



Community & Tools

Update 2017

Thomas Monjalon – DPDK Maintainer – Mellanox

Qian Xu – DPDK CI & Bugzilla Manager – Intel

DPDK Summit Userspace – Dublin – 2017



Agenda

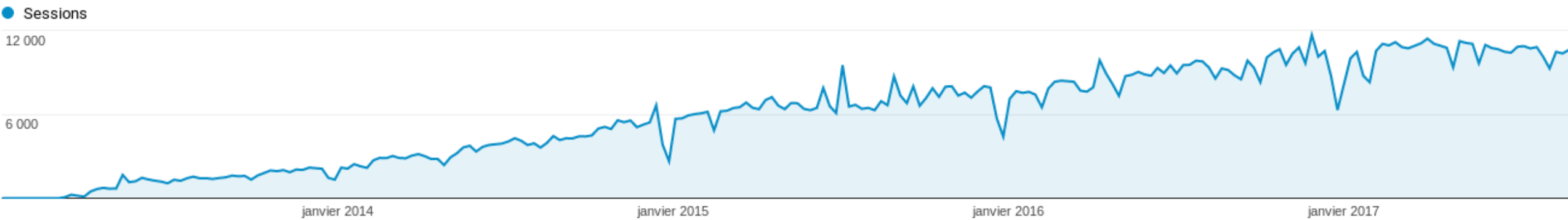


- ▶ Community Growth
- ▶ Community Interactions
- ▶ Community Tools

Web Visitors



► 10K sessions per week



► Stable in 2017

Sponsors



- ▶ CDN hosting
fast.dpdk.org



- ▶ Server hosting

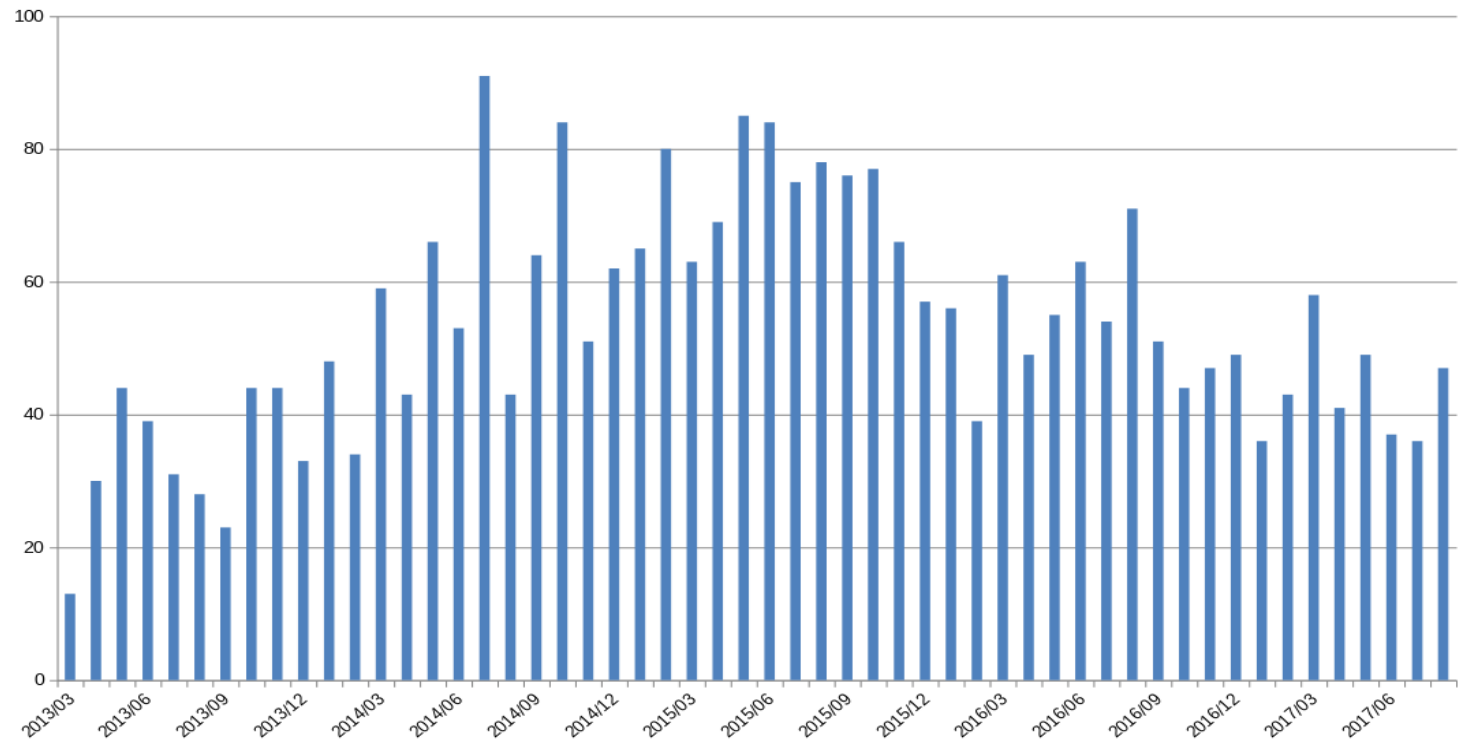


Mailing List – Registrations per month



▶ 1618 members in dev@

▶ New registration peak was in 2015



▶ 743 members in users@

Mailing List – Senders per month

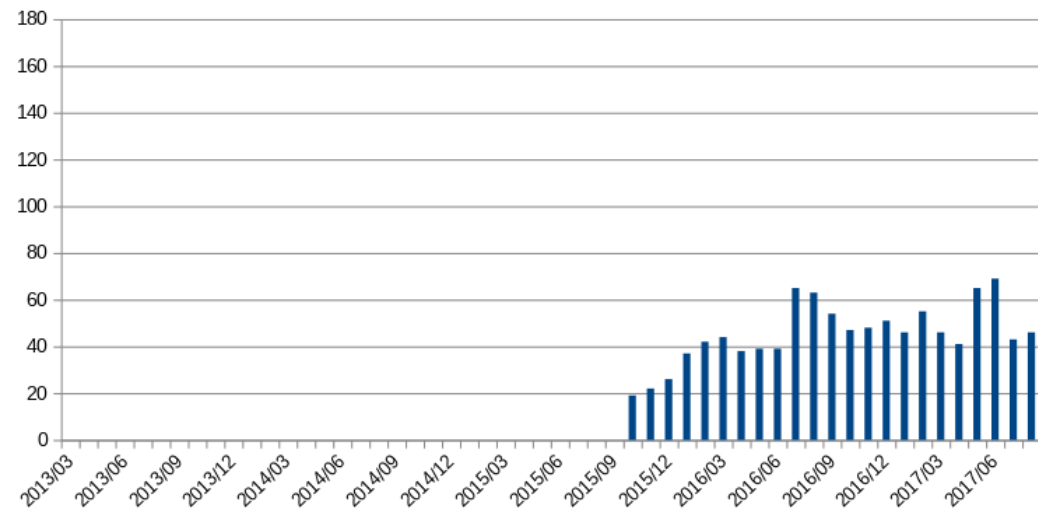
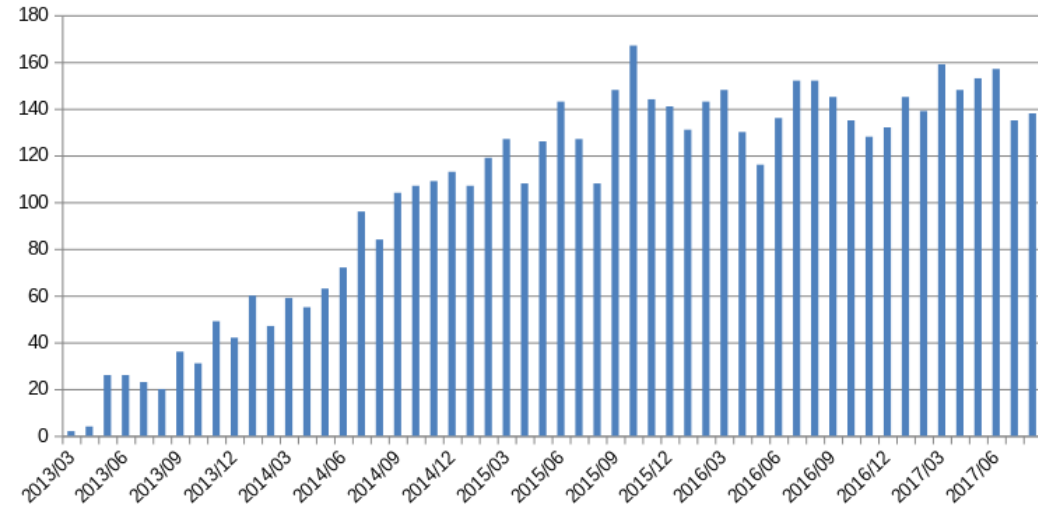


People participating in

▶ dev@

▶ stable since 2016

▶ users@



Since last year



▶ 4 releases

▶ 16.11 (LTS)

▶ 17.02

▶ 17.05

▶ 17.08

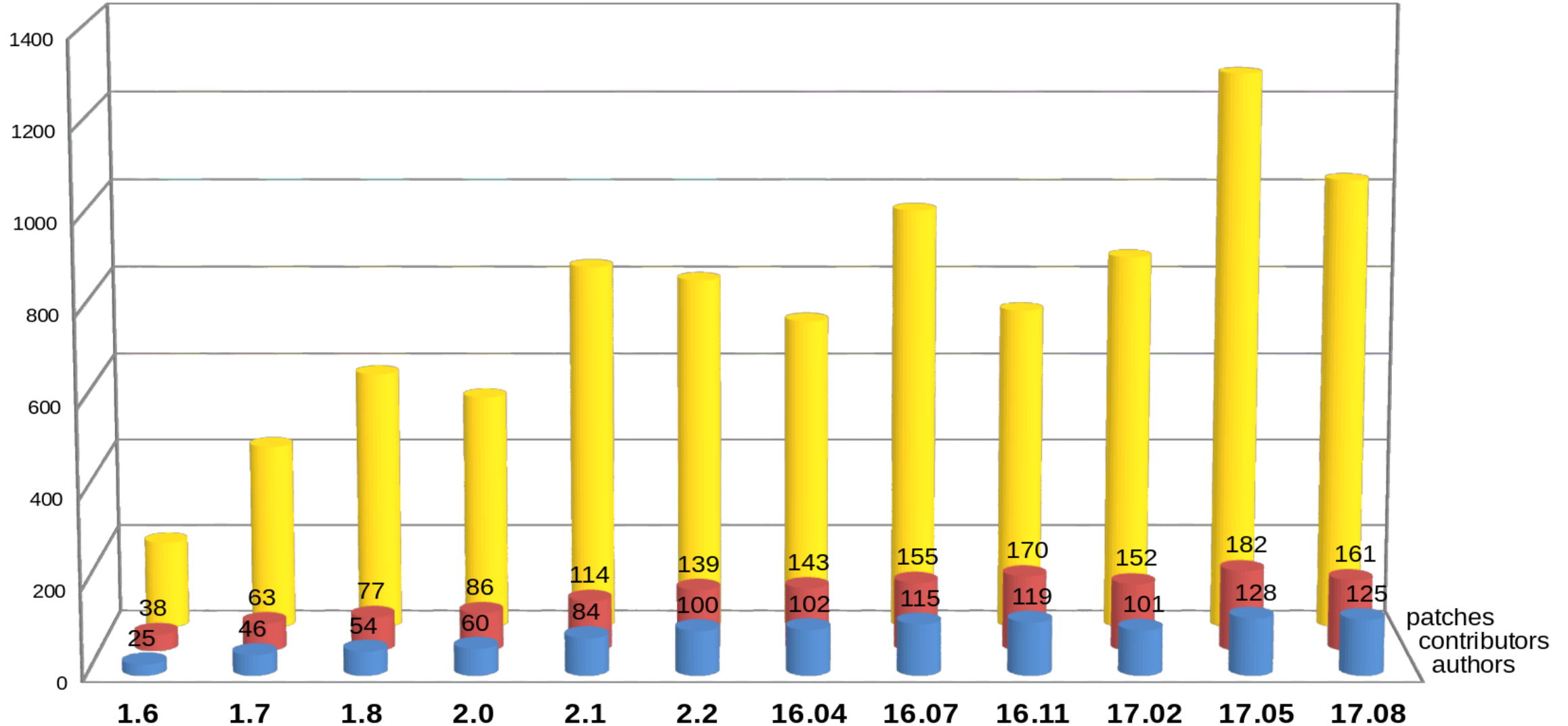
▶ new contributing companies



AN INTEL COMPANY



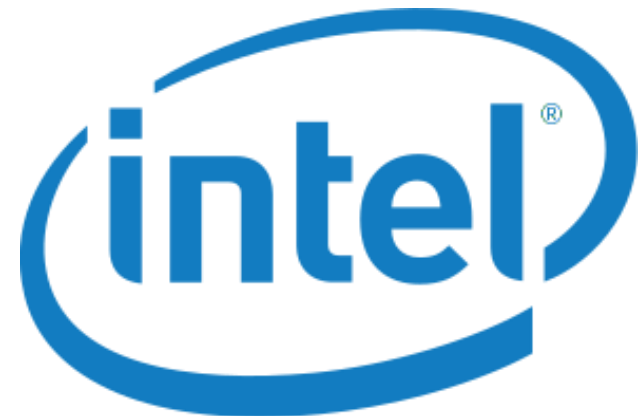
Patches per Releases



CPU Hardware Support



ARM



OS Support



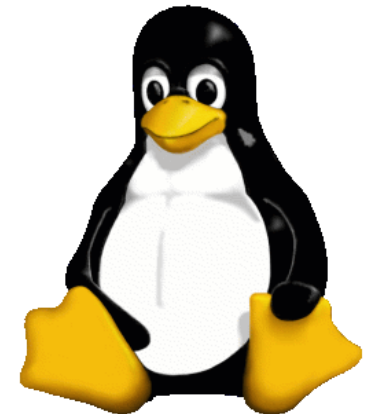
FreeBSD®



debian



- ▶ FreeBSD
 - ▶ Light support
- ▶ Linux
 - ▶ hugepages
 - ▶ UIO / VFIO
 - ▶ TAP / AF_PACKET v4
 - ▶ UNCI (not submitted)



Related Projects



 THE **LINUX** FOUNDATION PROJECTS



Linux Foundation Project



▶ Legals, Lab, Events and more

▶ Governing Board



+ 1 silver representative

▶ Technical Board is more active

- ▶ Managed with git
 - ▶ <git://dpdk.org/tools/dpdk-web>
- ▶ Downloads
- ▶ Docs
- ▶ Boards
 - ▶ Charter
 - ▶ Minutes
- ▶ Ecosystem
 - ▶ Courses
 - ▶ News
 - ▶ Projects

▶ Cgit

- ▶ History browsing
- ▶ Available: <http://dpdk.org/browse/dpdk/tree/>

▶ Elixir

- ▶ Code browsing
- ▶ <https://github.com/free-electrons/elixir>
- ▶ Not yet available

Repositories



- ▶ Main git trees

- ▶ [dpdk.git](#)
- ▶ [dpdk-stable.git](#)

- ▶ Apps

- ▶ [pktgen-dpdk.git](#)
- ▶ [spp.git](#)

- ▶ Tools

- ▶ [dpdk-web.git](#)
- ▶ [dpdk-ci.git](#)
- ▶ [dts.git](#)

- ▶ [GitHub account](#)

- ▶ Next sub-trees

- ▶ [dpdk-next-crypto.git](#)
- ▶ [dpdk-next-eventdev.git](#)
- ▶ [dpdk-next-net.git](#)
- ▶ [dpdk-next-pipeline.git](#)
- ▶ [dpdk-next-tm.git](#)
- ▶ [dpdk-next-virtio.git](#)

- ▶ Draft trees

- ▶ [dpdk-draft-cli.git](#)
- ▶ [dpdk-draft-ipsec.git](#)
- ▶ [dpdk-next-build.git](#)

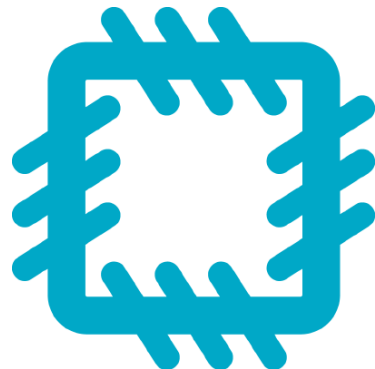
- ▶ May be upgraded to mailman 3



- ▶ 10 lists
 - ▶ dev
 - ▶ stable
 - ▶ users
 - ▶ announce
 - ▶ test-report
 - ▶ ci
 - ▶ web
 - ▶ dts
 - ▶ spp
 - ▶ moving

- ▶ Flow is large (many new threads each day)
- ▶ Take care of your readers: <http://dpdk.org/ml>
 - ▶ Good (and short) title attract more people
 - ▶ Sync clock with NTP
 - ▶ Inline replies
 - ▶ Drop useless context
 - ▶ Remove disclaimer in footer
- ▶ Focus on threads you are involved in
 - ▶ Disable nodupes option
 - ▶ <http://dpdk.org/ml/options/dev/>
 - ▶ Filter based on List-Id
 - ▶ Receive every messages in filtered folder
 - ▶ Receive copy in inbox when you are To/Cc'ed

- ▶ Integrated with distributed CI
- ▶ To be upgraded to 2.0
 - ▶ REST API
 - ▶ Series
 - ▶ Cover letters
 - ▶ Permalink on comments



▶ checkpatch

▶ check-git-log

▶ test-build

▶ coverity

▶ clang analyzer

▶ doxygen

▶ codespell (not used)

▶ test apps

▶ dts

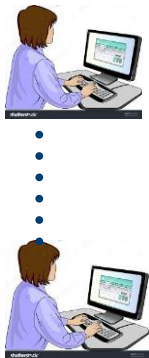
▶ packet fuzzing?

Tools --- CI, lab, bugzilla



- ▶ DPDK Continuous Integration Update
- ▶ DPDK Open lab proposal
- ▶ New Bug system Bugzilla

DPDK Continuous Integration Process



(2) Push

(1) Pull



(4) Git pull



CI expert

(3) Schedule jobs

(5) apply/ build / test

(6) Report result



Build



Function test



Performance test



Jenkins server

Context	Check	Description
checkpatch	success	coding style OK
Intel-compilation	success	Compilation OK

```
[dpdk-test-report] [SUCCESS] pw28738 [PATCH] ethdev:
...
Test output: intel-compilation
Test output: checkpatch
...
Build Summary: 0s Build Time, 0s Success/Fail, 0 Failures
Test configuration and configuration on build:
...
DPDK version: 1.8.0-104-10.2-2017-08-04
DPDK version: 1.8.0-104-10.2-2017-08-04
DPDK version: 1.8.0-104-10.2-2017-08-04
DPDK version: 1.8.0-104-10.2-2017-08-04
DPDK version: 1.8.0-104-10.2-2017-08-04
```

(7) Send to dpdk.org



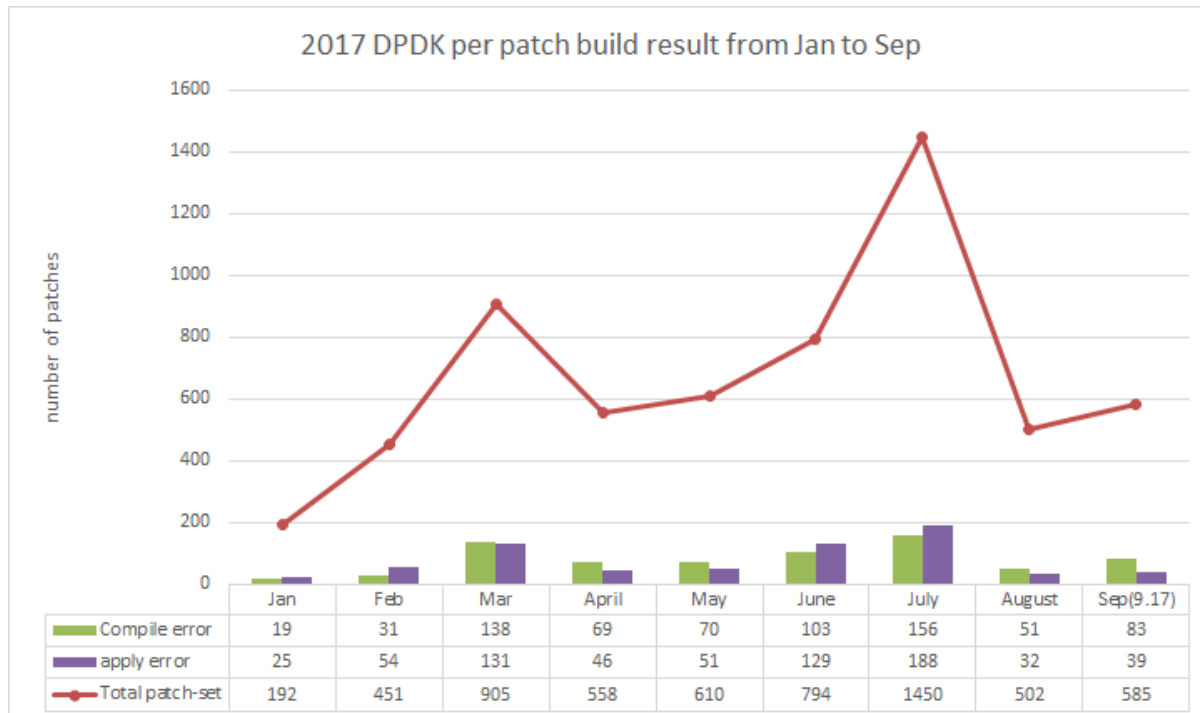
Patchwork

DPDK CI update



- Per patch build: Cover 1 master + 6 next repos.
- Per patch check format: patch check
- Per patch set performance: work in process

- Daily Intel build
- Daily Intel function regression(master)



Sat 9/16/2017 4:36 AM

test-report <test-report-bounces@dpdk.org> on behalf of sys_stv@intel.com

[dpdk-test-report] | SUCCESS | daily Intel builds (57/57)

Tue 9/19/2017 8:14 AM

test-report <test-report-bounces@dpdk.org> on behalf of sys_stv@intel.com

[dpdk-test-report] [ERROR] Intel Daily DPDK Regression Test Report

To: test-report@dpdk.org

Cc: weichunx.chen@intel.com; Xu, HuiLongX; NPG-PRC-SW STV; NPG-PRC-SW STV CW


Summary:

DPDK commit: 3d2e0448ebb5c76fda6e988558793c070c3baded
Author: Guduri Prathyusha <gprathyusha@caviumnetworks.com>
Date: Thu Apr 27 12:21:40 2017 +0530
Comment: cfgfile: add section number of entries by index

UB1610
Kernel: 4.8.0-22-generic
GCC: 6.2.0
NIC: Niantic
Target: x86_64-native-linuxapp-gcc
Fail/Total: 0/146

Open Lab proposal





- ▶ Objective and scope
 - ▶ Identify any regression in DPDK performance/function.
 - ▶ Identify any regression in the performance of DPDK-enabled application.
 - ▶ Demonstrate any new feature performance of DPDK.
 - ▶ May be used as a training or demo lab for DPDK events.
- ▶ Host: University of New Hampshire  Operability Lab (UNH-IOL) in US
- ▶ What UNH-IOL provide:
 - ▶ Hosting space for 2, 19" racks of equipment
 - ▶ A test framework to execute the test cases and report results to the community
 - ▶ A mechanism for secure remote access for scheduled test and debug purposes by DPDK members.
 - ▶ Man-hours are limited to 1 graduate student and 50% of 1 undergraduate student.
- ▶ Open lab participants at the beginning:



Open Lab proposal Cont.




- ▶ First focus: Per patch set performance test
- ▶ Initial test case is IO performance test, and plan to add more areas of tests in future. Will use Trex as traffic generator.
- ▶ Automation framework solution

	Option1--- dts	Option2 --- different framework
	Common framework, one developed, all can use; Not limited to Intel, ARM is also using it.	Tailed for each vendor, easy to use
	some vendor met issues, need dts to be more general	Can't be used by others, need develop new module by each vendor

- ▶ Next milestone in Jan 2018
 - ▶ Each vendor ship machines to lab; Set up tests and make it running.

Bugzilla Introduction



- ▶ ective and scope:

A central place for all community members to file bugs and enhancements. It's mainly for issue resolving, NOT for optimization or feature design discussion. NOT to replace vendor specific buy system.

- ▶ Account Request: <http://dpdk.org/tracker> Admin: Thomas, Qian.
- ▶ What kind of bug: Build, usage bug, failed case.
- ▶ Who is the assignee: maintainer or volunteers
- ▶ What to do when no assignee: Bug manager (Qian)
- ▶ Notes for filing bugs



Detailed

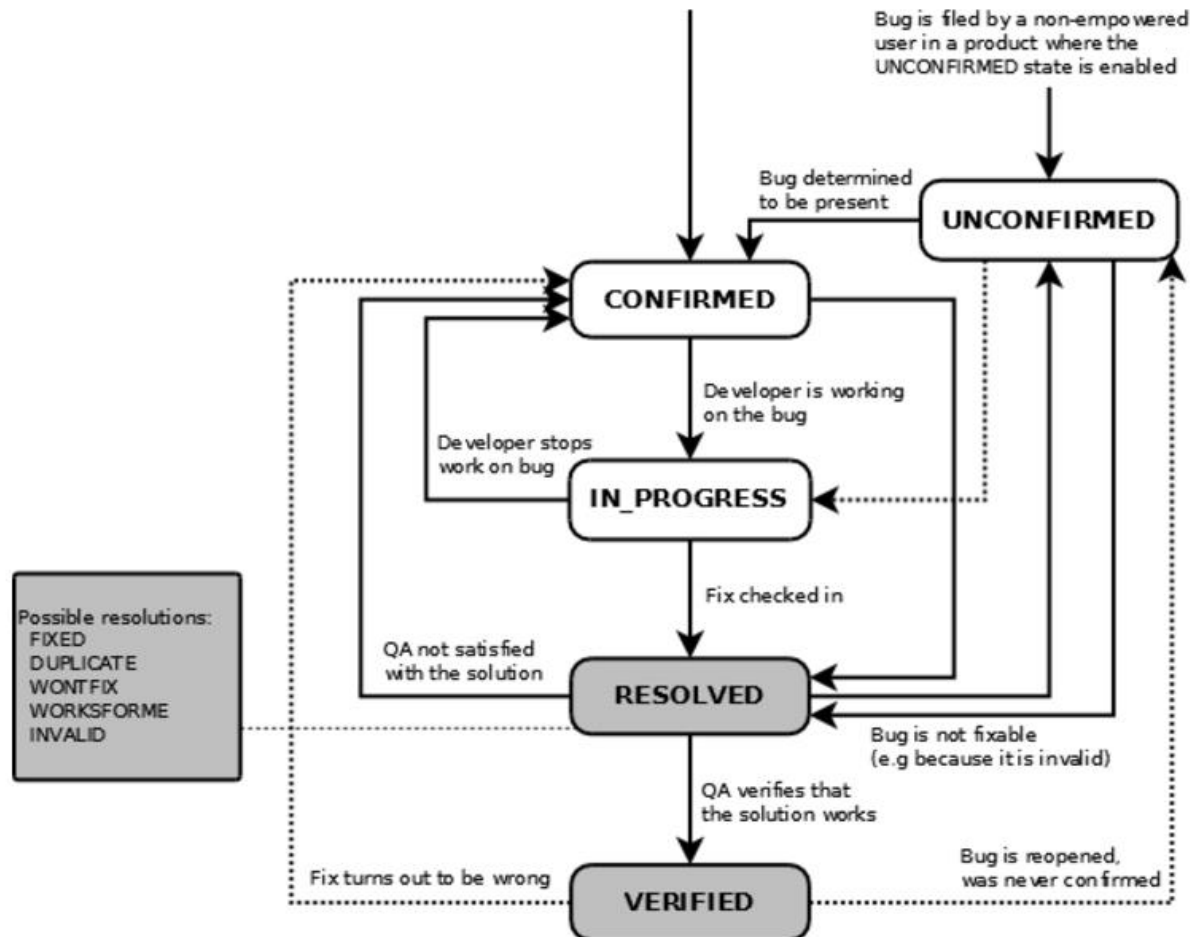


Reproducible



Priority/Severity

Bug workflow



[Link to the Bug workflow](#)

Notes:

- The initial bug status is UNCONFIRMED.
- The bug can be marked as RESOLVED if the patch is sent to community
- QA verified it and ensure the bug is VERIFIED. Or else the bug can go back to CONFIRMED.

Questions?

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