Network Working Group   A. Mankin
Request for Comments: 4714   S. Hayes
Category: Informational   Ericsson
                                                            October 2006

              Requirements for IETF Technical Publication Service

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   not specify an Internet standard of any kind. Distribution of this
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Abstract

   The work of the IETF is to discuss, develop, and disseminate
   technical specifications to support the Internet's operation.
   Technical publication is the process by which that output is
   disseminated to the community at large. As such, it is important to
   understand the requirements on the publication process.

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1. Introduction

   The work of the IETF is to discuss, develop, and disseminate
   technical specifications to support the Internet's operation.
   Therefore, an important output of the IETF is published technical
   specifications. The IETF technical publisher is responsible for the
   final steps in the production of the published technical
   specifications. This document sets forth requirements on the duties
   of the IETF technical publisher and how it interacts with the IETF in
   the production of those publications.

The term "technical specification" is used here purposefully to refer to the technical output of the IETF. This document does not engage in the debate about whether it is expressed as RFCs or otherwise, what "is" an RFC, how to classify them, etc. These issues are considered out of scope.

The intention of this document is to clarify the IETF's consensus on its requirements for its technical publication service. It is expected to be used in the preparation of future contracts. This document is not a discussion of how well the current technical publisher (the RFC Editor) fulfills those requirements.

2. Scope

The scope of this document is the requirements for the technical publication process for the IETF. Requirements on a technical publisher can be expressed in terms of both what tasks the IETF technical publisher is responsible for and performance targets the IETF technical publisher should meet. The functions provided by the technical publisher are sometimes referred to as editorial management [RFC2850].

This document specifically addresses those documents published by the IETF technical standards process. In all cases, the requirements have been written in generic terms, so that they may be used to express the requirements of other publication streams, elsewhere.

The list of potential technical publication tasks was derived by considering the tasks currently performed by the RFC Editor as well as the responsibilities of the technical publishers in other standards organizations including 3GPP, ATIS, ETSI, IEEE, and ITU.

This requirements document focuses on process issues in how the IETF technical publisher serves the IETF. There are related issues regarding non-technical aspects of document content that are not addressed in this requirements document. Issues not addressed in this document are:

o Policies governing the acceptable input and output document
   formats (including figures, etc.)

o Policies governing the acceptable character sets
   (internationalization)

o Policies governing the layout and style of published documents

o Policies governing the contents of non-technical sections
   (acknowledgement sections, reference classifications, etc.)

It is realized that the above policies are also important aspects in
determining that the final published document is a product of the
IETF. These policies are likely to evolve as part of the ongoing
IETF dialog. The IETF technical publisher should be part of the
discussions of these policies and be prepared to implement and
facilitate policy changes as they are determined by IETF consensus.
This requirement is captured under the discussion of process and
document evolution.

2.1. Stages in the Technical Specification Publication Lifetime

Figure 1 below provides a useful summary of where technical
publication falls in the current lifetime of a document in the IETF
standards process. This figure shows a Working Group (WG) document
and the reviews including Working Group Last Call (WGLC), Area
Director (AD) review, IETF Last Call (IETF LC), IANA review, and IESG
review. The document shepherd (shown in the diagram as "Shepherd")
is an individual designated by the IESG to shepherd a document
through the reviews and the publication process and is often not an
AD. The lifetime is very similar for AD-sponsored IETF documents,
such as documents that update IETF protocols for which there is no
longer a working group, or documents on interdisciplinary topics.

```
           Actors        Formal        Actors                  Actors
                         Reviews

        |  Author,     | WGLC      | IESG,        |    |    | IANA,
        |  Editor,     | AD        | Shepherd,    | A  |    | Tech
        |  IETF Sec-   | IETF LC   | Editor,      | P  |    | Publisher,
        |  retariat    | IANA      | WG,          | P  |    | input from
        |              | IESG      | AD           | R  |    | authors, et al.
        |              |           |              | O  |
Actions |  Creation,   |           | Resolution   | V  |    | Non-author
        |  Editing,    |           | of all       | A  |    | editing,
        |  Draft Pub,  |           | reviews      | L  |    | other
        |  Tracking    |           |              |    |    | publication

        |---------------| |---------------------| |---------------|

            In WG             Out of WG           Post-approval
```
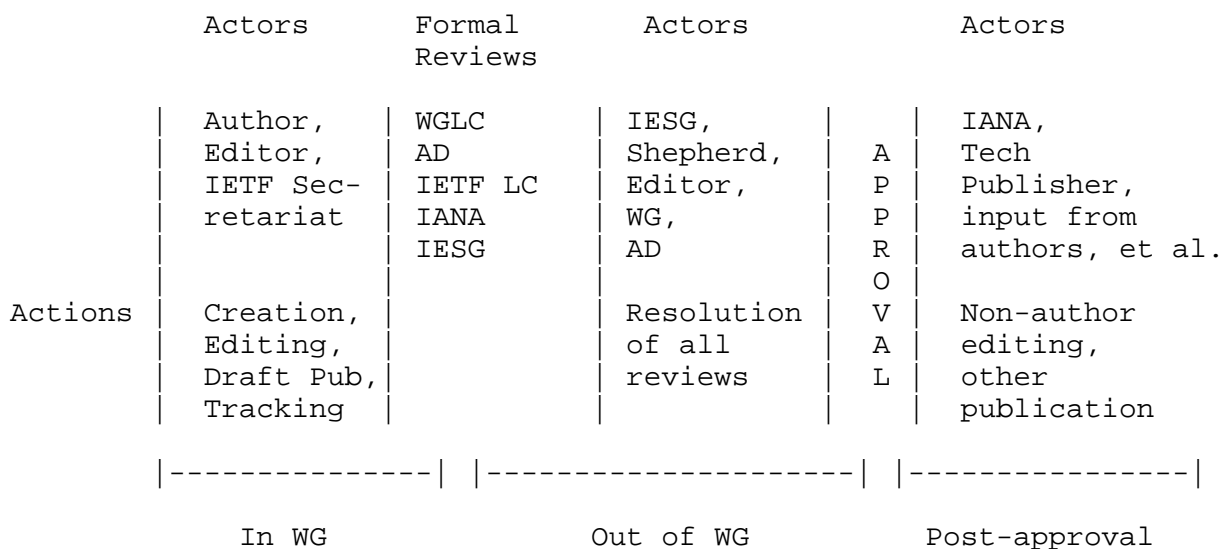
              Figure 1: Stages of a Working Group Document

Note that in some cases a single submission may actually consist of
multiple source documents (supporting files, code, etc.).

Under the IETF standards process stream, the post-approval processing
is initiated by the IESG after technical approval.

3. Technical Publication Tasks and Requirements

   Standards development organizations all have technical publication as
   part of their process. However, the boundaries between what is done
   by the technical committees and the technical publisher vary.

   The following are potential tasks of a technical publisher. The
   following list was derived after analyzing the technical publication
   policies of the IETF and other standards development organizations.

   1. Pre-approval review or editing

   2. Preliminary specification availability

   3. Post-approval editorial cleanup (non-author editing)

   4. Validation of references

   5. Validation of formal languages

   6. Insertion of parameter values

   7. Post-approval, pre-publication technical corrections

   8. Allocation of permanent stable identifiers

   9. Document format conversions

   10. Language translation

   11. Publication status tracking

   12. Expedited handling

   13. Exception handling

   14. Notification of publication

   15. Post-publication corrections (errata)

   16. Indexing: maintenance of the catalog

   17. Access to published documents

   18. Maintenance of a vocabulary document

   19. Providing publication statistics and status reports

   20. Process and document evolution

   21. Tutorial and help services

   22. Liaison and communication support

   For each of these tasks, we discuss its relevance to the IETF and how
   it is realized within the IETF processes. Based upon this
   information, we derive requirements on the IETF technical publisher.

3.1. Pre-approval Review or Editing

   Task Description: This provides a review or editing service to
   improve document quality prior to the approval of a document. This
   review process would normally address issues such as grammar,
   spelling, formatting, adherence to pre-approval boilerplate, document
   structure, etc.

   Discussion: Pre-approval review is not part of the current IETF
   standards process, but this concept has been explored in the early
   copyediting experiment. Early feedback from the experiment has been
   promising; however, the effectiveness of early editing is still being
   evaluated.

   Derived Requirements:

   Req-PREEDIT-1: The IETF technical publisher should be capable of
   performing an editorial review of documents early enough to allow
   changes to be reviewed within the technical review process, should
   the IETF choose to implement pre-approval editing. For the IETF
   standards process stream, this review should be performed before WG
   Last Call and provide feedback to the authors to improve the quality
   of the documents. For the IETF standards process stream, the
   publisher should not perform a technical review of the document.

3.2. Preliminary Specification Availability

   Task Description: Some standards organizations require their
   publisher to make available a preliminary version of a document (with
   appropriate caveats) to make the information available to the
   industry as early as possible. This document is provided "as is"
   after the approval. This document is withdrawn once the final
   document is published.

Discussion: This is not required. A final approved version is
available as an internet draft. If publication can take more than 6
months, it may be necessary to request that the draft version remains
available.

Derived Requirements: none

3.3. Post-approval Editorial Cleanup (Non-author Editing)

Task Description: Most technical publishers do an editorial review to
ensure the quality of published documents. Typically, this may
address issues such as grammar, spelling, readability, formatting,
adherence to boilerplate, document structure, etc. Since any
proposed changes occur after approval, a review and signoff mechanism
should usually be established to ensure that the required changes are
truly editorial. Since such changes occur outside of the normal
approval process, it is desirable that such changes are minimized.
Most standards organizations target "light" editing due to the
dangers of changing agreed-on text.

Discussion: Within the IETF, the RFC Editor does post-approval
cleanup review and editing. The ambition level for cleanup can vary
from:

o corrections to errors only,

o light rewriting,

o significant editing of documents with less skillful WG editors,
   and minimal editing when the WG editors were skilled, to

o rewriting of all documents to the dictates of a style manual.

At times in the past year, stylistic editing has resulted in a
substantial number of changes in many documents. These changes must
then be vetted by all the authors followed by subsequent rounds of
author acceptance and re-vetting. This can add up to a substantial
delay in the publication process, which must be weighed against the
incremental gain in communication improvement accomplished by the
cleanup.

Changes to improve readability (or possibly even grammar) can end up
inadvertently affecting consensus wording or technical meaning. Note
that pre-approval editing to some extent avoids this problem.

In specific instances, it may be necessary to require that text be
published "verbatim" even if doing so introduces what is perceived as

poor readability or stylistic inconsistency. Examples of this
include:

- "Boilerplate" agreed on in an IETF working group to apply to all
   instances of derivative works (e.g., IANA registration documents
   and Management Information Bases (MIBs)).

- Text referring to other organizations' work that has been
   carefully phrased and arranged with representatives of that other
   organization to deal with some politically sensitive issue.

If pre-approval editing or review is done, it may be possible to
reduce or even eliminate entirely the post-approval editing task in
some cases. Pre-approval editing may be more efficient since a
separate change control process is not required.

Derived Requirements:

o Req-POSTEDIT-1 - The IETF technical publisher should review the
   document for grammar, spelling, formatting, alignment with
   boilerplate, document structure, etc. The review should strive to
   maintain consistency in appearance with previously published
   documents. In the IETF standards process stream, the publisher
   should not perform a technical review of the document.

o Req-POSTEDIT-2 - All changes made to post-approval documents
   should be tracked and the changes must be signed off on by the
   appropriate technical representatives. For the IETF standards
   process stream, this includes the authors, the document shepherd
   (if there is one), and the Area Director. The Area Director is
   the authority for approval of all changes.

o Req-POSTEDIT-3 - The IETF technical publisher should exercise
   restraint in making stylistic changes that introduce a substantial
   review load but only provide an incremental increase in the
   clarity of the specification. Specific guidelines on the types of
   changes allowed may be further specified, but ultimately restraint
   in editing must be imposed by the IETF technical publisher.
   Changes for stylistic consistency should be done only when there
   are major problems with the quality of the document.

o Req-POSTEDIT-4 - The IETF technical publisher should exercise
   restraint in making changes to improve readability that may change
   technical and consensus wording. Specific guidelines on the types
   of changes allowed may be further specified, but ultimately
   restraint in editing must be imposed by the IETF technical
   publisher.

   o Req-POSTEDIT-5 - In specific instances, where some or all of
      document text is the result of a careful negotiation of
      contributions (within or between working groups, reviewers, etc.),
      the technical publisher may be required to publish that text
      verbatim. In the IETF standards process, verbatim publication may
      be requested by the IESG. It is the expectation of the IETF
      community that this will not be done often.

3.4. Validation of References

   Task Description: Most standards organizations require that normative
   references be publicly available. Some technical publishers verify
   the validity and availability of references (including referenced
   clauses and figures). Although some editorial cleanup of references
   may be obvious, the issue becomes more severe when reference links
   are broken, are not publicly available, or refer to obsoleted
   documents. Such faults may be viewed as a post-approval fault found
   in the document. Most publishers have the ability to put a document
   on hold awaiting the publication of a reference expected to be
   available soon.

   Discussion: The RFC Editor may put a document on hold while waiting
   for the availability of other IETF documents. Incorrect references
   are handled like any other fault detected in the editorial review.

   Derived Requirements:

   o Req-REFVAL-1 - The IETF technical publisher should ensure that all
      references within specifications are currently available and are
      expected to remain available.

   o Req-REFVAL-2 - The IETF technical publisher should delay
      publication until all required (normative) references are ready
      for publication.

3.5. Validation of Formal Languages

   Task Description: If the specification contains a formal language
   section (such as a MIB), the technical publisher may be required to
   validate this using a tool.

   Discussion: The RFC Editor syntactically validates sections of a
   document containing MIBs, Augmented Backus Naur Form (ABNF),
   eXtensible Markup Language (XML), Abstract Syntax Notation One
   (ASN.1), and possibly other formal languages.

Derived Requirements:

o Req-FORMALVAL-1 - The IETF technical publisher should validate the
   syntax of sections of documents containing formal languages. In
   particular, ASN.1, ABNF, and XML should be verified using
   appropriate tools.

3.6. Insertion of Parameter Values

Task Description: The technical publisher is expected to work with
IANA (or possibly other organizations maintaining registries) to
populate assigned protocol parameter values when required, prior to
publication. The population of these parameters values should not
require technical expertise by the technical publisher.

Discussion: Within the IETF, IANA normally does its allocations as an
early step in the technical publication process.

Derived Requirements:

o Req-PARAMEDIT-1 - The IETF technical publisher should work with
   IANA in the population of required parameter values into
   documents.

3.7. Post-approval, Pre-publication Technical Corrections

Task Description: Regardless of efforts to minimize their occurrence,
it is always possible that technical flaws will be discovered in the
window between document approval and publication. The technical
publisher may be requested to incorporate technical changes into the
document prior to publication. Such changes necessitate a review and
sign-off procedure. Another option is to disallow such corrections
and treat them as post-publication errata would be treated. Note
that this task is distinct from post-approval changes that might
originate due to editorial review because they originate from outside
the technical publisher. For severe flaws, it should always be
possible to withdraw the document from the publication queue (see
Section 3.13).

Discussion: The IETF allows minor technical corrections during the
publication process. This should ideally be a rare occurrence.
Since any changes introduced during the post-approval phase can lead
to publication delays, it is important that only changes with
technical merit be permitted. In particular, stylistic changes
should be discouraged. IETF processes must be in place to vet
changes proposed by the author, but this is not specifically a
requirement on the technical publisher.

The interaction between the authors and the technical publisher must
be sufficiently well policed that untracked and unapproved changes
cannot be introduced by the author or other parties.

Derived Requirements:

o Req-POSTCORR-1 - The IETF technical publisher should permit the
   incorporation of technical changes detected after approval but
   pre-publication.

o Req-POSTCORR-2 - The IETF technical publisher should only allow
   post-approval technical changes that have been approved by the
   appropriate party. In the IETF standards process stream, this
   includes the authors and the Area Director. The document shepherd
   (if there is one) should be kept informed of these changes.

o Req-POSTCORR-3 - The IETF technical publisher should alert the
   appropriate authority when it feels that a requested change is
   suspect (e.g., an unapproved technical alteration) or unreasonable
   (e.g., massive editorial changes). Further processing of the
   draft should be suspended pending a response by that authority.
   For the IETF standards process stream, that authority is the Area
   Director. If there is a document shepherd working with the Area
   Director, the shepherd should be notified and kept informed as
   well.

o Req-POSTCORR-4 - The IETF technical publisher should ensure that
   any source documents associated with a publication are updated in
   conjunction with their associated specifications.

3.8. Allocation of Permanent Stable Identifiers

   Task Description: For a document to be referenced, it must have a
   unique permanent identifier. In some standards organizations, it is
   the technical publisher that generates this identifier. In other
   cases, the identifier may be allocated earlier in the process.

   Discussion: Currently, the RFC Editor allocates RFC numbers and other
   identifiers (the current IETF stable identifiers) when the document
   is near the end of the publication process. Having identifiers
   allocated early was considered, but a definite need could not be
   established.

   Derived Requirements:

o Req-PERMID-1 - The IETF technical publisher should allocate stable
   identifiers as part of the publication process.

   o Req-PERMID-2 - The IETF technical publisher should assign
      additional permanent identifiers associated with various classes
      of documents as directed by the appropriate authority. For the
      IETF standards process stream, that authority is the IESG.

3.9. Document Format Conversions

   Task Description: The technical publisher is responsible for
   converting the documents into one or more output formats (e.g., text,
   Portable Document Format (PDF)). In some standards organizations,
   the technical publisher may be required to accept input documents in
   various formats and produce a homogeneous set of output documents.

   Discussion: Currently, the RFC Editor accepts input as an ASCII text
   file. The RFC Editor has also accepted supplementary formats that
   were used to generate the ASCII text (XML and NROFF). The documents
   are published as ASCII text and PDF files.

   Derived Requirements:

   o Req-DOCCONVERT-1 - The IETF technical publisher should accept as
      input ASCII text files and publish documents as ASCII text files
      and PDF files.

   o Req-DOCCONVERT-2 - The technical publisher should accept
      supplemental files that may contain information such as code,
      formal descriptions (e.g., XML, ASN.1) graphics, data files, etc.
      Supplemental files may also include enhanced versions of the
      document containing graphics or sections not presentable in text
      format. Any supplemental files, barring any changes to the IETF
      process rules, will be associated with the published IETF
      documents, but may not be editable by the publisher.

3.10. Language Translation

   Task Description: Some standards organizations require publication of
   documents in multiple languages. This translation is the
   responsibility of the technical publisher.

   Discussion: IETF specifications are published only in English.

   Derived Requirements: none

3.11. Publication Status Tracking

   Task Description: The technical publisher should have the ability to
   provide status information on the status of a document. This may
   involve developing a process model or a checklist and providing

information on a document's state, outstanding issues, and
responsibility tokens. Depending on the need for transparency, this
information may need to be available online and continuously updated.

Discussion: The RFC Editor currently provides status information via
the RFC Editor queue. Each document is attributed a status (e.g.,
AUTH48, RFC-EDITOR, IANA, ISR). Items may stay in the queue for a
long time without changing status. This status tracking information
is not integrated with the IESG tracking tools. Within the IETF, the
Process and Tools (PROTO) team is considering requirements for
marking the token-holder accurately during long waiting periods, and
others are looking into improved notification tools. Requirements on
the IETF technical publisher for improved status integration and
visibility could be met by collaborations with these efforts, by
providing public access to email logs regarding publications, or by
some other proposal.

Derived Requirements:

o Req-STATUSTRK-1 - The IETF technical publisher should make state
   information publicly available for each document in the
   publication process. It is desirable that this information be
   available through a documented interface to facilitate tools
   development.

o Req-STATUSTRK-2 - The IETF technical publisher should integrate
   its state information with the IETF tools to provide end-to-end
   status tracking of documents. For the documents in the IETF
   standards process stream, it is expected that documents should be
   able to move seamlessly from the IETF standards tracking system
   into the technical publication tracking system.

o Req-STATUSTRK-3 - The IETF technical publisher should provide
   external visibility of not only the fact that a document is in an
   extended waiting period but also the token-holder and
   circumstances of the wait.

3.12. Expedited Handling

   Task Description: In some cases (such as when the documents are
   needed by another standards body), it should be possible for the
   approving organization to request expedited publication of a
   document. Ideally, this should not skip any of the publication
   steps, but allocates it higher priority in the work queue to ensure
   earlier publication than normal. Expedited publication should be
   used sparingly since as with any priority scheme, overuse will negate
   its benefits.

Discussion: The fast-tracking procedure is used to expedite
publication of a document at the request of the IESG. Fast-tracking
is generally employed when an external organization has a looming
publication deadline and a need to reference a document currently in
the RFC Editor's queue. Having short publication times would likely
reduce the need for fast-tracking.

Since fast-tracking is disruptive to the work flow, it is recommended
that expedited handling be phased out as soon as alternative ways of
achieving timely publication are in place.

Derived Requirements:

o Req-EXPEDITE-1 - The IETF technical publisher should expedite the
   processing of specific documents at the request of an appropriate
   authority. For the IETF standards process stream, that authority
   is the IESG or the IAB.

3.13. Exception Handling

Task Description: It should be possible for various reasons for a
document to be withdrawn from publication or the publication to be
put on hold. Reasons for this could be due to an appeals process,
detection of a serious technical flaw, or determination that the
document is unsuitable for publication.

Discussion: For various reasons, a document can be withdrawn before
publication.

Derived Requirements:

o Req-EXCEPTIONS-1 - The IETF technical publisher should permit
   documents to be withdrawn from publication at the direction of an
   appropriate authority. For the IETF standards process stream,
   that authority is the IESG.

o Req-EXCEPTIONS-2 - The IETF technical publisher should permit
   documents to be put on hold awaiting the outcome of an appeal at
   the direction of an appropriate authority. For the IETF standards
   process stream, that authority is the IESG.

3.14. Notification of Publication

Task Description: The technical publisher should provide a mechanism
for alerting the community at large of the availability of published
documents.

Discussion: The RFC Editor notifies the community of document
publication on the rfc-dist and ietf-announce mailing lists.

Derived Requirements:

o Req-PUBNOTIFY-1 - The IETF technical publisher should announce the
   availability of published documents.

3.15. Post-publication Corrections (errata)

Task Description: If corrections are identified after publication,
the technical publisher should be able to publish errata that can be
linked with the original document.

Discussion: The RFC Editor maintains a list of errata. Pointers to
relevant errata are presented as output from the RFC Editor search
engine.

Derived Requirements:

o Req-ERRATA-1 - The IETF technical publisher should maintain errata
   for published documents. The process for review, updating, and
   approval of errata for IETF documents will be defined by the IETF.

o Req-ERRATA-2 - The IETF technical publisher should provide
   information on relevant errata as part of the information
   associated with an RFC.

3.16. Indexing: Maintenance of the Catalog

Task Description: The technical publisher normally provides and
maintains the master catalog of publications of that organization.
As the publishers of the organization's output, the technical
publisher is expected to be the definitive source of publications and
the maintainer of the database of published documents. This also
includes the cataloging and storage of meta-information associated
with documents such as their history, status (e.g., updated,
obsoleted), document categories (e.g., standard, draft standard,
BCP).

Discussion: The RFC Editor maintains the catalog. The RFC Editor is
also responsible for the permanent archival of specifications.
Meta-information associated with an RFC should also be maintained.
Since this is the definitive archive, sufficient security should be
in place to prevent tampering with approved documents.

Derived Requirements:

o Req-INDEX-1 - The IETF technical publisher should maintain the
   index of all IETF published documents. It is desirable that the
   interface to the index be documented to facilitate tools
   development.

o Req-INDEX-2 - The IETF technical publisher should provide the
   permanent archive for published documents.

o Req-INDEX-3 - Meta-information associated with a published
   document must be stored and updated as its status changes.

o Req-INDEX-4 - The archive must be sufficiently secure to prevent
   the modification of published documents by external parties.

o Req-INDEX-5 - The IETF technical publisher should provide the
   permanent archive of any source documents associated with a
   published specification.

o Req-INDEX-6 - An appropriate authority can indicate to the
   publisher that it should change the status of a document (e.g., to
   Historical) and this should be reflected in the index. For the
   IETF standards process stream, the indicating authority is the
   IESG.

3.17. Access to Published Documents

   Task Description: The technical publisher should facilitate access to
   the documents published. It is assumed that the technical publisher
   will provide online tools to search for and find information within
   the archive of published documents. These access tools should
   facilitate understanding the state of the document (e.g.,
   identification of replacement or updated documents, linkage to
   pertinent errata).

   Discussion: Documents and status may be accessed via the RFC Editor's
   web page.

   Derived Requirements:

o Req-PUBACCESS-1 - The IETF technical publisher should provide
   search tools for finding and retrieving published documents.

o Req-PUBACCESS-2 - The IETF technical publisher tool should return
   relevant meta-information associated with a published document
   (e.g., category of document, type of standard (if standards

      track), obsoleted by or updated by information, associated
      errata).

   o Req-PUBACCESS-3 - The IETF technical publication search tools
      should be integrated with the IETF search tools. For the IETF
      standards process stream, this refers to integration with the
      search tools used by the IETF standards process.

3.18. Maintenance of a Vocabulary Document

   Task Description: Some standards organizations require the technical
   publisher to maintain a publicly available vocabulary document or
   database containing common terms and acronyms. The goal is to
   provide consistency of terminology between documents.

   Discussion: The RFC Editor does not maintain a public document or
   database of terms or acronyms.

   Derived Requirements: none

3.19. Providing Publication Statistics and Status Reports

   Task Description: The technical publisher may be required to
   periodically or continuously measure its performance. In many
   standards organizations, performance targets are set in terms of
   timeliness, throughput, etc.

   Discussion: The IETF technical publisher currently provides monthly
   statistics on arrivals and completions of documents by category. In
   addition, a status report is provided at each IETF meeting. Other
   statistics can be used to judge the health of the editing process.
   Many of these statistics could be gathered using sampling techniques
   to avoid excessive load on the technical publisher.

   Derived Requirements:

   o Req-STATS-1 - The IETF technical publisher should provide publicly
      available monthly statistics on average queue times and documents
      processed. The presentation should provide a historical context
      to identify trends (see Goal-THROUGHPUT-1). For the IETF
      standards process, this should include queue arrivals,
      completions, documents in the queue, and the number of documents
      in each state at the end of the month.

   o Req-STATS-2 - The IETF technical publisher should provide periodic
      status reports at the IETF meetings to apprise the community of
      its work and performance.

   o Req-STATS-3 - The IETF technical publisher should provide publicly
      available monthly statistics on the types of editorial corrections
      being found during reviews as well as the percentage of
      corrections that are rejected by the authors.

   o Req-STATS-4 - The IETF technical publisher should provide publicly
      available monthly statistics on author-requested changes to
      documents under publication. This statistic should also include
      changes required by other authorities outside of the technical
      publisher empowered to make changes. For the IETF standards
      process, the designated authority would be the IESG or its
      designees.

3.20. Process and Document Evolution

   Task Description: The guidelines and rules for an organization's
   publication output will change over time. New sections will be added
   to documents, styles and conventions will change, boilerplate will be
   changed, etc. Similarly, the specific processes for publication of a
   specification will change. The technical publisher is expected to be
   involved in these discussions and accommodate these changes as
   required.

   Discussion: Over time, the IETF consensus on what should be in a
   published document has changed. Processes interfacing with the
   publisher have also changed. Such changes are likely to continue in
   the future. The RFC Editor has been involved in such discussions and
   provided guides, policies, faqs, etc. to document the current
   expectations on published documents.

   Derived Requirements:

   o Req-PROCESSCHG-1 - The IETF technical publisher should participate
      in the discussions of changes to author guidelines and publication
      process changes.

   o Req-PROCESSCHG-2 - The IETF technical publisher should participate
      in and support process experiments involving the technical
      publication process.

3.21. Tutorial and Help Services

   Task Description: The technical publisher may be required to provide
   tutorials, mentoring, help desks, online tools, etc. to facilitate
   smooth interaction with the technical publisher and to increase the
   IETF community's awareness of document guidelines, procedures, etc.
   In many organizations, the publisher maintains a style manual giving
   explicit guidance to authors on how to write a specification.

Discussion: Guidelines are provided to the authors on how to write an RFC as well as occasional tutorial presentations. The RFC Editor provides a help desk at IETF meetings.

Derived Requirements:

o Req-PUBHELP-1 - The IETF technical publisher should provide and maintain documentation giving guidance to authors on the layout, structure, expectations, etc. required to develop documents suitable for publication. For the IETF standards process stream, the technical publisher should follow IESG guidance in specifying documentation guidelines.

o Req-PUBHELP-2 - The IETF technical publisher should provide tutorials to the IETF community to educate authors on the processes and expectations of the IETF technical publisher.

o Req-PUBHELP-3 - The IETF technical publisher should provide a contact email address and correspond as required to progress the publication work. The publisher should address queries from both inside and outside of the IETF community.

o Req-PUBHELP-4 - The IETF technical publisher should provide a help desk at IETF meetings.

3.22. Liaison and Communication Support

Task Description: It is very valuable for the technical publisher of an organization to have good information and communication about the work streams that will result in publication streams. In order to ensure a wide communication channel for the work, the technical publisher holds a liaison position on the IESG, where there can be valuable give-and-take about matters concerning the IETF standards stream.

Discussion: The RFC Editor currently maintains a liaison position with the IESG. Although not specifically addressed in these requirements, the RFC Editor also maintains a liaison position toward the IAB.

Derived Requirements:

o Req-LIAISON-1 - Through a liaison participant, the technical publisher should take part in meetings and activities as required in order to be aware of ongoing activities related to the work streams. For the IETF standards stream the technical publisher should participate in IESG formal meetings, IESG face-to-face activities at IETF, and other activities such as retreats.

4. Technical Publisher Performance Goals

   Technical publishers are typically measured not only on what they do
   but how well they perform the tasks. The expectations in this
   section are treated as goals instead of requirements because:

   - Achieving a given level of performance is not totally under the
      control of the technical publisher. Publication is a process and
      the goals are of the process, not just the publisher.

   - The actual performance objectives will be set contractually. The
      values herein represent values that the IETF community feels are
      desirable and reasonable for work progress without consideration
      of financial or other factors.

   Goals are set forth in the following areas:

   1. Publication timeframes

   2. Publication throughput

4.1. Publication Timeframes

   Goal Description: This is a measure of the time from entry into the
   RFC Editor queue until the documents are published. The metrics are
   defined in (req-STATS-1).

   Discussion: Long publication times create both internal and external
   difficulties. Internal difficulties include the migration of authors
   to other activities and the accumulation of tempting post-approval
   fixes to be added to the document. External difficulties include the
   inability of other standards organizations to reference IETF
   publications for lack of an RFC number.

   Derived Goals:

   o Goal-TIMEFRAMES-1 - The consensus of the IETF community is that an
      average publication time of under a month is desirable. It is
      understood that in some cases there will be delays outside of the
      publisher's control. The actual performance targets and metrics
      are expected to be determined as part of the contract negotiation
      process.

   o Goal-TIMEFRAMES-2 - The consensus of the IETF community is that
      the time required for a pre-approval review should be under 10
      days. The actual performance targets and metrics are expected to
      be determined as part of the contract negotiation process.

4.2. Publication Throughput

   Goal Description: The number of documents published during a given
   time period is a measure of publisher throughput. Some publishers
   also provide the data in terms of pages produced. The counts should
   be separated by categories of documents. The metrics are defined in
   (req-STATS-1).

   Discussion: The RFC Editor currently provides monthly statistics on
   the arrival and completion of documents into the RFC queue. This is
   sorted by category of document. This provides a measure of the
   delays in the publication process.

   Derived Goals:

   o Goal-THROUGHPUT-1 - Although minor variations are expected, there
      should be no long-term growth trend in the length of the
      publication queue. The actual performance targets and metrics are
      expected to be determined as part of the contract negotiation
      process.

5. IETF Implications of Technical Publication Requirements

   Requirements on the technical publication process have so far been
   stated in terms of requirements on the technical publisher. However,
   it must be recognized that many of these requirements have
   implications for the processes and tools within the IETF itself. It
   is anticipated that these processes will be documented in companion
   documents.

   The following is a list of potential issues that should be addressed
   within the IETF based on the requirements applied to the technical
   publisher:

   o Pre- vs. Post-approval Editing: If emphasis switches from post-
      approval editing to pre-approval editing, then IETF processes must
      be adapted to make use of this service. The processes for post-
      approval editing can also be streamlined.

   o Post-approval Editorial Cleanup: The IETF must define under what
      conditions the publisher should be instructed to bypass or
      minimize post-approval editing.

   o Approval of Post-approval, Pre-publication Technical Corrections:
      Since the technical publisher can only accept approved changes, it
      must be clear who is allowed to approve technical changes. This
      process within the IETF needs to be decided and documented.

   o Allocation of Permanent Stable Identifiers: The IETF needs to
      clearly identify the naming/numbering schemes and classes of
      documents to which those names and numbers apply. Furthermore,
      the responsibility for allocation of those names/numbers needs to
      be identified.

   o Expedited Handling: If publication timelines can be reduced
      sufficiently, then expedited handling may no longer be needed.

   o Post-publication Corrections: Appropriate processes must be
      defined with the IETF to ensure that errata are appropriately
      vetted and authorized.

   o Indexing: Appropriate processes must be defined within the IETF to
      decide and inform the technical publisher of status changes to
      published documents as the result of an appeal, legal action, or
      some other procedural action.

6. IANA Considerations

   Any new requirements that result from this discussion need to be
   reviewed by IANA and the IETF to understand to what extent, if any,
   the work flow of the documents through IANA is affected.

   Interactions with IANA on population of parameter values is discussed
   in Section 3.6.

7. Security Considerations

   There is a tussle between the sought-for improvements in readability
   and the specific language that has often been negotiated carefully
   for the security content of IETF documents. As with other text,
   extreme caution is needed in modifying any text in the security
   considerations. This issue is assumed to have been dealt with under
   Section 3.3.

   The processes for the publication of documents should prevent the
   introduction of unapproved changes (see Section 3.7). Since the IETF
   publisher maintains the index of publications, sufficient security
   should be in place to prevent these published documents from being
   changed by external parties (see Section 3.16)

8. Acknowledgements

9. Informative References

   [RFC2850] Internet Architecture Board and B. Carpenter, "Charter of
             the Internet Architecture Board (IAB)", BCP 39, RFC 2850,
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Authors' Addresses

   Allison Mankin
   Bethesda, MD
   USA

   Phone: +1 301 728 7199
   EMail: mankin@psg.com
   URI: http://www.psg.com/˜mankin/

   Stephen Hayes
   Ericsson
   3634 Long Prairie Rd.
   Ste 108-125
   Flower Mound, TX 75022
   USA

   Phone: +1 469 360 8500
   EMail: stephen.hayes@ericsson.com

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