IETF Hackathon: One Tax API

IETF 115

5-6 November 2022

London

Hackathon Plan

- What problem were you working on?
 - RFC 8032
- Specific problems to solve
 - Determine good set of test vectors
- How you planned to solve it?
 - Try test vectors from <u>Chalkias, Garillot and Nikolaenko</u> on a variety of libraries

What got done

- Ideas, add tests for
 - <u>LibGcrypt</u>
 - LibreSSL
 - <u>libtomcrypt</u>
 - Mbed-TLS
 - <u>Nettle</u>
 - Network Security Services
 - <u>noble-ed25519</u>
- New code
 - Implement tests for <u>Botan</u>, <u>Monocypher TweetNaCl</u>, and <u>WolfSSL</u>,
 - Pull request to <u>project repository</u>

What we learned

Lessons learned from this hackathon

- NaCl and NaCl.js pass and fail the same tests from <u>Chalkias</u>, <u>Garillot and Nikolaenko</u>
- Monocypher passes and fails the same tests as OpenSSL 3
- wolfSSL passes the same tests as OpenSSL 3, but indicates a failure in the verification process for other tests, not a failed verification
- Botan passes ed25519-donna and Supercop on which it is derived from

Wrap up

Team members:

Other links:

• Benson Muite

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First timers @ IETF/Hackathon:

Notes and contacts:

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• benson_muite at emailplus dot org