DPDK

Usability of DPDK

John McNamara- Intel DPDK

DPDK Userspace - Dublin - 2016

Usability of DPDK

- Usability from DPDK Userspace 2015

- Progress in the last 12 months

- Usability improvements in the next 12 months
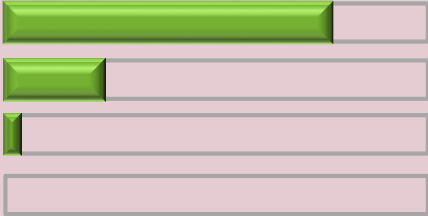
Usability features from 2015

DPDK

Feature	Progress
Create a User Mailing List	██████████
Make the dpdk.org website patchable	██████████
Add a Contributing Guide	██████████
Add a README	██████████
Mempool debugging	████████░░
Make latest version of the docs available	████████░░
Issues with config files - Too many options turned off by default	████████░░
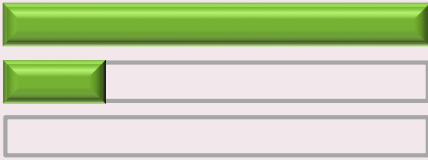
Usability features from 2015

Feature	Progress
More sample apps - Some more examples of using secondary processes.	
rte_malloc() - Don't use rte_malloc() where malloc() would do.	
Logging and debugging via a secondary process.	
Distributed testing - Continuous testing	
Improve the build system • Make install needs to be improved. Doesn't do what the user expects. • Use kconfig. • Add better support for cross compilation. Useful for arm target. • Use autotools and configure.	

Usability features from 2015

Feature	Progress
Debuggability • User expectation for tools like tcpdump to work with DPDK NICs. • Maybe add debug hooks via rx/tx callbacks. • Add/extend a solution based on KNI. • Use systemd naming algorithm for KNI.	
EAL annoyances • Have a default for -n. • Have more/better/all default options. EAL figures out requirements. • Move the EAL to the kernel.	
Too much duplicated code in the PMDs	
Running DPDK applications as non-root	

Usability features added in last year

- Pdump library

- Manpages

- How-to docs

- NIC overview table

- Developer/contributor tools

  - Checkpatch

  - Git log check

- Consistent naming of DPDK tools

- More consistent installation

- Improvements for/by OSVs

- Stable/LTS releases

Stable/LTS releases

Release Type	Duration	Patches	Target Users
Stable	1 release	Fixes	Projects with release cycle like DPDK: OVS, OPNFV
Long Term Support	2 Years	Fixes + Features*	Projects with long term support: OSVs
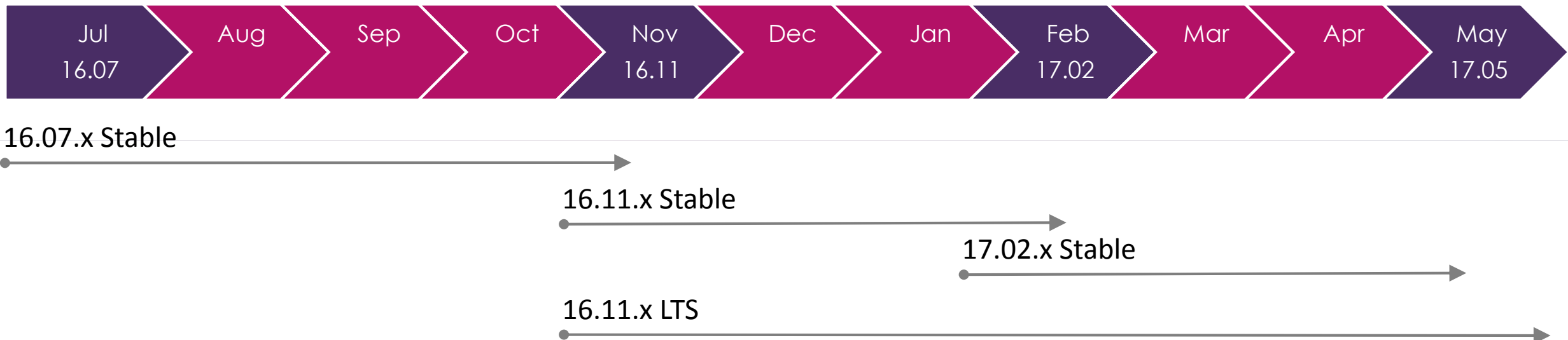
Usability features for next year

- DPDK training options
- DPDK Developer Certification
- Improvements to documentation
- Better documentation/design doc for secondary process
- A better way of adding PMD specific features

- Gerrit
- Googletest
- ABI

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Questions?

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