

The IETF as a model for the IGF

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One of the models that was suggested for the IGF during the Tunis phase of WSIS, and several times since-Tunis is the Internet Engineering Task Force², better known simply as the IETF. This note attempts to briefly outline one IETF participant's³ impression of what the IETF model is.

The contribution does not attempt to offer a quick tutorial on the structures of IETF, a structure which has adapted over the last 20 years from the association of 21 engineers to a major organization that includes thousands of individuals that have taken on responsibility for the protocols that make the Internet what it is. For a tutorial, I recommend that readers consult the Tao of the IETF⁴ and other educational materials offered by the IETF⁵. This note also does not attempt to judge the current state of the IETF organizational structure. For a snapshot on the state of IETF processes I recommend RFC3774⁶, RFC3844⁷ and the ISOC IETF Journal⁸. It also does not make a recommendation one way or another on whether the structure that has developed in the IETF is a structure that should be imported or adapted for the IGF.

Instead it looks at the philosophy of the IETF, as I understand it, through the interpretation of two of the most cherished mottoes of the IETF. It is my belief that these mottoes are important in making the IETF the organization it is, and that these mottoes are potentially useful when considering modality guidelines for the IGF.

Motto 1

*We reject kings, presidents and voting.
We believe in rough consensus and running code.*⁹

In looking at this motto, it is important to look at the entire quote and not just the

¹ This is based on a talk that was given at the DiploFoundation conference "Internet Governance: The Way Forward" on 11 Feb 2006

² [Http://www.ietf.org](http://www.ietf.org)

³ Note: I am writing as a long time (over 15 year) IETF participant and while I am the current coordinator of the IETF educational team (<http://edu.ietf.org>) this note is being written from a personal perspective and not as an official statement from any organization. It is an important part of IETF culture that one always define in what capacity, if any, they are speaking. In this case, the capacity is as participant.

⁴ <http://edu.ietf.org/tao>

⁵ <http://edu.ietf.org>

⁶ <http://www.ietf.org/rfc/rfc3774.txt>

⁷ <http://www.ietf.org/rfc/rfc3844.txt>

⁸ <http://ietfjournal.isoc.org/>

⁹ Dave Clark (1992)

last part which is most often quoted. Every part of it is significant in what it says about the IETF. It is also one of the earliest expressions I know of, of a declaration on Internet Governance.

We ...

Both sentences start with the word “We”. Dave Clark, one of the IETF's more respected elders was speaking not only for himself, but making a declaration for all those who participate in the IETF. That the community accepts this motto can be seen by the number of people who proudly wear t-shirts with this motto emblazoned on the back and by the number of people who quote either one of both of these phrases as part of their Internet 'governance' credo, though of course they may deny the existence of a thing called Internet Governance.

The sense of belonging by the citizen engineer in this open participation effort is, I believe, obvious to anyone who attends an IETF meeting. The IETF is open to all who wish to participate. There are no criteria for participation in the IETF other than access to email and a willingness to participate in the work in accordance to the norms of the community. All meetings are open, though at a fee, to anyone who shows up. No preregistration is required, though the fee is lower if one does preregister. And there is no notion of accreditation or of exclusion.

While the IETF is open to all, it is a passive openness in that the IETF neither does outreach nor offers lowered fees for those who cannot afford the regular fees (though there is a student rate). To many in the developing world these are seen as qualifiers on the notion of openness. In the IETF's defense, while all recognize the importance of the face to face meetings, in that they build community and that participation in meetings is a criteria for participation in selecting the leadership through membership in the NomCom, no decisions are ever taken in the face to face meetings.

Additionally, one of the most maligned and controversial¹⁰ aspects of the IETF, the use of simple text format for all contributions, i.e. Internet Drafts, and publications, i.e. Request For Comments (RFCs), is based on the requirement that all documentation is available free to anyone, anywhere, even if they don't own a particular piece of software for creating, rendering and displaying files.

As an association of individuals, within the IETF, no one individual has any more rights in making a decision than any other individual. And even the leadership, when not acting within their functions, are equal to all others in technical discussions. Certainly, on occasion, the fact that the leaders are in positions of responsibility does give their words more visibility, but any attempt to use their position to assert a greater importance for their opinion will meet with community disapprobation. This begins to bear on the next few words in the motto.

¹⁰ Each year, this controversy erupts anew on the IETF list. Each year, there is agreement that something should be done and all the options are discussed and discussed. And each year after all is said and done, the status quo on document format remains in effect.

... reject kings, presidents ...

What does it mean to reject kings and presidents? As stated above, it means that no one, by virtue of authority, has any greater right to speak than anyone else. This is the case in all working groups and in plenaries. No one, not even the leadership, speaks with preemptive authority when it comes to technical issues or process. And while it is true that the leadership does have a scope of responsibility, sometimes a very extensive scope of responsibility, even when they do make decisions in the execution of their assigned tasks, these decisions are always open to multiple levels of appeal.

It also means that the mandate the leadership has, comes from the community and can be removed by the community. While the process has never been initiated, a small group of individuals¹¹ can make a formal request to have any member of the NomCom selected leadership removed from their post. These requests would bind the ISOC president to convene a committee to review the complaint. The review would be done by the same type of committee that selects the leadership: one formed by a strictly random and transparent selection from among all qualified participants who volunteer for the committee.¹²

... and voting.

While many decisions are made in the IETF, they are not based on voting¹³. One reason for not voting is that there is no real way to define a membership criteria.

Questions that have no answer within the IETF are:

- How does one differentiate between the participants who are active members and those who are lurkers?
- Who deserves a vote?
- What would be the inclusion criteria?
- What would be the exclusion criteria?
- What is a member of the IETF?

Early on it was accepted that there was no just way to both be open and to answer questions such as these. Periodically the discussion does arise that things might reach closure more easily if only there were community voting, but each time the discussion is considered it quickly dies out. The IETF does not believe in voting.

As mentioned above the selection of the leadership is based on a Nominating Committee process, where the committee is picked at random from among

¹¹ The original rules required that only one person was required to request the recall process. This was recently changed to include a somewhat larger group even though no individual had ever made such a request.

¹² The rule of the NomCom process for section and removal can be found in <http://www.ietf.org/rfc/rfc3777.txt>. Details on the random selection algorithm can be found in <http://www.ietf.org/rfc/rfc3797.txt>

¹³ One notable exception is the NomCom which can decide to use voting, at its discretion, in its procedures.

participants willing to serve. Additionally all technical and policy decisions are made without voting but by rough consensus and are tested by implementation.

We believe in rough consensus ...

There has been a fair amount of interest in 'rough consensus' as a practice. What is it and how does one know when it has been reached?

In the IETF context, it means that one stops the discussions when the work has reached a point where it is good enough to fulfill the requirements. This does not mean that there are no more disagreements, even fundamental ones. It does mean that all of the known issues have been examined and discussed and that any unresolved disagreements do not present any known barriers to implementation.

One important aspect of rough consensus is that it requires that there is someone who can determine when rough consensus is reached and someone to whom rough consensus decisions can be appealed. This is a problem that civil society discovered when it attempted to use rough consensus in the caucuses. The groups would often reach a state that resembled rough consensus, but no one had the mandated task of calling that consensus. And if rough consensus was called, there was no means of appealing that call of rough consensus. This left those with unresolved issues with feelings that their opinion had not been properly dealt with. And it left these unresolved issues without closure, occasionally rendering a caucus dysfunctional.

In the IETF, the working group (WG) chair is responsible for calling rough consensus. Anyone who disagrees can appeal¹⁴ to the chair to re-review their decision based on an argument presented by the appellant. If the WG chairs¹⁵ does not change the decision regarding rough consensus, it can be appealed to the WG chair's boss, the Area Director (AD). If the AD disagrees, it can be appealed to the full Internet Engineering Steering Group (IESG)¹⁶. If the IESG does not reverse the decision, it can be appealed to the Internet Architecture board (IAB)¹⁷. And finally, if the appeal relates to a matter of procedure and is not based on a technical argument, it can be appealed to the Internet Society Board of Trustees. It is my belief that it is the appeals process that makes rough consensus possible.

... and running code

While the question of what constitutes 'running code' is a more nuanced issue than is relevant to this brief note, the principle itself is important. The phrase relates to the nature of decisions. While decisions are made, they are primarily

¹⁴ The appeal procedure and other information on the IETF standards process can be found in: <http://www.ietf.org/rfc/rfc2026.txt>

¹⁵ For information on WG chairs: <http://www.ietf.org/IESG/wgchairs.html>

¹⁶ For information on the IESG: <http://www.ietf.org/iesg.html>

¹⁷ For information on the IAB: <http://www.iab.org/>

internal decisions about what to publish. Standards and Best Processes, start out as proposed and to some degree require at least a trial implementation before being published as standards track RFCs. After experience and review these might become drafts along the standards track and a few become full standards or best practices. The real decision about a standard is not made by the IETF itself. Rather, the real decision is left up to the serendipity of deployment. While the IETF is certainly regarded by many as a standards group, in my view, the IETF does not make standards, it publishes documents in which it makes recommendations about what might be standards one day. The Internet community at large makes the real de-facto decisions.

Motto 2

*Be strict when sending and tolerant when receiving*¹⁸

This motto is essentially one on tolerance. RFC1958¹⁹ presents this as a technical principle to be applied in the deployment of protocols:

Implementations must follow specifications precisely when sending to the network, and tolerate faulty input from the network. When in doubt, discard faulty input silently, without returning an error message unless this is required by the specification.

It is, however, also a social principle and has been recognized as such by many of the participants in the IETF. And while often observed more in the breach than in practice, it remains a principle of the IETF and one that may be useful when applied to the IGF. It is especially important when dealing with newcomers to a process or discussion. If there is to be a vital and ongoing IGF, it will be an organization that is constantly reaching out to new participants. As such the continuing participants will need great tolerance in bringing newcomers up to speed, which will require strict adherence to the practices and norms of behavior, whatever they be, that are adopted by the IGF. And when the newcomers send out the 'faulty input' because they do not yet understand the ways of the forum, it will be best if they are treated kindly.

¹⁸ RFC1958, [Architectural Principles of the Internet](#), Brian Carpenter, June 1996, section 3.9

¹⁹ <http://www.ietf.org/rfc/rfc1958.txt>