LF live
MENTORSHIP SERIES

LF Live MENTORSHIP SERIES

Best Practices to Getting Your Patches Accepted

Greg Kroah-Hartman
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LF live MENTORSHIP SERIES

I don't want your code

or

Linux Kernel Maintainers, why are they so grumpy?

Greg Kroah-Hartman
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git.sr.ht/~gregkh/presentation-linux-maintainer

69,970 files
29,460,000 lines

Kernel release 5.9.0

4,659 developers
450+ companies

Kernel releases 5.4.0 – 5.9.0
September 2019 – October 2020

8,300 lines added

2,400 lines removed

2,100 lines modified

Kernel releases 5.4.0 – 5.9.0
September 2019 – October 2020

8,300 lines added

2,400 lines removed

2,100 lines modified

Every day

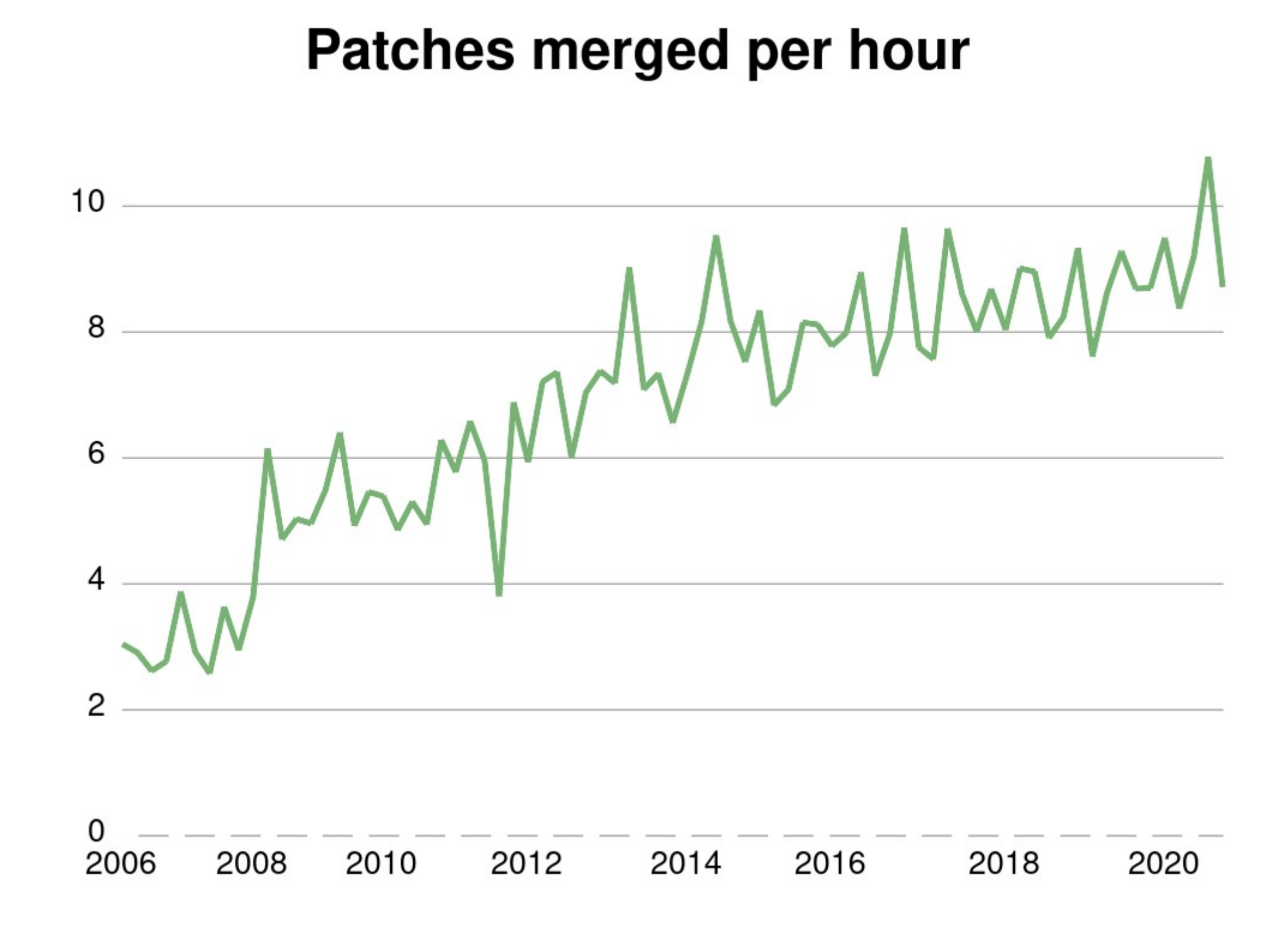
Kernel releases 5.4.0 – 5.9.0
September 2019 – October 2020

9.2 changes per hour

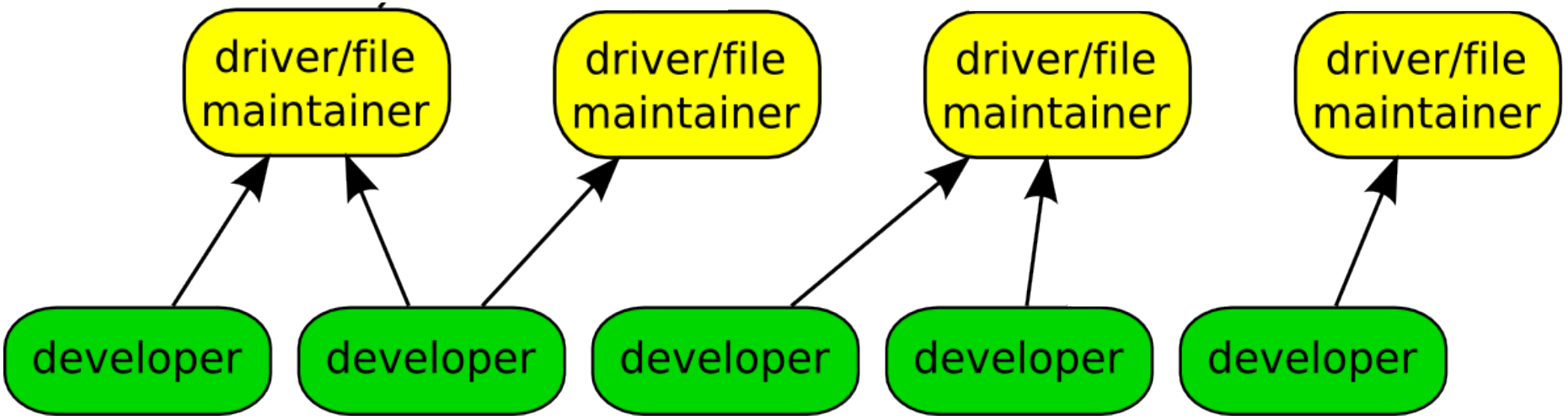
Kernel releases 5.4.0 – 5.9.0
September 2019 – October 2020

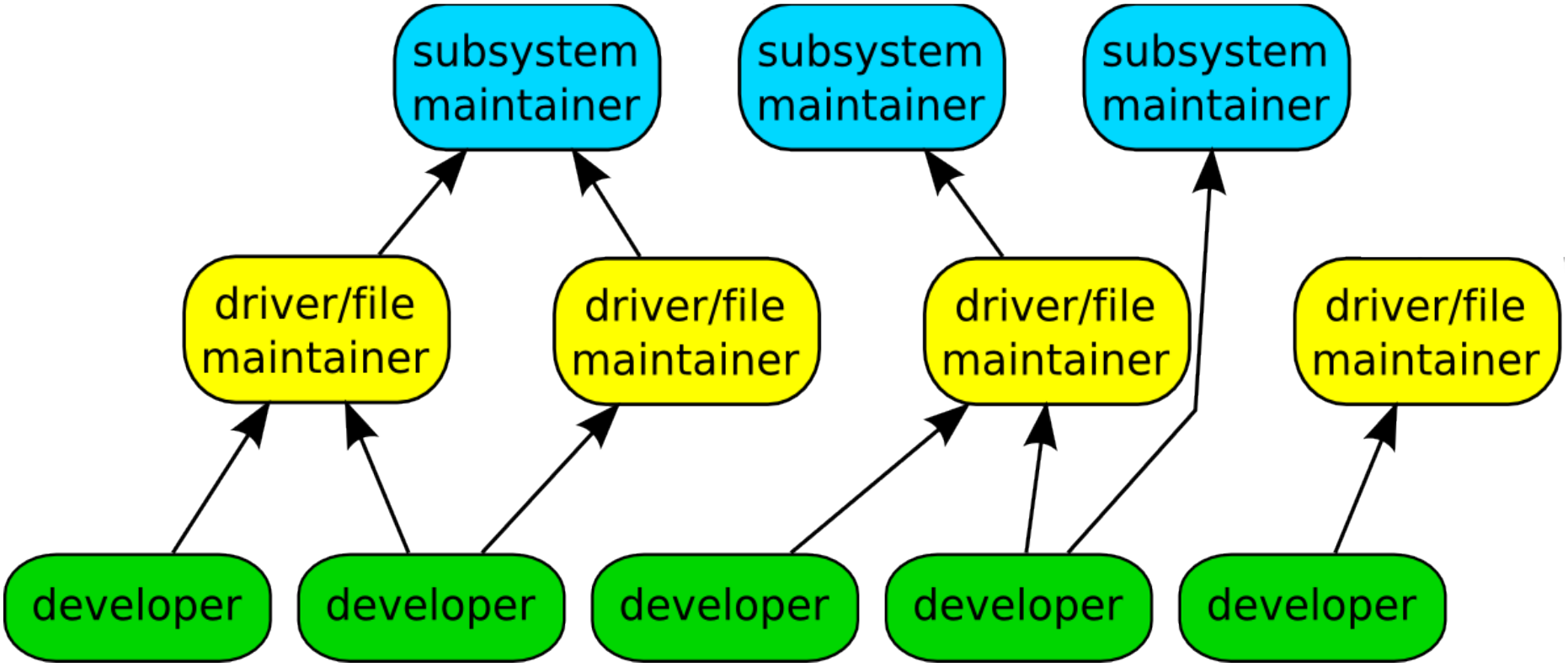
10.8 changes per hour

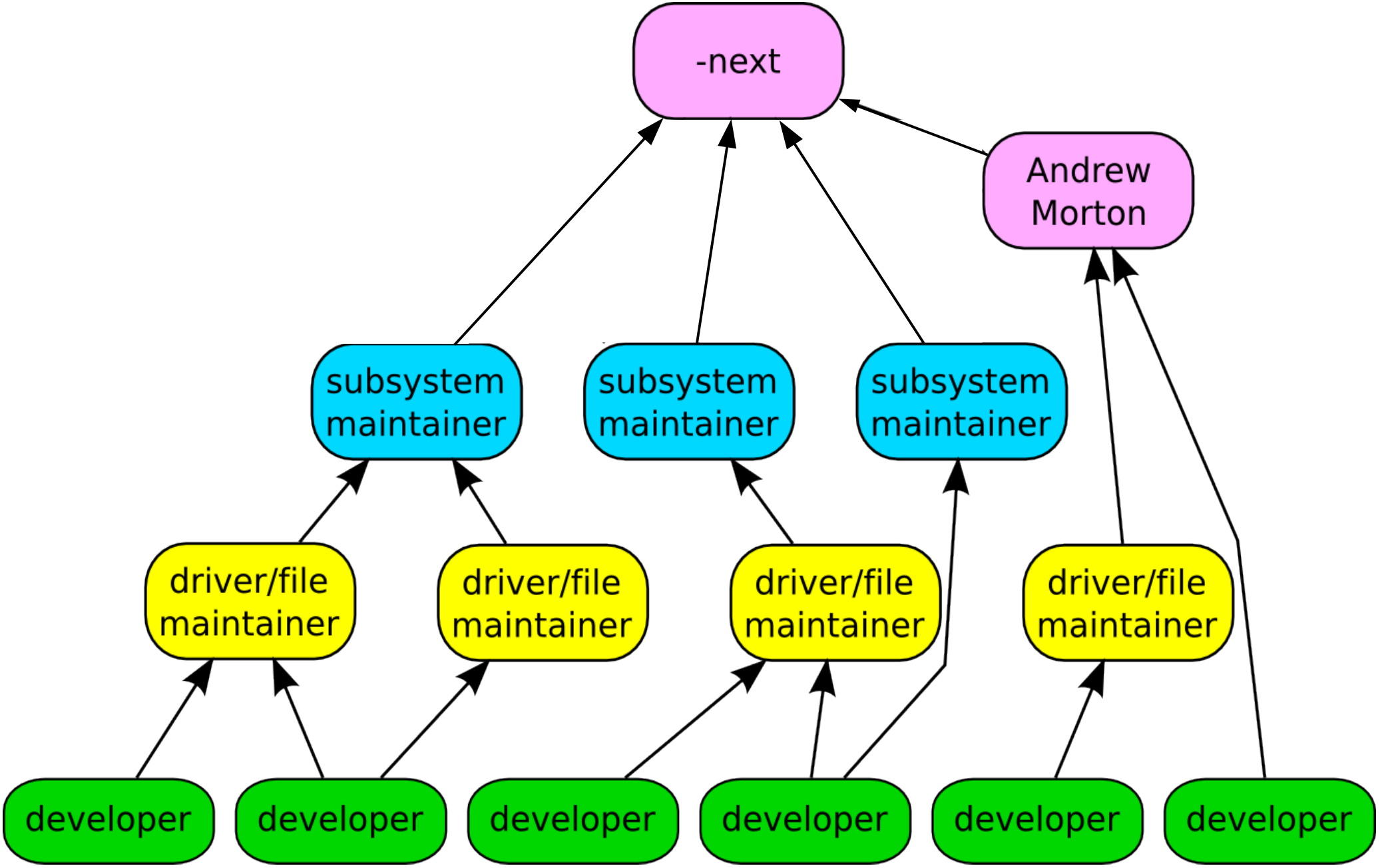
5.8 release

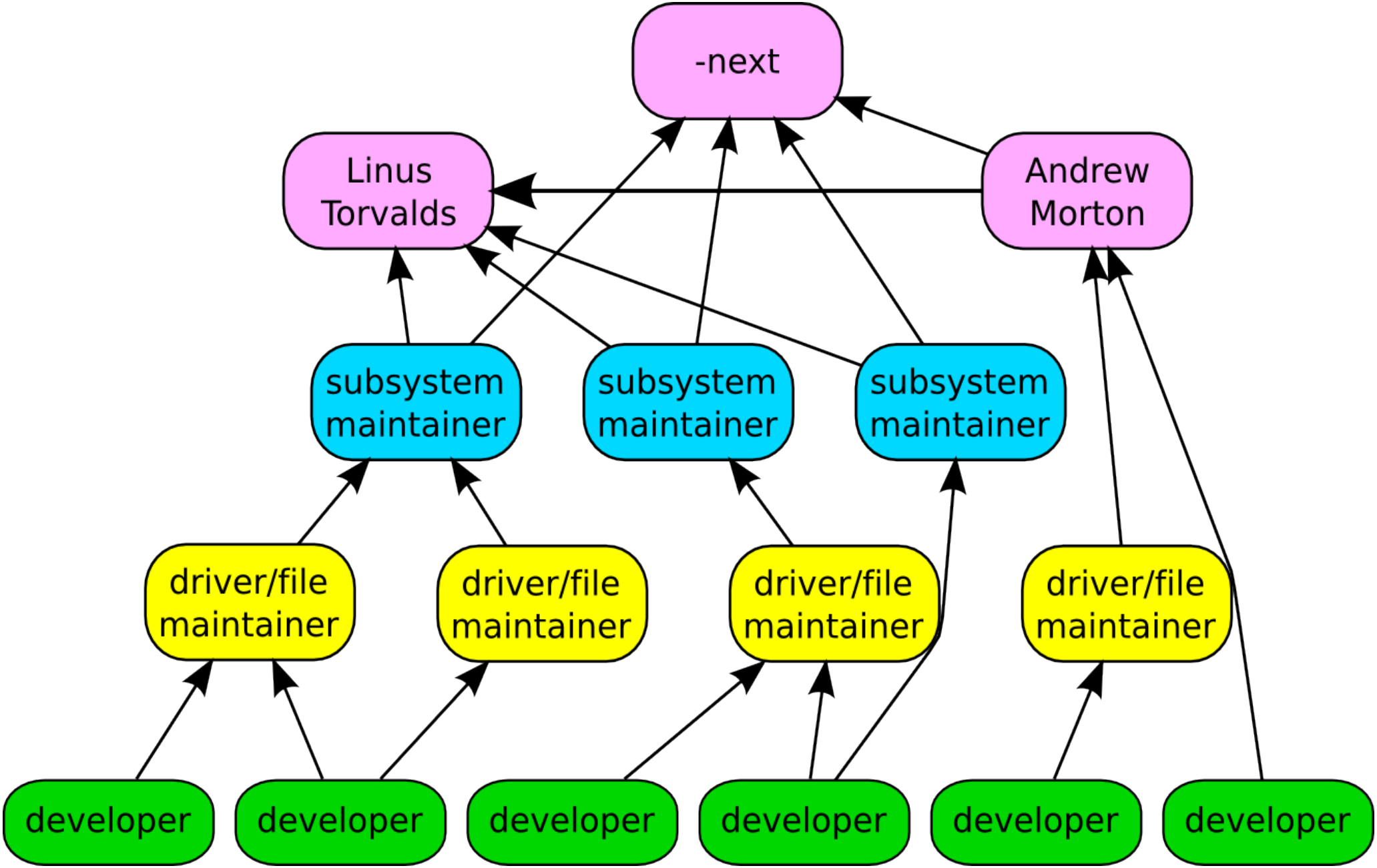

Patches merged per hour
10
8
6
4
2
0
2006
2008
2010
2012
2014
2016
2018
2020

developer
developer
developer
developer
developer


driver/file maintainer
driver/file maintainer
driver/file maintainer
driver/file maintainer
developer
developer
developer
developer
developer


subsystem maintainer
subsystem maintainer
subsystem maintainer
driver/file maintainer
driver/file maintainer
driver/file maintainer
driver/file maintainer
developer
developer
developer
developer
developer


-next
Andrew Morton
subsystem maintainer
subsystem maintainer
subsystem maintainer
driver/file maintainer
driver/file maintainer
driver/file maintainer
driver/file maintainer
developer
developer
developer
developer
developer
developer


-next
Linus Torvalds
Andrew Morton
subsystem maintainer
subsystem maintainer
subsystem maintainer
driver/file maintainer
driver/file maintainer
driver/file maintainer
driver/file maintainer
developer
developer
developer
developer
developer
developer

Top developers by quantity

Chris Wilson	1377
Christoph Hellwig	1195
Mauro Carvalho Chehab	832
Takashi Iwai	740
Andy Shevchenko	739
YueHaibing	692
Colin Ian King	671
Geert Uytterhoeven	590
Masahiro Yamada	523
Gustavo Silva	567

Kernel releases 5.4.0 – 5.9.0

Top Signed-off-by:

David S. Miller	8446
Greg Kroah-Hartman	5028
Alex Deucher	4323
Mark Brown	3565
Mauro Carvalho Chehab	2596
Linus Torvalds	2446
Andrew Morton	2218
Chris Wilson	1884
Jens Axboe	1787
Martin Petersen	1639

Kernel releases 5.4.0 – 5.9.0

Who is funding this work?

1. “Amateurs”	13.5%
2. Intel	11.6%
3. Red Hat	6.6%
4. AMD	4.9%
5. Huawei	4.8%
6. Google	4.7%
7. Linaro	3.8%
8. SUSE	3.6%
9. IBM	3.1%
10. “Consultants”	2.7%

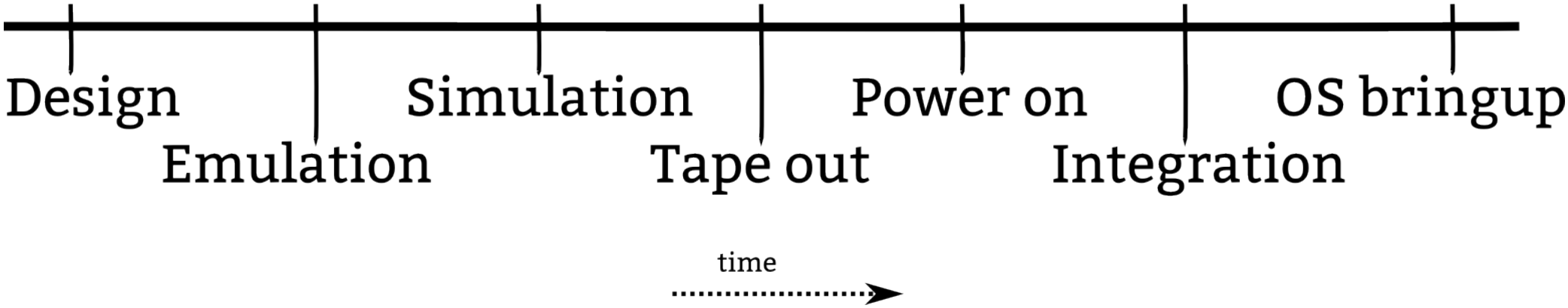
Kernel releases 5.4.0 – 5.9.0

Who is funding this work?

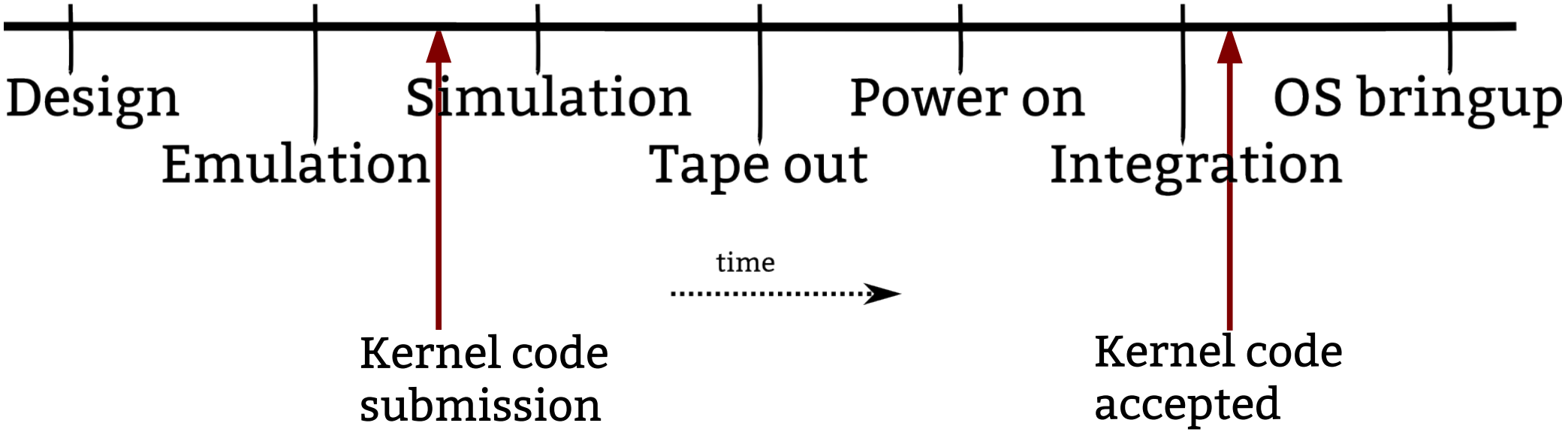
11. Mellanox	2.5%
12. NXP Semiconductors	2.2%
13. Renesas Electronics	2.2%
14. Facebook	2.0%
15. ARM	1.8%
16. Oracle	1.3%
17. Texas Instruments	1.2%
18. Code Aurora (Qualcomm)	1.2%
19. Linux Foundation	1.2%
20. Canonical	1.1%

Kernel releases 5.4.0 – 5.9.0

Development Process



Development Process



“Working upstream saves time and money”

Dan Frye – VP Open Systems, IBM
Dirk Hohndel – Chief Technologist, Intel

Maintainers are like editors in the publishing industry.

– David Miller

Patches I received in a 2 week period

Patches I received in a 2 week period

1487

Subject: [PATCH 48/48] ...

15 patch series, no order given

Patches 1, 3-10

“Signed-off-by:” in signature

Signature saying email was confidential

Tabs were converted to spaces

Leading spaces removed

diff in non-unified format

Patch created in driver directory

Patch created in /usr/src/linux-2.6.32

Made against different tree

Wrong coding style

Wrong coding style, and acknowledged it

Would not compile

Broke the build on patch 3/6

Broke the build on patch 3/6 and fixed it on 6/6

Broke the build on patch 5/8

Broke the build on patch 5/8

Contained note that fix would be sent later

Patches that had nothing to do with me

1 patch, 450kb big (4500 lines added)

Obviously wrong kerneldoc

This was a calm two weeks

How to do it right

Documentation/process/submitting-patches.rst
Documentation/process/submitting-drivers.rst
Documentation/process/submit-checklist.rst

It is in my self-interest to ignore your patch

Give me no excuse to reject your patch

What I will do for you:

Review your patch within 1-2 weeks

Offer semi-constructive criticism

Let you know the status of your patch

<zx2c4> i think the reason it works is not neccessarily because
<zx2c4> the responses are so terrific
<zx2c4> but because
<zx2c4> they are TERRIFYING
<zx2c4> so i'm forced to do my best possible work

git.sr.ht/~gregkh/presentation-linux-maintainer

photo CC by-ND 2.0 Antarctica Bound

github.com/gregkh/presentation-maintainer

git.sr.ht/~gregkh/presentation-linux-maintainer