

Appeal to the IAB irt. RFC 6852

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Dear IAB Members,

This appeal concerns RFC 6852. It does not object to what it says, but rather to what it does not say. It is also a practical appeal for the whole digital world to commence a democratic and “polycratic” (the IETF being an example of open polycracy based on rough consensus) global and common debate that should be jointly launched in order to address this lack.

This lack belongs to four areas that the RFC 6852 does not consider as such:

- Best practices multiconsensus: RFC 6852 introduces the concept of “global communities” that the WSIS proposed to have represented through “dynamic coalitions”. If one understands that such communities result from consensus among the participants, there is a need to document how the necessary multiconsensuses among these communities will be built, resulting in common netiquettes.
- Standardization management: the field of the ISOC/IESG and, therefore, my first level appeal to the IESG, the response of which does not hold since it only considers the details and not the common interest background.
- Architectural normalization by the ISOC/IAB: this is the layer that is more precisely discussed in this appeal.
- Architectonic requirements by the digital society: this is a more general concordance necessity for the building of the digisphere, i.e. the anthropobotic (people and bots) ecosystem, affecting a true metamorphosis of human society without any pre-concerted cultural project. The need for an ethically based technological contribution by the ISOC/IETF is considered. This is my personal area of main interest and perspective.

This appeal actually calls for a technical concordance model based on a good faith global attempt to integrate RFC 6852 and WSIS conclusions as well as multidisciplinary research and personal thinking, while matching as much as possible the IAB RFC 3869 principles, IETF missions as per RFC 3935, and an analysis of RFC 3776 and/or their continuations. Its purpose is to spark a structural debate aiming at a clear and terse epistemological consensus over the production of users’ and consumers’ requirements, norms, standards, and of the best practices accompanying them for the whole digital ecosystem, among all those who share the same concerns as the RFC 6852 signatories, but from other ethical, architectural, architectonical, economic, cultural, political, or historical points of view.

Concordance model

This model should be based upon the analysis that there seems to be four observed layers in the

stewardship of the digital ecosystem. They are related to the short-term contractual “operance”, the middle-term legal “governance”, and the long-term constitutional “concordance” along common “adminance” best practices. If one considers the stewardship of the IANA referential system as an example:

- (a) its terms of access and use belong to its operance,
- (b) its management along with RFCs belongs to its governance,
- (c) the choice of using ISO 3166 as the list of ccTLD belongs to the digisphere concordance consensus,
- (d) while the way to introduce an update request or to replicate its files on secondary servers are questions of adminance.

This is based upon the WSIS analysis of :

- four stakeholder’s main classes, I would call collective areas:
 - regalian domain,
 - civil society,
 - private sector,
 - and international organizations
- as well as what they call "dynamic coalitions" and what the internet community used to call "open mailing lists",
- leading to an shared management by "enhanced cooperations", Steering Groups, Registries, or Organizations.

If one welcomes the analysis by RFC 6852 of "global communities", we should add them to nations represented by their government as relational spaces of manufacturers' clients, service users, technical cultures, linguistic areas, knowledge societies, social networks, etc. They share some common characteristics as :

- they are not formal national or geographical communities that are represented by a Nation-State or a Regional entity,
- they wear a certain unformed sovereignty in the sharing of needs, expectations, history, etc.
- they share the desire to act as a common relational, cultural, and purchasing space.

This acknowledges a universal homogeneity by “concordance” (beginning with natural constants), rather than through uniqueness, of the digisphere (i.e. the whole digital ecosystem and all what is affected by the cyberspace that we design).

Therefore, we are looking for a general unification of the digisphere conceptual definitions through a semantic metaconcordance and a practical convergence of technical requirements, best practices and referential bridges based upon polynym terms [linguistic identical variants] for notions, concepts, definitions, parameters and tags across the linguistic diversity, etc.

This metaconcordance seems to result from:

- norms describing the current or desired normality,
- standards building on or working toward these norms,
- requirements establishing common prerequisites in terms of use, quality, efficiency (i.e. efficacy as per Couffignal's vision of cybernetics and resilience as per Jon Postel's view of robustness),
- best practices in the way to explore, document, implement, and deploy them.

Last but not least, this model (along with the terms of the WSIS defining the "information society" we want) should be "people centered, à caractère humain, centrada en la persona". This was in agreement with the RFC 3965 core values. It is less clear in the RFC 6852 text.

An IETF model has to be mainly epistemological and technological. Yet, it also has to be sociological at the core values (as quoted above) level, and in the technical relationship with fundamental ethical issues. This should determine a multiconsensual "technological aesthetic" of the digisphere (i.e. a way for it to comply with its own purpose). It should be able to welcome and address the different requirements nurtured by the various centricities of the global communities, in their main planes of interest :

- architectonics, the way to build the digisphere and influence civilizations;
- architecture, the way to build technologies and influence system performances;
- engineering, the way to best document and apply standards;
- intelligent use, the way to best adapt and efficiently organize systemic resources to one's needs;
- and usage, the way of appropriately using the technologies that are made available.

The ethitechnics associated to this aesthetic SHOULD insure that the resulting technology will behave by default in an ethically favorable and unethically costly manner.

Cultural issues

I quoted my personal architectural and architectonical culture to introduce the fact that there are different cultural schools about the way to conceive "SHOULD" as regards a multiconsensual ethitechnics. It only illustrates that there are non-IETF architects and engineers who may be to a practical extent pragmatically in tune with the IETF engineering options, except when they feel that the IETF engineering vision leads to architectonical conflicts (as in the lang-tag case) or to an architectural violation (as it could have happened in the IDN case).

RFC 6852 restricts, due to its market oriented approach, the IETF architectural openness. I do not know if it actually leads to conflicts with this previous openness, but:

- RFC 3869, of the same IAB origin, implied that this could be the case. Since the presented text does not discuss this key point of concern, its introduction as an RFC should consider this point.

- In the case of my own architectural agoric¹ and capability² oriented vision,
 - Inherited from Norman Hardy's approach in his design of GNOSIS, Tymnet, and ISIS and from my project of a port of Doug Engelbart's AUGMENT environment on Tymnet Super-Engines),
 - Derived from my own experience of the first packet switch public international network deployment, standardization, operations, sales, and political relations,
 - Resulting from my extended services and semiotic networking oriented R&D and relational space architectonic, politic, polemologist, strategist, sociologist, and anthropologist thinking for the last 27 years.

This is why I think this is still a gray area that calls for architectural and architectural precautionary debates. I also suspect that this is the case for other networking cultural schools.

- As a French citizen, I am engaged in the analysis of cyberspace as a space, invented and artificially made by men, of technological risks for the population and national interests,

These risks fall under the constitutional duty of precaution that obligates the State to provide adequate temporary solutions to protect people and the nation from such threats until they are addressed in a scientific way. My own position is that a broad part of these risks results from the lack of OSI layer 5 and 6 in the Internet model and of an architectural model extending OSI to additional service, intelligence and security layers. I call them "PLUS" for "pluggable layers on the user side", architecturally on a fringe to fringe basis, as per RFC 1958 and RFC 5895. These layers make an encapsulation of the Internet, which I call the "Internet+". This Internet+ is also capable, under its own interoperations system (I call for an exploration of such a "netix"), to perform as a multigateway system (for example using OPES) of active content services, i.e. permitting an Intelligent Use ("IUse") of the passive content oriented underlying Internet layers' bandwidth.

These are points that I have raised for years for paving the way to a semiotic internet (Internet of thoughts) I call the "Intersem". Until now, I considered that its architecture would be debated and could deploy when enough interest would arise, and the work would have been completed among IUsers for a "lame patch" similar to the web patch for presentation issues, or as an extension of the semantic web. Therefore - along with the IAB responses to my appeal on the matter - I limited myself to introducing the seed IUCG and IUTF structures that could help this work. So, they could be used, adapted, or copied.

¹ Agoric is the study of the principles of reflection leading to emergences. It is based on the whole weighted sylldata [data between data] relationship within a set of objects, individuals, principles, events, etc.

² Capabilities are the tokens of authority. They are the doors in the firewalls. Owning a capability gives a domain the right to do something.

A bare RFC 6852's vision might endanger this hope, due to market constraints and political interests, particularly in the area of the integration of the internet technology in semantic oriented solutions.

My concerns mainly involve sensible and critical areas such as the SAS [Semantic Addressing Service/System] and the MDRS [MetaData Referent System/Services], which are the two main components of the Intersem, as the DNS, IP addressing, and parameters are for the Internet. The way DNS and IANA have been implemented at the internet layers, and the way they have been consensually documented in RFC 4646/5646 and RFC 5895 did protect the possibility of their seamless integrated extension, without a point or a bit to change in any RFCs or executable. I suggest preserving this as much as possible, both in a technical and political way.

Joint exploration from the IETF engineering strata and from the IUSER requiring strata would, in my opinion help deploying new markets and deploy the Internet.

Sovereignty issues

Another important issue is that, up to now, the normative status-quo for a better working internet has not raised political issues per se. This is most probably because it was US led and was supposed to be of equal interest to the four main stakeholders' areas (regalian domain, civil society, private sector, and international organizations).

RFC 6852 tends to create a situation where (altogether with the past December debate over the world treaty on telecoms):

- Regalian interests are represented by the ITU
- Private sector gathers an IETF, W3C, and IEEE under ISOC leadership for communications
- International organizations are involved through ISO
- Civil society is not represented on an equivalent technological plane except through IUTF like initiatives. They have neither the exposure nor the budget nor the exposure for it, except if supported by large corporations or governments. This is an innovation limiting factor.

I am not sure that creating a vacuum, where national and commercial influences could chaotically compete, would be an advisable situation. This is why I have always refused to join a well-paid position in a large structure, in order to be free to defend an architectonically/architecturally exciting equilibrium between the four stakeholders' classes, successively sharing with each of them, on the basis that communications is about intercomprehension among and between persons and their relational spaces ("the networks of the network of networks").

Right now, such a vacuum would probably lead to:

- An increased interest in the "IGF" without the private and civil technical stakeholders being involved enough. A real motivation effort of civil lead users is needed.
- Together with the aftermath of the PRISM issue, to a governments' and people's demand of democratic control of the architectural issues (i.e. what was identified by Dr. Lessig's

quote “the internet [hence the new digital world] constitution is in the code [hence in the standard – where it should probably not belong ?]”). As a result, until now, architectural issues are more or less discussed at the IAB and ISOC, in activists’ mailing lists, ICANN meetings, government, and military spheres. I am not sure that the IAB wants the GAC to overview its debates, as a friendly compromise not to have them filtered by the UN General Assembly (one has to consider the Tallinn Manual by NATO to understand where all this stands).

I have no idea if this is a proper time or not, but the logical consequence – together with Google’s and ICANN’s policy (signature of the “Elysée Treaty” with President Hollande, multinational enforcement of Google contract terms perceived as “Google’s law”, ICANN vanity TLDs) – will most probably lead to an increase of interest for the definition of the cybersovereignty meme and its technical roots in architectural as well as political, economic, cultural, and military rights and duties. This, after all, is only the long expected digital evolution of the “Nation State” notion.

I am not sure that cybersphere people (SDOs, Operators, Service providers, manufacturers, IUsers, end-users) are currently prepared to deal with such a debate without a progressive previous preparation.

First Request

My first request is the addition to RFC 6852 of a twofold IAB disclaimer (*) explaining that:

1. the IETF over the years has accumulated experience in two areas that have now grown enough to be split in order to take full advantage from what were still constraints 3,000 RFCs ago (RFC 3776, 3869, 3935); those being architecture (the “how”) and architectonics (the “why”).
2. This resulted in:
 - a. The publication of market oriented engineering standards by the IETF along an architecture that is influenced by the IAB consensus now discussed with other standardization and normalization bodies. This is the purpose of the text having being signed with other SDOs and proposed to other organizations.
 - b. The possibility of a democratically discussed technological and multiconsensual esthetic for the common good of people, nations, and the world that depends on the architectonic influence of the Internet, on what it currently is and what it should be. This could now result in a multiconsual ethitechnical netiquette subscribed to by governments, SDOs, MSAs, and UROs (use requirements organizations). This is why the ISOC/IAB would propose that all interested parties should join in an open architectural/architectonical forum (ARCHITF.org).

(*) This could also be the announcement of a joint Best Practice work to produce an RFC on a global open framework where RFC 6852 could develop while being associated with other perspectives.

The IUCG/IUTF experience

The feedback that I have received from the IUCG's and IUTF's young experience and the thinking that I have spent on it shown me that IUsers are a new kind of community that is specific to the digisphere as a brain made artificial environment. My initial idea was that its main role would be to document a fringe to fringe concordance over the end to end one, as documented by the IETF and IANA. This may be the case in the future, but the initial work and reduced involvement have taught me a different and more important lesson. The IETF benefited from the well-established bandwidth standardization by ITU and provided a single replacement for Tymnet and then the OSI technologies in the end to end oriented layers.

The fringe to fringe oriented open layers also seemed to benefit from a well-established set of IETF end to end standards, as consistently articulated by RFC 1122, RFC 1958, RFC 2026, RFC 3869, RFC 3439, and RFC 3935. However, RFC 4647, and later on RFC 5895, have shown me that the semantic expansion of the Internet would demand more than the simple rule that I stuck to during the lang-tags and IDNA debates: "no MUST in the end to end concerned area and the possibility to document every other end to end MUST as an "IS" in fringe to fringe specific standards".

Actually, it showed me that the very nature of the fringe to fringe oriented layers' documentation was not technology "standards" but subsidiarity "requirements". This did not make a big practical difference as long as the purpose of the IETF was "to produce high quality, relevant technical and engineering documents that influence the way people design, use, and manage the Internet in such a way as to make the Internet work better" on an end to end basis, as long as it could not negatively influence the way it would work on a fringe to fringe and, further on, on a brain to brain basis.

RFC 6852 does change that because it now provides a definition of what "the internet works better" means for the IETF, and because that definition may interfere with the way the **internet+** layers and its upper **Intersem** strata will work better according to their own definition which are not yet defined. We already have experienced this situation:

- in the **lang-tags' case** where I opposed the best Unicode commercial interest that RFC 6852 would now support.
- in the **IDNA case**.

Had I not obtained the consensus I needed for the lang-tags' RFC (against me ... I accept it, but the wording was reviewed through RFC 5646) and had RFC 5895 not permitted to actually get subsidiarity exemplified as the internet architectural way to cope with diversity, what was I left with to prevent a technology divide. The only option was to derail the IETF through a DDOT (distributed denial of thinking) in the first case and to derail ICANN in the second one.

From these experiences of mine, I do not advise that someone, or more probably some national, vital or illegal interests, is put in a situation to have to try it sometimes. A solution is to be found to prevent this from happening in the new RFC 6852 context.

Second request

This is why I think there should be an inter-SDO architectural, architectural, and technical multi-strata appeal procedure that is investigated and documented and announced in the RFC 6852 introduction, so the civil society and most probably governments and international organizations may be able to join and sign its text. It could be jointly assigned to the architf.org mailing list the charter to establish it.

I thank you for your time and response to this appeal.

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