

What new technical work should the IETF take on?

- And, how can the IAB help?
- What potential workshop topics are there?
- What is their status?

IAB Retreat, April 2021

Big Internet Issues

From IAB survey

- Surveillance capitalism and encryption/privacy: centralization, threatening underlying trust in the network
- Security: data privacy, deployable solutions, identity for e2e encryption
- Nationalism and fragmentation: non-IETF proposals to rearchitect, regulated out of existence
- Others: resilience, observability, network support for applications, simplicity, ICANN root governance system, private spaces within protocols
- How to work: gap & trend analysis, collaboration with open source community, action plans for dealing with non-IETF Internet efforts

Big Internet Issues

From IESG PEST

- Political — geopolitics, fragmentation interests, attitudes to data collection, crypto legislation, anti-trust efforts
- Economic — incentives or lack thereof for standards among big players, economies of scale, centralisation, consolidation, increasing fibre & wireless investments, use in critical industries
- Social — worries about critical services or data, effects of social media amplification, fake news, isolated bubbles, threats to free speech, tensions between operators and “endpoints” (routers at a different layer?)
- Technological — are standards needed, moving up the stack, centralization, increasing attacks, availability/security/privacy/identity, AI, no plan for e2e QoS, how IP evolves

Big Internet Issues

An attempt at synthesis

Some initial notes:

- A lot has happened (progress!) but we're not done...
- Data centres use too much power
- Data centres use too much data :-)
- Many unsolved security problems, still
- New needs on resilience, critical services, new tech
- Evolving ecosystem — stack changes, standards & open source, how implementations are built, choice wrt what is standard and what is on top
- Vision for which direction the internet moves to

Big Internet Issues

An attempt at synthesis

Early conclusions:

- We see technology affected by various interests, from conflicting business interests to regulatory issues and geopolitics
- The IETF is best at taking very concrete (late) steps; there's also need to pay attention to the earlier parts and how Internet evolution affects other
 - Maybe room for IAB interaction with others, thinking about what kinds of solutions we want to go towards, understanding trends, etc.
 - We don't necessarily understand all of this very well ourselves — perhaps a focus on listening more various other parties would be useful

How can the IAB help?

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How can the IAB help?

“Workshops [3], documents [4], IAB open [3], programs [1]”

(Does this mean: do not create organisations, engage the community or write something clever instead?)

Thoughts on Workshops

There's different kinds of workshops

- For coming up with a plan/common agreement (ESCAPE)
- Brainstorming about a difficult topic (DEDR)
- Early exploration of emerging topics (IOTSI)
- For airing thoughts about a painful topic (MARNEW, ESCAPE)
- Getting participants to submit interesting submissions (COVID19)
- ...

The IAB doesn't necessarily always have to have a clear technical plan and analysis document before organising a workshop (e.g., COVID19)

- Probably useful to do more/have early discussions/involvement, and avoid analysis paralysis...

Workshops can also fail, e.g., when the IAB doesn't fully understand the situation or the participation is not broad enough (R&A)

Thoughts on Workshops

Workshops take time!

- Start now if you want one

Workshops take people who are driving them, writing things before and after, run PCs, figure dates, etc

- We need a stuckee (actually several) for any topic
- Plus some community counterparts, even early

Potential Workshop Topics

User-consumable network quality

- Waiting for an updated write per feedback?
- Responsible? Tommy?

Centralization/consolidation

- Community input
- Past events partially on this topic (DEDR)
- Status of documents
- Best way to approach/energize/cultivate discussion
- Responsible? Jari?

Potential Workshop Topics

Collaboration & path signals

- Some interest in community
- Opportunity for progress less clear
- Lets see after next agenda item
- Responsible?

Workshop on quantitative/qualitative analysis of IETF data

- In preparation? Is this IETF or IAB or LLC?
- Responsible?

non-technical

What else?