

Individual Submission
Internet-Draft
Intended status: Informational
Expires: May 31, 2019

B. Haberman, Ed.
Johns Hopkins University
J. Arkko
Ericsson Research
L. Daigle
Thinking Cat Enterprises LLC
J. Livingood
Comcast
JL. Hall
CDT
E. Rescorla
RTFM, Inc.
November 27, 2018

IASA 2.0 Design Team Recommendations
draft-haberman-iasa20dt-recs-03.txt

Abstract

The arrangements relating to administrative support for the IETF were created more than ten years ago. Since then, there has been considerable change in the tasks and in our own expectations. The IETF community has discussed these changes and the problems they cause. The community has some sense of the properties they expect from future arrangements, including those related to structure, organization, personnel, and transparency.

This document is a product of a design team, focused on providing additional information to the community about solution options, as well as supporting analysis of the implications of those options. This document reflects the final snapshot of the design team discussion and is published for historical posterity.

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of [BCP 78](#) and [BCP 79](#).

Internet-Drafts are working documents of the Internet Engineering Task Force (IETF). Note that other groups may also distribute working documents as Internet-Drafts. The list of current Internet-Drafts is at <https://datatracker.ietf.org/drafts/current/>.

Internet-Drafts are draft documents valid for a maximum of six months and may be updated, replaced, or obsoleted by other documents at any time. It is inappropriate to use Internet-Drafts as reference material or to cite them other than as "work in progress."

Internet-Draft

IASA 2.0

November 2018

This Internet-Draft will expire on May 31, 2019.

Copyright Notice

Copyright (c) 2018 IETF Trust and the persons identified as the document authors. All rights reserved.

This document is subject to [BCP 78](#) and the IETF Trust's Legal Provisions Relating to IETF Documents (<https://trustee.ietf.org/license-info>) in effect on the date of publication of this document. Please review these documents carefully, as they describe your rights and restrictions with respect to this document. Code Components extracted from this document must include Simplified BSD License text as described in Section 4.e of the Trust Legal Provisions and are provided without warranty as described in the Simplified BSD License.

Table of Contents

1.	Introduction	3
2.	Background	4
2.1.	Terminology	4
2.2.	Current IASA Arrangements	5
3.	Problem Statement	6
3.1.	Lack of Clarity	7
3.1.1.	Responsibility	7
3.1.2.	Representation	7
3.1.3.	Authority	8
3.1.4.	Oversight	8
3.2.	Lack of Resources	9
3.2.1.	Volunteers	9
3.2.2.	Staff	9
3.3.	Lack of Transparency	9
3.4.	Funding/Operating Model Mismatch and Rising Costs	10
4.	Goals	11
5.	Reorganization Options	13
5.1.	Overall Structure	14
5.1.1.	IASA++	14
5.1.2.	ISOC Subsidiary	15
5.1.3.	Independent Organization	16
5.2.	IETFAdminOrg and the Relationship with IETF	17
5.3.	Oversight for IETFAdminOrg	18
5.3.1.	Board Selection	19

5.3.2.	Advisory Council	20
5.3.3.	Board Changes in IASA++	20
5.4.	Transparency	21
5.5.	Staff Structure	21
5.6.	Funding	22

5.6.1.	One-time costs	22
5.6.2.	Sources and Stability	23
5.6.3.	Level	24
6.	Analysis	25
6.1.	Comparison to Goals	26
6.2.	Financial Impacts	28
6.3.	Other Impacts	29
7.	Conclusions	29
7.1.	Transition Plan	30
8.	Acknowledgments	30
9.	Informative References	30
	Authors' Addresses	31

[1.](#) Introduction

The arrangements relating to administrative support for the IETF (referred to as the "IETF Administrative Support Activity" (IASA) [[RFC4071](#)]) were created more than ten years ago, when the IETF initially took charge of its own administration. The arrangements have served the IETF reasonably well, but there's been considerable change in the necessary tasks, in the world around us, and our own expectations since the creation of the IASA. What administrative arrangements best support the IETF in the next ten years?

The system has experienced various challenges and frustrations along the way, for instance around meeting arrangements. There are also some bigger questions about how the organizations are structured, for instance about the division of responsibilities between IETF and The Internet Society (ISOC).

The IETF community has discussed and continues to discuss these topics, most recently on the "IASA 2.0" mailing list and BOFs at IETFs 98 and 99. Alissa Cooper, the Chair of the IETF, convened a small design team to start evaluating potential options going forward. The purpose of the design team is to provide material that informs the community discussion, both in terms of providing a bit

more worked through solution ideas, as well as supporting analysis of the implications of those options. This information, along with all other input provided in the discussion, hopefully helps the community and IETF leadership decide what next steps to take.

To be clear, the community is in charge of adopting any recommendations or making any decisions. This draft, the final output of the design team's considerations, has no particular official standing. It should also be noted that IETF administrative matters have been organized jointly with ISOC, and it is important that ISOC continue to be involved in IETF's reorganization.

The design team seeks feedback particularly on three aspects:

- o If the set of options outlined in this draft covers the options that should be looked at.
- o If the analysis of the implications of the options is correct.
- o Which direction the community would like to take the work in evolving IASA.

It should of course be acknowledged that there is no perfect, or even great solution. Changing the IETF organizational structure will not fix every problem and may bring new problems of its own. But it seems that the current structure is brittle and the issues around lack of staff and authority, clarity, and responsibility are sufficiently serious to warrant exploring different options.

This document defines the goals of the IASA 2.0 effort in terms of an abstract administrative structure, called IETFAdminOrg. Then, three possible implementations of IETFAdminOrg are considered in the light of how they could be used to address the goals. In no case does IETFAdminOrg have anything to do with defining, changing, or operating the IETF's standards process and structure (participants (not members), WGs, IESG and so on), which remain as they stand today. In particular, none of the options lead to the IETF becoming a formal organisation of any sort.

As a base for this work there was a good articulation of the set of problems we are facing in [[I-D.hall-iasa20-workshops-report](#)] and

[[I-D.daigle-iasa-retrospective](#)]. The community discussion seems have indicated also some of the outcome properties that are expected.

The next two sections ([Section 2](#) and [Section 3](#)) describe the background and summarize the challenges noted in the community discussion. The two sections after that ([Section 4](#) and [Section 5](#)) describe the goals and primary options for changes. The following two sections ([Section 6](#) and [Section 7](#)) focus on analysis of the different options along with conclusions.

[2.](#) Background

[2.1.](#) Terminology

The following acronyms are used in this document:

- o IASA - IETF Administrative Support Activity - An organized activity that provides administrative support for the IETF, the IAB, and the IESG.

- o IAOC - IETF Administrative Oversight Committee in the current IASA system - A largely IETF-selected committee that oversees and directs IASA. Accountable to the IETF community.
- o IAOC committees - Recognizing the need for specialized attention for different branches of work requiring IAOC oversight, the IAOC expanded its support by creating committees. Currently, the committees do the heavy lifting on specific tasks, while the IAOC is the one responsible for final decisions.
- o ISOC - The Internet Society - The organizational home of the IETF, and one that in the current IASA system assists the IETF with legal, administrative, and funding tasks.
- o IAD - IETF Administrative Director - In the current system, the sole staff member responsible for carrying out the work of the IASA. An ISOC employee.
- o IETF Trust - In the current system, the IETF Trust acquires, maintains, and licenses intellectual and other property used in connection with the administration of the IETF. Same composition as IAOC.

[2.2.](#) Current IASA Arrangements

The administrative support structure is intended to be responsive to the administrative needs of the IETF technical community.

[RFC 4071](#) [[RFC4071](#)] defines the current IETF Administrative Support Activity (IASA). It is an activity housed within the Internet Society (ISOC), as is the rest of the IETF. [RFC 4071](#) defines the roles and responsibilities of the IETF Administrative Oversight Committee (IAOC), the IETF Administrative Director (IAD), and ISOC in the fiscal and administrative support of the IETF standards process. It also defines the membership and selection rules for the IAOC.

As [RFC 4071](#) notes, IASA is distinct from IETF-related technical functions, such as the RFC Editor, the IANA, and the IETF standards process itself. The IASA has no influence on the technical decisions of the IETF or on the technical contents of IETF work.

Today, IASA's activities support a number of functions within the IETF system:

- o Meeting planning
- o Budget and financial management

- o Contracting with and overseeing the secretariat
- o Contracting with and overseeing the RFC Editor (together with the IAB)
- o Contracting with and overseeing IANA (together with the IAB)
- o Legal ownership of IETF materials, domain names and copyright
- o Ownership of IANA-related domain names and copyright
- o General legal support (including topics beyond domains and IPR)
- o The IETF website

- o IETF IT services
- o Tooling support, maintenance, and development (together with volunteers)
- o Meeting network support
- o Remote attendance support
- o Communications assistance for the IETF
- o Sponsorship and funding (together with ISOC)

3. Problem Statement

The purpose of this part of the document is to describe a few problem areas with enough detail to allow the comparison of potential IASA structure updates (among themselves, as well as comparison to the status quo) that must be addressed by IETFAdminOrg. This is intentionally illustrative, rather than an exhaustive enumeration of all possible and perceived issues with the current structure and implementation. Nevertheless, the examples are concrete and real. (For a fuller description of the perceived issues with the current IASA arrangements, see [[I-D.daigle-iasa-retrospective](#)], [[I-D.hall-iasa20-workshops-report](#)], [[I-D.arkko-ietf-iasa-thoughts](#)], and ongoing discussion on the iasa20@ietf.org mailing list.

In general, the range of IETF administrative tasks have grown considerably, our organizational structure is not as clear, efficient, or as fully resourced as it should be, the division of responsibilities between the IETF and ISOC continues to evolve, expectations on transparency have changed, and we face continued

challenges related to funding IETF activities on a background of increasing costs and lack of predictability in our funding streams.

3.1. Lack of Clarity

In general, as the IETF has grown and aged, an increasing lack of clarity exists in a number of specific areas. We discuss four areas where this lack of clarity is specifically acute: responsibility,

representation, authority, and oversight.

[3.1.1.](#) Responsibility

The line between the IETF and ISOC is not organizationally clear-cut, which has led to issues around transparency, allocation of staff time and priorities, budgeting, and clarity of who is responsible for what.

Often, it can be unclear what part of the IETF or ISOC is responsible for a particular function. Things as simple as ensuring there is a lanyard sponsor/coordinator, but also functions as important as fundraising and sponsorship development have suffered from a lack of clear responsibility.

IETFAdminOrg must have lines of responsibility that are clear enough for non-IETFers to understand where responsibilities lie, and how to make changes as necessary over time.

[3.1.2.](#) Representation

The respective roles of ISOC, the IETF chair, the IAOC, and the secretariat in representing the IETF to sponsors and donors and communicating with them are not clear.

Having ISOC represent the IETF to sponsors and donors:

- o creates confusion about why the IETF does not represent itself,
- o yields questions about why ISOC does not instead increase its IETF support and how donations can be guaranteed to be dedicated to the IETF,
- o can result in those soliciting sponsorships and donations having a lack of familiarity with IETF work, and
- o creates a lack of an integrated and understandable representation of the IETF. People not familiar with the IETF (e.g., potential sponsors) must be able to recognize when or how an entity speaks for the IETF.

[3.1.3.](#) Authority

Another significant problem concerns authority, and to what extent can IETF make decisions on its own in the current structure compared to decisions that require ISOC approval and agreement.

For example, due to IETF's lack of legal status, contractual agreements must be signed by ISOC on behalf of the IETF. There are occasions when a decision that is right for the IETF and desired by IETF leadership cannot be executed due to constraints posed by what ISOC can and cannot agree to itself. For example, when IETF sought to acquire a recent piece of software for business purposes, ISOC would initially not agree to entering into an agreement with the software provider. Ideally, IETF could make decisions free from operational and other constraints imposed by its relationship with ISOC.

IETFAdminOrg must have enough and appropriate authority to carry out the IETF's administrative requirements and activities in a timely fashion, and as the IETF desires (within reason of normal business and legal requirements).

3.1.4. Oversight

The IAOC is the primary oversight body in the current IASA model, but there can be confusion or mismatches in roles. For example, to the extent that ISOC staff besides the IAD become engaged in administrative work for the IETF, to whom do they report? The IAOC, the IAD, or their management at ISOC? Even if the reporting line for such staff were more clear, clearly there are power dynamics in this role that might pull an ISOC-assigned IETF staffer in directions that might not be in the best interests of IETF, consciously or unconsciously.

Furthermore, when we're in a position where we need more staff support, it's not obvious what the most appropriate path is to obtain that support and how the IAOC's oversight fits into the kind of performance review and career planning that ISOC staff would expect. We have used a variety of models for acquiring staff support from ISOC in the past, ranging from the IAD informally soliciting help from others at ISOC, to the IAOC establishing more formal staff relationships with ISOC personnel, to ISOC taking responsibility for finding staff with an internal-to-ISOC reporting chain. The role of the IAOC with respect to such staff is not defined, nor is the mechanism for reflecting the work that they do for the IETF back to their ISOC management.

IETFAdminOrg's oversight functions must be complete and coherent. For example, it might either take on full oversight responsibility for staff employment functions (including reporting structures and career development), or the oversight role must be limited to review input submitted to the external sources responsible for employment.

[3.2.](#) Lack of Resources

IETF faces growing constraints on resources essential for IETF to function, notably in volunteers and staff.

[3.2.1.](#) Volunteers

The IAD is the sole full-time employee for IETF, and the IASA arrangement encompasses a series of volunteer committees that help to work through issues such as finance, legal, meetings, technology management, requests for proposals, and sponsorship. However, it is becoming close to impossible to find qualified volunteers who are willing to stand for open slots on the IAOC. In general, on both the IAOC and the committees, the time that committee members have to devote to the tasks at hand falls far short of what is required to do much of anything beyond keeping the organization afloat. At a time when the IETF is faced with administrative and financial challenges, barely having enough volunteers and volunteer time to keep the current operation running is not a sustainable model.

IETFAdminOrg must rely less on volunteers or be better assured of engagement of willing and capable volunteers.

[3.2.2.](#) Staff

IETF faces serious constraints on staff capacity under the current IASA model. The one IAD role and support from contractors have been used to assure that capacity needed is for the most part in place. However, it seems clear that the IAD role is overly complex and taxing for a single human at this point, necessitating measures such as providing an administrator for the IAOC to better run that body and their meetings. IETFAdminOrg will require more paid employment support dedicated to IETF work.

[3.3.](#) Lack of Transparency

The IAOC has sometimes been perceived to operate less transparently than what is the norm for IETF processes and other IETF leadership bodies. This can be observed, for example, in the failure to publicly share agreed information in a timely fashion. The reasons

behind this vary but can sometimes be caused by lack of resources to

review and prepare material for community review, or even fear of community reaction to potential administrative decisions.

Work to increase transparency has made progress, but we must continue to address and improve this. At the same time, a balance must be struck to reach the right level of transparency, so that certain aspects of contracts, business terms, and negotiations can remain confidential, according to legal and business practice norms. It will be important for the community and any future IASA function to better define this in order to better meet well-defined, balanced community expectations on transparency and information sharing. IETFAdminOrg will be required to operate in a transparent fashion per community expectations set as part of this IASA 2.0 process.

[3.4.](#) Funding/Operating Model Mismatch and Rising Costs

Meeting fees are currently an important source of revenue, but the emergence of more viable remote participation tools and other factors are likely responsible for declining in-person meeting attendance going forward.

While there has been a lot of sponsor support for, e.g., meeting hosting, getting support for the full costs of operating the IETF is not easy. The costs are quite large, the value to sponsors is not always obvious, the IETF community is sometimes critical or unappreciative, and the same sponsors get tapped again and again for many related but different opportunities.

At this point we have one part-time contractor responsible for sponsorship fundraising, and volunteers on the finance and sponsorship committees with limited cycles to spend on re-envisioning the fundraising model for the IETF. They are all putting in good efforts, but ultimately we are unlikely to be able to meet the present funding challenges if we do not have people with the cycles available to dedicate the necessary time to figuring out how to do that.

In addition, relying heavily on meeting-based revenue is somewhat at odds with the fact that much of the IETF's work takes place outside

of in-person meetings.

The IETF is increasingly relying on professional services to support its activities -- in order to more efficiently operate the IETF's activities and better enable IETF participants to contribute to the IETF's core technical work rather than administrative and supporting activities work -- which is also causing expenses to grow. IETFAdminOrg must have appropriate authority and tools to adapt the funding model of the IETF to evolving realities.

[4.](#) Goals

The IASA redesign effort needs to address the main issues listed above in [Section 3](#). More specifically, the future organizational structure needs to do at least the following:

- o Protect the IETF's Culture and Technical Work: Ensure that the future IASA organizational structure and processes preserve and protect the IETF's unique culture of individual contribution, clear separation of financial support from technical work, as well as the "rough consensus and running code" approach to the development of open Internet standards.
- o Improve the IETF's Technical Environment: Undertake changes to better enable technical contributors to focus more on that technical work and less on administrative work or support activities. This could for example mean directing more financial resources towards the creation of new or improvement of existing tools, which might be produced by contractors rather than solely by volunteers. As a result, volunteers could instead focus on developing the standards themselves. Thus, if the core competency of IETF attendees and their reason for participating in the IETF is to develop standards, then create an environment where they can focus exclusively on that activity and delegate to contractors, staff, or other resources the responsibility for creating and maintaining tools and processes to support this activity.
- o Clearly Define the IETF-ISOC Relationship: Define the roles of IETF and ISOC in a way that helps the above structure be as clear as possible, in terms of who does what, how are things accounted for, and who is in charge of adjustments and control (e.g., staff resources). This also includes consideration of a new funding

model that takes into account the historical responsibility for the IETF that ISOC has had since its inception.

- o Support a Re-Envisioned Funding Model: Provide the staff support and resources needed to adapt the funding model of the IETF to changes in the industry, participation, and expenses. The structure should also allow for and be able to support new funding streams or changes to the proportion of funds from various sources.
- o Provide Clarity About the IETF-ISOC Financial Arrangements: A redesign needs to clear up ambiguities in the financial arrangements between IETF and ISOC. It must also be clear to people outside the IETF and ISOC organisations (e.g., sponsors) what the arrangements are and what their contributions affect and do not affect.

- o Clarify Overall Roles and Responsibilities: Ensure that all staff, contractor, and volunteer roles are clearly documented. This necessarily includes documenting how each of these parties may interact or interface with one another in order to conduct and support the business of the IETF. This also includes documenting key work processes, decision-making processes and authority (such as pertaining to meeting venue selection), etc. A key objective is to minimize ambiguity and uncertainty so that it is clear who is responsible for what and who has the power to make certain decisions.

There also needs to be a clear definition of what issues belong to the IESG vs. the IASA organisation or staff. In many cases that is not clear today.

- o Define Support Staff Roles and Responsibilities: Clearly define the roles of the oversight entities and staff/contractors to match the expanded work scope facing the IETF. Ensure that any changes create a structure that can adapt flexibly to future growth and other changes (including changes in IETF community expectations, such as increased transparency or more rapid decision-making).
- o Re-Define the Role of the IETF Community in Relation to Administrative Activities: As the roles and responsibilities for support staff and volunteer roles are clarified more precisely,

the role of the IETF community in relation to those staff and volunteer roles must be better defined. This should acknowledge the limited time and availability of IETF volunteers, better defining expectations around oversight of and involvement in strategic, operational, and execution tasks within the administrative efforts.

The new design needs to ensure that volunteers are not overloaded in such things as low level operational decisions, which can be delegated to and handled by staff, and can instead focus on strategic changes, critical decisions, and so on. In particular, this should focus on clearly documenting the lines between responsibility, representation, authority, and oversight.

- o Define Improved Transparency Requirements: The general level of operational transparency and information-sharing between IETF administrative staff and groups to the IETF community must be kept at an acceptable level, and improved where it makes sense in the future. This includes ensuring the timeliness of sharing of information and decisions, as well as seeking comment on prospective decisions. At the same time, we need to reset expectations around delegated authority so that once staff or an administrative support organization has been delegated certain

authority it is clear that they are empowered to proceed in a particular area, so as to improve organizational efficiency, reduce friction, and improve the pace of work and decision-making. However, it is clear that enabling a group or staff to act within their delegated authority depends upon a clearer definition of roles and responsibilities, on improved transparency, on improved communications, and on trust (which is built upon all of those things over time).

- o Define a Transition Plan: Determine what new IASA structure we need and define a transition plan from the model the IETF has today to the new structure.

[5.](#) Reorganization Options

The design team believes that there are three general approaches to evolving the IASA function. The options generally focus on the relationship between the IETF and ISOC. Changes to this relationship

directly affect how the IASA function gets carried out.

The first subsection that follows, [Section 5.1](#), describes each of the three re-organization options.

[Section 5.2](#) discusses the relationship of the IETF administrative organization to the IETF. Clear definition of this relationship is particularly important in the reorganization options that involve the creation of new entities (subsidiaries or independent organizations) to house the administrative functions. The next section, [Section 5.3](#) discusses the creation of appropriate oversight to a new entity. [Section 5.4](#) discusses the approach to transparency, which is largely independent of other aspects of the reorganisation.

[Section 5.5](#) outlines the needs for IASA staff, and [Section 5.6](#) discusses what short term and long term funding arrangement changes are needed. Both staffing and funding arrangements are relevant for all reorganization options, but are of course affected by the chosen option.

It should be noted that all three options require more administrative budget per year than what is currently allocated for IASA functions. In addition, they will most likely require a more predictable level of ISOC funding, rather than the current model of a base funding level combined with periodic infusions to cover shortfalls.

[Section 6](#) highlights the pros and cons and effectiveness of the options in comparison to the goals stated earlier.

[5.1](#). Overall Structure

[5.1.1](#). IASA++

In the IASA++ option, IETFAdminOrg continues to be implemented as an activity within ISOC. While addressing the requirements above, this does mean that ISOC maintains funds and contracting authority on behalf of the IETF, and all IASA staff are ISOC employees.

While the relationship remains the same, the IETF and ISOC will make improvements to the relationship in order to enhance the

functionality of the IETF. The following are some potential improvements that could be made under this approach:

- o Provide clarity and transparency about authority, responsibility, budgeting, and allocation of staff time for all IETF-related work and activities.
- o Add IASA staff to better reflect the increased workload on what is now a single staff member.
- o Provide clarity about authority of the IAOC in reviewing performance of IASA staff.
- o Re-structure the internal IETF organization and appointment processes for the IAOC to address current challenges. IETF Trust may be separated from IAOC.
- o Drive IETF community consensus on roles and responsibilities for administrative decision-making so it is completely clear what people or group has authority to make decisions, and what type of consultation, if any, should take place with the community in advance so as to eliminate the current lack of clarity and friction that exists today.

The key focus in implementing this option would be sorting out the roles and responsibilities of the IAOC and ISOC. The IETF needs to be able to make its own administrative decisions independent of ISOC. Having a concrete separation of roles and responsibilities will allow each organization to develop their own internal policies that meet their different operational needs. It should be noted that the IETF needs to keep abreast of changes to ISOC policies to ensure that the working arrangement remains smooth. Some examples of where the IAOC needs autonomy from ISOC policies include:

- o Contract administration
- o Spending authority limits

- o Personnel decisions, including compensation

Some specific changes to make these improvements are discussed in [Section 5.3](#) regarding board and staff work divisions. While in this

option there is no need for a formal board, there is still a need to redefine the role of the IAOC. The necessary staff changes are discussed in [Section 5.5](#).

It would also be necessary to improve IAOC transparency. In the IASA++ option, in addition to the general improvement needs in this area, there is an added need to continue the improvements relating to accurate accounting of resources and actions on the ISOC side. This relates directly to the delineation of roles and responsibilities necessary for the IAOC to operate independent of ISOC. Improved transparency will allow the IETF community to be more aware of IAOC operations and decisions. Such changes to the IAOC will require changes to [\[RFC4071\]](#).

[5.1.2](#). ISOC Subsidiary

In this option, IETFAdminOrg is implemented as an ISOC subsidiary, which would be created as the new legal home of the IETF administrative operation, similar to how the Public Interest Registry (PIR) is an organized subsidiary within ISOC. A subsidiary can have its own bank account, by-laws, charter, board, staff, and corporate identity. As a subsidiary of ISOC, the IETF and ISOC can share overhead and resources. The IETF would likely continue to rely heavily on contractors for most administrative tasks.

In the subsidiary model, IETFAdminOrg would carry out the function in ISOC's role of administratively supporting the IETF. ISOC itself would no longer undertake specific actions to that end, other than supporting IETFAdminOrg. In this model, ISOC's role would consist primarily of committing to stable financial support for IETFAdminOrg. Outside administrative matters, in this model ISOC may of course still run other IETF-related programs, such as the IETF journal or the IETF Fellows program. If this model is chosen, the detailed design would have decide what current activities constitute "administration" and are moved to the subsidiary.

As a subsidiary of ISOC, the IETF could eliminate the IAOC and replace it with a board (see [Section 5.3](#)). Administrative decision-making authority would rest primarily with the administrative staff, with oversight provided by the board (see [Section 5.3](#) and [Section 5.5](#).) Exception cases could be developed where board approval would be required to authorize strategic decisions.

As IETFAdminOrg would be a subsidiary of ISOC, ISOC would retain the ability to shut it down and re-absorb the functions at some future date. The founding agreements would need to include provisions to clarify the steps required in order to consult with the IETF community, provide an opportunity for the organization to become independent, etc.

During the transition between the current model and this model, we would need to transfer all existing IETF administrative relationships from ISOC to IETFAdminOrg:

- o Transfer existing IETF-related contracts between ISOC and contractors to be between the subsidiary and contractors.
- o Transfer existing ISOC funds earmarked for the IETF to the subsidiary's bank account(s), and have future IETF income held in that subsidiary's bank account(s).

[5.1.3](#). Independent Organization

In this option, a new non-profit organization (IETFAdminorg) is created independent from ISOC as the new legal home of the IETF. IETFAdminOrg would have its own bank account, by-laws, charter, board, staff, and corporate identity. The administrative staff for IETFAdminOrg could be kept lean and would likely rely on contractors for the bulk of administrative tasks. Minimally, the IETFAdminOrg staff would be responsible for administration, development/fundraising, communications, and personnel management.

In the independent organization model, IETFAdminOrg's continued existence would not depend on the ISOC organization's choices about its future. However, IETFAdminOrg would still depend on the ISOC's support, for two reasons:

- o ISOC's role in supporting the IETF, and
- o As a practical matter, IETFAdminOrg is not financially viable without ISOC's support.

In order to establish this model, IETFAdminOrg and ISOC would need an explicit agreement that outlined expected levels of financial support going forward, both in terms of founding endowments and in terms of ongoing support. These agreements might also cover IETFAdminOrg's obligations to ISOC, such as the level of reporting from IETFAdminOrg to ISOC, and the expected structure of any liaisons.

Internet-Draft

IASA 2.0

November 2018

As in the ISOC Subsidiary model, it would be necessary to transfer the existing relationships to IETFAdminOrg. See the previous section for details on this.

[5.2.](#) IETFAdminOrg and the Relationship with IETF

As noted above, currently the business side of the IETF is basically done by ISOC with the only formal entity being the IAD, which is itself a position within ISOC. In both the ISOC Subsidiary and the Independent Organization models, we would create a new organization ("IETFAdminOrg"), which would encapsulate the administrative responsibilities of the IETF organization in a new business entity. Its sole mission would be to ensure the IETF (standards) activities are appropriately supported and administered.

"The IETF" would remain pretty much just as we know it today, i.e., the IETF at large would not form any new organization, nor would IETFAdminOrg take over any current IETF functions. The relationship between IETF and IETFAdminOrg would be a more formalized version of the relationship between IETF and the parts of ISOC which support IETF.

Optionally, under the independent organization option, IETF Trust, holding IPR on behalf of the IETF, could be kept separate from the operational IETF administration aspects. This would provide some separation between the copyright ownership functions from other administrative functions, but both would still have to be funded from the same sources.

- o IETFAdminOrg would have as its mission the administrative support of the IETF and would exist for the benefit of the IETF.
- o The IETF would provide oversight into the governance of IETFAdminOrg, including seating part of the board.
- o IETFAdminOrg would not have a say over the material direction or content of the IETF, except insofar as IETF Trust-related legal implications and requirements, such as RFC boilerplates.

Beyond negotiation, administering and managing the contracts

necessary for the work to support the IETF, IETFAdminOrg would also start with sponsorship and communications functions. Different functions and services might be needed as the IETF evolves. The implementation would be determined by the IETFAdminOrg Executive Director, but the need and direction has to be provided by the IETF (currently, through the IETF Chair, but one hopes the IETF might evolve a broader base for making the kind of strategic determination needed).

IETFAdminOrg would be staffed. It would be signatory to all IETF-supporting contracts. It would collect financial support for the IETF, and administer the financial resources. Its annual budgets would be reviewed and approved by its own Board of Trustees, which would be populated pretty much as any Board of Trustees (with the additional requirements in the notes below). In all regards, it would be a self-contained organization, evolving to meet its mission based on its best governance choices to evolve, staff and execute.

[5.3.](#) Oversight for IETFAdminOrg

While IASA++ could continue to have an oversight structure populated by members of the IETF community, either the Subsidiary or Independent models involve the creation of an IETFAdminOrg which would need to have its governance structure defined. This structure needs to include the involvement of members with significant nonprofit governance experience, while also ensuring accountability to and involvement from the IETF Community.

In order to achieve these objectives, the design team proposes a model similar to other nonprofits, in which IETFAdminOrg would be governed by a Board of Trustees. This board, the IASA Board (IB), acts to set strategic direction for IETF administrative matters, sets budgets, provides fiscal oversight, provides high-level oversight about major new projects, and so on. The board is also responsible for hiring and assessing the performance of the Executive Director (the highest-level staff director (see [Section 5.5](#))).

The board works with staff who is empowered to carry out the operations as directed by the board. The staff is responsible for operating within the limits set by the board, and are accountable to the board. Including being hired and fired as needed. The staff's responsibilities include:

- o preparing for and making decisions on their agreed and budgeted areas (for example, meeting venue decisions)
- o operational execution of these decisions, including contracting with vendors
- o communicating with the community
- o development of the IETF's administrative operation, in consultation with the community

The general structure is that the board is responsible for setting general policies about how the staff functions and making decisions for the organization as a whole. For instance, the board would be

expected to sign off on the meeting locations and schedule, based on recommendations from the staff. For some activities, the board would organize subcommittees which would do work directly. Typical examples would be auditing, hiring, and firing. The board might, for instance, decide meetings were so important that it needed more direct involvement. The board is accountable to the community and would be expected to regularly consult with the advisory council (see below) and consult with the community directly on especially important matters.

By contrast, the staff is responsible for making day-to-day operational decisions subject to the board's general policies. Examples here would be vendor selection for smaller contracts, and hiring of lower-level staff. These decisions are of course subject to board oversight and matters over a given size (e.g., money limit) would need board approval though would likely be recommended by the staff. In no case would the staff or board have any input on standards activities.

The composition of the board needs careful attention. It is important to have regular IETF participants in the board, but at least some of the board members need to have skills and experience less common among IETF participants, namely non-profit management, budget experience, and ability to help make connections to raise money or provide advice about fundraising (all of which are typical for a non-profit board).

[5.3.1.](#) Board Selection

Experience with selection for the IAOC and the ISOC Board shows the difficulty of using the nomcom process to select a board with the kind of business skills necessary to supervise an operation like IETFAdminOrg. These skills are not common -- though also not non-existent -- within the IETF community, which makes it hard to find candidates as well as reducing the chance that nomcom members will have the personal contacts to identify external candidates with the appropriate skills. For this reason, the design team does not believe that direct nomcom selection of the whole board will be successful. In the ISOC Subsidiary model, ISOC might also nominate some board members. Below we present two alternative mechanisms for selecting the remaining board members, though there are others that would perhaps be successful. Regardless of the nomination mechanism, the entire board should be subject to confirmation by the IETF leadership.

[5.3.1.1.](#) Self-Perpetuating Board

One common way to select board members is to have the existing board select new members. The advantage of this structure is that the existing members have the skills and connections to identify other people with similar skills. For this reason, this is a common structure for nonprofits. The design team recognizes that there are concerns about the board drifting away from the IETF Community interest, but believes these concerns would be adequately addressed by having some of the board directly selected by nomcom and all members subject to IETF confirmation. The details of how the initial board is to be constituted would need to be determined, but one possibility would be to draw from the existing IAOC and IETF-selected ISOC BOT members, with the board replacing itself within a short period.

[5.3.1.2.](#) Nomcom-Selected Nomcom

An alternative design would be to have the IETF nomcom select a

separate nominating committee which would then select the board members. This suffers from some of the problems with direct nomcom selection, but allows us to expand the scope of the pool to anyone at the IETF with business skills or business contacts, not just those who have time to be a board member. As before, the output of this process would need to be confirmed in the IETF.

[5.3.2.](#) Advisory Council

The board and staff are also supported by an Advisory Council (AC). The AC provides an interface to the community on matters that require assessing community opinion. For instance, the current polling of community feedback relating to potential future meeting locations could be one such matter. An advisory council canvassing and pulling for this information is expected to be a better approach than either free-form mailing list discussion, or the relatively opaque process that is currently used.

[5.3.3.](#) Board Changes in IASA++

IASA++ continues to have an oversight structure populated by members of the IETF community, but as discussed previously, the current IAOC model has a number of weaknesses. Detailed design for this alternative would have to specify how the board changes, but as a starting point, it would be desirable to increase the number of board members (particularly those without other roles) and re-specify the role of the board vs. staff and other committees. With increased number of staff, implementation would be more in the hands of the staff than today, and the role of the board would be more on actual

oversight, budget and hiring decisions than the detailed daily operations.

[5.4.](#) Transparency

Regardless of the chosen reorganization model, transparency deserves attention. As discussed in [Section 4](#), this includes improving the timeliness of sharing of information and decisions, seeking comment on forthcoming decisions, and a "reset" of expectations around delegated authority.

In addition, there needs to be an agreement between the IETF

community and the administrative entity about the where to draw the line between community's need for information, and the need to keep some business (or personnel) data confidential.

[5.5.](#) Staff Structure

The design team believes that staff resources need to increase and/or be reorganized in order to move from one director to a few more specialized roles (see growth in [Section 3](#)). In addition, the team believes that future organization for IASA may benefit from organizing all resources under the more clear and direct control of the IETF (see division of responsibilities in [Section 3](#) and roles in [Section 4](#)).

The current arrangement involves one officially designated IASA employee, but there are also many supporting employees. They are less clearly assigned for the IETF, working as contractors or at ISOC.

This document suggests a structure that involves the following roles:

- o Executive Director. The person in this role is in charge of the overall IASA effort, but can rely on other staff members below as well as contractors. The Executive Director is accountable to the Board.
- o Director of Operations. This person is responsible for meeting arrangements, IT, tools, managing contracts (including RFC Editor and IANA), and day-to-day budget management.
- o Director of Fundraising. This person is responsible for working with IETF's sponsors and other partners, and his or her primary responsibility is fundraising for the IETF.
- o Director of Communications. This person is responsible for working with IETF leadership (including the IETF Chair, IESG, and

IAB) on communications matters (primarily but not exclusively external communications), assisting them in efficient communication and dealing with ongoing communications matters.

Note: The Executive Director likely needs to be a full-time employee,

as is likely the case for the other Director-level positions.

These persons also need to rely on a number of contractors and outside specialists. For instance, a Legal Counsel, to assist the IASA on legal matters as well as contracting.

It should be noted that we expect to retain the secretariat on contract for more or less the same responsibilities that they presently have.

[5.6.](#) Funding

This section discusses the overall changes to IETF funding sources, the level of funding, and how the level of funding is agreed with ISOC. And how the IETF can further develop its funding strategies over time.

None of the administrative arrangements proposed in this document suggest that the fundamental funding arrangements change as a part of reorganization. ISOC will continue to support the IETF, though perhaps with means that provide better budgetary stability. There are also factors that affect the level of funding. Also, a better administrative organization will be more capable of adjusting its strategies in the future in all areas, including funding. Any significant future changes require a capability of the IASA to focus on such strategic initiatives, which IASA 2.0 will help enable.

It is important to ensure that IETF funding is arranged in a manner that is satisfactory to the IETF and ISOC communities. Any changes to arrangements are something that should be mutually agreed with both organizations. Further comments and observations are welcome.

[5.6.1.](#) One-time costs

There are one time costs associated with an administrative change, regardless of which of the options discussed in this document are chosen. All the models in the draft will have associated costs - e.g., to hire additional staff, cover legal fees, etc.

Transition expenses should be considered separately from ongoing expenses/funding needs. It should be noted that ISOC has promised to cover those costs [[Camarillo](#)].

[5.6.2.](#) Sources and Stability

The key sources of IETF funding are unlikely to radically change in the short or medium term. This document suggests that ISOC continues as one of our primary funding sources, as it has been. Other primary sources of funding for an organization like the IETF are well known, and we are already tapping into all of the most common ones: corporations, individuals, and funds derived from the registration of domain names. It is possible that we could develop additional funding sources in the future (e.g., charitable foundations), but those will require strategic planning and staffing, for which we need to get IASA 2.0 in place first.

It's worth considering short-term (3-5 years) and long-term (5-10+ years) plans differently. In the short term, we can continue to rely on our existing funding sources regardless of which organizational model we end up with for IASA 2.0, including the independent organization model. The role of ISOC as providing the funding to the IETF and agreeing to help us if we get to trouble should stay under all of the options, until or if a future funding model change changes that.

While ISOC continues to support IETF financially as they have previously, the different reorganization options affect the legal, contractual, and accounting related details. While continuing as-is is possible, adopting a more predictable allocation of funding is desirable (see [Section 5.6.3](#)), and in the subsidiary and independent options formal contracts about the funding are also necessary. The exact details of those contracts and contracting parties are for further study, but they do not need to change the fundamental arrangement that is in place today.

More long-term, developing a sustainable funding plan for the IETF will be a key project during the early months and years post-IASA 2.0. Ultimately a healthier funding model will require raising more funds from the organizations that benefit from IETF standards and whose employees participate in the IETF, and may result in less reliance on ISOC funds. Such a model might incorporate meeting-based sponsorships as we have traditionally had, other kinds of sponsorships, a fully funded endowment, a different registration fee structure, or other funding vehicles. But we are not in a position at present to develop such a model and carry out the fundraising. We do not have sufficient staff, skills, or resources to do it. We need to complete IASA 2.0 in order to be in a position to do it. We are fortunate that we can rely on additional funds from ISOC in the short term in order to bootstrap that process. As the old saying goes, you have to spend money to make money.

Internet-Draft

IASA 2.0

November 2018

This isn't to say that the IETF not already considering how to make the funding model more sustainable. The IAOC has new sponsorship staff this year, the the IAOC sponsorship committee was recently chartered, and it has been discussing new ideas for raising sponsorship funds. Changes to the present model will be adopted as those ideas mature. IETF can cut some costs. But we can not expect volunteers and folks working part-time on current fundraising targets to also take on the additional substantial project of revamping the entire funding model and having the additional funds show up on short order.

[5.6.3.](#) Level

Outside the discussion of sources, the level of funding has also been an issue. The IETF is well supported by ISOC who have ultimately also been the backstop when income has fallen below expectations. The IETF is also supported by a number of other sponsors, whose significant contributions provide a big part of the income.

However, at the same time there is an overall rising cost level that affects the services IETF uses, there is community desire for supporting important new services, technology that enables more participants to choose to participate remotely, and industry pressures on optimizing their costs. As the organization matures, and as more of the services that IETF provides come from professional sources, it becomes more difficult to rely on significant fraction of any individual volunteer time. This is visible, for instance, in our tools efforts, which have become more commercially driven in the last years.

It is fair to say that IETF continues to be underfunded in the face of these trends. In addition, IETF budgets have in recent years been relatively optimistic. IETF is fortunate that ISOC has been there to provide a backstop against surprises and the cost trends, but ideally, budgets should be realistic and exceptions more exceptional than they are today.

To correct this, four things are needed:

1. Improve the accounting of IETF-related costs

The process that has gone on for several years to better reflect

actual IETF-related costs in the IETF (and ISOC) budget will continue, and depending on the chosen model, reach a much more concrete and clear structure. This will not as such, however, change the actual amount of expenditure or income.

Note that the IETF already accounts for the expenses related to key IETF support staff (e.g., IAD, communications, etc).

2. Ensure realism in the budget.

For a budget to be realistic, it must be based on correctly anticipated income and expenses. Since crystal balls are in short supply, flexibility and responsiveness are required in the process, as industry changes can impact both available contributions and number of participants at meetings (i.e., registration fee income).

Further decisions may be necessary to be more conservative in future budgets, including appropriate decisions about what services are essential for the IETF community and which are not.

Documenting and discussing the IETF financial model (expectations of sources of income, levels of support, as well as requirements for expenses and levels of service) has been a goal for 2018 and will continue to be a priority going forward.

3. ISOC as a funder and backstop.

ISOC continues to be the major IETF funding source, as well as the backstop against emergencies. But a different arrangement regarding these two roles would make the situation better manageable.

Dedicated, realistically sufficient funds allocated to the IETF would allow the normal operations to be run based on that, and would leave only true emergencies such as cancellation of meetings due to local emergencies for the backstop.

4. Appropriate funding level.

The IETF operations and funding level obviously need to match. The specific level is, however, not related to the IASA 2.0 related organizational changes. Those organizational changes only make it hopefully easier to manage both the IETF operations and the funding.

[6.](#) Analysis

This section provides a basic analysis of the effects of the different options.

[6.1.](#) Comparison to Goals

In the following, we analyze how the different options compare with respect to goals set in [Section 4](#):

- o Protect the IETF's Culture and Technical Work:

The changes under the IASA++ option are small enough that they clearly cannot have any undue effect on culture or actual IETF work.

The ISOC subsidiary and independent organization models are bigger changes, but, still contained within the administrative support part. To be exact, the IETF will not become an organization even if the administrative support for it may. While one may have an opinion that administrative functions may grow or acquire more staff over time (and there is always some danger of that), keeping the IETF out of the organization for administration does provide a level of separation. This separation ensures that participant, working group, IESG, IETF Chair, and other similar roles should continue to operate as they are operating now.

Sometimes even administrative decisions can impact the nature or culture of the IETF, such as when improvements in remote attendance support are adopted. A clear interface between the community and the IETFAdminOrg is helpful in specifying what role the community and other parts of the system play. The nomcom-appointed board members and the Advisory Council have clearer

role, and have a more community-focused role in the new arrangements to ensure that the community has a strong voice.

- o Improve the IETF's Technical Environment:

All organization options target improvements in this area. The options may differ in how much freedom or organization agility they provide. Clearly, in the independent organization option the IETF has most of these.

- o Clearly Define the IETF-ISOC Relationship:

Again, all options are forced to define this relationship in a clearer way than it is defined today.

However, the subsidiary and independent organization models have a better ability to reach a clear definition. A clear definition is not merely a matter of specification, it is also affected by practical and even legal constraints and organizations' goals. For instance, for obvious privacy and legal reasons, IETF may not

have quite as much control and information about ISOC employees as it would on its own administrative unit's employees.

- o Support a Re-Envisioned Funding Model:

The changes to the funding model are on purpose modest for the reorganization, with the intent provide more ability and freedom for the IETF to adjust its model later. However, the subsidiary and independent organization models also clearly provide more freedom for further evolution.

In IASA++, leaving the responsibility for sponsorship fundraising up to ISOC, as [BCP 101](#) does, means we will always be constrained by however ISOC is willing to staff and support IETF-specific fundraising. While ISOC has and wants to support the IETF, it is often the case that knowledge of what strategies work and the direct contacts to sponsoring organisations are on the IETF side.

In the independent organization model, the ability for the IETF to rely on ISOC in the event of budget shortfalls may be more limited. This is a double-edged sword, however, as the current

arrangements complicate planning and perceptions by the sponsors.

- o Provide Clarity About the IETF-ISOC Financial Arrangements:

All reorganization options aim to provide clarity. But the subsidiary and independent organisation options provide an opportunity to define exactly what kind of agreements exist between the IETF and the new organization, in the form of a formal agreement between organizations or parts thereof. This is important in conveying the role of different parties to potential sponsors, for instance.

In the IASA++ option, there is limited improvement on clarity of the financial arrangements.

- o Clarify Overall Roles and Responsibilities:

The reorganization is an opportunity to rethink what staff roles are needed, staff levels, whether to organize a function as a staff function or as contracted service to a vendor. All options are likely to provide clarified roles and responsibilities.

However, in IASA++, some of lack of clarity may remain, as lack of clarity inherent in two organizations controlling resources may remain. In general the subsidiary and independent organisation models ensure better than the IETF community and the IETF

administrative functions have authority to perform exactly the kind of administration they want.

The independent organization model eliminates all ambiguity about the IETF having authority independent from ISOC over staff, funds, and decisions.

- o Define Support Staff Roles and Responsibilities:

As above.

- o Re-Define the Role of the IETF Community in Relation to Administrative Activities:

Again, this is necessary in all the reorganization options. It is particularly important for the discussion of transparency.

- o Improve Transparency:

An improvement can be provided in any chosen option, but it will require (a) adopting the by default open model, (b) agreeing on a list of exceptions, as well as obviously clear definition of roles.

These changes are easier on the subsidiary and independent organisation models, however, because we can start with more of a fresh slate. The IAOC and committees have been operating with their current structure, and, in some cases, current volunteers/ personnel, for a long time. It will be harder for them to change than to make staff-driven changes in an org with new staff.

- o Define a Transition Plan:

This will also be necessary in all options.

The IASA++ option is the easiest one to get going, and minimal transition cost, although of course it may not provide as much value in return, creating risk that the challenges present in current IASA structures will not be sufficiently solved.

6.2. Financial Impacts

There are several different classes of financially-relevant changes. Funding-related changes have been covered in [Section 5.6](#), as have transition costs.

All the suggested models imply some actual increases in expenditure and financial resources on an ongoing basis. The following applies generally to all chosen models:

The increases are due to, for instance, shifting more work to staff and contractors. For the staff changes, the primary position actually being added is having both Executive Director and Operations

Director, instead of one IAD. We've already had a Legal Counsel and roles similar to the Director of Fundraising and Communications Director. These changes coincide with other personnel changes in IASA, as the experienced, long-term IAD is retiring and a long-term IETF Legal Counsel is also changing.

It is also expected that the role of the Legal Counsel will also increase, e.g., in terms of reviewing contracts.

For both the subsidiary model or the independent organization model, there can be additional and potentially significant costs. For example, having a full-time communications director on staff means paying the person's full salary, health insurance, worker's compensation, sick pay, etc. In general, while under the ISOC model the IETF may have been able to take a particular percentage of a person's predicted base costs, under a more independent arrangements the IETF is an employer and liable for all associated costs at 100%. Similarly, some current contracted or volunteer roles, if turned to staff positions, can increase costs.

Audits, payroll, HR, office space, equipment - these are things we do not currently account for in the IETF budget, that we wouldn't have to pay for as a subsidiary (assuming we can share overhead with ISOC, since that's part of the point), but that we would have to pay for as an independent org.

[6.3.](#) Other Impacts

Depending on the chosen option, volunteers are needed for either different roles than today (the board) or for both different roles and more volunteers (the board and the advisory council).

It is for further study whether current IETF leadership (e.g., IAB Chair) should continue to be part of these boards or councils.

[7.](#) Conclusions

While there are some initial conclusions in the analysis in the previous sections, clearly more work is needed. In particular, we request and welcome thoughts and contributions from the IETF

community, particularly regarding any potential missed options or the implications of options being considered here.

7.1. Transition Plan

Following feedback we receive before and during the IETF-100 meeting, we will develop a detailed transition plan and include that here.

The transition plan should address items such as the following (and we seek suggestions on areas we may have missed):

- o Volunteer organization transition plan and timeframe
- o Legal, financial, and administrative actions
- o Staffing actions (e.g. job descriptions)
- o Documentation actions (e.g. roles and responsibilities, updates to RFCs)
- o Near-term goals for the new board (e.g. develop and release a budget within 90 days of formation)
- o Other

8. Acknowledgments

This text is the work of the design team, but greatly influenced by discussions in the IETF community. The team would in particular like to thank Alissa Cooper, Andrew Sullivan, Ray Pelletier, Ted Hardie, Gonzalo Camarillo, Brian Carpenter, Lucy Lynch, Stephen Farrell, Dave Crocker, Jon Peterson, Alexa Morris, Jonne Soininen, Michael Richardson, Olaf Kolkman, Kathy Brown, and Melinda Shore for interesting discussions in this problem space.

9. Informative References

[Camarillo]

Camarillo, G., "ISOC to cover potential re-structuring costs related to IASA 2.0", September 2017 (<https://www.ietf.org/mail-archive/web/ietf/current/msg104265.html>).

[I-D.arkko-ietf-iasa-thoughts]

Arkko, J., "Thoughts on IETF Administrative Support Activities (IASA)", [draft-arkko-ietf-iasa-thoughts-00](#) (work in progress), March 2017.

Internet-Draft

IASA 2.0

November 2018

[I-D.daigle-iasa-retrospective]

Daigle, L., "After the first decade: IASA Retrospective",
[draft-daigle-iasa-retrospective-01](#) (work in progress),
June 2017.

[I-D.hall-iasa20-workshops-report]

Hall, J. and J. Mahoney, "Report from the IASA 2.0 Virtual
Workshops", [draft-hall-iasa20-workshops-report-00](#) (work in
progress), March 2017.

[RFC4071] Austein, R., Ed. and B. Wijnen, Ed., "Structure of the
IETF Administrative Support Activity (IASA)", [BCP 101](#),
[RFC 4071](#), DOI 10.17487/RFC4071, April 2005,
<<https://www.rfc-editor.org/info/rfc4071>>.

Authors' Addresses

Brian Haberman (editor)
Johns Hopkins University

Email: brian@innovationslab.net

Jari Arkko
Ericsson Research

Email: jari.arkko@piuha.net

Leslie Daigle
Thinking Cat Enterprises LLC

Email: ldaigle@thinkingcat.com

Jason Livingood
Comcast

Email: Jason_Livingood@comcast.com

Joseph Lorenzo Hall
CDT

Email: joe@cdt.org

Haberman, et al.

Expires May 31, 2019

[Page 31]

Internet-Draft

IASA 2.0

November 2018

Eric Rescorla
RTFM, Inc.

Email: ekr@rtfm.com

