

Timeliness, Effectiveness, Quality and the IETF

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The IETF standards process is largely serial...

- Pre-working group tasks
 - Write draft
 - Propose and negotiate BoF
 - Hold BoF
 - Negotiate charter
- Working group tasks
 - Document production
 - WG Last Call
- IESG tasks
 - AD review
 - IETF last call
 - IESG approval
- RFC Editor tasks
 - Editing
 - Authors' final review
 - Publish a Standard

...and interrupt driven

- Two apparent interrupt types
 - IETF meetings
 - ID cutoff drives draft publishing
 - “I’ll do this as soon as I get home...”
 - IESG telechats
 - Decisions get made bi-weekly (right?)

There is frustration in the community about how slow this process seems.

Where are we slowest?

- WG worker bees occasionally drop offline for months and have a real life
- Responsible ADs sometimes take months to do initial review
- Sometimes it takes months for DISCUSS comments to get to WG

Other bad things that slow us down

- Mailing list ratholes
- Creeping featurism
- Authors/editors who don't know how to write
- No/slow/too late feedback from ADs
- Working groups fundamentally unable to reach consensus
- Documents don't get read (until last call)
- Administrative indeterminism

How long should standards development take?

- Need timeliness
 - Want to be responsive to industry, other standards bodies
- Need quality
 - Architectural quality of Internet standards are the reason our technology has succeeded

There is tension here. Balance is needed...

If the IETF is too slow, we
become less effective.

If we sacrifice timeliness...

- New technologies may go elsewhere
 - People will find other ways to ensure interoperability
- May lose control of (pieces of) the Internet architecture
 - Other standards bodies are *very* interested
- IETF clue can come too late
 - IDs can become effective standards
- Working groups forget what they are doing
 - Start looking for problems to solve

If the IETF rushes standards, we may end up with lower quality technology.

(Of course, other things can reduce quality.)

If we sacrifice quality...

- Ill-defined charters
 - WGs get into the weeds, distracted by research
- Too many working groups get chartered
 - Dilute valuable resources, poorly monitored, insular
- Bad idea BoFs and WGs proliferate
 - Solving the wrong, or non-existent, problems
- Unclear documents are written
 - Reviewers, implementers have to divine authors' meaning

If we sacrifice quality...

- Missing architecture in protocols
 - E.g., Security, Congestion Control, Scaling, Internationalization, Naming, Robustness
- Inappropriate or missing technology reuse
 - Diverse expertise in IESG helps
- Insufficient community buy-in
 - Many communities converge
- Un-implementable specs
 - Lack of running code hides problems

All these things happen
now in the IETF.

Looking for fixes...

- Need to address unnecessary slowness (and perceived slowness)
 - Increased transparency will help spot root causes
- Need to remain mindful of risks of expediency
 - Too fast is probably worse than too slow

In closing: RFC 2026

“These procedures intentionally and explicitly do not establish a fixed maximum time period that shall be considered “reasonable” in all cases. The Internet Standards Process places a premium on consensus and efforts to achieve it, and deliberately foregoes deterministically swift execution of procedures in favor of a latitude within which more genuine technical agreements may be reached.”

Making wise decisions takes time