Proposed Changes
Internet-Draft
Expires:

Patrice Lyons
Law Offices of Patrice Lyons
September 30, 2004

IETF: Proposed Organizational Changes
draft-lyons-proposed-changes-statement-00.txt

Status of this Memo

By submitting this Internet-Draft, I certify that any applicable patent or other IPR claims of which I am aware have been disclosed, or will be disclosed, and any of which I become aware will be disclosed, in accordance with RFC 3668.

Internet-Drafts are working documents of the Internet Engineering Task Force (IETF), its areas, and its working groups. Note that other groups may also distribute working documents as Internet-Drafts.

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 a "work in progress."

The list of current Internet-Drafts can be accessed at http://www.ietf.org/lid-abstracts.html.

The list of Internet-Draft Shadow Directories can be accessed at http://www.ietf.org/shadow.html.

Abstract

This memo outlines the nature of the Internet Engineering Task Force (IETF) as an unincorporated association, reviews some history of the IETF Secretariat relevant to the current structure of the organization, and proposes steps that might be taken to move

forward in the interest of the Internet community more generally. Since the IETF serves as a focal point in the technical evolution of the Internet infrastructure, it is important that any organizational changes take into account the wider public interest. Considerations of who provides support to the IETF hinge on the legal status of the IETF itself. Steps should be taken to clarify this matter as a first priority.

1. Establishment of the IETF Secretariat: CNRI Initiative

In the late 1970s, the Internet Configuration Control Board (ICCB) was established by DARPA as an informal group of twelve individuals to participate with DARPA in discussions concerning the development and evolution of Internet protocols and processes. By the early 1980s, the ICCB meetings had grown to include several hundred interested observers, resulting in the need to coordinate meetings with many individuals and requiring large conference facilities to host the meetings. In 1983, it was decided by DARPA to create a new organization called the Internet Activities Board (IAB), also consisting of twelve members (most of the same ICCB members became IAB members) and to create ten working groups under the IAB to carry on detailed technical discussions and other activities. This structure allowed the body of interested observers to become more active participants in the working group activities, which were held at various times and places as the working group Chairs determined. As a result, meetings of the IAB became more manageable in almost every way -- at least for a while.

Although DARPA made the technical decisions concerning Internet standards initially, it empowered the IAB to take responsibility for this function, while still retaining the ability to oversee its decisions. By the mid 1980s, the number of working groups had grown considerably; and the IAB preferred to delegate responsibility for the management of the working groups. This responsibility was given to one of the original ten working groups, called “Internet Engineering” which had the responsibility for helping to manage the myriad technical details to bring the Internet into practical use by the research community. This working group became the Internet Engineering Task Force (IETF). At that time, the IETF was composed mainly of contractors (from industry, academia and non-profit organizations) working on DARPA’s Internet research program. This program was initiated by Dr. Robert E. Kahn, and later managed by Dr. Kahn, Dr Vinton G. Cerf and Dr. Barry Leiner.

In 1986, in coordination with DARPA, the National Science Foundation (NSF) assumed responsibility for the Internet. NSF created the NSFNET, a high speed network which replaced the ARPANET as a backbone for the Internet. NSF funded the IETF Secretariat at CNRI for many years and shepherded the Internet from its early operational days, until 1995, when the NSFNET support was ended and commercial service providers took over. Dr. Steve Wolff led the innovative efforts at NSF for most of that period. NSF worked closely with other agencies in the Federal Government to gain their participation and support. Earlier efforts supported by NSF to create the CSNET, led by Prof. Larry Landweber and others, were important milestones leading to the creation of the NSFNET and a broadening of the role of networking to the entire computer science research

community. An authoritative description of the origins of the Internet may be found in **A Brief History of the Internet.**[1]

The IETF as we know it today was formed in 1986 "as a forum for technical coordination by contractors working on the ARPANET, DDN, and the Internet core gateway system."[2] By the time of the Twentieth session of the IETF in 1991, the IETF had grown considerably in stature to encompass an open and diverse community of "network designers, operators, vendors and researchers concerned with the evolution of the Internet protocol architecture and the smooth operation of the Internet."

In 1986, after leaving DARPA, Bob Kahn formed the Corporation for National Research Initiatives (CNRI) with the help of Vint Cerf who rejoined him after spending four years at MCI building the MCI Mail System. In light of the growth in the scope of the IETF effort, in 1988, CNRI submitted a proposal to the National Science Foundation (NSF) to help organize and support the community of researchers involved in the Internet, and principally the IAB and the IETF which operated under the aegis of the IAB. As part of the contemplated work, CNRI established a dedicated "secretariat" to support the Internet Activities Board and its subsidiary Task Force – the IETF.

Effective March 1, 1989, but providing support going back to late 1988, CNRI and NSF entered into Cooperative Agreement No. NCR-8820945. Under this Cooperative Agreement, CNRI agreed to create and provide a secretariat for the "overall coordination, management and support of the work of the IAB, its various task forces and, particularly, the IETF." This effort included, among other tasks, organizing and developing plans for projects in coordination with the leadership of the Internet Activities Board; work with the IETF Chair to organize and conduct IETF meetings; management of outside IETF-related subcontracts; and provision of technical and administrative support to what was then called the Internet Mid-Term Architect and the IETF Chair. In fact, the Chair of the IETF was a CNRI employee for most of this period.

CNRI efforts in support of the Internet Activities Board and the IETF continued for many years under Cooperative Agreement No. NCG-8820945. During this period, CNRI took steps to provide structure to the evolving responsibilities being assumed by the IETF to meet the demands of the rapidly growing Internet community. For example:

- In 1991, Corporation for National Research Initiatives took steps to help form the Internet Society; and, in 1992, CNRI led the effort to incorporate the Internet Society, and provided support services for this new entity until such time as it was able to establish an independent presence. One motivating factor was to separate the responsibility for developing recommendations for standards, which was the responsibility of the IETF, from the decision-making responsibility of the IAB.

  It was understood that a certain degree of liability attached to the making of standards. The reality was that the IAB ratified generally accepted practices and procedures in moving recommendations to full standards, but the IAB documents only stated that they made standards. Efforts were made to convince the IAB to

revise their written documents to reflect the reality; but this suggestion was considered and rejected by the IAB. Another motivating factor in this endeavor was the interest expressed by many in the Internet community to bring the Internet Activities Board into a structure that was in some way responsible to a wider Internet community. It was decided to cease operations of this group, and to constitute a new group called the Internet Architecture Board.[3]

- As discussed in an article by Dr. Vinton G. Cerf, then Vice President of CNRI and IETF Chair, CNRI worked with the IETF to organize a steering group to provide technical and managerial leadership that came to be known as the Internet Engineering Steering Group (IESG).The IESG consisted of the IETF Chair and the various Area Directors, under which the various working groups were organized.[4]

On November 28, 1994, CNRI submitted a follow-on proposal entitled "Support of the IETF Operations" to the National Science Foundation. On the basis of this proposal, CNRI entered into Cooperative Agreement No. NCR-9528103 with NSF, that was effective from August 1, 1995 through 1997. In making this award, NSF noted that CNRI had, under the prior Cooperative Agreement, "created and provided a functioning IETF Secretariat, and has been helping to organize and support these activities which involve thousands of individual participants and contributors from the U.S. and abroad." It was noted, however, that NSF did not reserve any responsibility for accomplishing the purposes of the Cooperative Agreement, and such responsibilities remained with CNRI.

Upon the expiration of the Cooperative Agreement, CNRI continued to provide the IETF Secretariat, but worked with the IETF leadership to separate the administrative from the technical aspects of the support services CNRI had been providing. Although meeting fees were first introduced around 1991 to help offset the cost of the IEFT Secretariat functions, and to supplement Government funding, by 1998, funding for the provision of the IETF Secretariat services derived from IETF meeting fees and other sources was sufficient to cover the costs. CNRI took full financial responsibility for the operations of the IETF during this period. Where deficits occurred, CNRI stepped in to cover the expenses in order to keep the IETF Secretariat running smoothly for the benefit of the IETF and the Internet community more generally. Surpluses were retained to cover unexpected expenses and possible future liabilities. CNRI did not charge service fees or burden the IETF with charges for legal assistance to the IETF Secretariat.

In an effort to provide long-term stability for the IETF Secretariat, to encourage the support staff and to reduce operating costs, CNRI established a for-profit subsidiary, Foretec Seminars, Inc. (Foretec) to furnish services to assist CNRI in carrying out its IETF Secretariat responsibilities. From January 1, 1998 and continuing to the present, Foretec is charged by CNRI with running the day to day operations of the IETF Secretariat.[5] In addition, Foretec attempted to build a more comprehensive

seminars business, but the effect of the economic downturn in 2000 combined with the aftermath of the events of 9-11 militated against their success in the short term. While Foretec has provided the IETF Secretariat function since 1998, CNRI still retains the responsibility for the operation of the IETF Secretariat. The low key role played by CNRI since 1998, in terms of visibility in IETF activities, may have led some to think of CNRI as synonymous with Foretec. In reality, CNRI has continued to provide the contractual vehicle and oversight enabling Foretec to provide these functions.

2. Proposed Structural Changes

- **It is time to incorporate the IETF**

In order for the IETF to continue to run smoothly, as the Internet continues to grow and expand world-wide, it appears desirable for the IETF leadership and the Internet community more generally, to reconsider the current legal status of the Internet Engineering Task Force. It has been many years since the IETF was simply a small Task Force of researchers working under DARPA funding and direction. Recently, there has been some recognition of the IETF as an unincorporated association,[6] a notion that CNRI had posed on several occasions in the past. Indeed, some may argue that the current structure of the IETF is working fine and need not change. While the IETF need not formally incorporate to act as an organization that can carry out business -- just as if it was formally incorporated, a change to the informal status quo at this time seems appropriate.

Establishing a separate corporate structure for the IETF is really not a very difficult or expensive step. The current operating procedures for the IETF standards process could be incorporated in proposed By-Laws, and the current IESG could be asked to serve as the Board of Directors of the corporate structure. The following steps would seem appropriate, whether the IETF incorporates now or whether it continues to operate as an unincorporated association for a period of time.

- **Hire an IETF Executive Director**

A first act of the newly restructured or incorporated IETF would be the recruitment of a professional Executive Director. This person should be highly qualified in operating the administrative responsibilities of the IETF. The IETF leadership should spell out in some detail the exact duties of the Executive Director.

- **Retain an Attorney and an Accountant for the IETF**

If the newly appointed Executive Director is neither an Attorney-at-Law nor an Accountant, then the Executive Director should enter into a search operation to retain the services of such professionals, and present a list of names to the IETF leadership so that they might make a selection of qualified persons. These would likely not be staff positions. A second task for the Executive Director would be the

negotiation of insurance coverage for IETF activities. This would require close coordination with ISOC in order to ensure uninterrupted protection for the IETF.

- **Authorize the Executive Director to secure office space**

While this may seem fairly straightforward, it may entail negotiations with any of several organizations for such support. CNRI might be one possibility, the Internet Society another. If the IETF were incorporated as a non-profit organization, it may wish to find separate office space. In any event, office space should be obtained to the extent possible on a reduced rental basis, perhaps with shared facilities, such as reception and mail service, with another organization in order to reduce operating costs.

- **Negotiate contracts with the various IETF support organizations**

Once the basic structure is in place, and this change should not take too much time or effort, the IESG should then instruct the Executive Director to open negotiations with the various IETF support organizations. Legal advice should be obtained on how best to carry out the negotiations and who would actually sign on behalf of the IETF corporate entity. Most critical to this task is to determine how the Executive Director, on behalf of the IETF, would interface with the various support organizations.

The most critical issues would concern establishing budgets and responsibilities, negotiating changes to budgets, enabling funding to cover added costs, where appropriate, and establishing metrics on performance so that the support organizations understand what the limits of demand on them would be for the given agreed levels of support. Where activities can be supported from meeting fees, such as has been the case with the IETF Secretariat in recent years, means to augment such funding need to be developed and understood by all parties when additional requirements are placed on the support organizations, such as the IETF Secretariat.

- **IETF Secretariat**

Coming back to where this memo began: the IETF Secretariat. The first organization that should be retained by the new IETF corporate entity is the IETF Secretariat. The IETF Secretariat, as noted above, was created by and has been provided to date by Corporation for National Research Initiatives. CNRI has informed the IETF leadership that it will enter into discussions with the IETF leadership as to how best to accomplish a transition to some new entity, if this is the consensus of the IETF community, and to work with the IETF leadership in this process. In the interim, CNRI will continue to provide the IETF Secretariat on behalf of the IETF until such time as any new arrangements are in place. Once a suitable organization has been identified to carry out the IETF Secretariat functions, CNRI will work with the IETF leadership to enable a smooth transition.

- **RFC Editor**

The RFC Editor is currently funded by the Internet Society. Here the decision for the IETF leadership is the timing for the transitioning the current contract between USC/ISI and the Internet Society under the aegis of the Executive Director. This decision exists whether or not the IETF formally incorporates or not. At what point the agreement should be renegotiated with the restructured IETF would be determined upon advice from IETF legal counsel. Coordination with ISOC is essential to accomplishing this transition.

Further, a recent judicial decision in the United States called into question the basic notion of a "Request for Comments." The court appeared to view these documents, which are used to promulgate formal Internet standards, as simply a continuing dialogue, rather than a standards document. It appears desirable to start a new formal document series with a more appropriate name to address this situation.

As IETF members are well aware (and persons attending and participating in IETF activities may be viewed as "members"), intellectual property rights (IPR), and how they are managed, are also important subjects for discussion and negotiation. The IETF corporate entity should clarify ownership rights, and limitations, in material contributed to the IETF process. Ownership, if any, should vest in the IETF. Currently, as evidenced by the requirement for an Internet Society copyright notice on certain IETF documents, the rights appear to vest in the Internet Society; however, ISOC's claim to any ownership rights may be questioned. Contributors grant ISOC and IETF a non-exclusive license in their contributions; there is no formal transfer of copyright to either organization. Clarification of the basis for the Internet Society's claims to copyright in IETF documentation is long overdue.

The subject of patent claims in proposed standards track documents is another matter that should be addressed by the IETF leadership. There have been suggestions that ISOC take on some responsibility for overseeing the negotiation of IPR arrangements. Such matters are at best controversial, but equally, they are vitally important for the continued success of the IETF. Patent claims will continue to be a central issue for the IETF leadership as it evolves in the future, and there may be a role for ISOC in this process.

- **IANA support**

The Internet Assigned Numbers Authority (IANA) is currently housed within the Internet Corporation for Assigned Names and Numbers (ICANN). Continued liaison with the IANA is also essential. An open and professional relationship should be developed and maintained by the Executive Director so that problems may be identified and, hopefully, resolved quickly and efficiently. IETF activities have an operational impact that is carried out through coordination with the IANA or any other organization that is deemed appropriate by the IETF community. It is likely that the IETF will want to establish relationships with providers of a wide variety of registry services, particularly if there is recognition of multiple root structures for the Internet. This is a very important consideration if the Internet is to evolve and thrive going forward.

- **Funding for IETF**

While this point is discussed first on this list, without funds, none of the above activities are possible in any kind of professional manner. While, in the past, meeting fees have covered some of the IETF Secretariat costs, and the Internet Society has covered the RFC Editor expenses, new sources of funding need to be identified. A joint team should be appointed by the IETF Chair to determine the nature and scope of funding that may be required going forward. ISOC is one possible source for possible funding, if it can be provided at arms length. Other sources of revenue should also be identified, including CNRI which has partially supported the IETF with internal funds over many years. The IETF should also be open in this context to collaborative efforts with other standards bodies to provide services in kind, if not actual funding. For example, the United Nations, including such specialized agencies as UNESCO or ITU, have excellent facilities that may be made available for IETF meetings at reasonable rates. There may also be situations where other organizations are exploring similar technical problems. Cooperative ventures to address and resolve new technical issues as they arise may prove beneficial, particularly where costs are shared.

- **Establishment of an IETF Foundation**

Closely coupled with considerations of funding is the possible establishment of an IETF Foundation. The purpose of such an organization would be to coordinate the funding efforts for the IETF in light of the IETF's public interest mission in support of the Internet. The Foundation should be a non-profit organization with a Board of Directors drawn from prominent persons having roles that do not directly involve the IETF or its operations, but who are deeply committed to the progress and evolution of the Internet as a critical resource to support societal needs. For example, such a Foundation could be tasked with negotiating funding from various sources such as industry, foundations, governments, and others who wish to contribute. The Foundation would maintain a close liaison with the IETF leadership, but would be an independent entity. Many other bodies rely on similar mechanisms to support their efforts. The existence of a Foundation should not, in any way, detract from the need for the IETF to have an effective Executive Director to oversee and coordinate the IETF's many activities. Once such a Foundation is established, the IETF leadership would be expected to provide the Foundation with its list of funding priorities and future plans.

3. Conclusion

While there are no doubt many other aspects of the IETF administrative and technical structure that will arise in the course of the reorganization process, it is time to move ahead. CNRI has played a lead role for the past sixteen years in the organization and management of the IETF, including, in particular, the IETF Secretariat. Under the leadership of Bob Kahn and Vint Cerf, this role goes back even further, almost to the origins of the Internet in the early 1970s. In recent months, the IETF leadership has brought to CNRI some of its concerns about how the current support structure is working

out in practice. CNRI is currently addressing them, but effective solutions will require close interactions between the IETF leadership and CNRI. CNRI is committed to the success of this process.

CNRI has expressed its intention to continue to provide the IETF Secretariat for however long the transition to a new arrangement may take. Foremost in the mind of CNRI, as it works with the IETF leadership in the coming year to evaluate the various proposals under consideration, is the importance of the IETF from a public interest perspective. Decisions adopted by the IETF have a substantial impact on the health and well-being of the Internet, the community of users and suppliers of Internet equipment and services, as well as on the continued evolution of the Internet for the benefit of the public at large.

Note from Author: The Author of this memo provided legal counsel to CNRI with respect to the IETF Secretariat functions from 1987 through 1997. While the Author continues to provide legal advice and guidance to the Corporation for National Research Initiatives (CNRI) on a variety of other legal matters, the thoughts expressed in this memo are those of the Author and do not necessarily represent the views of CNRI. By submitting this Internet-Draft, the Author should not be viewed as providing legal advice to the IETF, ISOC, members of the IETF, or other parties. It is being submitted as the Author's individual thoughts -- in the IETF spirit.

Author's Address:

Ms. Patrice A. Lyons
Law Offices of Patrice Lyons, Chartered
910 17th St., N.W., Suite 800
Washington, D.C. 20006
Phone: 202-293-5990
Email: palyons@cox.net

---

[1] **A Brief History of the Internet** was written by B.M. Leiner, V.G.Cerf, D.D.Clark, R.E.Kahn, LKleinrock, D.C. Lynch, J.Postel, L.G.Roberts, and S. Wolff. The article is posted at: http://www.isoc.org/internet/history/brief.shtml.

[2] **IETF Overview**, Proceedings of the Twentieth Internet Engineering Task Force, Washington University (March 11-15, 1991), at 11, compiled & edited by Corporation for National Research Initiatives (CNRI).

[3] For information about the new Internet Architecture Board as of March 1994, see RFC 1602, at http://www.ietf.org/rfc/rfc1602.txt?number=1602.

[4] **Chairman's Message,** Proceedings of the Fourteenth Internet Engineering Task Force, Stanford University (July 25-28, 1989), at 7, compiled & edited by CNRI.

[5] Information about the IETF Secretariat may be found at http://www.ietf.org/secretariat.html.

[6] **IETF Administrative Support Functions**, draft-malamud-consultant-report-01, Sec. 4.6, Discussion of Unincorporated Associations, at 40, available at: http://public.resource.org/adminrest/draft-malamud-consultant-report-01.html.