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Valuable Antique Documents: A Model for Advancement draft-klensin-newtrk-antiques-01.txt

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Abstract

RFC 2026 and some of its predecessors require that Proposed and Draft Standards either advance in grade within a reasonable period of time or that they expire and be moved to Historic. That procedure has never been followed on a systematic basis. A new procedure has been proposed that would make that action easier for protocols that have not gotten any real acceptance. In the interest of symmetry, fairness, and an orderly attic, it is worth noting that there are a number of protocol descriptions which have been at less than Full

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Standard level for a long time but which have proven their value by the traditional criteria of multiple interoperable implementations and wide deployment and use.

This document provides a procedure for upgrading such documents to Full Standards without creating an unreasonable burden on authors purely to meet the needs of procedural rituals or placing an unreasonable load on groups charged with performing other tasks in the IETF.

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1. Introduction and History

This document is intended to be read in conjunction with the proposal to use an "Historical Standards Committee" to make recommendations to the IESG for downgrading or progressing documents on the IETF standards track [1] and is probably meaningless in its present form unless that proposal is adopted. The difference between the two is that the cited document focuses on downgrading -- retiring of a document to Historic -- while this one focuses on getting documents advanced when they describe protocols that have already proven their value, i.e., are "mature".

That document notes that documents to retire descriptions of immature standards "require significant time and effort on the part of authors, area directors, and the RFC Editor" and that "no document should be required for an immature standard to be retired". Using much the same reasoning, we suggest that, in many or most cases, no document (or, at most, only trivial modifications, should be required to advance a fully-mature standard whose usefulness has been widely demonstrated.

If the proposal to generate a new set of Internet Standard Documents (ISDs) ([2]) is adopted, those documents could easily be used to perform the type of upgrading suggested here, or to describe why it was not appropriate for a given specification even if it was widely deployed.

Over the years, there have been many discussions in the IETF community about why documents never move beyond "Proposed" status even when they describe protocols that are obviously widely deployed and for which multiple interoperable implementations exist (see Section 2.4 of the IETF Problem Statement [4] for additional discussion). Many reasons have been suggested, but at least the following seem to be significant:

o Once a Proposed Standard protocol has been implemented and deployed, and the specification has proven, in practice, to be adequate to support multiple conforming implementations, it is often extremely difficult to stimulate authors to produce revisions to the description to advance it in grade. Even if the authors can be convinced to do so, that may not be in the best interest of the IETF community: authors and editors who might do the document upgrading work might better be doing work with real,

rather than procedural, impact.

o Similarly, over the years, IETF requirements for standards-track documents and standards-track protocols have steadily increased, with new sections and levels of detail being required that were not required when the documents for some of our proven, mature,

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standards were written. While most or all of those additional requirements are justified for new protocols, retroactively imposing burdensome additional documentation requirements on proven protocols has been another disincentive to advancement of those protocols.

o Even worse, from the standpoint of getting these documents advanced, there has been some history of second-guessing older protocols in the light of more recent thinking. Specifically, if an attempt is made to advance a protocol that has been deployed and established for years, the question may be asked by the IESG or others as to whether it would be designed the same way today. If the answer is "no", or even "probably not", the protocol has often been rejected for advancement.

This combination of circumstances sends a powerful message to authors, and that message is "do not even bother trying to advance the protocol".

2. Modified Advancement Model

The IETF community has long claimed to believe, not only in "rough consensus and running code", but in interoperable implementations and deployment. The procedure outlined below is based on the assumption that the basic functional requirements for Draft and Full Standard outlined in RFC 2026 [3] are, for mature, deployed, and proven protocols, more important than documentation "nits" or procedural rituals. The empirical observation that a protocol has been widely deployed and used for many years without significant harm being done to the Internet is, in that context, more important than an extensive theoretical presentation of scaling or security issues.

This model, and the specific suggestions that follow, depend critically on the community remembering and understanding that "Internet Standard" designates a protocol that is sufficiently specified to facilitate independent interoperable implementations, that is widely deployed, and that has been found significantly useful. It does not imply, and has never officially implied, that the protocol is either recommended or required: when we had those categories, they were considered orthogonal to standards track maturity levels.

It also depends critically on the community making the distinction between a mature, useful, and widely implemented and deployed protocol and a document of that protocol that may not be optimal under contemporary standards. It suggests that, for those cases, it is better to explicitly advance a protocol with a weak or incomplete specification than it is to pretend (even by omission) that the protocol is not, de facto, a Standard.

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3. Candidates for Advancement

The advancement procedure for mature standards has the following steps. These closely parallel the steps of [1] and are intended to use the same review process and committee (the "Historical Standards Committee" in that document, henceforth simply "the Committee" in this one). Having two separate bodies parse the collection of older standards track documents is almost certainly inefficient.

- o In the process of its investigations as to whether documents should be reclassified as Historic according to RFC 2026, the Committee may identify some documents as likely candidates for treatment as "mature standards". The definition of those standards is as described above, i.e., in spite of being officially at Proposed or Draft levels, they are widely accepted in the community, widely deployed, and appear to be the beneficiaries of independent implementations.
- o For each such RFC, the Committee sends out a message to the IETF list and the lists deemed relevant, asking for comments on implementation experience and active usage.
- o Unless those reports cause the Committee to determine that the standards are, in fact, not mature, it will treat each one as discussed in the next section.

4. Advancement of Individual Documents

While some other options are possible, and might be attractive, this document assumes that any advancement in grade will need to be considered individually and subjected to a formal IETF Last Call. The goal of the procedure outlined here is to avoid even more complicated procedures, time-consuming and frustrating document rewriting, etc., where possible.

To the three alternatives listed under "Individual Decommissioning Procedure" in [1], this document adds "Advancement of Grade". The intent is to move all "mature" standards to (full) Internet Standard unless there are significant and substantive reasons to not do so. Because of the requirements of RFC 2026, Proposed Standard documents for mature standards must be advanced in two steps, but the IESG is strongly encouraged to make the second of those steps completely proforma, with no change in the published RFC.

If the Committee recommends that a specification be advanced, and the community (as determined by the IESG) agrees, rewriting of the relevant RFC should be avoided to the extent possible. As suggested above, if the specification was good enough to support multiple independent implementations and wide deployment, then it is sufficient for an Internet Standard. If additional text is required,

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it should take the form of supplemental comments to be published either separately, e.g., as part of an update to the relevant Internet Standard Document (ISD) (see [2], or as an appendix to an otherwise substantially identical RFC. If the Committee and community determine that the protocol is mature, contemporary standards for documentation and specification shall not be applied retroactively.

The "Procedure" to be used is identical to that discussed in [1]. The "Evaluation Criteria" are those discussed above for determining whether or not a standard is mature. Put differently, those criteria are the ones listed for Internet Standard in RFC 2026, independent of judgments about document editorial quality.

5. RFC Boilerplate

This document explicitly contemplates the advancement to Internet Standard of documents that would not pass muster for Proposed if first written today. It also contemplates the publication, as part of advancement of other documents that, similarly, would not meet today's criteria. If RFCs actually need to be reissued, the RFC Editor and IESG are encouraged to work out a suitable "boilerplate" statement that indicates that the documents describe mature specifications designated as Internet Standards because they represent common and established practice rather than because the documents are of the quality expected today for such Standards. Of course, if the upgrade is done by producing or modifying ISD text, such special RFC boilerplate would not be necessary and any qualifying text could be placed in the ISD.

6. Selection of the Committee

Since this procedure is expected to use the same Committee as in [1], whatever selection mechanism is specified in that document and its successors will apply here as well.

7. Temporary Note to the Newtrk WG

[[Note in draft: this section to be removed before RFC publication, if the document gets that far.]]

While I didn't intend it when I agreed to write this draft, it became clear to me in doing so that, if viewed as an ongoing procedure rather than a one-time cleanup mechanism, it actually provides an alternate standards track mechanism. Viewed that way, we end up with the same maturity levels as in 2026, but two ways of getting past Proposed. One involves being very diligent about writing and upgrading documents, as 2026 more or less explicitly contemplates.

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The other involves producing Proposed Standard documents of sufficient quality to support interoperable implementations, getting them implemented and deployed widely enough to meet both the criteria for full Standard and a perhaps-somewhat-stronger standard of usefulness and then, after a period of time long enough to establish the specification as common practice, just promoting the documents as written. While some of the language above contemplates documents of the quality and content that was considered acceptable a decade or two ago going to full Standard essentially unchanged, more recent Proposed Standard documents would presumably be more complete and meet contemporary criteria, thereby requiring fewer disclaimers.

The document deliberately does not specify how elderly a document must be for this procedure to be invoked. While some guidelines might be possible and should be discussed, I am comfortable leaving that question to the discretion of the Committee, subject to the bounds set by RFC 2026.

8. Security Considerations

See [1] which doesn't seem to have one of these sections either :-)

Acknowledgements

This document arose out of a discussion of [1] that, in turn, led to this author's volunteering to put together an "advancement" discussion to match that one's downgrading. The contributors to that discussion, and especially the co-authors of the partner document (from whom many ideas and much text has been appropriated) are gratefully acknowledged, as are the useful discussions during IETF 60.

10. References

10.1 Normative References

[1] Alvestrand, H. and E. Lear, "Getting rid of the cruft: A procedure to deprecate old standards", <u>draft-alvestrand-newtrk-cruft-01</u> (work in progress), September 2004.

- [2] Klensin, J. and J. Loughney, "Internet Standards Documentation (ISDs)", draft-ietf-newtrk-repurposing-isd-00b (work in progress), September 2004.
- [3] Bradner, S., "The Internet Standards Process -- Revision 3", BCP 9, RFC 2026, October 1996.

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10.2 Informative References

[4] Davies, E., "IETF Problem Statement", RFC 3774, May 2004.

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