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## General Area Review Team (Gen-ART) Experiences

### Abstract

The General Area Review Team (Gen-ART) has been doing reviews of Internet-Drafts (I-Ds) since 2004. This document discusses the experience and the lessons learned over the past 7 years of this process. The review team initially reviewed the I-Ds before each of the IESG telechats. Since late 2005, review team members have been assigned to review I-Ds during IETF Last Call, unless no IETF Last Call is necessary for the I-D. The same reviewer then reviews any updates when the I-D is placed on an IESG telechat agenda.

### Status of This Memo

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

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## 1. Introduction

The General Area Review Team (Gen-ART) was created personally by the General Area Director in 2004. This document discusses the experiences and the lessons learned as the process has evolved over the past 7 years. The process described in this document reflects that which was in place at the time this document was published.

This process is likely to continue to change over time. The review team has been retained by subsequent General Area Directors. It has no official role in the IETF standards process, except as a set of individuals entitled, like everyone, to comment on Internet-Drafts (I-Ds). Its volunteers, including a secretary and the team of reviewers, serve at the invitation of the General AD. Both the reviews and the reviewer names are public.

## 2. Who Are the Gen-ART Members?

The reviewers are typically individuals that have a fair amount of experience within various IETF Working Groups (WGs), have authored WG I-Ds and RFCs, and are often considered to be subject matter experts (SMEs) in their particular areas of work. The current review team is comprised of such technical experts, including several WG chairs as well as past and current Internet Architecture Board (IAB) members. Several past and current ADs have served as reviewers. Two past General ADs have also served as reviewers, with one currently serving.

Members of the review team sometimes excuse themselves from the team for various reasons, typically due to "day job" demands. However, they often rejoin (for periods of time) as their schedules allow. Also, some reviewers remain on the team, while their review workload is decreased by assigning them just one I-D (at Last Call time) to review each month. Section 11 provides a list of currently active reviewers, along with those who have served on the review team in the past.

## 3. Goals of Gen-ART

The original and continuing goal of the Gen-ART was, and is, to offload from the General AD some of the burden of IESG reviews. The load for the bi-weekly IESG reviews is often quite large; occasionally, there are more than 20 I-Ds scheduled for discussion in a single telechat. Thus, ADs also have less than a week's notice for many of the I-Ds on the telechat agenda.

Gen-ART was based on a model that had proved productive in the Operations (OPS) Directorate: quick review close to telechat time, to advise the AD on issues that remain serious. By having a trusted group of reviewers read and evaluate the I-Ds, the General AD would be able to concentrate on those I-Ds where there was a concern expressed by the reviewer. The reviewers are expected to provide feedback based on a whole set of criteria, including the criteria

summarized in Section 4.3. The overall objective is to ensure that the I-Ds are well structured; can be easily understood, at least at a high level; and provide a reasonable basis for implementation (for I-Ds intended for the Standards Track).

While other area (and WG) directorates/review teams existed prior to Gen-ART and more have been established since Gen-ART, the roles of each are fairly distinct. Thus, there is little overlap between the goals and review criteria for the various review teams. It is also very valuable for these other review teams to operate independently. For example, when both Gen-ART reviews and Security Directorate (SecDir) reviews raise the same sorts of concerns, it's a clear red flag that the I-D needs more work before progressing. In addition, due to the typical thoroughness (and objectiveness) of the various review teams' reviews, the sponsoring AD and document shepherd are often able to work with the editors/WG (and vice versa, depending upon area and WG structure) to improve the overall quality of the final I-D. It should also be noted that some ADs take the Gen-ART reviews into consideration when preparing their own evaluations.

Statistics from the Gen-ART reviews over the past 6+ years show a trend of increased quality and readiness for progression of I-Ds by the time they are placed on the telechat agenda. Additional statistics are discussed in Section 6.

#### 4. Gen-ART Reviews

##### 4.1. IETF Last Call Review Process

While the original process was meant only for reviews just before the IESG telechat, the decision was made to include IETF Last Call (LC) reviews in early 2005. Over time the latter has proven to be quite effective. Assigning the I-Ds at IETF LC time typically gives a reviewer more time to review an I-D. And, in some cases, the IETF LC version is the one to appear on the telechat. Thus, by the time I-Ds are added to the telechat agenda, a majority (typically at least 70%) have already been reviewed. For those I-Ds that have been up-versioned, the amount of time dedicated to re-review depends upon the review summary for the IETF LC review.

The assignments at IETF LC time evolved to minimize the gap between LC announcements and assignment time, with the secretary doing LC assignments every Thursday night. This typically allows the reviewer at least one week and sometimes two to three weeks to complete the review. The reviews are obviously most helpful when done on or before the end of the IETF LC.

The Last Call assignments are done on a fairly strict round-robin basis to ensure a fair workload amongst all the reviewers. Reviewers that are unavailable (vacations, etc.) during the review period timeframe obviously are excluded from that round of assignments, but remain in the same queue position for the next round. The order is occasionally modified to avoid assigning an editor/author or WG chair their own I-Ds. A reviewer may also NACK an assignment if they feel they may have some bias (although corporate affiliations are not considered to be sources of bias) or they don't feel they can review the I-D in a timely manner.

The assignment process is completely manual, although a spreadsheet tremendously facilitates the process. The details are described in Section 5. Ideally, this process could be automated. However, manual intervention would still be required to maintain the appropriate available reviewer list (unless reviewers took on the task of maintaining their data in some sort of database). Further details on the tools necessary to automate the entire process are provided in Section 8.

#### 4.2. IESG Telechat Review Process

The process for reviewing I-Ds when they appear on the IESG agenda is as follows:

- o The "nearly final" IESG meeting agenda generally appears on Thursday night, less than one week before the IESG telechat. The Gen-ART secretary uses this as the input for the assignment process.
- o For I-Ds reviewed at IETF Last Call, a new review is only asked for if the I-D is revised. In this case the reviewer, typically the person who did the Last Call review, only needs to check that any open issues were resolved. Often the draft will not have changed between IETF LC and the IESG telechat review. Section 4.4 provides the step-by-step telechat review assignment process, with specific details on the maintenance of the review assignment data, which is in turn maintained in review spreadsheets (Section 5).

#### 4.3. Form of Review

Rather than invent new guidelines, the Gen-ART requirements for the form of a review stole liberally from "Careful Additional Review of Documents (CARD) by Senior IETF Reviewers (SIRS)" [SIRS], making adaptations for the special "late, quick review" case and the nature of the General Area's concerns.

Each review must start with a summary statement chosen from or adapted from the following list:

- o This draft is ready for publication as a [type] RFC, where [type] is Informational, Experimental, etc. (In some cases, the review might recommend publication as a different [type] than requested by the author.)
- o This draft is basically ready for publication, but has nits that should be fixed before publication.
- o This draft is on the right track but has open issues, described in the review.
- o This draft has serious issues, described in the review, and needs to be rethought.
- o This draft has very fundamental issues, described in the review, and further work is not recommended.
- o Unfortunately, I don't have the expertise to review this draft.

The length of a review can vary greatly according to circumstances, and it is considered acceptable for purely editorial comments to be sent privately if it's obvious that the I-D needs substantial revision. All substantive comments, however, must be included in the public review. Wherever possible, comments should be written as suggestions for improvement rather than as simple criticism. Explicit references to prior work and prior IETF discussion should be given whenever possible.

Reviewers are asked to review for all kinds of problems, such as basic architectural or security issues, Internet-wide impact, technical nits, problems of form and format (such as IANA Considerations or incorrect references), and editorial issues. Since these reviews are on I-Ds that are supposed to be finished, the review should consider "no issue too small" -- but should cover the whole range, from the general architectural level to the editorial level.

All reviews should apply generally agreed-upon IETF criteria, such as:

- o [RFC1958]: "Architectural Principles of the Internet"
- o [RFC3426]: "General Architectural and Policy Considerations"
- o [RFC3439]: "Some Internet Architectural Guidelines and Philosophy"

- o ID-Checklist: The "ID checklist" document maintained by the IESG
- o [RFC2223bis]: "Instructions to Request for Comments (RFC) Authors" as updated by [RFC-STYLE]: "RFC Document Style"
- o [RFC5226]: BCP 26 - "Guidelines for Writing an IANA Considerations Section in RFCs"
- o [RFC3552]: BCP 72 - "Guidelines for Writing RFC Text on Security Considerations"
- o Any other applicable architectural or procedural documents. It is considered important that reviews give precise references to such criteria when relevant to a comment.

Of special interest to the General area, because they do not fall under any other area, are:

- o A clear description of why the I-D or protocol is useful to the Internet.
- o Adherence to IETF formalities, such as capitalized "must", "should", etc. in normative statements, per the ID-Checklist.
- o Useful and reasonable IANA considerations. Ensure that all necessary registries are defined/referenced, and ensure definition and compliance with IANA assignment criteria.
- o Correct dependencies for normative references.
- o That the I-D is written in reasonably clear English.
- o Checking the updates/obsoletes information.
- o Running idnits and checking the output.
- o Checking that things imported by reference, especially from other RFCs, make sense (notably definitions of terms, security considerations, and lists of criteria) and ensuring they are used as intended by the referenced document.
- o That examples (e.g., Fully Qualified Domain Names (FQDNs), telephone numbers, IP addresses) are taken from the right spaces.

#### 4.4. Gen-ART Process Overview

The following provides a general overview of the Gen-ART process along with some basic rules associated with assignments. The very precise details of the secretary's process are provided in Section 5.

- o The availability of reviewers and the order of assignments for the next round of Last Call document assignments are updated weekly and are available on the directory where all the assignments and reviews are cached.
- o At telechat assignment time, all previously reviewed I-Ds are assigned to the reviewer who reviewed them previously, assuming that reviewer is available. Otherwise, these I-Ds are assigned to a new person in the process described below.
- o The secretary attempts to avoid assigning I-Ds that might conflict with other IETF roles such as WG chairs, other directorates, etc. However, in the cases where the secretary doesn't note the conflict, the reviewer should notify the secretary and Gen-ART mailing list so another reviewer may be assigned.
- o It should be emphasized that assignment is never made according to a reviewer's technical specialty. Even though it happens, when, for example, routing I-Ds fall on routing experts or MIB documents fall on MIB doctors, it is coincidental. To the reviewer, the choice looks random.
- o There is an attempt to evenly distribute I-Ds amongst reviewers at LC time by using a round-robin process, starting from where the previous week's assignments stopped.
- o Typically, there is no attempt made to actually equalize the load, as the length and complexity of the I-Ds are not taken into account in this process. (Thus, a reviewer could end up with a couple of hundred-page I-Ds, but this is statistically rare.) However, in the case of a reviewer that might receive more than one new LC I-D at one time, the secretary does try to ensure that both are not large I-Ds.
- o Once the assignments are made, the web pages that list the reviews and the assignments are posted. Since the telechat agenda is not published until the end of the day on the Thursdays prior to the telechats (i.e., one week prior), the secretary needs to complete the assignments on that Thursday evening. This often requires working later in the evening and also requires an Internet connection even when traveling.



- o If the reviewers notice any problems or conflict of interest, a bargaining process, shifting I-Ds from one reviewer to another, takes place. The secretary updates the assignment files with any new assignments.
- o Once the review has been completed, the reviewer sends the review to the Gen-ART list, ideally using the template provided in the review assignment emails. Typically, reviews are also sent to authors, the responsible AD, and the WG chairs/document shepherd. The only case where this might not be done is when there are no issues found for a re-review and none had been found on an initial review. Sending the review to the authors, ADs, and/or WG chairs/Proto Shepherds was originally voluntary but is now considered standard practice. Reviewers may also send the reviews to the IETF discussion list, but that is entirely at the discretion of the reviewer, in which case the author must be copied on the review to ensure they see any follow-up discussion. Reviewers may also send the comments to the WG; however, this typically causes the review to end up in the moderation queue, as most reviewers do not want to subscribe to the WG lists for the I-Ds they review. Thus, it is expected that any of the original recipients (i.e., authors, WG chairs/document shepherd, or responsible AD) may forward the review to the WG mailing list if they believe it is necessary. In the past, sending these reviews resulted in confusion among the authors, who may not have been expecting a Gen-ART review and may not be familiar with Gen-ART. Thus, reviewers are reminded to prepend to the email the description of Gen-ART and the purpose of the review. This information is part of the standard template provided in the review assignment emails.
- o The secretary gathers the reviews, sometimes edits them for format, and records the review in the spreadsheet on the web pages, including the synopsis. This is typically done on Thursday. This is one aspect of the process that can be easily delegated such that one volunteer uploads all the reviews and then the secretary need only update the fields in the spreadsheet. If the reviewer has not provided a synopsis ("Summary" field in the template), the secretary makes a best guess based on the review details. Note that in most cases the reviewers do include a synopsis.
- o Ideally, the reviews should be posted to the Gen-ART mailing list by close of business on the East coast on Tuesday. This is necessary to allow the General AD time to consider the reviews prior to the telechat. If the reviews are received after Tuesday, the review may not be read by the AD before the IESG telechat. Due to time constraints, the spreadsheets containing review summaries/assignments are only updated on Thursday evenings when

the new LC assignments and upcoming telechat assignments are done. Ideally, the reviews would get uploaded on the Tuesdays prior to the telechat along with the updated spreadsheets.

- o If the AD concludes that the concerns raised by the reviewer warrant placing a DISCUSS comment on the I-D, the AD will do so, and the DISCUSS must be resolved before the I-D advances. Usually, the reviewer will be involved in the resolution process, but the responsibility for the DISCUSS rests with the AD.

## 5. Secretarial Process

This section summarizes the details of managing the review materials, including the spreadsheet used to track all reviews and the HTML files containing the review assignments. Please note that these details represent a snapshot of a process that has been implemented -- the details are very likely to change over time, in particular as the needed improvements highlighted in Section 8 are carried out.

### 5.1. Maintaining Review Spreadsheet

A spreadsheet is used to enter all the I-Ds at the time of assignment and to capture all the reviews. For IETF LC assignments, the assignments are completed before adding the I-Ds to the spreadsheet as described in Section 5.2. For telechat assignments, I-Ds are obviously only added in the cases where there is no previous LC assignment. For the other I-Ds, the appropriate fields are updated as described in Section 5.3.

All the reviews can be accessed from the spreadsheet via hyperlinks from specific fields, as summarized below. The following information is maintained in the spreadsheet (in the order listed):

1. "Chat/LC Date": Indicates either the date on which the LC review is due or the date of the telechat.
2. "Document": Filename for the I-D, which includes a hyperlink to the IETF I-D tracker.
3. "Assigned": Name of the reviewer assigned to that I-D.
4. "Category": This field contains one of the following self-explanatory values: "Doc - WG", "Doc - Ind/AD", or "IETF LC". Note that Gen-ART does not review I-Ds submitted directly to the RFC Editor. The "IETF LC" value is of course entered for all I-Ds at LC time. It is changed to one of the other appropriate values, based on the information in the telechat agenda.

5. "Previous Review": This includes a link to any previous reviews. For example, when a doc appears on a telechat agenda, if an IETF LC review was done, this field is updated with the review summary for the LC review (i.e., the information from the "Current Review Summary" as described below is copied to this column). The field is set to "New" when an I-D is first assigned/added to the spreadsheet. In the case of returns, this field has a value of "Return" or "Return/IETF-LC" for I-Ds for which there is an LC review. It should be noted that since Gen-ART started doing reviews at LC time, there seem to be far fewer returns on the agenda.
6. "Current Review Summary": This field includes the review type and version number of the document that is to be reviewed or has been reviewed (e.g., LC: -02). When the field also contains a review summary after the review type/version number (e.g., Telechat: -06 Ready), the active hyperlink points to the review. Occasionally, a reviewer will re-review an I-D prior to its telechat assignment, in which case it is added to the spreadsheet, but the date does not change to maintain consistency in the date field, since the reviews themselves contain the review date.

The following summarizes the steps to add a new I-D to the spreadsheet:

1. In order to optimize steps, blank rows are first inserted for the number of new I-Ds to be added.
2. To minimize data entry, a row with default fields (including the hyperlinks) is kept at the end of the file. There is a separate default row for IETF LC versus telechat assignments. This row is copied into each of the new blank rows. The dates are then entered (this allows double-checking that all I-Ds from the review assignments are accounted for, especially LC).
3. The I-D name is then copied to the name field as well as being appended to the hyperlink for the "Review Summary" field. The hyperlink is included as part of the default row. This minimizes the steps to enter the reviews in the spreadsheet.
4. The data is also sorted by "Chat/LC Date", "Assigned", and "Document". The file is then saved and closed.
5. The file is then reopened and saved as HTML.
6. The file is opened a second time and sorted by "Assigned", "Chat/LC Date", and "Document" to provide the I-D reviewers an easy way to find any outstanding assignments.

## 5.2. Last Call Assignment Procedure

The secretary can cache the Last Call assignments as they are announced and/or check the IETF announcement mailing list archives. The assignments are done on Thursday evening, along with any telechat assignments. This optimizes the process in terms of batch changes to files.

The assignments are listed in an HTML file. The following are the steps in creating that file:

1. The order of assignment is actually created the week before, with the details below. Thus, before starting the new assignments, the current file is saved for editing for the following week. The current file-naming convention is "reviewersymmdd-lc.html" (e.g., for July 8th, 2010, the file reviewers100708-lc.html was created, and the file for the following week is named reviewers100715-lc.html).
2. Since the file is already prepared with the appropriate ordering of reviewers, the assignments are done in the order of due dates. The link to the I-D in the Datatracker is copied into the assignment file along with the intended RFC status for each of the new LC I-Ds.
3. The "Due Date" paragraph from the Last Call announcement is shortened as follows: "IETF LC ends on:", keeping the date.
4. Once the assignment file is complete, the new I-Ds are added to the spreadsheet as described above.
5. The assignment file for the next week is then updated to reflect the next reviewer in the round-robin process, by simply cutting and pasting the names in the list in a block and removing any "one doc per month" reviewers (annotated with an "\*") that have already received their monthly assignment. If the next round of assignments occurs at the beginning of a new month, the "one doc per month" reviewers are added back into the list (in the normal order -- alphabetically by first name).
6. The assignment files and updated spreadsheets are then cached on the Gen-ART server.
7. An email providing a link to the assignment file along with the updated spreadsheets is sent to the Gen-ART mailing list. This email has a standard form, such that the reviewers can simply cut and paste the template to include the Gen-ART context statement and link to the FAQ.

### 5.3. Telechat Assignment Procedure

Since LC assignments are now the starting point for Gen-ART I-D reviews, the telechat assignments are generally straightforward, as the majority of the I-Ds are already in the spreadsheet. The following details the steps:

1. The telechat agenda is typically available around 6PM PDT. In order to create the assignment HTML file, the agenda is created from the email announcing the upcoming telechat agenda. The filename has the following format, with the date corresponding to the telechat date (versus the date of assignment, as is the case for Last Call assignments): "reviewersyymmdd.html".
2. Rows are added to the agenda for the reviewers' names.
3. The reviewers' names are then added to the weekly assignment file.
4. As each reviewer is added to the assignment file, the review spreadsheet is updated as follows:
  - \* "Chat/LC Date" is changed to the telechat date.
  - \* The link to the LC review, if available, is copied as the link for the "Previous Review" column.
  - \* The "text" for the "Current Review" is updated to reflect the new review type (i.e., Telechat) and version.
5. In the case of an I-D that did not go through IETF LC, a reviewer is assigned using the order in the file to be used for Last Call assignments for the next week.
6. Once the reviewer(s) have been determined, the LC assignment file for the next week is updated.
7. Any new I-Ds are then added to the spreadsheet (and the updates saved) per the steps described in Section 5.1.
8. The assignment files and updated spreadsheets are then cached on the Gen-ART server.
9. An email providing a link to the assignment file along with the updated spreadsheets is sent to the Gen-ART mailing list. This email has a standard form, such that the reviewers can simply cut and paste the template to include the Gen-ART context statement and link to the FAQ.

#### 5.4. Capturing Reviews

As noted in Section 4.4, the spreadsheet is typically updated with the review summaries on Thursday evenings just prior to entering the data for that week's LC and any telechat assignments. The following summarizes the steps to capture the reviews:

1. Currently, an additional volunteer is assisting the secretary in caching the email reviews as they arrive.
2. In the cases where the review is included inline in the body of the email, the review is cut and pasted into a text file and saved with the reviewer's last name appended to the filename -- e.g., draft-ietf-xyz-00-smith.txt.
3. In the case where the review is included as an attachment to the email, the file can be directly saved and uploaded.
4. The volunteer uploads the reviews by around 5PM CST on Thursdays; thus, they are available to the secretary at the time that week's assignments are done. This sequence is necessary to ensure the information for I-Ds on the upcoming telechat is up to date.
5. The review summary is entered into the "Current Summary" field. Note that the hyperlink to the review (added at assignment time) will automatically work when the file is uploaded.
6. Once all the reviews have been entered and the spreadsheets formatted, the review spreadsheet is saved and files uploaded per the last three steps in Section 5.1.

#### 6. Results

Over the past 7 years, the Gen-ART has provided reviewing services to 3 ADs and has done around two thousand publicly available reviews. The reviews have been executed with a team of around a dozen full-time reviewers and other reviewers receiving one I-D assignment each month. There are currently 9 reviewers in the latter category. The full-time reviewers receive 2-3 assignments each month. In terms of improving quality, the number of I-Ds that are now "Ready" at the time of the telechat (since the reviews are now initiated at LC time) has increased. The review term "Ready" means the reviewer believes that the document has no outstanding editorial or technical issues. Based on the data from 2007, there were over 250 I-Ds assigned at LC time that went through IESG review. Of those 250 I-Ds, 82% of the LC reviews (205 I-Ds) were completed. Of the completed reviews, 70% (144 I-Ds) were "Ready" at the time of the telechat. Of those 144 I-Ds, roughly 1/4 had been deemed "Ready" (with no nits) at LC time

(based on a sample of 50 reviews). For the I-Ds that were not reviewed at LC time, only about 1/4 of those were deemed "Ready" when they were reviewed for the telechat. So, doing the Gen-ART reviews at Last Call time does seem to improve the quality of the I-Ds for the telechat.

## 7. Impressions

This section is divided into 3 subsections: the impressions as gathered from the Gen-ART, the impressions of the ADs for whom they worked, and the impressions of the secretaries of Gen-ART.

### 7.1. Reviewers' Impressions

The following list of comments are excerpted and edited from comments sent in by the reviewers of Gen-ART in response to the request:

"We'd like to ask you each to write a few lines about your personal experience and lessons learned as a Gen-ART reviewer".

- o We really do find problems, but we don't find problems with most I-Ds.
- o Comments seem to be in three areas: editorial/grammar, editorial/what-the-heck-does-this-mean, and actual problems. I'm seeing fewer reviews in the first category, which is a good thing.
- o It is becoming rarer that we hear back "these guys have suffered enough; I'm voting no objection" (I'm remembering an LDAP I-D that had been around so long it had 2119 referenced AS A DRAFT -- some people suffered a lot).
- o The direct assignment of reviews is necessary and effective. It does not matter much as far as I can tell what scheme is used to actually do the assignment.
- o Folks are very open to the reviews that come out of Gen-ART. This somewhat surprised me, because I have seen resistance to outside reviews in other cases.
- o The improvements that have come about (for example, one of my latest, an I-D about the SIPING conference) have made a big difference to the comprehensibility and usability of the I-Ds -- and provide a useful incentive to keep going.
- o Some form of review like this is desperately needed. While most of the stuff we see is good, every once in a while really bad errors have made their way all the way to IESG vote.

- o Reading this stuff is interesting. I like having a reason to read a wide range of materials.
- o I am more than convinced that this can be, and is, a valuable process. It is, in my opinion, a pity that Senior IETF Reviewers (SIRS) and so on did not take off, because this late-stage reviewing is a poor substitute for doing the same thing at a much earlier stage. Very few of the drafts that have come past my screen are truly fully ready for IESG review. It is actually a joy to find the occasional nugget that is both well written and is a proper technical job, such that the reviewer really can say "This is ready".
- o I have certainly found the process intellectually stimulating! It encourages me to take a wider interest in what is going on in the IETF, but consumes a fair bit of time to do a proper job, and requires a very wide knowledge to be able to properly catch the cross-area implications: I hope (believe!) that this is something that one gets better at with experience and doing a few of these reviews.
- o There is probably a very limited pool of people who have both the time and the inclination to keep on doing these reviews. It does require a fair bit of dedication.
- o It is difficult to avoid correcting the English, even if that is not really the point: Often, really bad English (whether as a result of non-mother-tongue authors with limited grasp or mother-tongue authors using informal language) obscures/corrupts what is being said or just makes it impossible to read.
- o Mostly authors welcome the comments: I think most of them understand the concept of "ego-free reviewing", and we have generally been constructive rather than destructive.
- o Part of the job of Gen-ART is to think the unthinkable from another point of view, to challenge (apparently undocumented) assumptions, and apply experience from other fields.



## 7.2. General Area Directors' Impressions

It should be noted that these impressions are from multiple General Area Directors; thus, the "I"s are not necessarily associated with a specific AD.

- o It's essential. The reviewing load for the IESG <shout>DOES NOT SCALE</shout>.
- o Without Gen-ART, I would be a much less effective General AD.
- o On a single fortnight example, the IESG had 21 drafts on the agenda. It is just impossible (to conscientiously review all the documents), and no wonder we sometimes miss serious issues.
- o So I think a distributed review team with about 30 trusted reviewers needs to be institutionalized. I suspect that will need to be formalized in a BCP sooner or later -- with their reviews having a formal position in the standards process, and the expectation that the whole IESG truly reviews all I-Ds being relaxed.
- o We've learned that polite, well reasoned, constructive reviews are very positively received by authors and WGs. Dismissive reviews are counter-productive. And reviews sent in private eventually show up in public, so it's better to go public at the start.
- o Normally, LC reviews are available in good time for the draft to be revised before reaching the IESG agenda. It is important that this happens, except for an emergency situation where the responsible AD has good reason to place the draft on the agenda immediately. In that case, it would be preferable for the AD to inform the Gen-ART, so that the review can be expedited.
- o The other problem is a big detail -- between late Thursday or early Friday when the secretary sends out the assignments, and Wednesday when the General AD likes to start filling in ballots based on the reviews received by close of business on Tuesday, there are only three work days (plus possible volunteer time over the weekend). Now even with only one I-D to review, that may be a real challenge. Sometimes, a lucky reviewer will get 130 pages (e.g., draft-ietf-nntpext-base-27). That doesn't compute.

- o There are some mechanical issues. The process followed is far too manual. Everything needs to be robotic except for the judgment calls about which reviewer gets which draft. Similarly, the reviewer should be able to just paste the review into a web form, click, and it's sent off to everyone appropriate and posted to the review site.

### 7.3. Gen-ART Secretaries' Impressions

Serving as the secretary of Gen-ART is a worthwhile experience. From a personal point of view, it gives the secretary an easy way to track all of the work going through the IESG review process and see how the work flowed through that process. Also, by reviewing and sometimes creating the one-line abstracts that go on the review web page, the secretary has an opportunity to really get a survey of the work being approved by the IETF.

The nature of these reviews is informal, and originally the reviews were only intended for the General AD, though they were made public. During 2004, there was little if any interaction between authors and reviewers. There was some discussion during 2004 about trying to expand the role of Gen-ART to a more formal, early-review model, i.e., to evolve it into a form of SIRS. The original Gen-ART secretary was against such a transformation, because she felt it would put at risk something that worked. She believed that there were risks inherent in formalizing the reviews and adding mechanisms for standardizing the resultant review process. Another concern involves the interaction between reviewers and authors. As discussed above, it has become the practice to send reviews to the authors with an explanation about the nature of Gen-ART reviews. While it is clear that this has resulted in improved RFCs, it has also resulted in increased workload for the reviewers.

The secretary thinks that Gen-ART is an experiment that works well, but she also believes it is fragile. The secretary is often concerned about overburdening reviewers, and feels it is her responsibility to keep them from burning out. Adding additional reviewers to the review team would help to alleviate this concern. In terms of the process, adding additional reviewers has minimal impact.

### 8. Needed Improvements

The current size of the review team introduces a fairly heavy workload for the individual reviewers that are not on the "one doc per month" assignment cycle. Additional reviewers would be really helpful to alleviate this workload. It is also important to note that having additional reviewers adds minimal workload to the

secretary's process; thus, the only blocking point is finding the right folks that are interested in this type of volunteer role. As noted in Section 7.2, 30 would be a good size for the review team. This would cut the workload for an individual reviewer in half (given the current model of 9 reviewers on the "one doc per month" assignment cycle).

Obviously, automation of the process would be a good thing. However, Gen-ART secretaries are not necessarily highly motivated to transition to a more automated approach until a significant part of the process is automated. In more recent consideration of this situation, it likely would be best to first automate the process of entering the reviews, as that benefits the review team as a whole. This automation should allow the reviewers to enter the reviews via a web interface that would automatically generate the appropriate emails -- quite similar to how the draft "Upload" tool currently works. Also, given consistent naming conventions for the review forms, this step would automate some of the process for the secretary, as the reviews would automatically appear via the spreadsheet hyperlinks, although there would still be a need to manually enter the summary. But this would eliminate the need to edit/normalize and upload files and, hopefully, eliminate the problem encountered with unflowed text in emails and getting the review properly formatted using some text editors.

Section 5 was written to facilitate the process of determining tools requirements, by providing the very detailed steps currently applied to the process. As noted above, automating the upload of the reviews could be a good first step. This is somewhat starting at the end of the process. However, it seems that by automating in this direction, we may have optimal results; since one of the earliest steps in the process is the task of assigning reviewers, it likely needs the most manual intervention, even with tools available.

The current SecDir secretary does use some tools for assignments and generating assignment emails. These tools could be considered for use by the Gen-ART secretary. Since the SecDir reviews are not cached and the information maintained for those reviews is less detailed, there would be no reusability of that aspect. However, if the Gen-ART spreadsheet can be automatically populated (with assignments and completed reviews), the SecDir may be able to make use of that same tool.

## 9. Applicability

As implemented today, the process has no formal role in the IETF standards process. But as trust in the review team has built, and as the team itself has learned to deliver reviews that are generally well received, they have had a significant impact on I-D quality and on timeliness. Rather than becoming a roadblock, they have (in general) allowed the General AD to feel more confident in reaching decisions and be more precise in resolving issues. Since reviews now typically appear during IETF Last Call, the reviews, like the SecDir reviews, are now generally expected. So, the role of the team has evolved to be more formal than in the past (i.e., when this document was first drafted in 2005). However, the handling of the reviews remains entirely within the scope of the ADs, document shepherds, WG chairs, and authors as they deem appropriate.

## 10. Security Considerations

Since this is an informational I-D about an open process, the security considerations are specific to the process and users involved in the process. The primary concern would be to limit the people that have the ability to create and update the Gen-ART data/files to ensure that the integrity of the data is maintained. For example, each Gen-ART reviewer should have a unique user name/password, just as folks do to access any other IETF-maintained data, as appropriate.

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