arm

Mbed TLS Tech Forum

https://github.com/Mbed-TLS

Dave Rodgman 2022-04-25

Recent community activity (thank you!)

- Neil Armstrong / Nordic
 - PRs for Use PSA Crypto More epic all merged
 - PRs for PSA Long Term Secrets in review
- Archana Madhavan / SiLabs
 - PR for code-gen 1.1 (introduction of JSON driver tooling) #5396
 - Going through cycle of review & updates ready for further review
- Leo Rosen / Oracle
 - Misc. Coverity bug fixes in review

- Peter Spacek / SiLabs
 - Use PSA for hashing in TLS 1.3 PR submitted and ready for review #5727
- François Beerten / Silex
 - PSA driver support for entropy gathering #5347
 - Design review complete
 - Waiting for updates re. code review & alignment on tests
- Various (Glen Strauss / lighttpd, IoTerop, ...)
 - Accessors for various fields made private in Mbed TLS 3.0 – issues, discussions & PRs
 - Majority of issues now addressed

Major activities within core team

- PR prioritization
 - <u>Updating process</u> to prioritise important PRs... (e.g., security bug)
 - ... and de-prioritise low-importance PRs (e.g., new obscure cipher)
 - Community have a voice on prioritization decisions (TechForum, GitHub activity, mailing list, etc)
 - Goal is to help us to deliver the most-wanted features
- OpenCl
 - Ubuntu CI now publicly visible more coming
- GitHub migration from ArmMbed to <u>Mbed-TLS</u> organization complete
 - Better reflect independence from Mbed OS projects / TF.org ownership
 - Easier management of GitHub (e.g., team members, CI bots, etc)
- TLS 1.3
 - Client side progress: version negotiation, Certificate Verify message completed
 - Migrating to using PSA
 - Server side functionality and PSK started
 - Community help welcomed on these!

- Mbed TLS 3.2 planned for Q2
 - Working on adding accessor functions for some things dropped from the public API in 3.0
 - Aim to cover most/all issues reported by community
- Storage format stabilization
 - Testing & documentation to assure stable format for non-volatile storage
- PSA Crypto
 - On-going collaboration including Arm, SiLabs, Nordic
 - Support accelerators for all crypto in TLS 1.2, 1.3, X.509
 - Isolation of long-term secrets (e.g. PSK, private keys)
- Performance
 - Bignum and ECP optimization started
- Review workload
 - Struggling for review bandwidth any assistance from the community is hugely valuable
 - Easing the general review load accelerates progress on work prioritized by the community