

## 2017 Self-Review – RFC Production Center

The overarching goal of the RPC staff remains producing high-quality RFCs in a timely manner. In addition, the RPC continually reviews its processes and tools for improvements in efficiency and transparency, while tackling various issues and supporting the goals of the RFC Series Editor (RSE) and the publication streams (IETF, IRTF, IAB, and Independent Submissions). 2017 was comprised of document production and preparation for major changes on the horizon -- namely, the transition to XMLv3 (v3) and to publishing documents that contain SVG diagrams and characters encoded in UTF-8. This self-review will discuss the queue throughput rates, examine the challenges the RPC faced in 2017, and identify other areas in which the RPC has made significant progress

### Editing and Publishing RFCs

The updated Service Level Agreement (SLA) went into effect in 2016. As a reminder, the SLA is defined as follows:

- **Tier 1:** When there is a normal amount of input, the SLA is 67% of documents published within the period have an RFC Editor-controlled time that adds up to six weeks or fewer. Where 'normal' is defined as less than 1950 Pages gone to EDIT (PGTE).
- **Tier 2:** When there is a moderate burst in the amount of input, then the SLA shifts to 50% of documents published within the period have an RFC Editor-controlled time that adds up to 12 weeks or fewer within the given quarter or the subsequent quarter. Where a 'moderate' burst is defined as 1950 – 3072 (inclusive) Pages gone to EDIT (PGTE).
- **Tier 3:** When there is a large burst in the amount of input, then the SLA must be discussed and renegotiated. Where 'large' burst is defined as greater than 3072 Pages gone to EDIT (PGTE).

In 2017, 70% of the published RFCs had an RET of 6 weeks or less, which means the RPC met the SLA at Tier 1. See Figure 1.

267 Internet-Drafts (I-Ds) were submitted to the RPC for publication and Pages Gone to EDIT (PGTE) was 5542. On the publication side, 263 RFCs (6589 pages) were published. Compared with 2016, submissions were lower, and publications were slightly lower; see Figure 2 for details.

The number of RFCs associated with a cluster remains pretty constant over the last 3 years at around 35%. (A cluster is a group of documents that must be published together; for the full definition, see <https://www.rfc-editor.org/about/clusters/>.)

	2016				2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Submissions</b>								
<b>Pages</b>	1582	1919	2263	2008	2150	1093	1114	1735
<b>Docs</b>	66	75	79	64	101	52	49	65
<b>PGTE</b>	1577	2124	2202	1892	1981	1134	1018	1409
<b>Publications</b>								
<b>Pages</b>	1937	1953	2089	2118	2326	1720	1430	1113
<b>Docs</b>	91	89	72	58	90	64	59	50
<b>Docs met SLA</b>	15	88	72	57	89	62	45	44
<b>SLA tier</b>	Tier 1	Tier 2	Tier 2	Tier 2*	Tier 2	Tier 2*	Tier 1	Tier 1
<b>SLA</b>	✘	✔	✔	✔	✔	✔	✔	✔

Note: "Tier 2\*" indicates when Tier 2 is being applied in the "subsequent quarter" as mentioned above.

Figure 1: SLA Summary

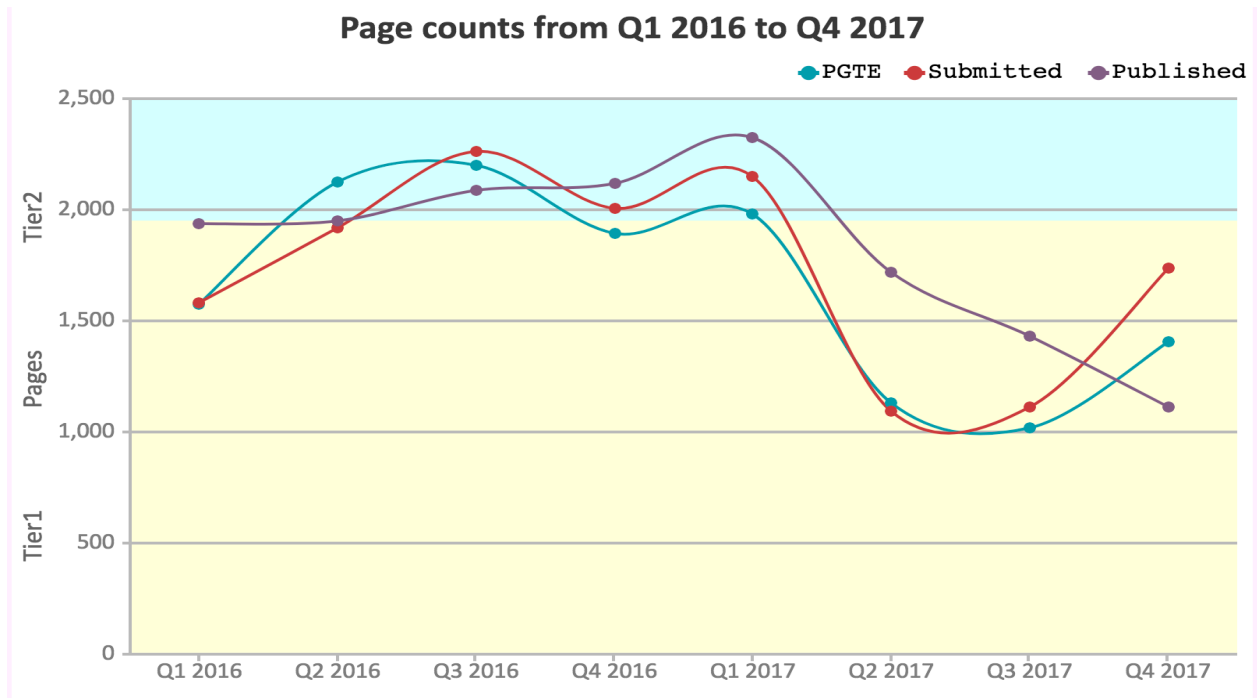


Figure 2: Page Counts Submitted, Moved to EDIT, and Published by Quarter

There were very few issues that required escalation to the RSE. A couple of noteworthy items are described here.

#### **RFC 8205 <draft-ietf-sidr-bgpsec-protocol>**

##### **Issue: 5-author limit (authors vs. contributors)**

This approved I-D contained an unusual “Authors” subsection within the “Contributors” section (in addition to the usual “Authors’ Addresses” section). Because the individuals listed in this section were not listed in the “Authors’ Addresses” section and did not appear in the document header, the editor removed the “Authors” sub-header per the RFC Style Guide. While the authors were okay with the changes and did not request any updates, there was later discussion with the authors, contributors, WG chairs, and ADs, about how the removal of the “Authors” sub-header was handled.

**Conclusion:** The RFC was published with these individuals listed as Contributors (only).

**Ongoing Discussion:** The RFC Editor and RPC continue to discuss this topic with the IESG, as determining how to list individuals is a recurring discussion. We will work with the IESG to determine whether policy changes are needed and implement as appropriate.

#### **RFC 8064 <draft-ietf-6man-default-iids>**

##### **Issue: Flagging changes during AUTH48**

During the AUTH48 process, one of the authors added text to the “Acknowledgements” section that was deemed inappropriate by the WG chairs and ADs. The RFC Editor did not flag this additional text in the Acknowledgements for AD review because there were no technical changes and because there is some author freedom in the Acknowledgements section as they are more personal in nature.

**Conclusion:** The added text was removed.

After discussion with the RSE and IESG, the RPC has implemented 2 process changes:

1. Flag text additions/removals that are a sentence or more, even when no technical changes are included.
2. Always include a link to an AUTH48 diff file comparing the initial AUTH48 version of the text and the current text file; a diff file comparing the most recent files (lastdiff) is included as needed. This is in addition to the complete diff file that shows the differences between the I-D and the RFC-to-be.

In addition to these RFC-specific cases, the RPC has raised various issues with the RSE on items such as properly handling objections to our use of “which” vs “that”, referencing GitHub entries, requesting additional guidance regarding referencing IEEE standards per the IEEE coordination team, and seeking input on whether trademarks should be included in an RFC.

The RPC received praise regarding the quality of editorial work performed and/or the process. Below are a few examples of the messages we've received from authors during 2017:

[Redacted]

## Areas of Advancement

### Format Work

While the primary goal of the RPC is to edit and publish RFCs, this year was quite a bit different from other years, causing the editors to adapt to a shift in workload.

Because the submissions and PGTE were down, the RPC dedicated some much-needed time to progressing the format work in the following ways:

- **Id2xml testing, training, and documenting procedures**

The RPC extensively tested the first of the v3 tools released to the community: id2xml. The editors provided feedback to the developer and documented internal procedures for using this tool in production. Because id2xml is used on text files that are not generated using a single formatting scheme (such as the text output generated by xml2rfc), a number of manual edits to the input file are often required before a parseable XML file can be created. The RPC documentation for id2xml includes details regarding updates to be made to the input file to give the user a better chance of getting an output file. We intend to make this information available to the community once it has been updated for general consumption. Team members have been trained on id2xml, and it is now being used in production in cases in which no source file is submitted (i.e., an XML source file is created instead of an NROFF source file).

- **UTF-8**

The RPC tested their systems, tools, and environment to understand where updates were needed to handle UTF-8. After much interaction and guidance from AMS' IT department and various individuals (namely, Henrik Levkowitz, Robert Sparks, Julian Reschke, and Peter Saint-Andre), we were able to make the updates needed to be able to publish the following four documents that contain UTF-8:

[RFC 8187](#): Indicating Character Encoding and Language for HTTP Header Field Parameters

[RFC 8264](#): PRECIS Framework: Preparation, Enforcement, and Comparison of Internationalized Strings in Application Protocols

[RFC 8265](#): Preparation, Enforcement, and Comparison of Internationalized Strings Representing Usernames and Passwords

[RFC 8266](#): Preparation, Enforcement, and Comparison of Internationalized Strings Representing Nicknames

This required intense review during the editorial process, as we used an altered process and, in some cases, work-arounds to get the RFCs into publication form. It also required some new processes, e.g., adding a Byte Order Mark to each RFC. We documented the internal procedures that will be updated as we continue with v3-related tool testing.

- **v3-related Programming**

On the programming side, we have been reviewing the RPC system and preparing to publish new file formats and handle UTF-8 appropriately. To handle these changes, significant updates are required to our database, the errata system, and the related scripts that generate things such as the RFC info pages, RFC indexes, and search results. In addition, because of the increased number of files associated with each RFC, we are also updating our internal directory structure, which requires various scripts to be updated. Much of the work required for the database to handle UTF-8 and multiple file formats has been completed. Work continues on related scripts and we will be working on the errata system in 2018.

- **v3-related Updates to the RFC Editor Style Guide**

The v3 era will have an effect on the RFC Style Guide. Additional guidance is required regarding new features that are being added to RFCs, for example, where UTF-8 will be allowed, how/where features such as bold will be allowed, how to handle full- and half-width UTF-8 characters, etc. The RPC has been discussing various issues specific to v3 with the RSE so that an update can be released closer to the time v3 will be put into production.

## Other Updates

In addition to managing the editing queue and the v3-related work, the RPC was faced with a busy year that required their attention and participation in a number of areas. In 2017, the RPC did the following:

- gained a better understanding of how the community is currently using GitHub and how it might be used by the RFC Editor in the future; specifically, we
  - o attended a GitHub overview (provided by Paul Hoffman) at IETF 98
  - o attended the GitHub BoF at IETF 98
- managed the transition from using RFC 2119 keywords to using the text defined in RFC 8174
- updated webpages to account for publication of RFC 8179 (which obsoletes RFC 3979)
- participated in ongoing discussion about updates to the Style Guide (both RFC 7322 and the online portion)
- responded to five legal inquiries
- participated in the EDU team
- communicated regularly with IANA leadership to improve the RPC's documentation for updating the IANA-relevant text in RFCs.
- participated in discussion about Authors and Contributors

Completed programming and IT tasks for the RPC include the following (in addition to the v3-related items discussed above):

- updated the database to use MySQLi (from MySQL)
- upgraded the RPC server
- implemented “pretty” URLs for errata
- updated the reference libraries to use “https” URLs

## Areas for Improvement

The RPC will be reviewing their processes while testing the v3 tools to better understand how the procedures might be updated and simplified with the updated requirements. In addition, we will discuss updates based on community feedback once the tools have been implemented.

We reviewed the suggestions received in 2017. While we decided not to introduce significant changes to the AUTH48 process while the major transition to v3 was expected in 2017, we will keep these suggestions in mind as we review the procedures and tools for handling AUTH48 in the v3 era. However, we note that the priority is to get the procedures in place to tackle v3 first.

We will also be investigating version control for AUTH48 per a suggestion from a community member.

## What's on the Horizon

In 2018, while continuing to edit and publish high-quality RFCs, we will also be working hard to learn the xml2rfc v3 vocabulary, become more familiar with UTF-8 encodings, continue to test the v3 format tools, report and track bugs, devise a transition plan, and implement processes that ensure easy AUTH48 reviews and efficient turn-around times. We expect the workload related to the format transition to xml2rfcv3 to be significant in 2018. In 2017, the RPC adapted to a shift in workload and demonstrated their ability to respond to RSE and community requests (e.g., request to publish documents containing UTF-8 characters before the v3 tools were available). As the timeline for the v3 tools has shifted, the RPC's on boarding of the 2017 approved (1) FTE, has shifted accordingly. We will continue to monitor tool development and the submission rate and assess needs as we get closer to the V3 tool deployment. We have and will communicate regularly about this topic with the RSE. This was discussed at the stream managers' meeting at IETF 100. We will continue to adapt and be flexible as needed in 2018.

AMS and the RPC staff are dedicated to continuing to provide the Internet Community with first-rate editorial and publication services as well as excellent customer service. 2018 is going to be a year of significant change for the RFC Editor as the new RFC format approaches. The RPC is preparing, in advance, for transition as much as possible to minimize the impact on the community and document queue times. We are committed to outputting high-quality RFCs in a timely manner and providing additional services to the community to make the job of the author easier. We appreciate your support of our services and we look forward to continuing in the new year.