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RFC Streams, Headers, and Boilerplates

Abstract

RFC documents contain a number of fixed elements such as the title page header, standard boilerplates, and copyright/IPR statements. This document describes them and introduces some updates to reflect current usage and requirements of RFC publication. In particular, this updated structure is intended to communicate clearly the source of RFC creation and review. This document obsoletes RFC 5741, moving detailed content to an IAB web page and preparing for more flexible output formats.

Status of This Memo

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

This document is a product of the Internet Architecture Board (IAB) and represents information that the IAB has deemed valuable to provide for permanent record. It represents the consensus of the Internet Architecture Board (IAB). Documents approved for publication by the IAB are not a candidate for any level of Internet Standard; see 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/rfc7841.

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1. Introduction

Previously, RFCs (e.g., [RFC4844]) contained a number of elements that were there for historical, practical, and legal reasons. They also contained boilerplate material to clearly indicate the status of the document and possibly contained "Notes" to indicate how the document interacts with IETF Standards-Track documents.

As the RFC Series has evolved over the years, there has been increasing concern over appropriate labeling of the publications to make clear the status of each RFC and the status of the work it describes. Chiefly, there is a requirement that RFCs published as part of the IETF's review process not be easily confused with RFCs that may have had a very different review and approval process. Various adjustments have been made over the years, including evolving text of "Notes" included in the published RFC.

With the definition of the different RFC streams [RFC4844], it is appropriate to formalize the definition of the various pieces of standard RFC boilerplate and introduce some adjustments to ensure

better clarity of expression of document status, aligned with the review and approval processes defined for each stream.

This memo identifies and describes the common elements of RFC boilerplate structure. It describes the content required for each kind of information. Details of the exact textual and layout requirements are left to a web page maintained by the IAB, with due consultation with the community, for ease of maintenance. This document obsoletes [RFC5741].

The changes introduced by this memo should be implemented as soon as practically possible after the document has been approved for publication.

2. RFC Streams and Internet Standards

Users of RFCs should be aware that while all Internet Standards-related documents are published as RFCs, not all RFCs are Internet Standards-related documents.

The IETF is responsible for maintaining the Internet Standards Process, which includes the requirements for developing, reviewing, and approving Standards Track and BCP RFCs. The IETF also produces non-Standards-Track documents (Informational, Experimental, and Historic). All documents published as part of the IETF Stream are reviewed by the appropriate IETF bodies.

Documents published in streams other than the IETF stream are not generally reviewed by the IETF for such things as security, congestion control, or inappropriate interaction with deployed protocols. They have also not been subject to approval by the Internet Engineering Steering Group (IESG), including an IETF-wide last call. Therefore, the IETF disclaims, for any of the non-IETF stream documents, any knowledge of the fitness of those RFCs for any purpose.

Refer to [RFC2026], [RFC5742], [RFC4844], [RFC6410], and [RFC7127] and their successors for current details of the IETF process and RFC streams.

3. RFC Structural Elements

This section describes the elements that are commonly found in RFCs published today. This document specifies information that is required in these publications. Exact specification of the textual values required therein are provided by an IAB web page (https://www.iab.org/documents/headers-boilerplate).

As noted above, this web page is maintained by the IAB with due consultation with the community. Following such consultation, if the IAB decides to make any changes to this material, the changes will be announced in a similar fashion to other IAB statements. The initial text to be used in that web page is included in Appendix A.

3.1. The Title Page Header

The information at the front of the RFC includes the name and affiliation of the authors as well as the RFC publication month and year.

There is a set of additional information that is needed at the front of the RFC. Historically, this has been presented with the information below in a left hand column, and the author-related information described above in the right.

<document source> This describes the area where the work originates. Historically, all RFCs were labeled "Network Working Group". Network Working Group refers to the original version of today's IETF when people from the original set of ARPANET sites and whomever else was interested -- the meetings were open -- got together to discuss, design, and document proposed protocols [RFC3]. Here, we obsolete the term "Network Working Group" in order to indicate the originating stream.

The <document source> is the name of the RFC stream, as defined in [RFC4844] and its successors. At the time of this publication, the streams, and therefore the possible entries are:

* Internet Engineering Task Force
* Internet Architecture Board
* Internet Research Task Force
* Independent Submission

Request for Comments: <RFC number> This indicates the RFC number, assigned by the RFC Editor upon publication of the document. This element is unchanged.

<subseries ID> <subseries number> Some document categories are also labeled as a subseries of RFCs. These elements appear as appropriate for such categories, indicating the subseries and the documents number within that series. Currently, there are subseries for BCPs [RFC2026] and STDs [RFC1311]. These subseries numbers may appear in several RFCs. For example, when a new RFC obsoletes or updates an old one, the same subseries number is used. Also, several RFCs may be assigned the same subseries number: a single STD, for example, may be composed of several

RFCs, each of which will bear the same STD number. This element is unchanged.

[<RFC relation>:<RFC number[s]>] Some relations between RFCs in the series are explicitly noted in the RFC header. For example, a new RFC may update one or more earlier RFCs. Currently two relationships are defined: "Updates" and "Obsoletes" [RFC7322]. Variants like "Obsoleted by" are also used (e.g, in [RFC5143]). Other types of relationships may be defined by the RFC Editor and may appear in future RFCs.

Category: <category> This indicates the initial RFC document category of the publication. These are defined in [RFC2026]. Currently, this is always one of: Standards Track, Best Current Practice, Experimental, Informational, or Historic. This element is unchanged.

3.2. The Status of This Memo

The "Status of This Memo" describes the category of the RFC, including the distribution statement.

The "Status of This Memo" will start with a single sentence describing the status. It will also include a statement describing the stream-specific review of the material (which is stream dependent). This is an important component of status, insofar as it clarifies the breadth and depth of review, and gives the reader an understanding of how to consider its content.

3.3. Paragraph 1

The first paragraph of the "Status of This Memo" section contains a single sentence, clearly standing out. The sentence will clearly identify the stream-specific status of the document. The text to be used is defined by the stream, with a review for clarity by the IAB and RFC Series Editor.

3.4. Paragraph 2

The second paragraph of the "Status of This Memo" will include a paragraph describing the type of review and exposure the document has received. This is defined on a per-stream basis, subject to general review and oversight by the RFC Editor and IAB. The IAB defines a specific structure defined to ensure there is clarity about review processes and document types.

3.5. Paragraph 3

The boilerplate ends with a reference to where further relevant information can be found. This information may include, subject to the RFC Editor's discretion, information about whether the RFC has been updated or obsoleted, the RFC's origin, a listing of possible errata, information about how to provide feedback and suggestion, and information on how to submit errata as described in [ERRATA]. The exact wording and URL is subject to change (at the RFC Editor's discretion), but the current text is:

> 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/<static-path>/rfc<rfc-no>.

3.6. Noteworthy

Note that the text in paragraph 1 and 2 of the boilerplate indicate the initial status of a document. During their lifetime, documents can change status to, for example, Historic. This cannot be reflected in the document itself and will need be reflected in the information referred to in Section 5.

4. Additional Notes

Exceptionally, a review and publication process may prescribe additional notes that will appear as labeled notes after the "Abstract".

This is no longer a common feature of recent RFCs. It is the goal of this document to continue to ensure that the overall RFC structure is adequately clear so that such notes are unnecessary or (at least) truly exceptional.

5. Other Structural Information in RFCs

RFCs contain other structural informational elements. The RFC Editor is responsible for the positioning and layout of these structural elements. Note also that new elements may be introduced or obsoleted using a process consistent with [RFC4844]. These additions may or may not require documentation in an RFC.

Currently, the following structural information is available in RFCs:

Copyright Notice: A copyright notice with a reference to BCP 78 [BCP78] and an Intellectual Property statement referring to BCP 78 and BCP 79 [BCP79]. The content of these statements are defined by those BCPs.

ISSN: The International Standard Serial Number [ISO.3297.2007]: ISSN 2070-1721. The ISSN uniquely identifies the RFC series as title regardless of language or country in which it is published. The ISSN itself has no significance other than the unique identification of a serial publication.

6. Security Considerations

This document tries to clarify the descriptions of the status of an RFC. Misunderstanding the status of a memo could cause interoperability problems, hence security and stability problems.

7. RFC Editor Considerations

The RFC Editor is responsible for maintaining the consistency of the RFC series. To that end, the RFC Editor maintains an "RFC Style Guide" [RFC7322]. In this memo, we mention a few explicit structural elements that the RFC Editor needs to maintain. The conventions for the content and use of all current and future elements are documented in the style guide.

Adding a reference to the stream in the header of RFCs is only one method for clarifying from which stream an RFC originated. The RFC Editor is encouraged to add such indication in, for example, indices and interfaces.

8. References

8.1. Normative References

[RFC2026] Bradner, S., "The Internet Standards Process -- Revision 3", BCP 9, RFC 2026, DOI 10.17487/RFC2026, October 1996, <http://www.rfc-editor.org/info/rfc2026>.

[RFC5742] Alvestrand, H. and R. Housley, "IESG Procedures for Handling of Independent and IRTF Stream Submissions", BCP 92, RFC 5742, DOI 10.17487/RFC5742, December 2009, <http://www.rfc-editor.org/info/rfc5742>.

8.2. Informative References

[ISO.3297.2007] Technical Committee ISO/TC 46, Information and documentation, Subcommittee SC 9, Identification and description., "Information and documentation - International standard serial number (ISSN)", ISO Standard 3297, 09 2007.

[RFC3] Crocker, S., "Documentation conventions", RFC 3, DOI 10.17487/RFC0003, April 1969, <http://www.rfc-editor.org/info/rfc3>.

[RFC1311] Postel, J., "Introduction to the STD Notes", RFC 1311, DOI 10.17487/RFC1311, March 1992, <http://www.rfc-editor.org/info/rfc1311>.

[RFC4844] Daigle, L., Ed. and Internet Architecture Board, "The RFC Series and RFC Editor", RFC 4844, DOI 10.17487/RFC4844, July 2007, <http://www.rfc-editor.org/info/rfc4844>.

[RFC5143] Malis, A., Brayley, J., Shirron, J., Martini, L., and S. Vogelsang, "Synchronous Optical Network/Synchronous Digital Hierarchy (SONET/SDH) Circuit Emulation Service over MPLS (CEM) Encapsulation", RFC 5143, DOI 10.17487/RFC5143, February 2008, <http://www.rfc-editor.org/info/rfc5143>.

[RFC5741] Daigle, L., Ed., Kolkman, O., Ed., and IAB, "RFC Streams, Headers, and Boilerplates", RFC 5741, DOI 10.17487/RFC5741, December 2009, <http://www.rfc-editor.org/info/rfc5741>.

[RFC6410] Housley, R., Crocker, D., and E. Burger, "Reducing the Standards Track to Two Maturity Levels", BCP 9, RFC 6410, DOI 10.17487/RFC6410, October 2011, <http://www.rfc-editor.org/info/rfc6410>.

[RFC7127] Kolkman, O., Bradner, S., and S. Turner, "Characterization of Proposed Standards", BCP 9, RFC 7127, DOI 10.17487/RFC7127, January 2014, <http://www.rfc-editor.org/info/rfc7127>.

[RFC7322] Flanagan, H. and S. Ginoza, "RFC Style Guide", RFC 7322, DOI 10.17487/RFC7322, September 2014, <http://www.rfc-editor.org/info/rfc7322>.

[ERRATA] Hagens, A., Ginoza, S., and R. Braden, "RFC Editor Proposal for Handling RFC Errata", Work in Progress, draft-rfc-editor-errata-process-02, May 2008.

[BCP78] Bradner, S., Ed. and J. Contreras, Ed., "Rights Contributors Provide to the IETF Trust", BCP 78, RFC 5378, November 2008, <http://www.rfc-editor.org/info/bcp78>.

[BCP79] Bradner, S., Ed., "Intellectual Property Rights in IETF Technology", BCP 79, RFC 3979, DOI 10.17487/RFC3979, March 2005.

Narten, T., "Clarification of the Third Party Disclosure Procedure in RFC 3979", BCP 79, RFC 4879, DOI 10.17487/RFC4879, April 2007.

<http://www.rfc-editor.org/info/bcp79>

Appendix A. Initial Formatting Details

This section contains the text the IAB used to initially populate the web page used to maintain the list of required verbiage.

A.1. RFC Title Page Header

An RFC title page header can be described as follows:

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------------------------------------------------------------------------
<document source>                                        <author name>
Request for Comments: <RFC number>                [<author affiliation>]
[<subseries ID> <subseries number>]    [more author info as appropriate]
[<RFC relation>:<RFC number[s]>]
Category: <category>
                                                          <month year>

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For example, the header for RFC 6410 appears as follows:

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Internet Engineering Task Force (IETF)                      R. Housley
Request for Comments: 6410                                Vigil Security
BCP: 9                                                       D. Crocker
Updates: 2026                                 Brandenburg InternetWorking
Category: Best Current Practice                               E. Burger
ISSN: 2070-1721                                     Georgetown University
                                                          October 2011

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A.2. Constructing a "Status of This Memo" Section

The following sections describe mandated text for use in specific parts of the "Status of This Memo" portion of an RFC. For convenience, the RFC Editor maintains example expansions of all permutations of the paragraphs described in this document (at the time of publication, at http://www.rfc-editor.org/materials/status-memos.txt). When in conflict, the following sections are authoritative.

A.2.1. First Paragraph

The following are the approved texts for use in the first paragraph of the "Status of This Memo" portion of an RFC. See Section 3.3 of RFC 7841.

For ’Standards Track’ documents: "This is an Internet Standards Track document."

For ’Best Current Practices’ documents: "This memo documents an Internet Best Current Practice."

For other categories "This document is not an Internet Standards Track specification; <it is published for other purposes>."

For Informational, Experimental, Historic, and future categories of RFCs, the RFC Editor will maintain an appropriate text for <it is published for other purposes>. Initial values are:

Informational: "it is published for informational purposes."

Historic: "it is published for the historical record."

Experimental: "it is published for examination, experimental implementation, and evaluation."

A.2.2. Second Paragraph

See Section 3.4 of RFC 7841.

The second paragraph may include some text that is specific to the initial document category. When a document is Experimental or Historic, the second paragraph opens with:

Experimental: "This document defines an Experimental Protocol for the Internet community."

Historic: "This document defines a Historic Document for the Internet community."

The text that follows is stream dependent -- these are initial values and may be updated by stream definition document updates and recorded by the IAB on the web page.

IETF Stream: "This document is a product of the Internet Engineering Task Force (IETF)."

If there has been an IETF consensus call per IETF process, this additional text should be added: "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)." If there has not been such a consensus call, then this simply reads: "It has been approved for publication by the Internet Engineering Steering Group (IESG)."

IAB Stream: "This document is a product of the Internet Architecture Board (IAB), and represents information that the IAB has deemed valuable to provide for permanent record."

If the document represents IAB consensus, this additional text should be added: "It represents the consensus of the Internet Architecture Board (IAB)."

IRTF Stream: "This document is a product of the Internet Research Task Force (IRTF). The IRTF publishes the results of Internet-related research and development activities. These results might not be suitable for deployment."

In addition, a sentence indicating the consensus base within the IRTF may be added: "This RFC represents the consensus of the <insert_name> Research Group of the Internet Research Task Force (IRTF)." or alternatively "This RFC represents the individual opinion(s) of one or more members of the <insert_name> Research Group of the Internet Research Task Force (IRTF)".

Independent Submission Stream: "This is a contribution to the RFC Series, independently of any other RFC stream. The RFC Editor has chosen to publish this document at its discretion and makes no statement about its value for implementation or deployment."

For non-IETF stream documents, a reference to Section 2 of this RFC is added with the following sentence: "Documents approved for publication by the [stream approver -- currently, one of: "IAB", "IRSG", or "RFC Editor"] are not a candidate for any level of Internet Standard; see Section 2 of RFC 7841."

For IETF stream documents, a similar reference is added: "Further information on (BCPs or Internet Standards) is available in Section 2 of RFC 7841." for BCP and Standard Track documents; "Not all documents approved by the IESG are a candidate for any level of Internet Standards; see Section 2 of RFC 7841." for all other categories.

A.2.3. Third Paragraph

See Section 3.5 of RFC 7841.

IAB Members at Time of Approval

The IAB members at the time this memo was approved were (in alphabetical order):

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Various people have made suggestions that improved the document. Among them are: Lars Eggert, Alfred Hoenes, and Joe Touch.

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