to conform to various requirements laid out in the following sections. Note that requirement specifics sometimes vary depending on the registration tree, again as detailed in the following sections.

2.2.1. Scheme Names

All new URL scheme names, regardless of registration tree, MUST conform to the syntax specified for scheme names in RFC [URI-SYNTAX].

2.2.2. URL Syntax

All new URL schemes registered in the IETF tree, MUST conform to the generic syntax for URLs as specified in RFC [URI-SYNTAX]. URL schemes registered in the vendor and personal trees are encouraged to conform to the generic syntax but are not required to do so in order to be registered.

All new URL schemes should follow the Guidelines for URL Schemes, set forth in RFC [URL-GUIDELINES].

2.2.3. Security Requirements

An analysis of the security issues inherent in the new URL scheme is required for all registrations in the IETF tree. (This is in accordance with the basic requirements for all IETF protocols.) A similar analysis for schemes registered in the vendor or personal trees is encouraged but not required. However, regardless of what security analysis has or has not been done, all descriptions of security issues must be as accurate as possible regardless of registration tree. In particular, a statement that there are "no security issues associated with this scheme" must not be confused with "the security issues associates with this scheme have not been assessed".

There is absolutely no requirement that URL schemes registered in
any tree be secure or completely free from risks. Nevertheless, all
known security risks must be identified in the registration of a URL
scheme name, again regardless of registration tree.

The security considerations section of all registrations is subject
to continuing evaluation and modification, and in particular may be
extended by use of the "comments on URL scheme name" mechanism
described in subsequent sections.

2.2.4. Publication Requirements

Proposals for URL schemes registered in the IETF tree must be
published as RFCs. RFC publication of vendor and personal URL
schemes is encouraged but not required. In all cases IANA will
retain copies of all URL scheme proposals and "publish" them as part
of the URL scheme names registration tree itself.

Other than in the IETF tree, the registration of a URL scheme name
does not imply endorsement, approval, or recommendation by IANA or
IETF or even certification that the specification is adequate. To
become Internet Standards, protocol, data objects, or whatever must
go through the IETF standards process. This is too difficult and
too lengthy a process for the convenient registration of URL scheme
names.

The IETF tree exists for URL schemes that do require a substantive
review and approval process with the vendor and personal trees exist
for those that do not. It is expected that applicability statements
for particular applications will be published from time to time that
recommend implementation of, and support for, URL schemes that have
proven particularly useful in those contexts.

As discussed above, registration of a top-level type requires
standards-track processing and, hence, RFC publication.

2.3. Registration Procedure

The following procedure has been implemented by the IANA for review
and approval of new URL scheme names. This is not a formal
standards process, but rather an administrative procedure intended
to allow community comment and sanity checking without excessive
time delay. For registration in the IETF tree, the normal IETF
processes should be followed, treating posting of an internet-draft
and announcement on the ietf-types list (as described in the next
subsection) as a first step. For registrations in the vendor or
personal tree, the initial review step described below may be
omitted and the URL scheme name may be registered directly by
submitting the template and an explanation directly to IANA (at

iana@iana.org). However, authors of vendor or personal URL scheme specifications are encouraged to seek community review and comment whenever that is feasible.

2.3.1. Present the URL Scheme Name to the Community for Review

Send a proposed URL scheme name registration to the "ietf-types@iana.org" mailing list for a two week review period. This mailing list has been established for the purpose of reviewing proposed URL schemes. URL scheme names proposed to this mailing list are not formally registered and should not be used until the registration procedure is complete.

The intent of the public posting is to solicit comments and feedback on the choice of scheme name, the syntax and semantics of the scheme, and a review of any interoperability or security considerations. The submitter may submit a revised registration, or withdraw the registration completely, at any time.

2.3.2. IESG Approval

URL scheme names registered in the IETF tree must be submitted to the IESG for approval.

2.3.3. IANA Registration

Provided that the URL scheme name meets the requirements for URL scheme names and has obtained approval that is necessary, the author may submit the registration request to the IANA, which will register the scheme name and make the URL scheme name registration available to the community.

2.4. Comments on URL Scheme Name Registrations

Comments on registered URL scheme names may be submitted by members of the community to IANA. These comments will be passed on to the "owner" of the URL scheme name if possible. Submitters of comments may request that their comment be attached to the URL scheme name registration itself, and if IANA approves of this the comment will be made accessible in conjunction with the scheme name registration itself.

2.5. Location of Registered URL Scheme Name List

URL scheme name registrations will be posted in the anonymous FTP directory "ftp://ftp.isi.edu/in-notes/iana/assignments/URL-scheme-names/" and

all registered URL scheme names will be listed in the periodically
issued "Assigned Numbers" RFC [currently STD 2, RFC 1700]. The
scheme syntax and semantics description and other supporting
material may also be published as an Informational RFC by sending it
to "rfc-editor@isi.edu" (please follow the instructions to RFC
authors [RFC-1543]).

2.6. IANA Procedures for Registering URL scheme names

The IANA will only register URL scheme names in the IETF tree in
response to a communication from the IESG stating that a given
registration has been approved. Vendor and personal types will be
registered by the IANA automatically and without any formal review
as long as the following minimal conditions are met:

   o Security considerations
   o TBD

2.7. Change Control

Once a URL scheme name has been published by IANA, the author may
request a change to its definition. The descriptions of the
different registration trees above designate the "owners" of each
type of registration. The change request follows the same procedure
as the registration request:

 (1)   Publish the revised template on the ietf-types list.

 (2)   Leave at least two weeks for comments.

 (3)   Publish using IANA after formal review if required.

Changes should be requested only when there are serious omission or
errors in the published specification. When review is required, a
change request may be denied if it renders entities that were valid
under the previous definition invalid under the new definition.

The owner of a URL scheme registration may pass responsibility for
the registration to another person or agency by informing IANA and
the ietf-types list; this can be done without discussion or review.

The IESG may reassign responsibility for a URL scheme name. The most
common case of this will be to enable changes to be made to schemes
where the author of the registration has died, moved out of contact
or is otherwise unable to make changes that are important to the
community.

URL scheme name registrations may not be deleted; URL scheme names
which are no longer believed appropriate for use can be declared
OBSOLETE by a change to their "intended use" field; such URL scheme

names will be clearly marked in the lists published by IANA.

[2.8]. Registration Template

```
To: ietf-types@iana.org
Subject: Registration of URL Scheme Name XXX

URL Scheme Name:

Security considerations:

Interoperability considerations:

Published specification:

Applications which use this URL scheme name:

Additional information:

Person & email address to contact for further information:

Intended usage:

(One of COMMON, LIMITED USE or OBSOLETE)

Author/Change controller:

(Any other information that the author deems interesting may be
added below this line.)
```

[3.0] Security Considerations

Information that creates or updates a registration needs to be
authenticated.

Information concerning possible security vulnerabilities of a
protocol may change over time. Consequently, claims as to the
security properties of a registered URL scheme may change as well.
As new vulnerabilities are discovered, information about such
vulnerabilities may need to be attached to existing registrations,
so that users are not misled as to the true security properties of a
registered URL scheme.

Delegations of a name space should only be assigned to someone with
adequate security.

[4.0] References

RFC [URI-SYNTAX]

RFC [URL-GUIDELINES]

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Appendix A -- Grandfathered URL Scheme Names

A number of URL scheme names, in use prior to 1998, would, if
registered under the guidelines in this document, be placed into
either the vendor or personal trees.   Re-registration of those
types to reflect the appropriate trees is encouraged, but not
required. Ownership and change control principles outlined in this
document apply to those types as if they had been registered in the
trees described above.