

Project Growth & Next Steps



Agenda



Status &
Growth



Releases &
Packaging



Community
Tools

Recent History

2012: zip file on intel.com

2013: git + mailing list on independent dpdk.org

2014: patchwork, Fedora package

2015: doc, ABI care, various hardware support

2016:

More Platforms

All platform vendors are welcome

1.8: POWER 8
by IBM

2.1: TILE-Gx by
Tilera (EzChip
(Mellanox))

2.2: ARM

OSv as virtual
platform?

Recently Submitted Device Drivers



Broadcom/QLogic NetXtremell



Chelsio T5



Cisco VIC



COMBO-100G



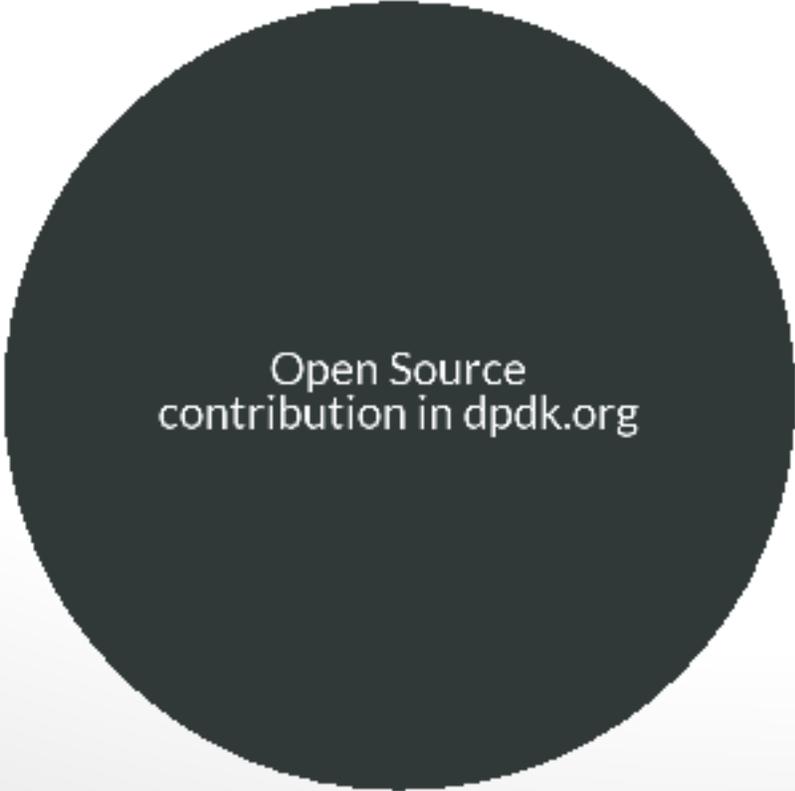
Intel FM10000



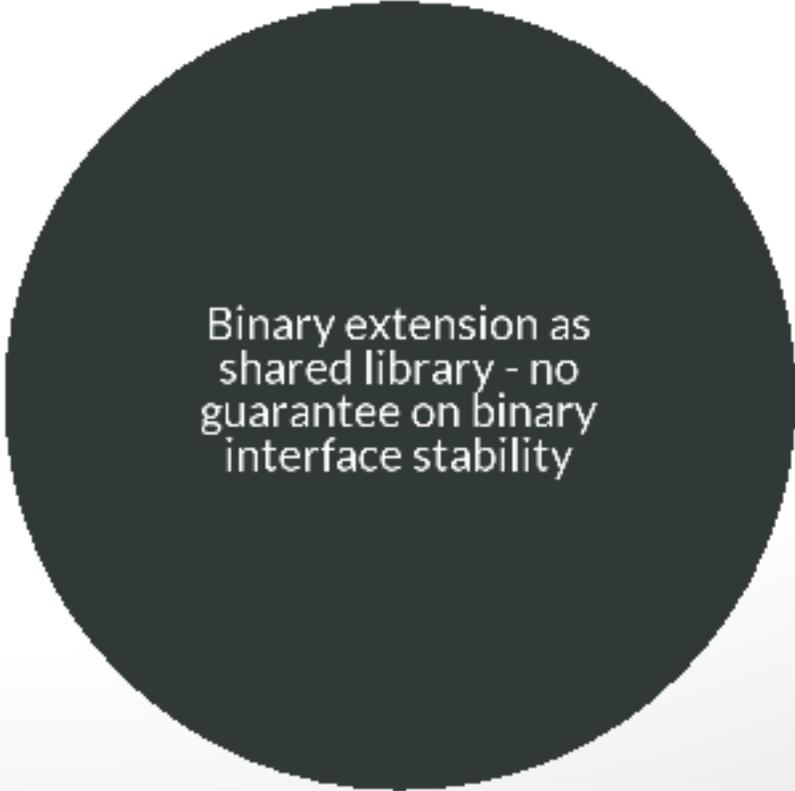
Mellanox ConnectX-4

More Devices

All device vendors are welcome, choose your model:



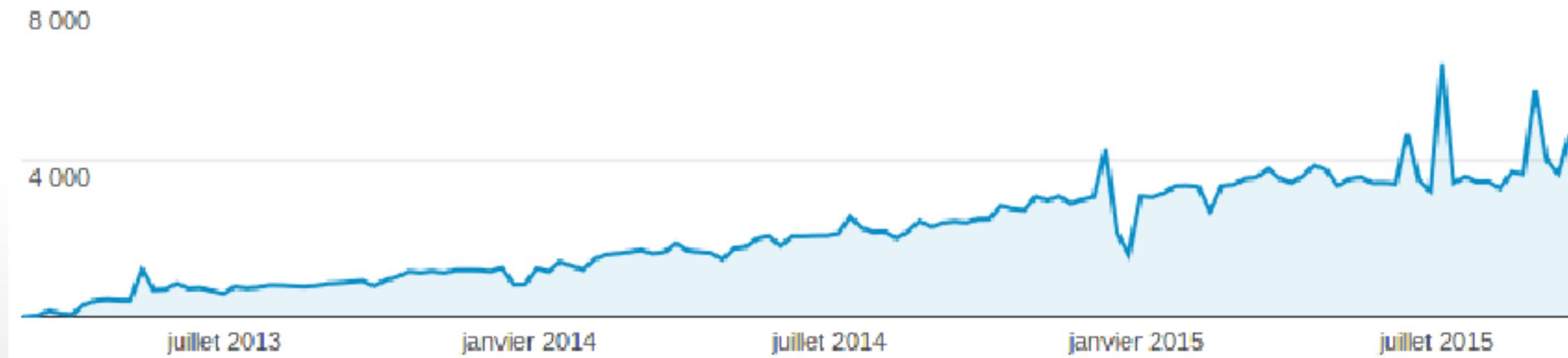
Open Source
contribution in dpdk.org



Binary extension as
shared library - no
guarantee on binary
interface stability

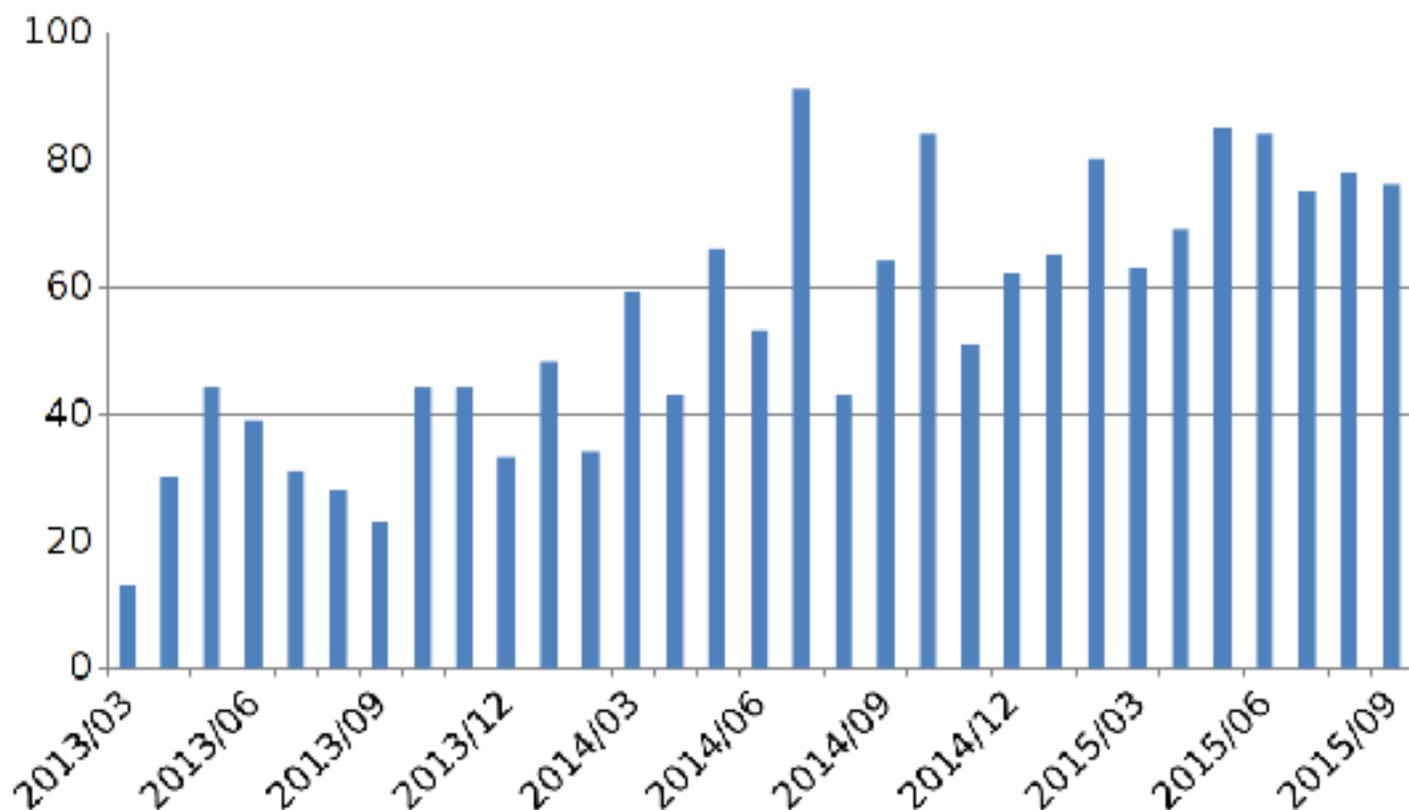
More Visitors

5000 website users per week



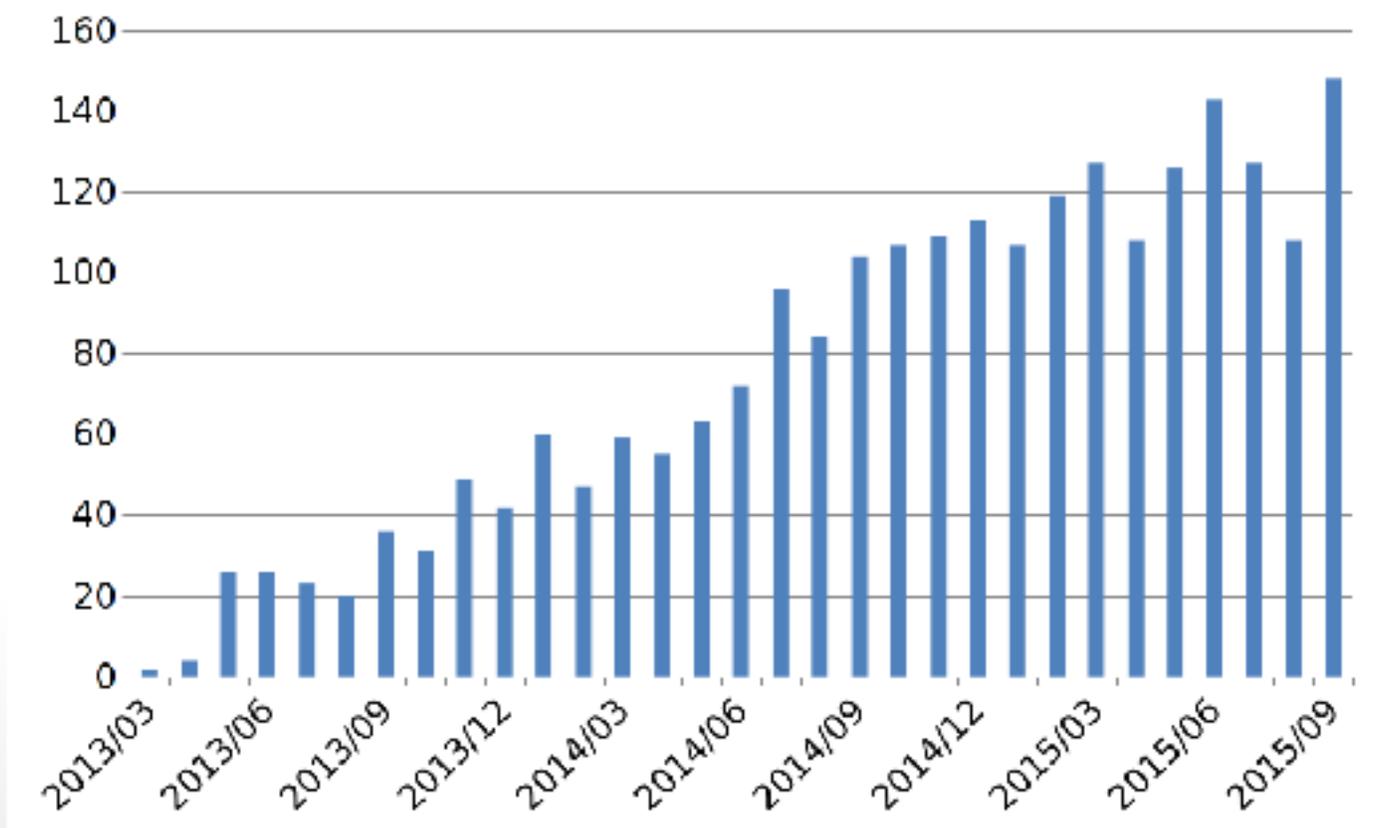
More Popular

1200 members
New registrations on dev@ each month



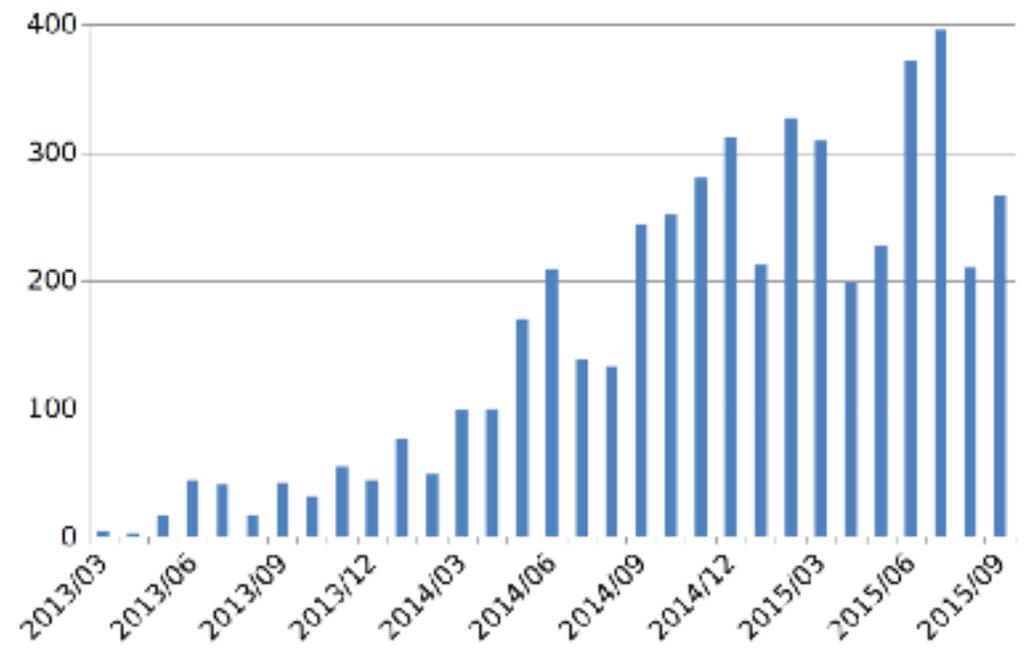
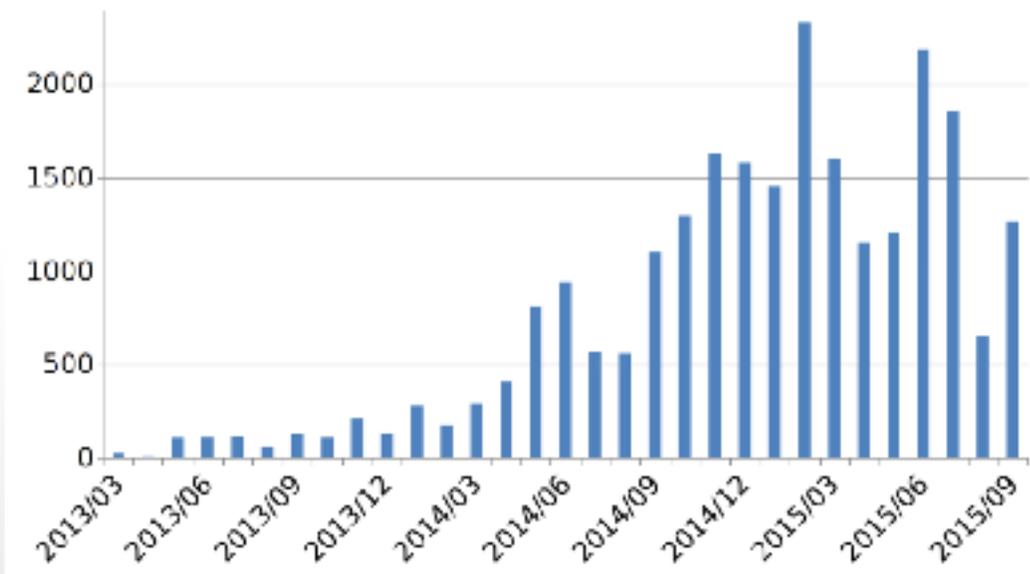
More Voices

140 senders on dev@



More Discussions

Emails and threads on dev@



Large Email Flow

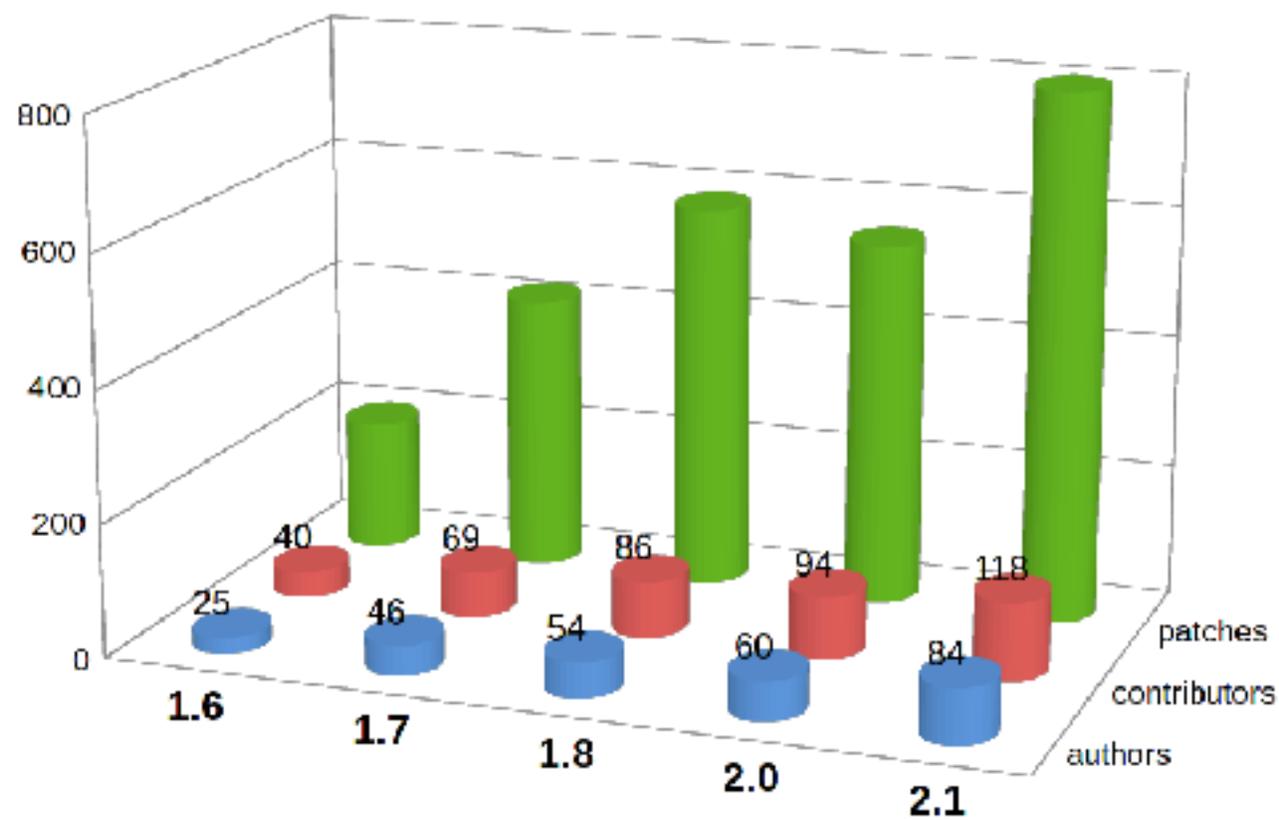


300 threads (1400 emails) per month

Take care of your readers:
<http://dpdk.org/ml>

Good and short title attract more
readers

More Contributions



Authors Breakdown

2 patches and more

v1.8	v2.0	v2.1
2 Brocade	2 andre.o.richter@gmail.com	2 Freescale
2 Emutex	2 Huawei	2 IBM
2 marc.sune@bisdn.de	2 marc.sune@bisdn.de	2 jblunck@infradead.org
2 mhall@mhcomputing.net	2 repk@triplefau.lt	2 kd@allegro-packets.com
2 Nokia	4 Akamai	2 Linaro
3 NEC	4 Freescale	2 razamir22@gmail.com
3 Wind River	4 VMware	3 Akamai
9 Cisco	5 Cloucium	3 balabanovsv@ecotelecom.ru
10 RedHat	9 e_zhumabekov@sts.kz	3 medvedkinv@gmail.com
10 VMware	17 RedHat	3 rolette@infiniteio.com
22 IBM	22 IGEL	4 RedHat
124 6WIND	33 Brocade	4 simon.kagstrom@netinsight.net
385 Intel	88 6WIND	5 Cisco
	327 Intel	8 Cloucium
		17 Chelsio
		17 IGEL
		17 Mellanox
		20 EZchip
		76 Brocade
		110 6WIND
		513 Intel

Reviews Make Release



Mailing list is not write-only, please read what others do and comment



Reviewers are very important for project scaling



More reviewers + Faster = More enjoying contributors



Patchwork since 2014



**DPDK
NEEDS YOU**

www.says-it.com/unclesam/

Maintainers

Responsibilities on dedicated areas (since this year)

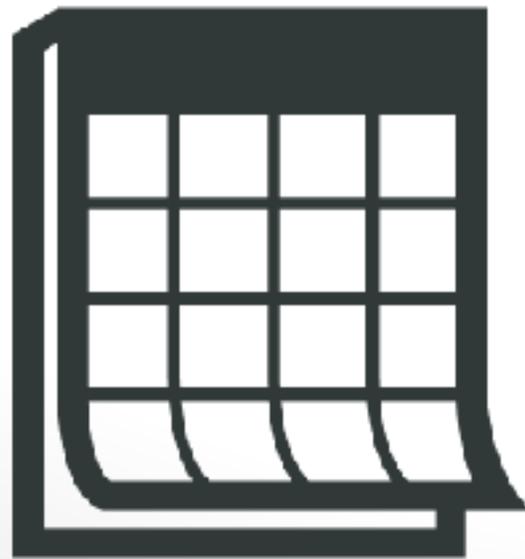
72 sections,
55 have a
maintainer

30
maintainers

dpdk-next
tree?

sub-trees:
drivers/net?

Release Lifecycle



Every 4 months, a major release

Merge window is open when a major release x.y.0 is out

1 month before a major release, features should be integrated

Deadline for 2.2 features: end of October

2.2.0 should be released at end of November

Packaging

FreeBSD, Fedora, RHEL, Ubuntu... need more!



fix
namespace

no -Werror
for tarballs

simplify
config

simplify build

Packaging / Config

needed evolutions

less options

avoid duplicated/limited templates

make config ARCH= OS= CC=

internal/external dependencies

Packaging / Build

needed evolutions

standard binary install

app link with pkgconfig



API/ABI care (since 2.0)



update to next release without rebuilding apps (NEXT_ABI=n)



deprecation notices give time to adapt apps

Documentation

Doc in code and updated simultaneously

HTML/PDF outputs

Book about devices



Clearer contribution process



Guidelines for coding style, doc, versioning



Design decision become a guideline

Community Marketing



Open website administration



Structure for branding and marketing

Linux Foundation? ONF?
lightweight other?

Avoid issues!



Bug Management

why/how a bug tracker

Avoid forgetting bugs

Help to dispatch maintenance work

Risk: break discussions flows



should notice important changes by email



email discussions should be integrated in comments

Test Coverage

- ✓ various code/comment/spell checkers
- ✓ various C compilers
- ✓ various C++ compilers for C++ application
- ✓ various OS
- ✓ various CPU
- ✓ various devices

Test Goals

more than basic checks, unit tests or DTS

Benchmark



check regression or improvement



support for patch discussions

Frequency



daily



per patch



on demand - private patch

Distributed Tests

big tasks need big community



Distributed CI

per patch test

Counters in a patchwork column

Links to details in test-report@dptk.org archives

Report header must comply with the (not yet) adopted format



work in progress: patchwork@lists.ozlabs.org



Subject: |ERROR| pw 2905: [PATCH v3 01/42] pci: allow unlimited throughput



Test-Label: Intel Niantic on Fedora



Test-Status: ERROR



Patchwork: <http://dptk.org/dev/patchwork/patch/2905>



DPDK

Made with
Instill

www.instill.io