A Registry for HTTP Header Fields
draft-nottingham-httpbis-header-registry-00

Abstract

   This document defines a separate IANA registry for HTTP header
   fields, and establishes the procedures for its operation.

Note to Readers

   The issues list for this draft can be found at
   https://github.com/mnot/I-D/labels/httpbis-header-registry [1].

   The most recent (often, unpublished) draft is at
   https://mnot.github.io/I-D/httpbis-header-registry/ [2].

   Recent changes are listed at https://github.com/mnot/I-D/commits/gh-
   pages/httpbis-header-registry [3].

Status of This Memo

   This Internet-Draft is submitted in full conformance with the
   provisions of BCP 78 and BCP 79.

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   Task Force (IETF). Note that other groups may also distribute
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   Internet-Drafts are draft documents valid for a maximum of six months
   and may be updated, replaced, or obsoleted by other documents at any
   time. It is inappropriate to use Internet-Drafts as reference
   material or to cite them other than as "work in progress."

   This Internet-Draft will expire on May 9, 2019.

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1. Introduction

   [RFC3864] established common IANA registries for header fields from a
   variety of protocols. Experience has shown that having a combined
   registry has few benefits, and creates a number of issues, including:

   o Difficulty in evolving the registration process (without
      coordination with other protocols),

   o Registry user confusion, due to the large number of header fields
      registered,

   o Using one expert to review all header field registrations is
      onerous to that individual,

   o Lack of HTTP community involvement / oversight in reviews.

   While these issues could be mitigated by a RFC3864bis, it is more
   straightforward to separate the HTTP registrations out into a
   separate registry; since there is only slight syntactic similarity
   between header fields between protocols (and often, the mismatches
   create confusion), and little semantic overlap, this seems like the
   best path forward.

Therefore, this document establishes a new HTTP Header Field
Registry, defines its procedures, and guides the transition of
existing values to it. Doing so effectively removes HTTP header
fields from the scope of [RFC3864] and the registries it defines, and
updates [RFC7231] Section 8.3 with a new process for managing them.

1.1. Notational Conventions

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

2. The HTTP Header Field Registry

The "Hypertext Transfer Protocol (HTTP) Header Field Registry"
defines the namespace for HTTP header fields (as per [RFC7230],
Section 3.2).

2.1. Requesting Registration

Any party can request registration of a HTTP header field. See
[RFC7231] Section 8.3.1 for considerations to take into account when
creating a new HTTP header field.

The "HTTP Header Field Name" registry is located at
"https://www.iana.org/assignments/http-headers/". Registration
requests can be made by following the instructions located there or
by sending an email to the "ietf-http-wg@ietf.org" mailing list.

Header field names are registered on the advice of a Designated
Expert (appointed by the IESG or their delegate). Header fields with
the status 'permanent' are Specification Required (using terminology
from [RFC8126]).

Registration requests consist of at least the following information:

o *Header field name*: The requested field name. It MUST conform to
   the field-name syntax defined in [RFC7230], Section 3.2, and
   SHOULD be restricted to just letters, digits, hyphen ('-') and
   underscore ('_') characters, with the first character being a
   letter.

o *Status*: "permanent" or "provisional"

o *Author/Change controller*: For a standards-track RFC, state
   "IETF". For other open standards, give the name of the publishing
   body (e.g., "W3C"). For other specifications, give the name and/

or organisation name and e-mail address of the primary
specification author.

o *Specification document(s)*: Reference to the document that
   specifies the header field, preferably including a URI that can be
   used to retrieve a copy of the document. An indication of the
   relevant section(s) can also be included, but is not required.

The Expert(s) can define additional fields to be collected in the
registry, in consultation with the community.

Standards-defined names have a status of "permanent". Other names
can also be registered as permanent, if the Expert(s) find that they
are in use, in consultation with the community. Other names should
be registered as "provisional".

Provisional entries can be removed by the Expert(s) if - in
consultation with the community - the Expert(s) find that they are
not in use. The Experts can change a provisional entry's status to
permanent at any time.

Note that names can be registered by third parties (including the
Expert(s)), if the Expert(s) determines that an unregistered name is
widely deployed and not likely to be registered in a timely manner
otherwise.

3. IANA Considerations

3.1. Registry Creation

IANA will create a new registry as outlined in Section 2.

After creating the registry, all entries in the Permanent and
Provisional Message Header Registries with the protocol 'http' are to
be moved to it, with the following changes applied:

1. The 'Applicable Protocol' field is to be omitted.

2. Entries with a status of 'standard', 'experimental', or
    'informational' are to have a status of 'permanent'.

3. Entries with a status of 'deprecated' are to have a status of
    'obsoleted'.

4. Provisional entries without a status are to have a status of
    'provisional'.

5. Permanent entries without a status (after confirmation that the
    registration document did not define one) will have a status of
    'provisional'. The Expert(s) can choose to update their status
    if there is evidence that another is more appropriate.

The Permanent and Provisional Message Header registries will be
annotated to indicate that HTTP header field registrations have
moved, with an appropriate link.

4. Security Considerations

No security considerations are introduced by this specification
beyond those already inherent in the use of HTTP header fields.

5. References

5.1. Normative References

[RFC2119]   Bradner, S., "Key words for use in RFCs to Indicate
            Requirement Levels", BCP 14, RFC 2119,
            DOI 10.17487/RFC2119, March 1997,
            <https://www.rfc-editor.org/info/rfc2119>.

[RFC7230]   Fielding, R., Ed. and J. Reschke, Ed., "Hypertext Transfer
            Protocol (HTTP/1.1): Message Syntax and Routing",
            RFC 7230, DOI 10.17487/RFC7230, June 2014,
            <https://www.rfc-editor.org/info/rfc7230>.

[RFC8126]   Cotton, M., Leiba, B., and T. Narten, "Guidelines for
            Writing an IANA Considerations Section in RFCs", BCP 26,
            RFC 8126, DOI 10.17487/RFC8126, June 2017,
            <https://www.rfc-editor.org/info/rfc8126>.

5.2. Informative References

[RFC3864]   Klyne, G., Nottingham, M., and J. Mogul, "Registration
            Procedures for Message Header Fields", BCP 90, RFC 3864,
            DOI 10.17487/RFC3864, September 2004,
            <https://www.rfc-editor.org/info/rfc3864>.

[RFC7231]   Fielding, R., Ed. and J. Reschke, Ed., "Hypertext Transfer
            Protocol (HTTP/1.1): Semantics and Content", RFC 7231,
            DOI 10.17487/RFC7231, June 2014,
            <https://www.rfc-editor.org/info/rfc7231>.

5.3. URIs

   [1] https://github.com/mnot/I-D/labels/httpbis-header-registry

   [2] https://mnot.github.io/I-D/httpbis-header-registry/

   [3] https://github.com/mnot/I-D/commits/gh-pages/httpbis-header-
        registry

Author's Address

   Mark Nottingham

   Email: mnot@mnot.net
   URI: https://www.mnot.net/