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# STD Numbers and the IETF Standards Track
## draft-klensin-std-numbers-03

Abstract

STD numbers are assigned to IETF Standards Track specifications in order to provide a stable reference even when RFCs are revised and the underlying documents change. However, the numbers are only assigned when the specifications reach Internet Standard maturity level, significantly reducing their utility in the contemporary world in which few specifications advance beyond the first standardization maturity level. For that reason, one proposal, more than a decade ago, suggested eliminating the numbers entirely. Others, including more recent ones, have suggested eliminating maturity levels entirely, in part as a way to solve the numbering problem. This document argues that stable references for Standards Track specifications are actually useful and that the solution is not to abolish the numbers or maturity levels but to change the point at which they are assigned.

Note

This note is to be removed before publishing as an RFC.

With the exception of date, file name info, updated references, this note, a bit of (still incomplete) updating to reflect current conventions, and some reorganization to take advantage of RFCXMLv3 norms, the current version of this document is substantially identical to draft-klensin-std-numbers-02, posted 1 July 2018. If it is to go anywhere, it will need more cosmetic work.

That 2018 version, in turn, was, with similar corrections for naming and I-D conventions, identical to draft-klensin-std-numbers-01, posted on 14 February 2011. In particular, the discussions of XML2RFC (now RFCXML) capabilities has not been updated to reflect new definitions and tools and terms like "recent" may need to be interpreted in the 2011 context. The draft is provided for the convenience of discussion during the "Gendispatch" BOF at IETF 124 in support of the hypothesis that, if the assignment of STD numbers only to Internet Standards is a problem, simply assigning those number to RFCs at lower maturity levels would be a far less painful process

than eliminating the concept of maturity levels and everything that would require in terms of adjustments to tools, metadata, descriptions of the IETF process, and so on.

## Status of This Memo



## Copyright Notice



## Table of Contents

STD numbers [1] are assigned to IETF Standards Track specifications in order to provide a stable reference even when RFCs are revised and the underlying documents change. However, as specified in BCP 9 [1], the numbers are only assigned when the specifications reach Full Standard maturity level, significantly reducing their utility in the contemporary world in which few specifications advance beyond the first ("Proposed") standardization level. For that reason, an early version of one recent proposal suggested eliminating the numbers entirely. The more recent version, approved and published as RFC 6410 [4], leaves the question open, but poses the question as a choice between elimination of the STD numbers and retaining the current system.

This document argues that stable references for Standards Track specifications are actually useful and that the solution is neither to abolish the numbers nor to retain the assignment only to Full Standards specified in RFC 2026, but to change the point at which they are assigned.

We note that similar stable references have proven to be very useful in the BCP case and that changes to the RFCXML vocabulary [5] in recent years, such as the addition of the <referencegroup> element, facilitate references to documents that are part of a numbered set.

## 2. Proposal

### 2.1. Changes to RFC 2026

Update RFC 2026, BCP 9, as follows:

Section 2.1, paragraph 5

Change: "Some RFCs document Internet Standards"

To: "Some RFCs document IETF Standards at various maturity lavels".

Change the note: "(see section 4.1.3)"

To: "(see Section 4)"

Section 4

Add a new paragraph after the first paragraph of this section ("Specifications that are intended to become...") that reads:

> A specification that reaches the status of Proposed Standard is assigned a number in the STD series. It retains that STD number as it progresses along the Standards Track (that progression usually involves a change in RFC numbers). The STD number is also retained when the relevant protocol is updated or replaced for other reasons (see [2]).

Section 4.1.3
: Remove the second paragraph, which begins "A specification that reaches..."

## 2.2. RFC 1311 Changes

Informally, this document also updates the Informational RFC 1311 to make it refer to all Standards Track documents. It may be useful to replace RFC 1311 at some point, but that should not be a high-priority task, nor should it block approval of the change suggested in this document.

2026 Note: If we believe that RFC 1311 has been adequately replaced by the current description of IETF processes and the RFC Series on IETF web pages, it may be appropriate to drop this subsection (and ask the IETF to declare 1311 as Historic) and/or to suggest an update to those web pages.

# 3. Transition

STD numbers are useful for documentation and other references. Whether they are assigned or not does not change the actual status of any given document. STD numbers have historically been assigned by the RFC Editor and this document does not propose to change that responsibility (even though, in the current multi-stream model for RFCs, having them assigned by the Secretariat or RFC Production Center under IESG supervision might make more sense). In the interest of avoiding both heavyweight processes and the need for a period of concentrated effort, STD numbers will be assigned only when:

1. A new Standards Track specification is published, at any maturity level.

2. An update or replacement is published for a Standards track specification for which an STD number has not already been assigned, specifically including changes or grade or recycling in grade. Authors, WGs, or ADs responsible for such specifications are strongly encouraged to supply the RFC Editor with any desired grouping information, i.e., the identification of specifications that should also be assigned the same STD number.

3. On the request of any Area Director who concludes that assignment of an STD number to a particular specification or group of specifications would facilitate documentation, understanding of the specification, or other uses. Especially when the number is to be assigned to a group of specifications, Area Directors are encouraged to seek community input on the decisions being made, but neither such input nor a more formal Last Call are required by this document.

This transition approach explicitly recognizes the principle that STD numbers that would not be used need not be assigned and that not assigning them does no harm. It prefers a "when approved" approach for new specification and a "just in time" one for existing specifications.

## 4. Acknowledgements

This document is an intellectual descendant of a NEWTRK WG specification called "Identifying Standards Track Documents" [3]. It differs from that specification largely by suggesting an even lighter-weight transition process. The present work would not have been possible without those earlier discussions.

Posting of the current version was stimulated by an expected discussion of a document by Brian Carpenter titled "Some Anachronisms in IETF Standards Process Documents" during the GENDISPATCH session at IETF 124, a document that, once again, proposes elimination of maturity levels.

## 5. IANA Considerations

// RFC Editor: Please remove this section before publication.

This memo includes no requests to or actions for IANA.

## 6. Security Considerations

This document affects an IETF administrative procedure and has no direct effect on the Security of the Internet. However, better use of stable identifiers for Standards Track document and related groups of such documents may make critical information easier to find. That, may, in turn, have positive security implications.

## 7. References

### 7.1. Normative References

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

## 7.2. Informative References

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

[3] Klensin, J.C., "Identifying Standards Track Documents", 23 February 2006, <https://datatracker.ietf.org/doc/draft-ietf-newtrk-docid/>.

[4] 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, <https://www.rfc-editor.org/info/rfc6410>.

[5] IETF, "RFCXML vocabulary reference", March 2026, <https://authors.ietf.org/en/rfcxml-vocabulary>.

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