Introduction to DPDK Technical Board & Tree Maintainer

DPDK Summit USA - San Jose - 2017
Back at the dawn of time (~2013), DPDK project was entirely consensus-driven

This led to slower decision making, and slower development

So a technical board was created to allow trusted contributors to the project to make technical decisions on behalf of the whole community

This tech-board was then codified in the DPDK Project Charter
The 9 current members of techboard@dpdk.org are:

- Bruce Richardson
- Hemant Agrawal
- Jan Blunck
- Jerin Jacob
- Konstantin Ananyev
- Olivier Matz
- Stephen Hemminger
- Thomas Monjalon
- Yuanhan Liu
What Does DPDK Tech-Board Do?

The Tech-board meets every two weeks (approx.) for the purposes of:

- Approving the inclusion of new functionality, libraries or device classes, into DPDK
- Approving any new sub-trees or staging trees for DPDK project work
- Approving the appointment of committers/maintainers for those trees
- Approving any subprojects on DPDK
  - Once created – subprojects get their own technical board
- Providing technical input on contributions when requested
- *Making technical decisions when consensus cannot be reached on-list*
Intellectual Property Policy - Updates

- DPDK - User space libraries are BSD licensed.
  - Exceptions are:
    - Kernel modules are GPL-2.0 (e.g. KNI)
    - Common files between kernel and user space are Dual BSD-3-Clause / GPL-2.0

- License exception request is to be approved by GB – on request of TB.

- LF conducted License screening on DPDK code. Some discrepancies reported.
  - Differences in the BSD License text and flavors.
  - Mixed BSD with other license etc.
  - Missing License text, etc.
  - Actions are being planned to fix the issue.

- Going forward
  - Plan is to move to SPDX based licensing.
    - Short identifier for SPDK license to be added to each file.
  - Automated script to report license discrepancies in patchwork – Any volunteer?
Repositories

Main trees
- dpdk.git
  - Ferruh, Thomas
- dpdk-stable.git
  - Luca, Yuanhan

Tools
- dpdk-web.git
  - Thomas
- dpdk-ci.git
  - Thomas
- dts.git
  - Yong
- stable-scripts.git
  - Luca, Yuanhan

Apps
- pktgen-dpdk.git
  - Keith
- spp.git
  - Ferruh

Sub-trees
- dpdk-next-crypto.git
  - Pablo
- dpdk-next-eventdev.git
  - Jerin
- dpdk-next-net.git
  - Ferruh
  - dpdk-next-net-intel.git
    - Helin
  - dpdk-next-net-mlx.git
    - Shahaf
  - dpdk-next-virtio.git
    - Yuanhan
- dpdk-next-pipeline.git
  - Cristian
- dpdk-next-qos.git
  - Cristian

Draft trees
- dpdk-draft-cli.git
  - Keith
- dpdk-next-build.git
  - Bruce
4 major releases per year (.02, .05, .08, .11)
1 new LTS branch per year

Maintainer’s role
- answer questions
- make sure patches are reviewed

Committer’s role
- easy: apply patches
- medium: ask for review to trusted people
- hard: reject patches when they are not mature enough

local patch → patchwork → sub-sub-tree → sub-tree → main tree → stable tree
Tools – There’s an app for that

- **Patches → Patchwork**
  - [http://dpdk.org/dev/patchwork](http://dpdk.org/dev/patchwork)
  - per-patch community CI integration

- **Performance → Community Lab**
  - will provide a monitoring dashboard

- **Bugs → Bugzilla**
  - [http://dpdk.org/tracker](http://dpdk.org/tracker)

- **Features → Roadmap**
  - dev@dpdk.org
  - [http://dpdk.org/dev/roadmap](http://dpdk.org/dev/roadmap)
Roadmap – to 18.02 and beyond!

- meson/ninja build system
- **memory management** rework
- **multi-process** rework
- automatic UIO/VFIO binding
- **hotplug**, notifications and device ownership
- ethdev port representor driver
- adaptive virtual function (AVF) driver
- virtio-crypto driver
- eventdev optimized packet distribution library (OPDL) driver
- eventdev crypto adapter
- base band driver class (**bbdev**) 
- infiniband driver class (**ibdev**) 
- FPGA support 
- BPF support
Questions?