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A Proposed Model for RFC Editing and Publication
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Abstract

The finishing process for a document that is approved for publication as an RFC currently involves a somewhat detailed and lengthy process. The system that executes that process involves a number of different actors, each bringing competency with different aspects of the overall process. Ensuring that this process functions smoothly is critical to the mission of the organizations that publish documents in the RFC series.

This document proposes a framework for that system that aims to provide clear delineations of accountability and responsibility for each of the actors in this system.

Discussion Venues

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

Discussion of this document takes place on the RFC Editor Futures program mailing list (rfced-future@iab.org), which is archived at https://mailarchive.ietf.org/arch/browse/rfced-future/ (https://mailarchive.ietf.org/arch/browse/rfced-future/).

Source for this draft and an issue tracker can be found at https://github.com/martinthomson/rfced-model (https://github.com/martinthomson/rfced-model).

Status of This Memo

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This Internet-Draft will expire on 7 January 2021.

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1. Introduction

The RFC Editor Model [MODEL] describes a system that supports the process of editing and publication of RFCs.

The process of RFC editing and publication takes inputs in the form of documents that are approved for publication by one of four streams (IETF, IRTF, IAB, and Idependent Submissions). The output is an RFC.

Generally speaking, this system is successful if RFCs are produced at a rate approximating the rate that documents are approved for publication. In addition to managing throughput, the overall latency should be minimized and the quality of documents should be sufficient to serve the ends of the consumers of those documents.

In practice, the demands placed on the editing and publication process mean that this function is quite involved. Furthermore, the exact goals that this system serves continually evolves. The current system has evolved out of a relatively simple system, into something like what is described in [MODEL] with multiple discrete roles and somewhat complex interactions between each.

This document attempts to describe an evolution of the current model, drawing on experience from successes and failures from operating that model, but based purely on the very high-level abstraction of that system.

This document starts out by building from a simple (even simplistic) model of the system, then builds that out incrementally. The goal is to progressively expand on the relevance of the model in addressing different problems that have been identified as important, or to draw in each of the relevant actors in the system and to attribute responsibilities (and associated authority) to each.

2. Conventions and Definitions

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in BCP 14 [RFC2119] [RFC8174] when, and only when, they appear in all capitals, as shown here.

3. Abstract Model

The highest-level abstraction is shown in Figure 1.

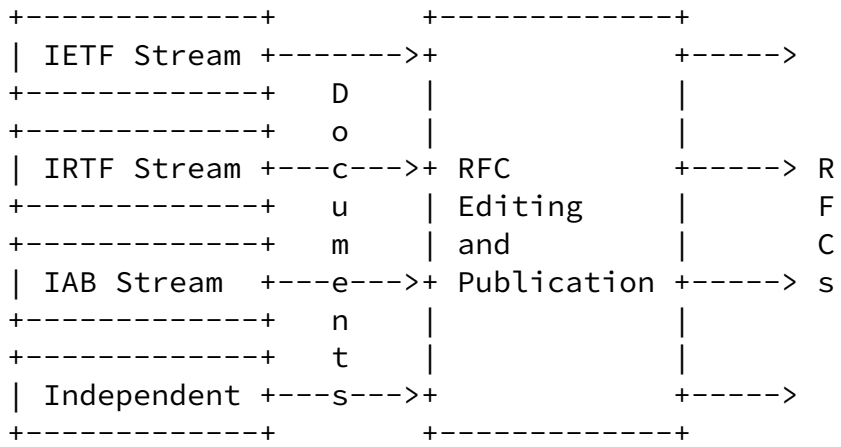


Figure 1: Simplified RFC Production Model

In this model, each of the four document streams produce documents that are approved for publication according to the processes of those streams. Each stream is an independent client of a single entity that provides services in support of publishing documents as RFCs. These services have numerous facets, but the core services are copy editing of documents, the preparation of documents for publication, and the publication of documents.

At a high level, each of the streams is an independent customer of the function of RFC Editing and Publication (REP). Informally, the entity (or entities) that perform the REP function are contracted to turn approved documents into RFCs.

4. Funding and Oversight

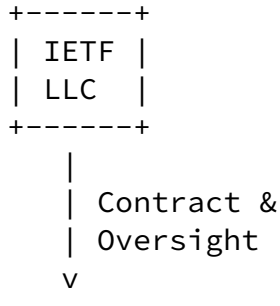
The entity that performs the REP function holds contracts with the IETF LLC, who also provides payment for those contracted services. This means that the REP function is ultimately answerable to the IETF LLC with respect to performance.

Currently, the IETF LLC delegates some of its authority to another body. This allows the IETF LLC to rely on the expertise of volunteers from the community in performing oversight. The IETF LLC currently delegates this function to the RFC Series Oversight Committee (RSOC) via the IAB. This indirection has caused some problems and this document proposes that oversight be a function that the IETF LLC be responsible for, either directly or through a delegation process that is managed by the IETF LLC.

The IETF LLC therefore has authority over negotiating performance targets for the REP and the responsibility of ensuring that those targets are adhered to. The IETF LLC is empowered to appoint a manager or to convene a committee that is responsible for this oversight function.

Community members who have concerns about the performance of the REP can request that the IETF LLC investigate the matter. If the IETF LLC opts to delegate the oversight function, concerns can be raised with the IETF LLC. The IETF LLC is ultimately responsible to the community via the mechanisms outlined in its charter [LLC].

This results in evolving the basic model as shown in Figure 2.



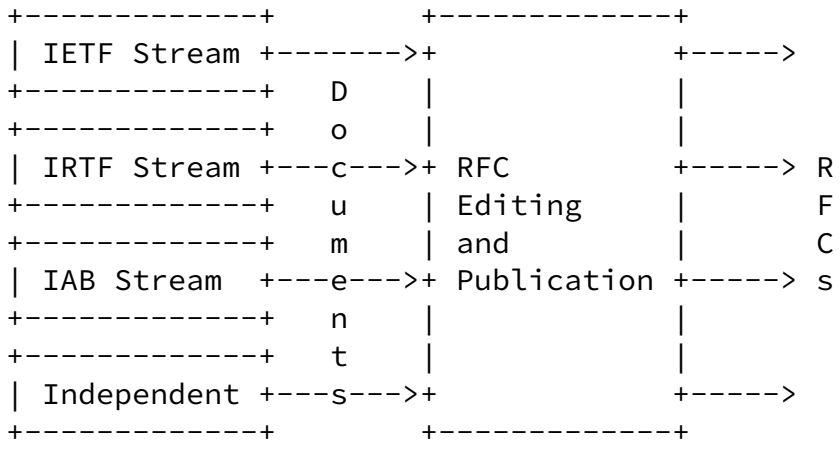


Figure 2: Oversight and Funding Functions

This shows the IETF LLC having budgetary and contractual oversight over the REP.

4.1. IETF LLC Delegation of Oversight Function

The current organization tasks the RSOC with responsibility for oversight. This has lead to numerous questions about the extent of authority delegated to the RSOC and the responsibilities of various entities that the RSOC is tasked with interacting with.

This document avoids these questions by placing this authority directly with the IETF LLC. However, the oversight function is one that the IETF LLC is expected to delegate, either to an individual or committee.

Any delegation would ideally result in the creation of a a document governing how the delegation was structured. This is not that document, but this assumes that the person or persons who are given oversight responsibility would be responsible for managing contract and performance for the RSEP. Any appeal or dispute with the actions of this individual or committee would then be taken up with the IETF LLC.

5. Evolution and Setting Policies

Setting the policies that set targets for REP performance and more detailed requirements for operation of their functions has historically been delegated to the RSOC. This document proposes separating that function. The goal is to improve the ability of the community (across all streams) to set and evolve policies.

The requirements of each of the streams changes over time. The goal is to find a system that allows the community to develop consensus around the strategic direction for the evolution of the RFC Series.

In terms of structure of this effort, the community has a set of well-understood and tested systems for developing consensus. Therefore, this document proposes that strategic goals for the RFC Series are developed using the working group process [WG] used in the IETF.

Concretely, this proposes forming a RFC Series Evolution program of the IAB that uses the auspices of an IAB program, one that closely follows the model proposed in [RSEME]. This results in a group that follows [WG] procedures, with the exception that the functions performed by the IESG are instead performed by the IAB. In particular, selection of chairs and appeals regarding the execution of the process are directed to the IAB to resolve.

It is important that this group adopt code of conduct, anti-harrassment, and other policies. Again, existing IETF processes - collectively referred to in the Note Well - are well-suited to this task.

Any strategic direction that is produced by this process will be documented in RFCs. These will need to be framed as high-level goals and priorities rather than strict requirements. It will be up to the IETF LLC - or their delegate - to negotiate with the REP function

about the execution for any changes. In negotiating the execution of strategy, the IETF LLC is expected to factor in relevant factors such as cost, legal constraints, or schedule.

The IETF LLC is also responsible for ensuring that the plans for implementation of strategic goals is published and available to the community.

This results in the model shown in Figure 3.

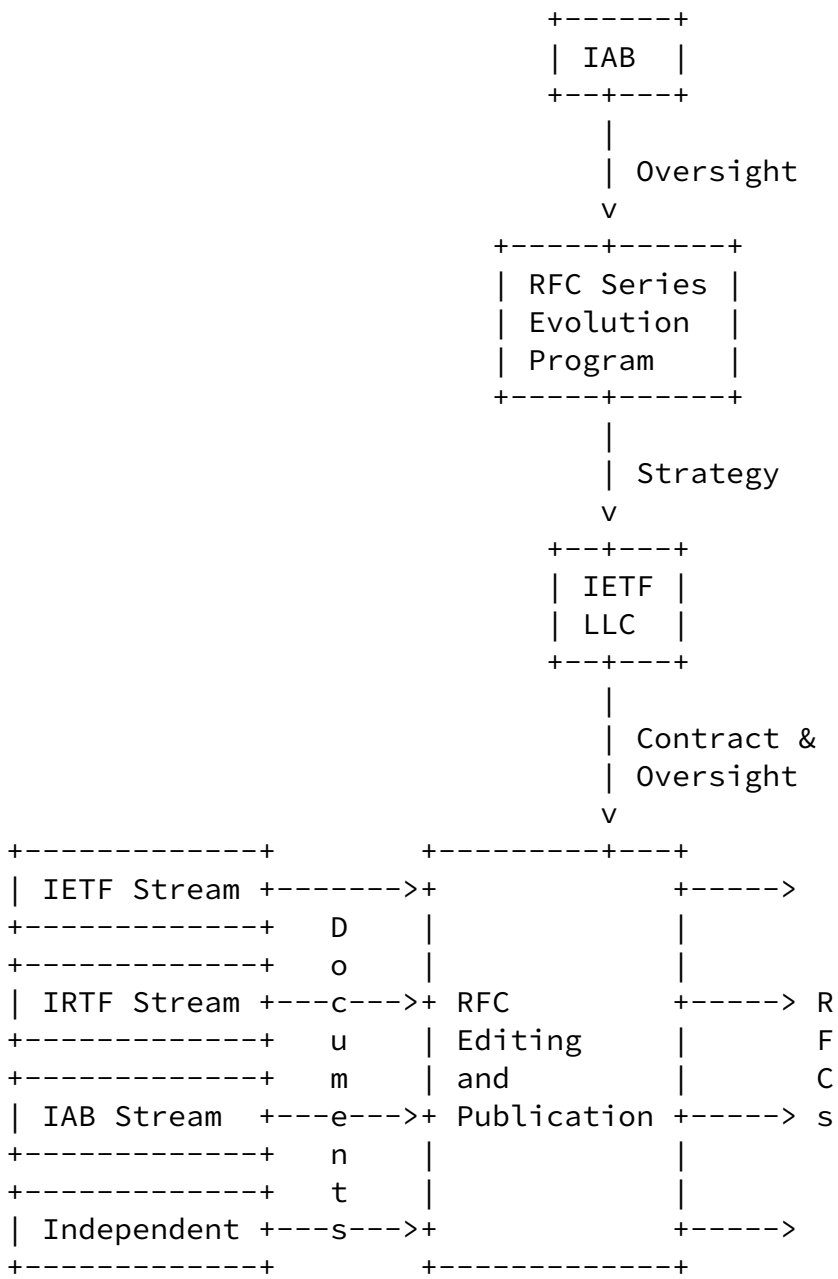


Figure 3: Evolution and Strategy Additions

5.1. Individual Interactions

It is important to recognize that the interface to the REP function is most often through individual authors (or chairs, document shepherds, and area directors) and individual REP staff.

In those interactions, those individuals might find problems with processes or might be motivated to make suggestions for improvement. The goal of the RFC Series Evolution program is to provide a single venue for discussion of changes to REP requirements, processes, and procedures.

5.2. The Needs of Different Streams

The singular group responsible for evolution of the RFC Series as a whole is a simplification that is made to reduce contention in setting strategic goals. It is important to note that the needs of different streams can be different.

Several factors motivate a single group that sets strategy. Historically, the IETF stream is responsible for a large proportion of the documents in the series. That is unlikely to change and experience has shown that other streams are - for the most part - willing to accept that strategic direction is largely dictated by the needs of the most prolific user of the REP service.

It is important that each stream retain control over the content of documents that are published on that stream. Streams currently appoint a stream manager who is allocated authority over content on that stream and responsibility to manage any problems that might arise in handling documents produced by that stream. This document proposes that this aspect of the role continue.

Stream managers are also involved in discussion of changes to REP processes and they contribute to the development of strategic direction for the RFC series. Rather than deal with issues of REP processes directly, stream managers are expected to initiate discussion or make proposals to the RFC Series Evolution program. To avoid conflicts of interest, it is expected that stream managers will be active participants - and not chairs - in this program.

5.3. Style Guide

One question that arises when considering policy is that of the Style Guide [RFC7322] and supporting material. These materials are critical to the process of editing and therefore require that they be owned and maintained.

The current process requires that the RFC Series Editor produce and maintain this material. This document proposes that the RFC Series Evolution program become responsible for ownership of this material.

However, it is recognized that the REP service will likely be the ones to encounter the need to make updates to material. The RFC Series Evolution program will need clear processes for reporting problems. As problems of this nature often arise during document processing, they can require expedient solutions. To that end, the process should allow for the REP service to make and record decisions.

The nature of the process the RFC Series Evolution program uses might change over time. Any changes need to be clearly communicated and changes negotiated with the REP. This negotiation is to be facilitated by the IETF LLC or their delegate.

6. Tooling

Producing an RFC relies heavily on tools that help automate many aspects of the process. Using tools contributes to consistency and better performance of the REP function.

In one version of this model, the tools that are used by the REP function are the responsibility of the function. However, the larger system benefits from a degree of consistency between the tools used by each stream to produce documents and the tools used in the editing and publication stage. In practice, these tools are shared and a great deal of benefit is derived from that arrangement.

A number of different organizational arrangements could be conceived of for arranging this situation. For instance, the REP could be tasked with producing and maintaining tools that it is required to also make available to the community of people that produce documents. The current arrangement is that the REP develops some of its own tools, but it also depends on tools that are maintained by the IETF LLC.

Reflecting that arrangement, we have the final composition of functions as shown in Figure 4.

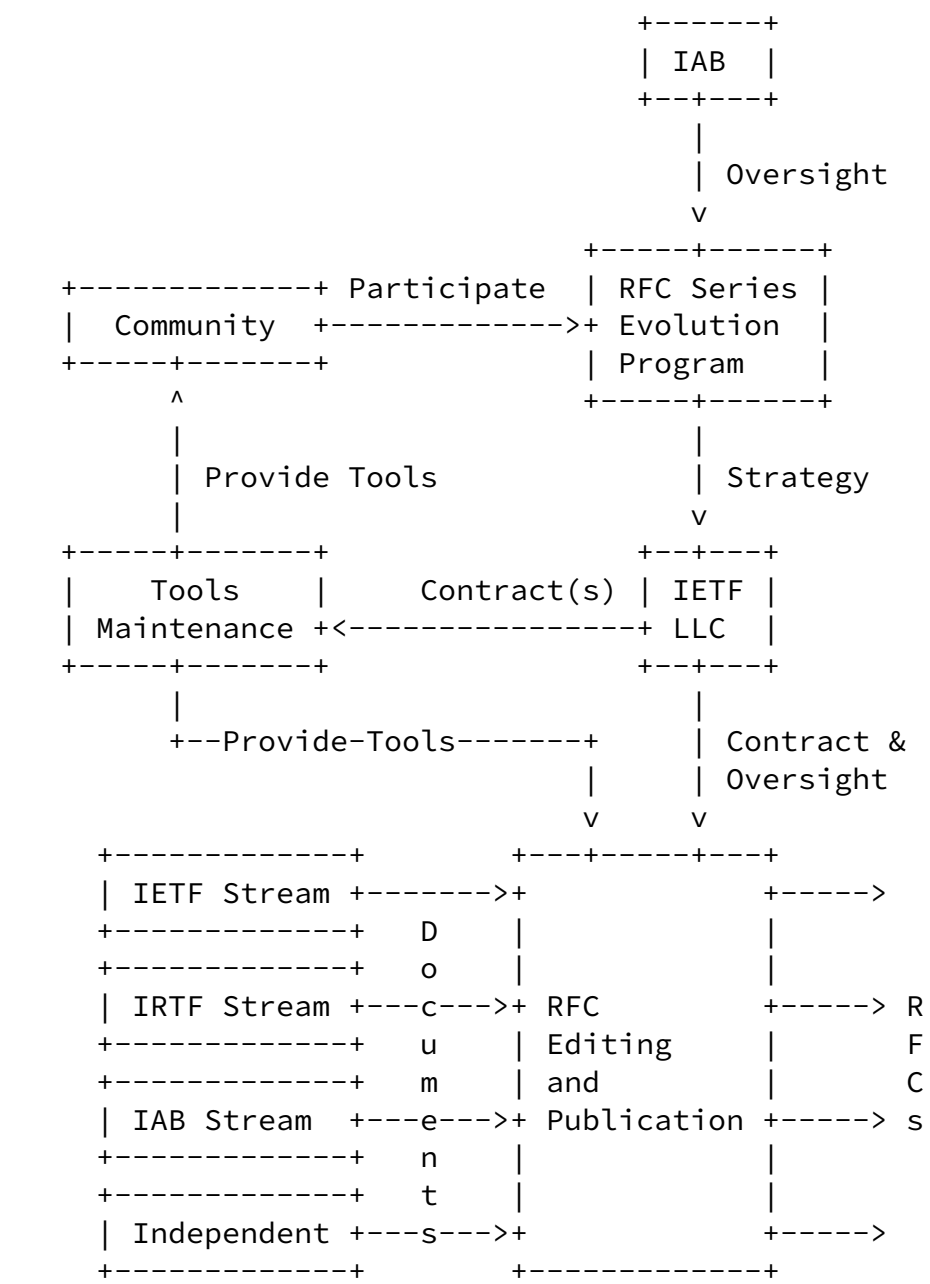


Figure 4: Final Model

This arrangement means that any dependencies the REP might have for tools need to be coordinated via the entity responsible for managing

the maintenance of tooling. The IETF LLC is ultimately responsible for ensuring that the tools maintenance function has processes for managing the requirements of the REP. As with the REP oversight functions, this might also be delegated at the discretion of the IETF LLC.

If meeting new requirements set by the IETF LLC require new or modified tooling, it is the responsibility of the REP to formulate requests regarding to tools to the Tools Maintenance function.

Any problems arising from this arrangement will be raised with the IETF LLC as they pertain to meeting operational goals.

7. Management of Individual Functions

This model does not specify strong requirements on the management of any of the functions it describes. It is expected that each function identified here will be managed in a manner appropriate to the function that it serves.

Any choice by the IETF LLC to delegate oversight responsibility to a committee might require that the committee will need decision-making processes. The IETF LLC is ultimately responsible for ensuring that these processes are appropriate and effective. The IETF LLC processes regarding consultation with and accountability to the broader IETF community are deemed sufficient.

The choice of leadership for the RFC Series Evolution program could become more important with a move to a system that lacks a single figurehead. Two measures are suggested to mitigate the potential for this position to become a function replacement for the RSE position:

* The IAB should appoint at least two co-chairs. This is already good practice for working groups as it provides redundancy in case of absence or conflict of interest.

* The IAB should seek new chairs at regular intervals and seek to limit the period over which any one individual might hold a leadership position in the program.

These are suggestions to the IAB only, not hard requirements.

If the function of the REP is contracted to a single entity, it would be the responsibility of that entity to provide appropriate management. That management would be expected to manage the workload involved in providing core REP functions like editing and publication, arranging and planning for changes in response to upcoming requirements, and reporting on status and performance.

For the tools maintenance function, contracting of tools development and maintenance currently involves multiple entities. Therefore, it might be necessary for the IETF LLC to contract for a role to manage coordination of tools maintenance. Arranging for appropriate management, along with systems for establishing accountability to the community, enabling community contributions, and dealing with dispute or contention is left to the IETF LLC.

8. Other Involved Entities

Many documents involve actions for IANA that are processed as part of the REP processing. These processes need to be captured and documented.

This draft describes a model whereby the RFC Series Advisory Group and the RFC Series Editorial Board have no future as these are functions that serve the a role that does not exist in this model. These august bodies embody a great deal of collected wisdom regarding the RFC Series. It is this author's earnest hope that these individuals will continue to lend their efforts in the form of contributions to the development of strategy.

This draft proposes that the RFC Series Oversight Committee (RSOC) be disbanded. Many of the functions provided by the RSOC are now an IETF LLC responsibility in this model. If the IETF LLC decides to form a committee, the experience of RSOC procedures and former personnel might be used as a resource.

9. Notable Differences from Version 2

This proposal does not describe a role for a RFC Series Editor.

The functions previously served by this individual are devolved into

several pieces. The REP function is expanded to cover both RFC Production Center (RPC) and RFC Publisher as well as the operational management responsibilities formerly adopted by the RFC Series Editor.

The responsibility for managing the evolution of the series is delegated to a consensus-based group rather than being vested in an individual. Previous RFC Series Editors achieved much of the strategic and evolutionary functions of their role by building community consensus, so this aspect of the role is essentially transferred to the chairs of the RFC Series Evolution program.

Any responsibility for execution of RFC Series strategy that might have been the responsibility of a RFC Series Editor has been distributed: the IETF LLC is responsible for turning strategy into requests; the REP is responsible for executing these requests. As the RPC (or publisher) was previously ultimately responsible for execution of any strategy, the functional difference is minimal.

Moving away from a model where a single individual is involved in setting direction for the RFC Series is significant. This proposal vests that control in a consensus-based body instead, which means that decisive action is likely no longer a feature of this system. As the emphasis of the group is on longer-term strategy, this is not anticipated to be a practical problem.

This proposal combines the RFC Production Center and RFC Publisher functions. These have been conjoined in practice for many years already and so this merely formalizes a standing arrangement.

10. Documentation Requirements

This model depends on the production of a document (or set of documents) that outlines the initial set of requirements for the operation of the REP. Much of this already exists in the form of previous service agreements [RPC-SA] and the expectation is that these documents can be adapted. These documents will become the

resposibility of the IETF LLC.

Over time, some of the material from service agreements and contract are expected to move to strategic documents maintained by the RFC Series Evolution program.

The RFC Series Evolution program will be responsible for maintaining this document, along with other documents that describe the RFC Series, such as [MODEL], [RFC-SERIES], and [BOILERPLATE]. Continuing publication of these documents on the IAB represents no change to existing practice.

11. Errors and Omissions

This is a draft. At this stage, it is intended to just show the general outline of the model. As details are filled in, everything here is liable to change. There are likely many errors, omissions, and inconsistencies.

There are lots of small details in [MODEL] that are still likely relevant and would need to be tweaked to fit within the proposed structure.

12. Security Considerations

Much of the success of systems like this can be attributed to the dilligent work of individuals who strive to resolve issues collaboratively. Generally speaking, it is good to assume that this will continue. However, this document does attempt to establish where authority lies for any particular decision in case of lapses or disagreements.

This document aims to provide some measure of security against failure of any single person to execute their function in good faith.

That doesn't mean that a malicious actor operating in any of the critical roles could not choose to be extremely disruptive. In addition to some expectation of reasonableness, this system defines entities (often bodies) to whom each actor is answerable or who are empowered to resolve disputes.

13. IANA Considerations

This document makes no request of IANA.

14. References

14.1. Normative References

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Acknowledgments

This is not new thinking. You might, if you were so inclined, find all of these concepts in emails or documents from other people.

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