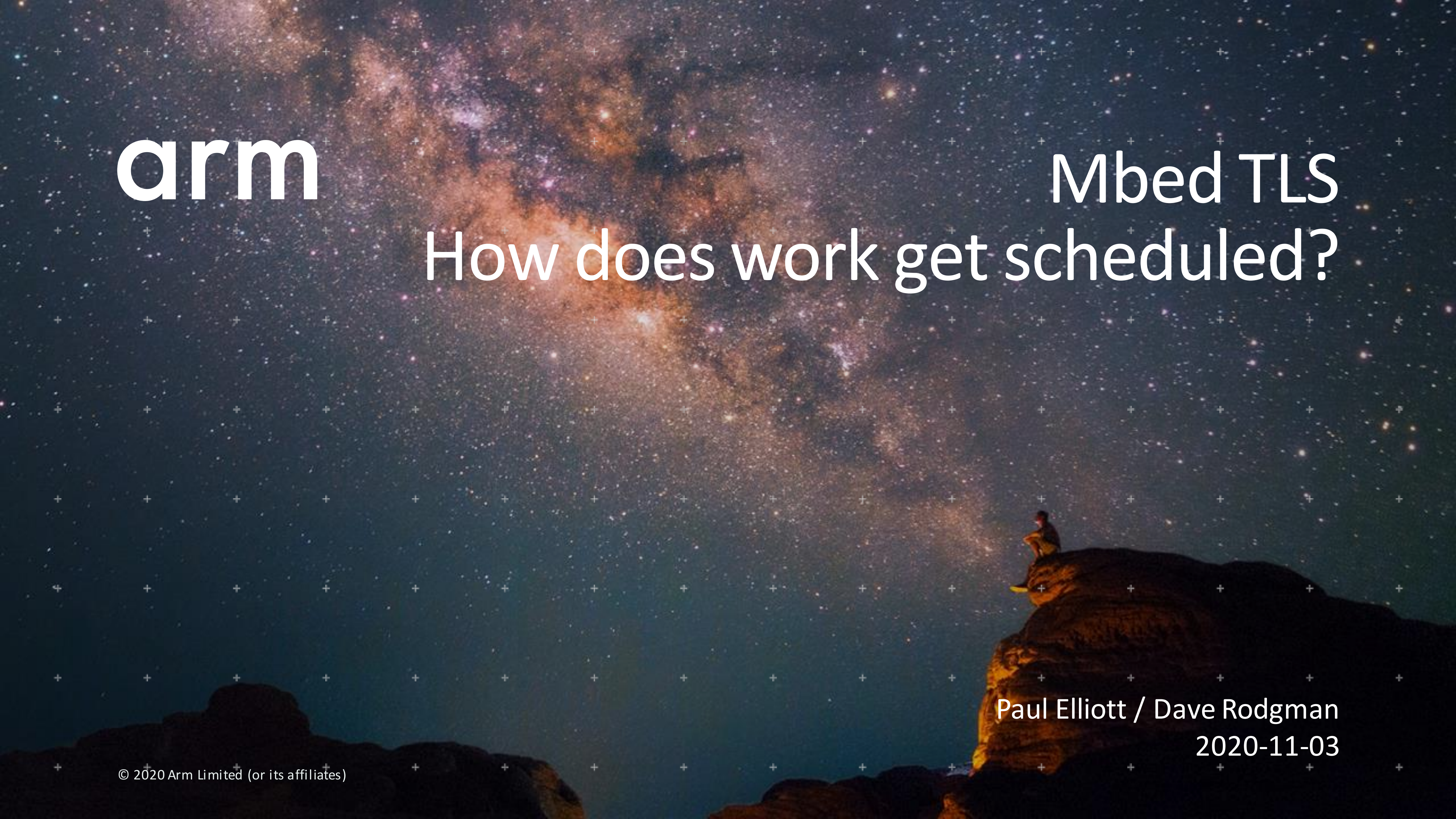


Mbed TLS
How does work get scheduled?

Paul Elliott / Dave Rodgman
2020-11-03

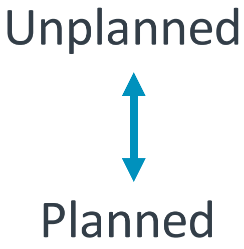
Aim of this talk

- Give some clarity about how we plan the work
- Show how public GitHub activity reflects our work
- Explain how you can influence the roadmap

The planning process

Where does the work come from?

- Many sources
  - Responding to bug reports
  - Community PRs
  - User requests
  - Internal plans



Unplanned

Planned

- Not enough capacity to handle all unplanned work immediately
  - Some of this work will get done immediately
  - Some will get prioritised and scheduled

- Roadmap reflects the larger planned work items
  - Subject to change according to end-user needs

The basic process

- Roadmap gives **quarterly** deliverables
  - Community PRs and issues not shown (but expected to be part of our work)

- **Monthly** sprints
  - Before each sprint, time is spent planning sprint activities
  - These go into a GitHub board used to track progress

- **Daily** triage on incoming items (bug reports & PRs)
  - Typically should see initial triage activity within a working day

- Small community items get handled as they come in
  - Aim to be responsive – median time to close a community PR is around 12 days

- Large community items get scheduled for a future sprint
  - May be added to the roadmap for major items
  - Example: DTLS-SRTP support recently merged as a planned roadmap item

Public GitHub activity

How does this process map to activity in GitHub?

Our GitHub setup

- **mbedtls** repo is the main project
- We have a **private repo** for tracking security issues and PRs
  - When these are ready they are merged into the main project
- **mbedtls-test** holds test infrastructure

- Community issues and PRs are managed via various labels

- Work is tracked via some GitHub boards
  - Unified board
  - Product backlog
  - Epics board

Incoming issue or PR

- Triage (normally within one working day)
  - Item will be labelled
  - Author may receive comments, feedback, questions
- Labels may include:

Community	Applied to all community items – you will always see this on your PRs and issues
Bug	Bug reports
Product Backlog	PR is too big to process immediately - Or, an issue that goes into the backlog
Needs:review	PR needs review
Needs:reviewer	PR needs someone (else)to review it
Needs:CI	PR can't progress until it passes CI
Needs:work	PR has been sent back to the author for additional work
Needs:changelog	PR needs to have a changelog entry added
Needs:backports	PR requires backporting to LTS branches
Ready For Merge	PR is ready to merge and is waiting for someone to push the button
Bug	Bug report
Good first issue	Suitable for a novice contributor to pick up this issue (simple, self-contained)
Help wanted	There are no immediate plans to work on this, but we would certainly welcome a community PR
Question	Issue is a question (normally these should now go to the mailing list)
Wontfix	Issue or PR won't be accepted (e.g., bug report that is actually user error)
Enhancement	Issue is an enhancement to current features, thus unlikely to get backported.

What to watch for in your PR

- Community
  - When you see this label get added, you know that triage has picked it up
  - This should happen relatively promptly (normally within a working day)

- *needs: reviewer* and *needs: review*
  - When these disappear, you can see that someone has been assigned, or started review

- Comments
  - After review, you'll likely get some comments and requests for further work

- Ready for merge
  - When you see this, you can expect it to land soon with no further work required

PR lifecycle example

Median time from start to finish is currently about 12 days

- PR submitted
- PR triaged
  - Labels added: **community**, **needs: review**, **needs: reviewer**
- Reviewers assigned
  - Label removed: **needs: reviewer**
  - PR now has people assigned to review it
- Review completed
  - Label removed: **needs: review**
  - Label added: **needs: work**
  - Comments left highlighting some changes that are needed
- Author updates the PR
- Reviewer spots that it's been updated
  - Label removed: **needs: work**
  - Label added: **needs: review**
- Review completed
  - Label removed: **needs: review**
  - Label added: **ready for merge**
- PR merged
  - Label removed: **ready for merge**
  - PR closed

Getting a feature into Mbed TLS

Main routes to influencing the roadmap

- Existing roadmap: https://developer.trustedfirmware.org/w/mbed-tls/roadmap/
- Contact us to discuss
  - Mailing list: mbed-tls@lists.trustedfirmware.org
- Submit a PR
  - Small updates will go in very quickly
  - For large features, the review time can be significant
  - If necessary, we will schedule review so that time is set aside for the feature
- Collaborate
  - Example: Silicon Labs are helping with a range of tasks relating to hardware accelerators
    - PRs
    - Reviews
    - Specification work
    - Discussions on the design of new features

Thank You

Danke

Merci

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ありがとう

Gracias

Kiitos

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