

cur1://up



2018

# Curling World Champions 2018 – Sweden!



# curl up 2018

The persons present

Code of conduct

Videos and recordings

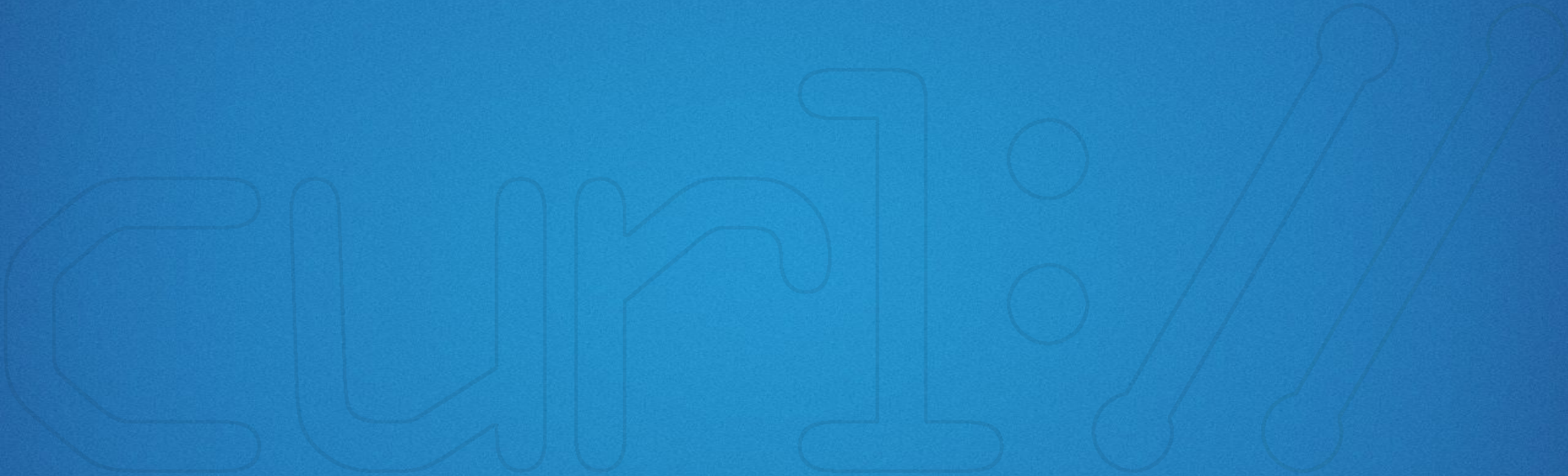
Security and safety

Restrooms

Food and drinks

What to do and talk about these days

**Persons present**



# Code of conduct

As contributors and maintainers of this project, we pledge to respect all people who contribute through reporting issues, posting feature requests, updating documentation, submitting pull requests or patches, and other activities.

We are committed to making participation in this project a **harassment-free experience for everyone**, regardless of level of experience, gender, gender identity and expression, sexual orientation, disability, personal appearance, body size, race, ethnicity, age, or religion.

Examples of unacceptable behavior by participants include the use of sexual language or imagery, derogatory comments or personal attacks, trolling, public or private harassment, insults, or other unprofessional conduct.

Project maintainers have the right and responsibility to remove, edit, or reject comments, commits, code, wiki edits, issues, and other contributions that are not aligned to this Code of Conduct. Project maintainers who do not follow the Code of Conduct may be removed from the project team.

This code of conduct applies both within project spaces and in public spaces when an individual is representing the project or its community.

Instances of abusive, harassing, or otherwise unacceptable behavior may be reported by opening an issue or contacting one or more of the project maintainers.

**<https://curl.haxx.se/docs/code-of-conduct.html>**

# Videos and recordings

Last year: <https://curl.haxx.se/video/curlup-2017/>



# Security and safety this weekend

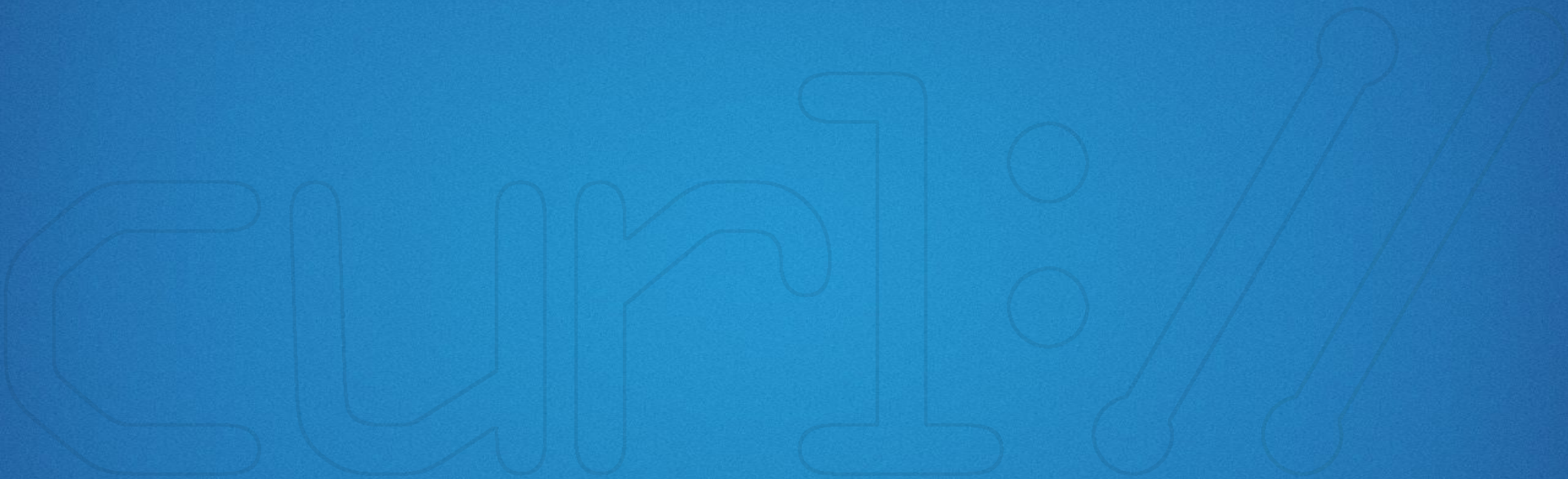
Daniel Stenberg

Phone: +46 70 5443177

Email: [daniel@haxx.se](mailto:daniel@haxx.se)

DM: @bagder

**Restrooms are useful**





# Food and drinks

Coffee

Lunch wraps + drinks

Afternoon break

Dinners

# Agenda

<https://github.com/curl/curl/wiki/curl-up-2018-agenda>

Saturday 09:00 – 18:00

Coffee, lunch, “fika”, ...

Dinner at Bishops Arms Gamla Stan  
19:30 – menu something something

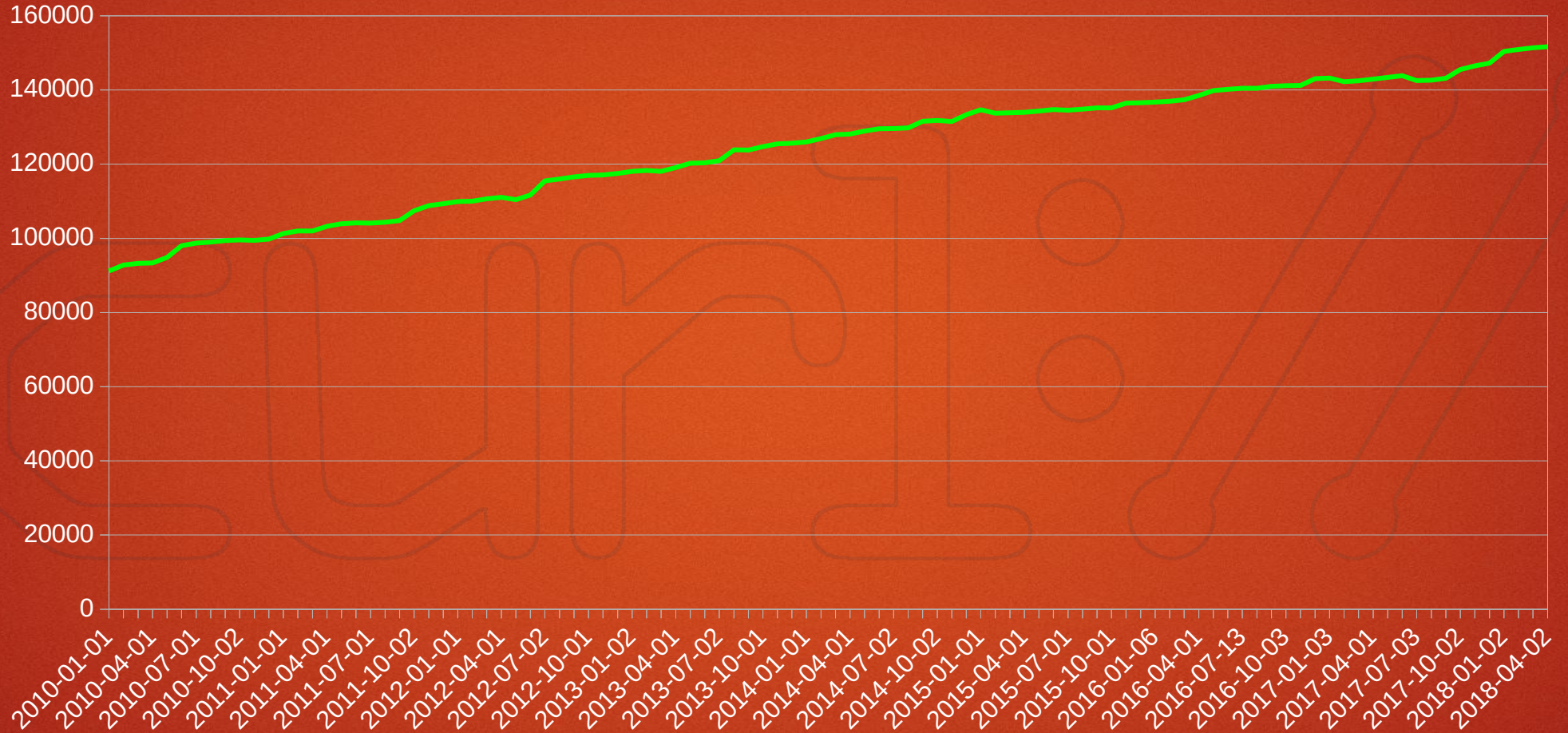
Sunday 09:00 – 18:00

Coffee, lunch, “fika”, ...

Dinner at Wagamama 19:00 (not  
reserved, but hey...)

# **The curl project 2018**

# Number of lines of “product code”



# Web site traffic 2018

Fastly makes our lives easier

1.8 million requests/day

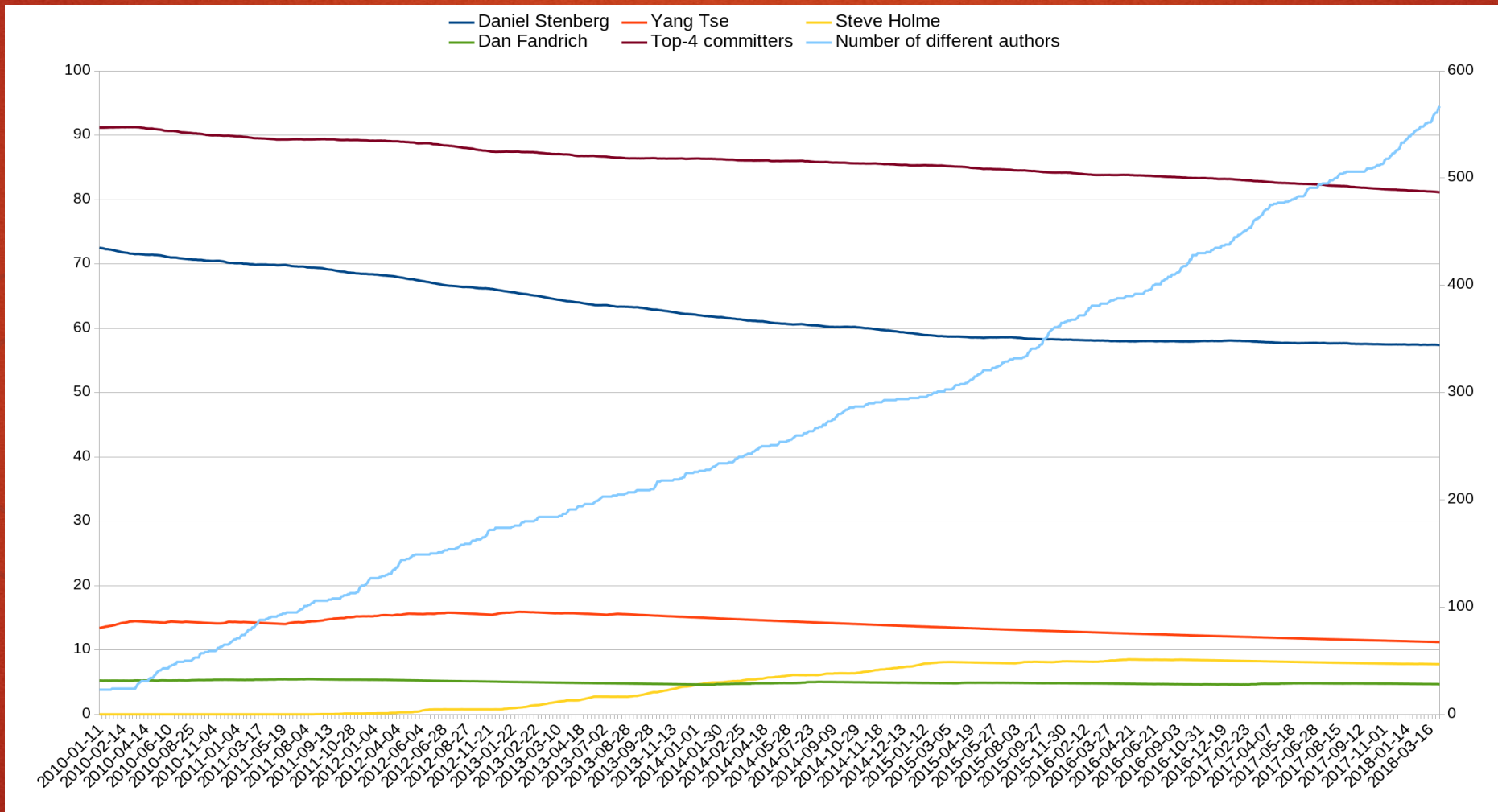
180GB/day (5.5 terrabytes/month)

Fast web site, close to most users

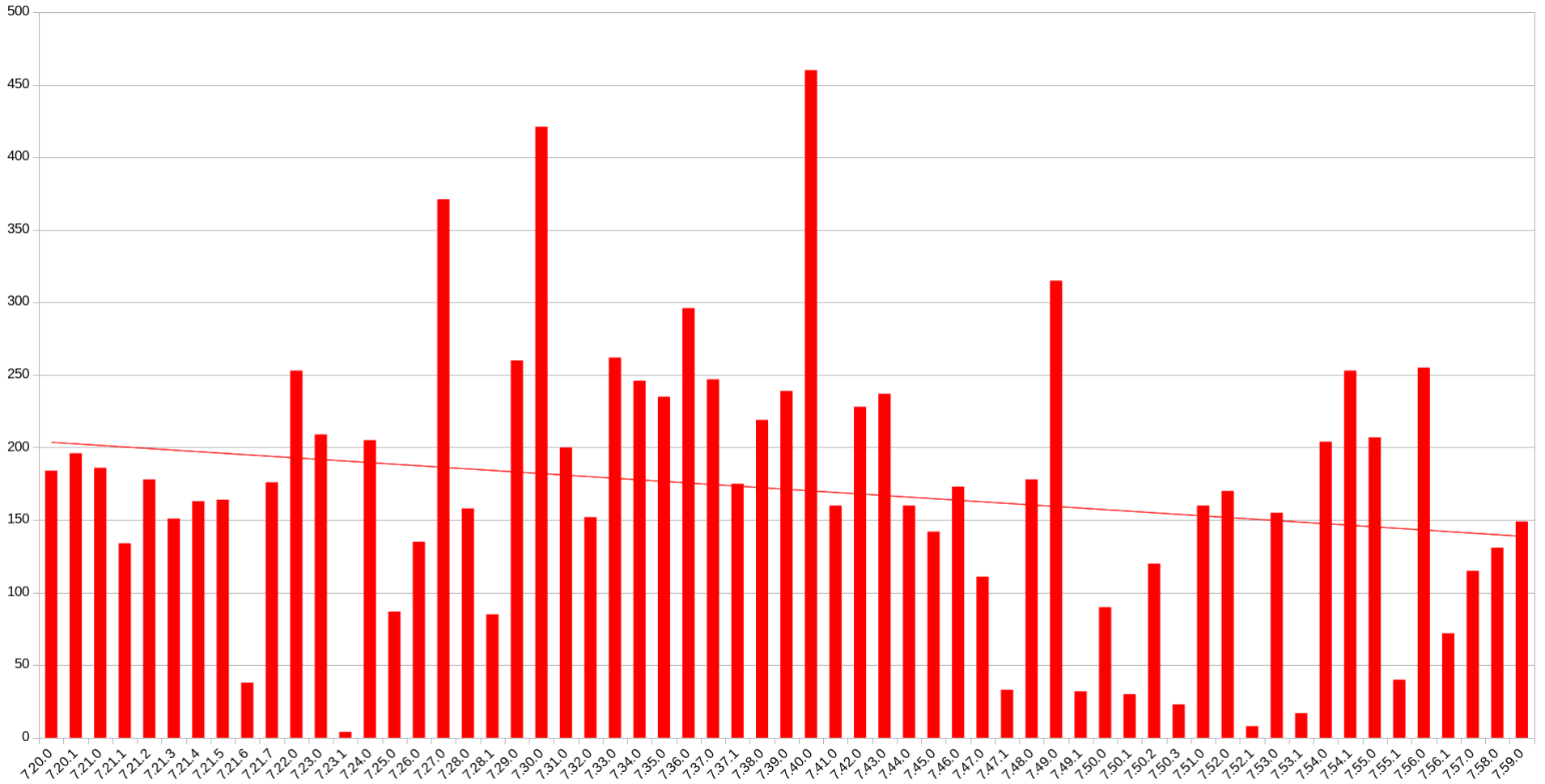
Less detailed stats now because CDN...

The Fastly logo is rendered in a bold, red, lowercase sans-serif font. The letter 'a' is stylized to include a clock face with a red hand pointing towards the top-right. A registered trademark symbol (®) is located at the end of the word. The logo is set against a blue background that features a faint, light-blue watermark of a stylized robot or character.

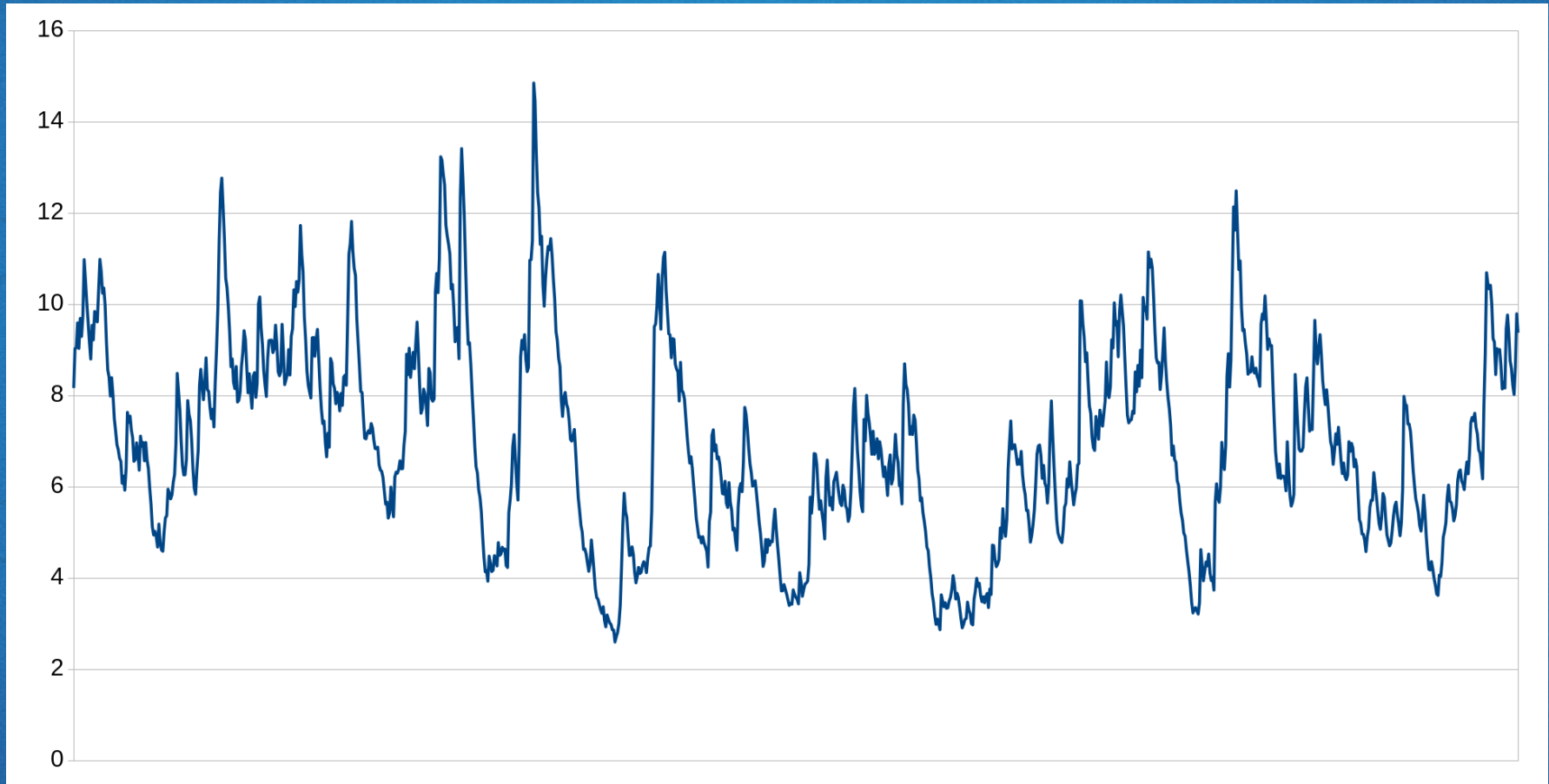
# Top authors by number of commits



# Commits per release since 2010

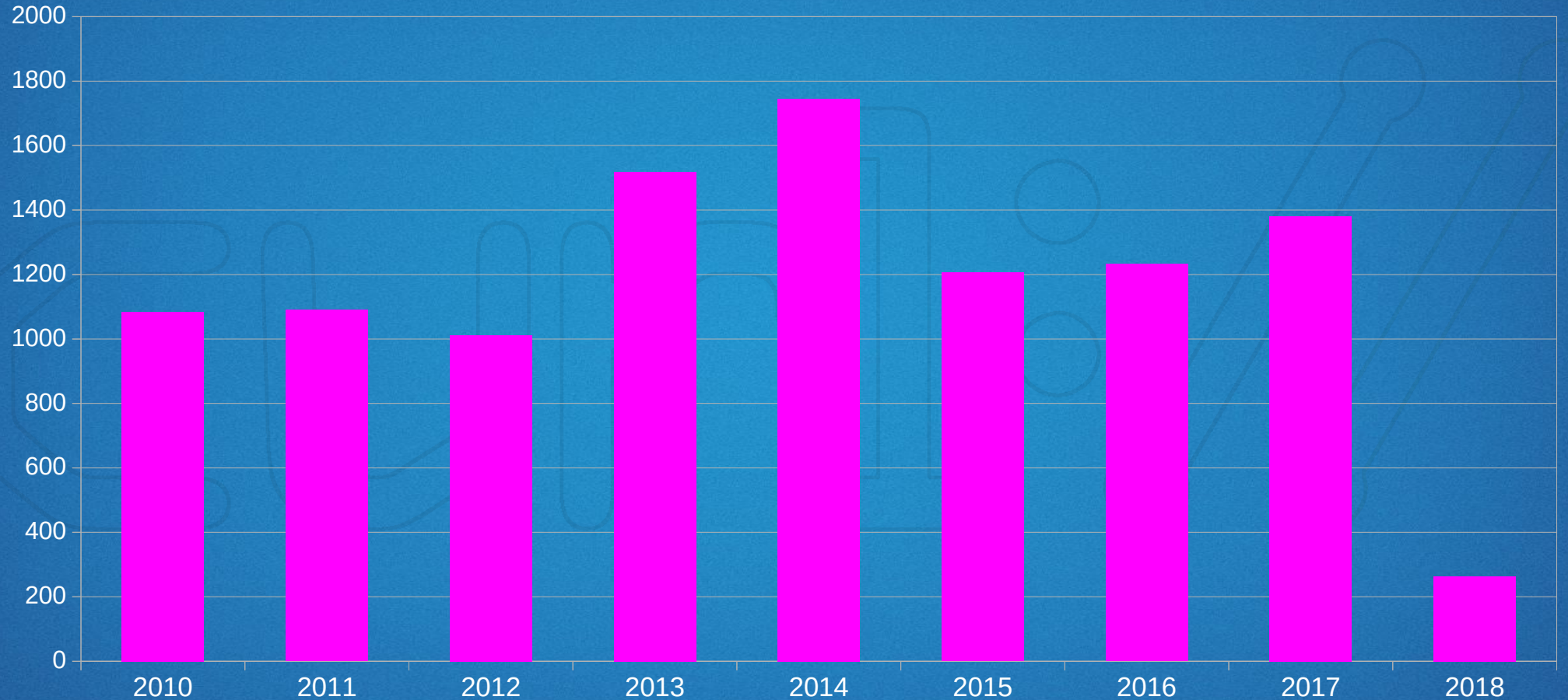


# Hours between commits since 2010



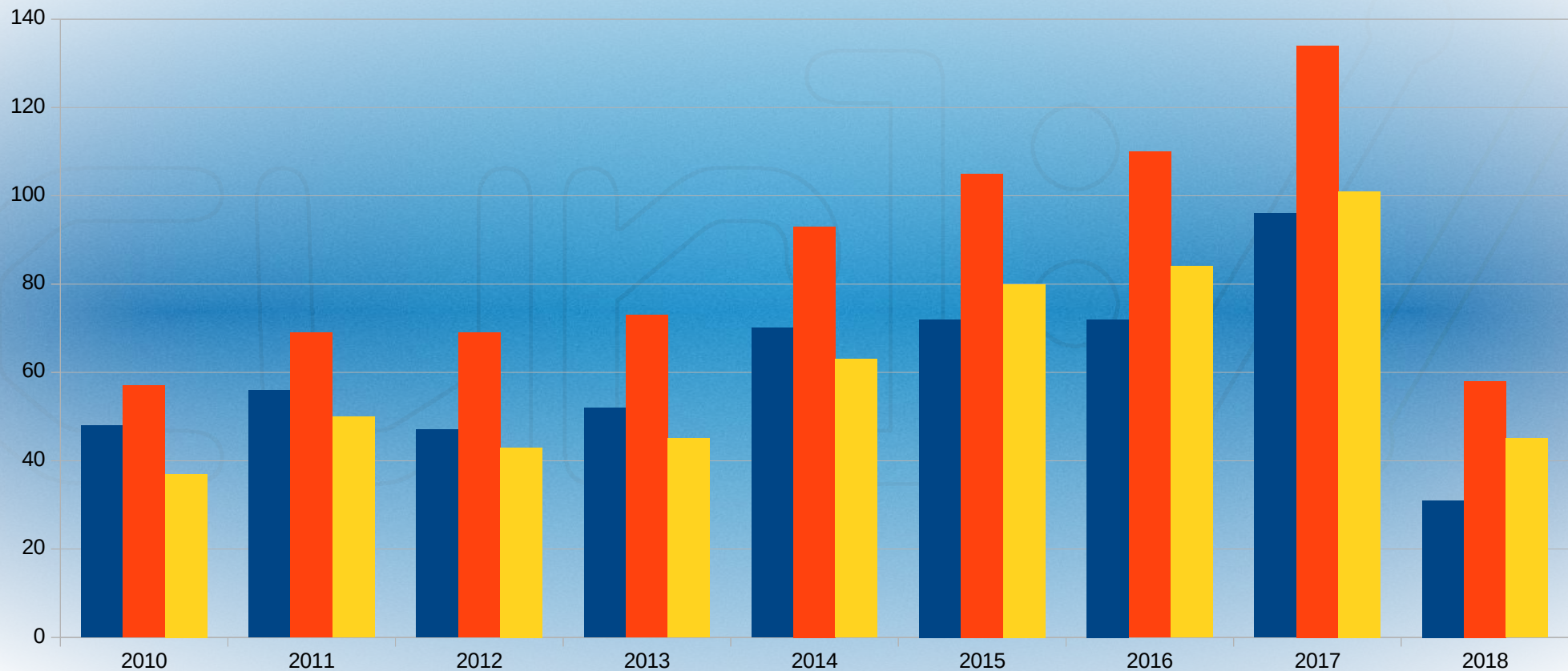


# Commits per year



# Commit authors since 2010

■ First time authors ■ Unique authors ■ One or two commits



# Top-10 commit authors since...

Since 2017

Daniel Stenberg (794)  
Marcel Raad (125)  
Jay Satiro (98)  
Dan Fandrich (86)  
Patrick Monnerat (76)  
Johannes Schindelin (40)  
Michael Kaufmann (39)  
Max Dymond (26)  
Viktor Szakats (25)  
Kamil Dudka (22)

Since 2015

Daniel Stenberg (2028)  
Steve Holme (332)  
Jay Satiro (306)  
Dan Fandrich (154)  
Marcel Raad (139)  
Patrick Monnerat (114)  
Kamil Dudka (73)  
Viktor Szakats (64)  
Michael Kaufmann (59)  
Alessandro Ghedini (47)

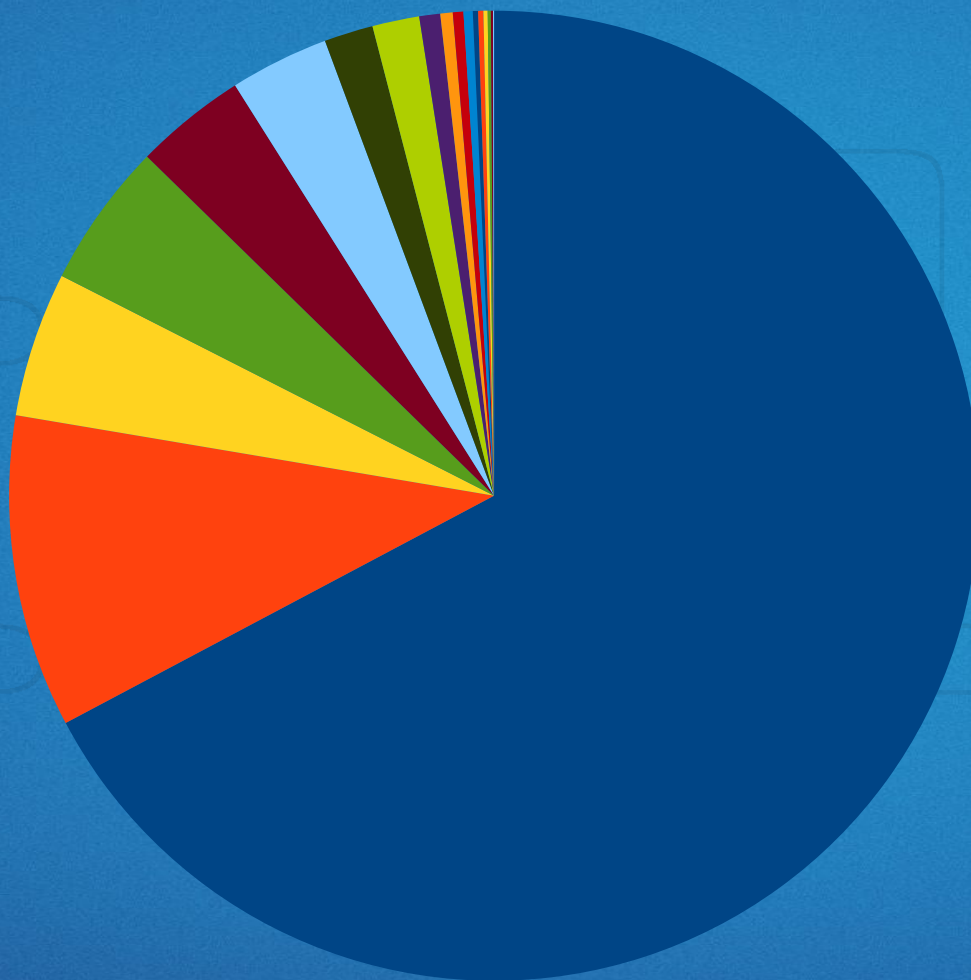
Since 2010

Daniel Stenberg (4157)  
Steve Holme (1796)  
Yang Tse (908)  
Dan Fandrich (423)  
Jay Satiro (313)  
Guenter Knauf (253)  
Marc Hoersken (238)  
Kamil Dudka (218)  
Patrick Monnerat (174)  
Marcel Raad (146)

Since dawn of time

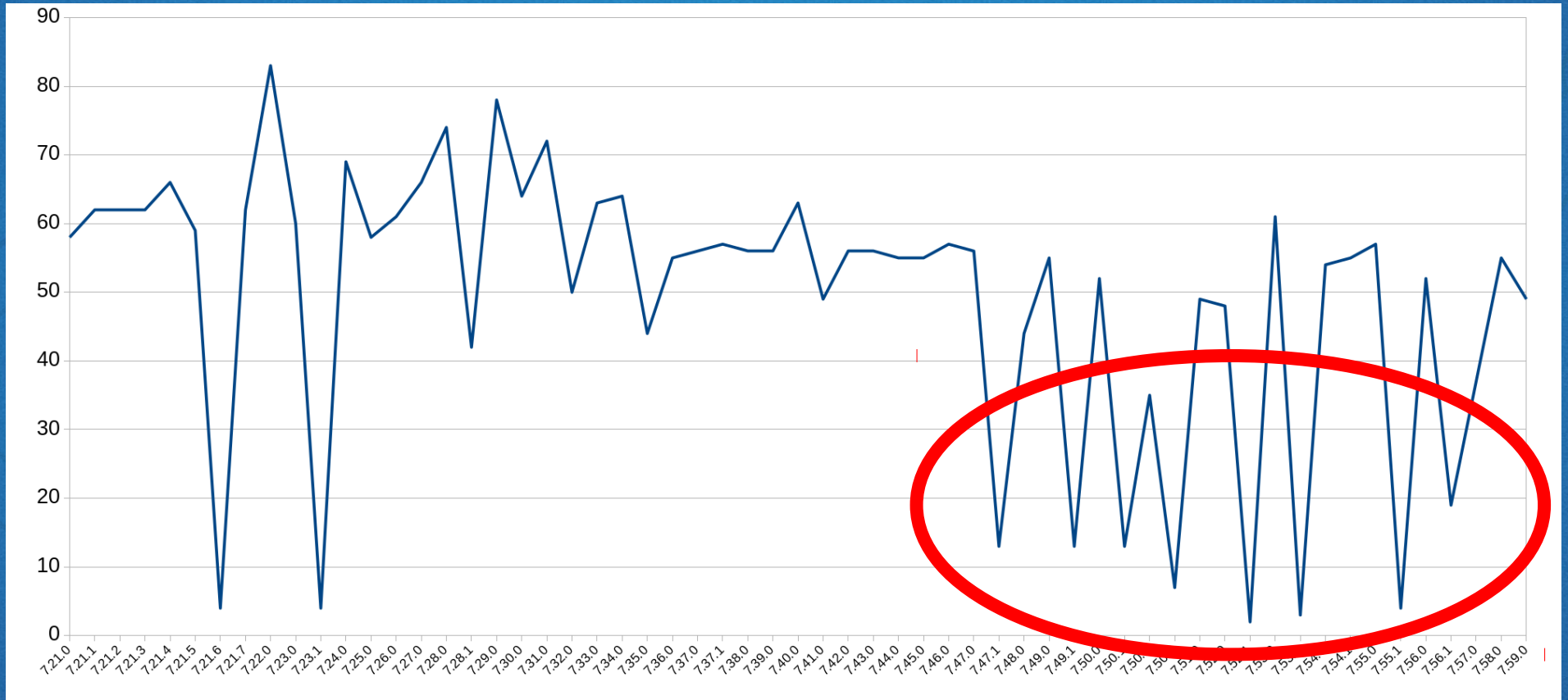
Daniel Stenberg (13213)  
Yang Tse (2587)  
Steve Holme (1796)  
Dan Fandrich (1080)  
Guenter Knauf (662)  
Gisle Vanem (466)  
Jay Satiro (313)  
Marc Hoersken (238)  
Kamil Dudka (228)  
Patrick Monnerat (216)

# Who's merging? (since 2016)



- Daniel Stenberg – 67%
- Jay Satiro – 10.4%
- Marcel Raad – 4.8%
- Steve Holme – 3.8%
- Dan Fandrich – 3.7%
- Patrick Monnerat – 3.3%
- Kamil Dudka - 1.6%
- Michael Kaufmann – 1.5%
- Viktor Szakats
- Peter Wu
- GitHub
- Marc Hoersken
- Alessandro Ghedini
- Nick Zitzmann
- Jakub Zakrzewski
- Nikos Mavrogiannopoulos
- Sergei Nikulov
- Michael Osipov

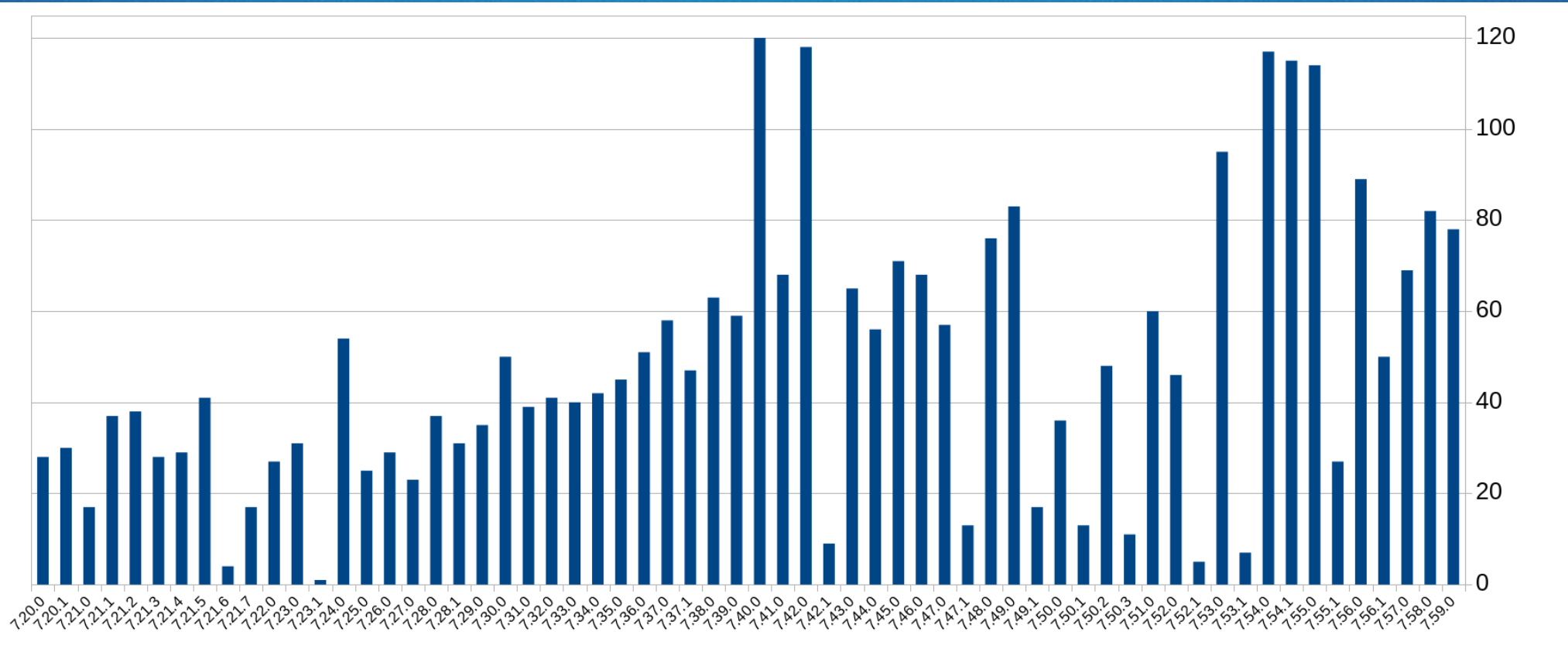
# Days per release since 2010



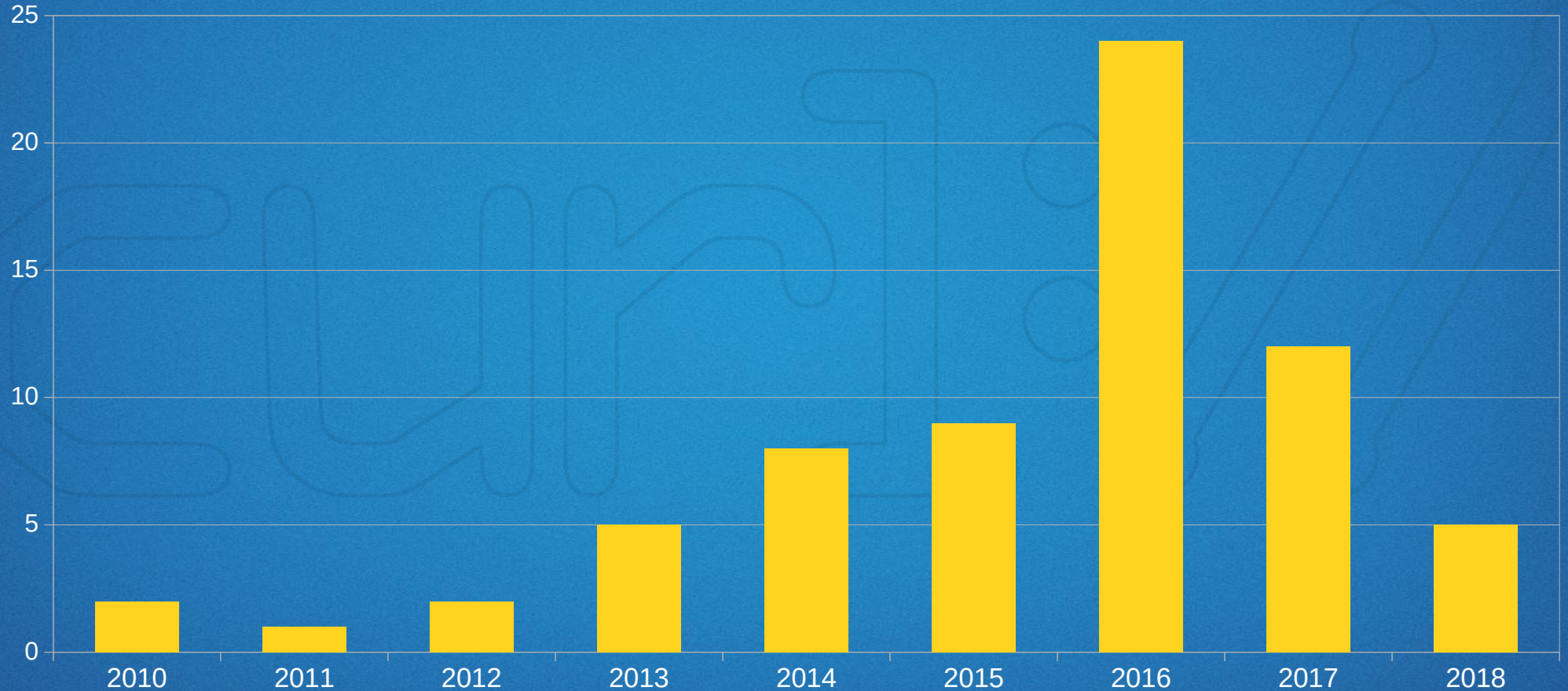
Average: 50

Median: 56

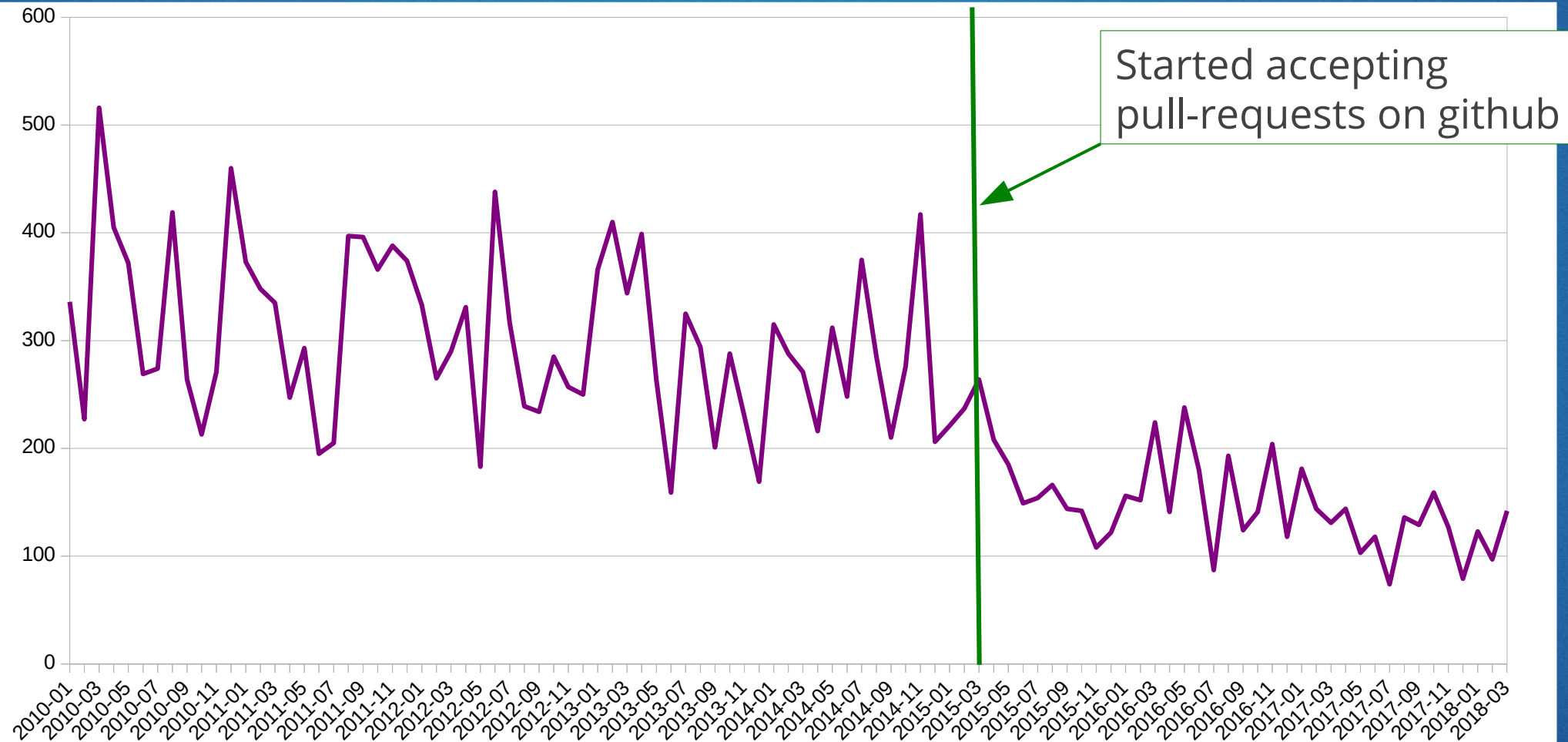
# Bugfixes per release since 2010



# Vulnerability reports since 2010

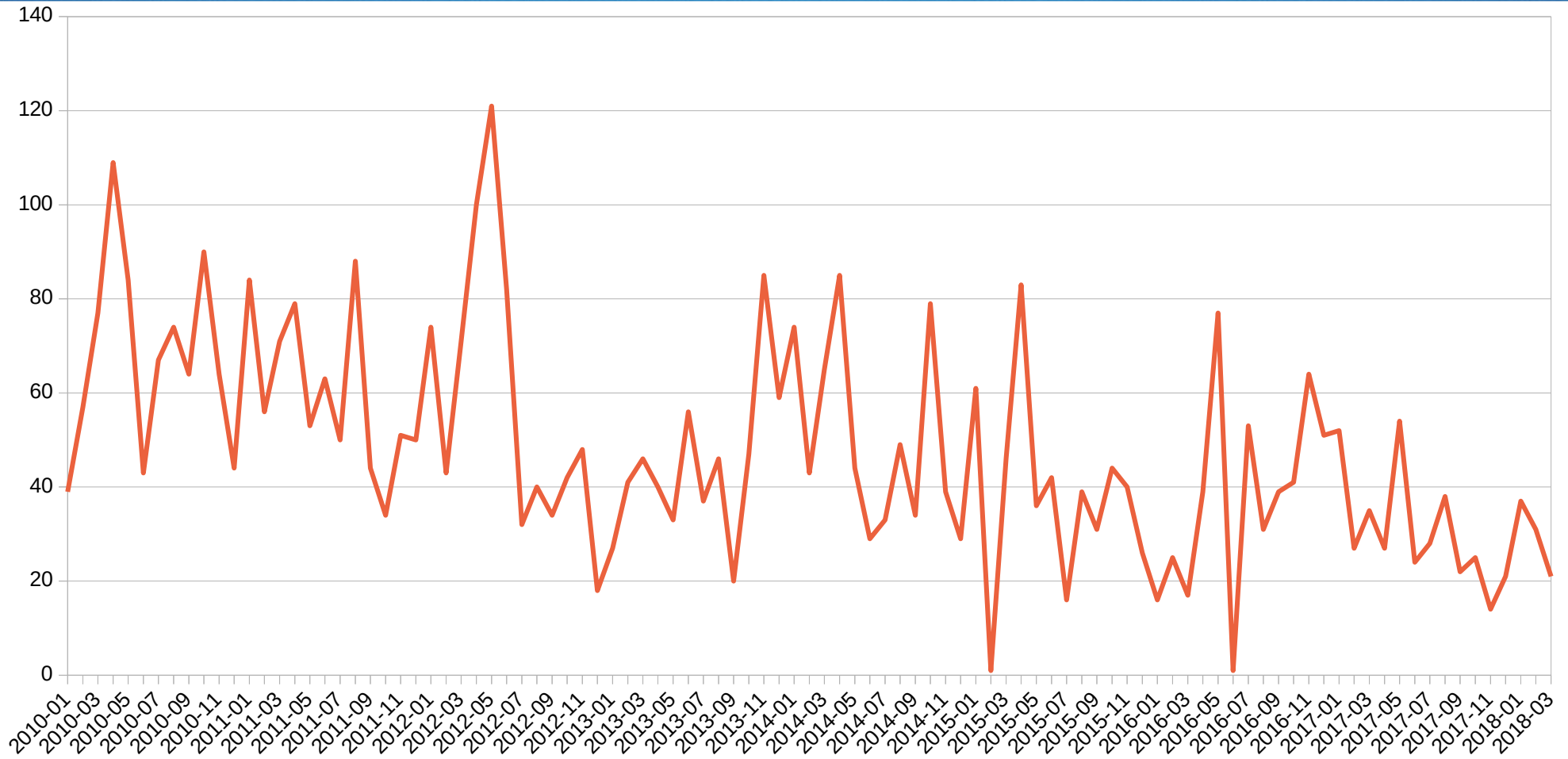


# Mails to the curl-library mailing list since 2010

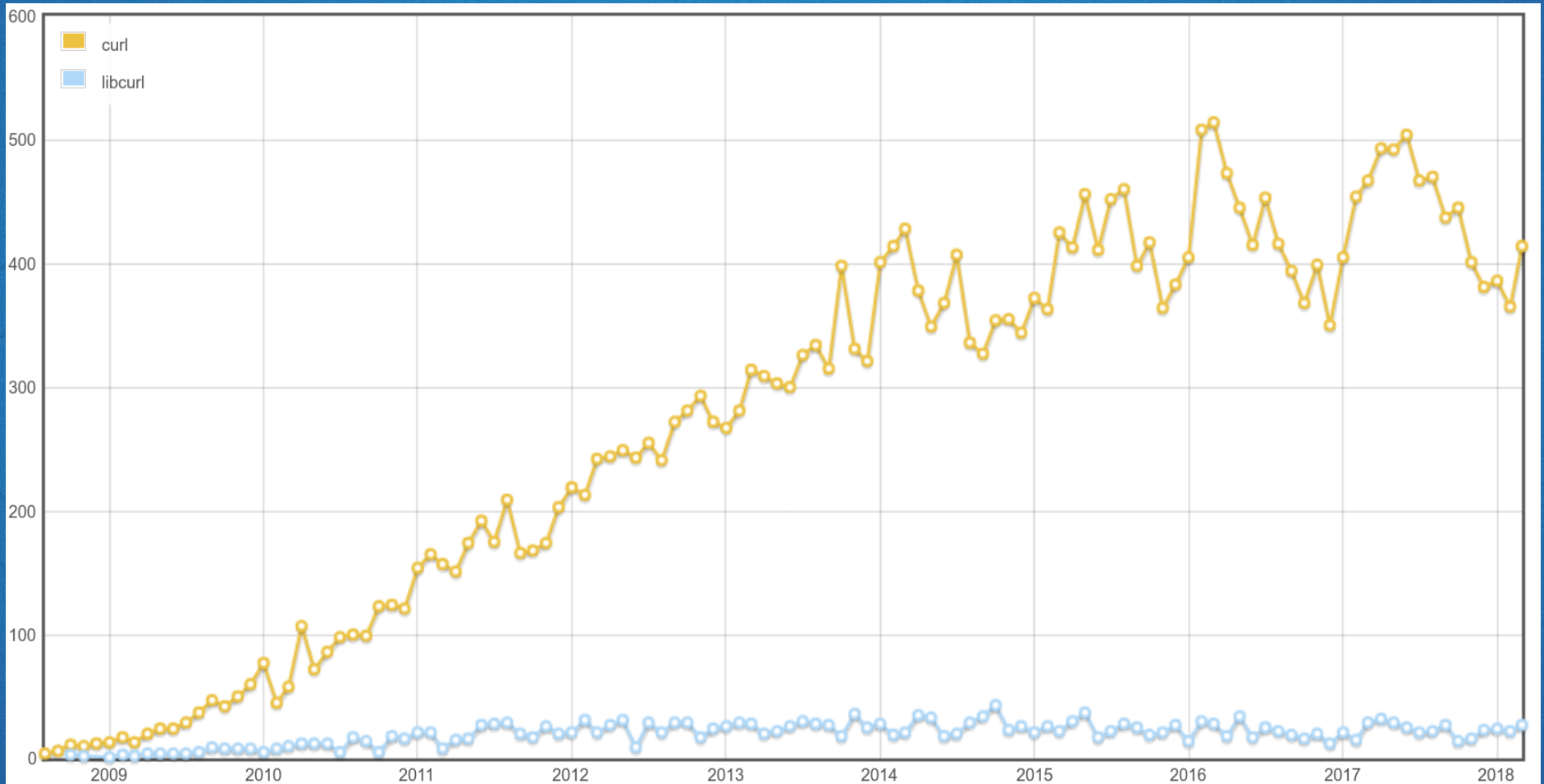




# Mails to the curl-users mailing list since 2010



# Stackoverflow ('curl' is tagged 31K times)



# Everyone uses curl 2018

Apps: Youtube, Instagram, Skype, Spotify, ...

OS: iOS, macOS, Windows, Linux, ChromeOS, AOSP, ...

Cars: Mercedes, BMW, Toyota, Nissan, Volkswagen, ...

Game consoles: PS4, Nintendo Switch, ...

Who doesn't use curl?

# Done since previous curl up

741 bug fixes, 28 changes, 12 reported vulnerabilities

*Massively* improved CI builds + fuzzing

max TLS version

release date in --version

--request-target

prevent binary spew

multissl

SSLKEYLOGFILE

mime API

SSH compression

brotli

connection sharing with share API

RFC 7616 Digest

libssh backend

CUROPT\_RESOLVE with multiple IP

faster cookies



# Less good



Vulnerabilities are still reported frequently

Early patch releases deemed necessary

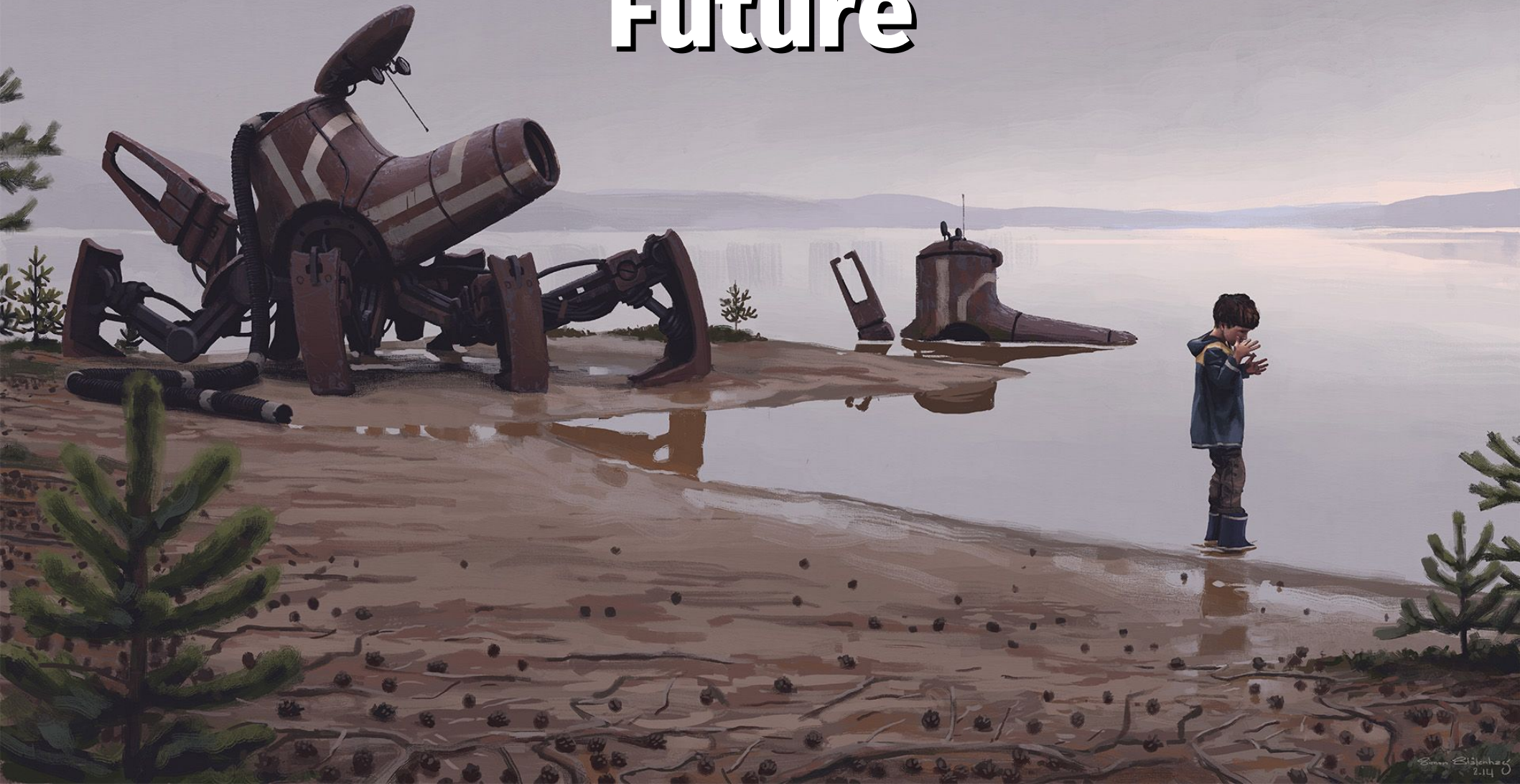
Regressions

Users respond *several years* after the fact: ssl-init, callback protection, timers include redirects, ...

Lots of decisions done without a lot of feedback

Could use more people who stick around

# Future



# Something about planning the future

I can't tell what "we" will do

I have some vague ideas about what I want to do next

I never plan very far ahead

Things change all time time



# libcurl work to consider

Keep up with browsers

QUIC

Recent cookie drafts

ORIGIN and more  
certificates for HTTP/2

DNS-over-HTTPS

HSTS

Alt-Svc

... ?

# curl tool work to consider

Parallel transfers

Support for HTTP/2 Push

Master/slave mode

Make `--retry resume`

Finally

cur 1: // up



46elks



sticker mule

LOTO 10