CURRENTS
A quarterly report on developer trends in the cloud
Introduction

Trends in the developer community move quickly. As a developer-focused company, it’s vital to keep up with the technologies and tools developers are interested in order to help them achieve their goals.

Current is a quarterly report on developer cloud trends that we created to share knowledge with the community. For the second edition we surveyed more than 2,500 respondents from around the world about themselves, the tools they use and what they are looking forward to in the coming year.

Key findings include:

- LetsEncrypt is by far the most popular SSL provider among our respondents, with 67 percent reporting it as their favored provider. Comodo was second with 8 percent.

- Linux continues to dominate the server ecosystem. 89 percent of respondents report it as their preferred server operating system.

- Almost half of our respondents (46 percent) reported they would be likely to look for a new job in 2018.

- 42 percent of respondents said they did not currently use CI/CD. Of those, 46 percent do not believe their workflow would benefit from it.

- Only 17 percent of respondents worked with artificial intelligence or machine learning in 2017, but of those who had not, 73 percent plan to learn about these technologies in 2018.
Demographics

Of the 2,500 survey respondents, 46 percent self-identified as developers and 16 percent as system administrators. Forty-three percent indicated they worked in IT & Services with 30 percent listing Software as their industry. The majority of respondents (63 percent) reported they write code in their free time as well as in their careers. Thirty-four percent indicated that they work on mostly open-source code, 33 percent on mostly on closed-source, and 30 percent on both open- and closed-source code.
I consider myself a...

Most respondents identified as a developer (46 percent) or systems administrator (16 percent) with the next most commonly identified categories being student and DevOps (both 11 percent). A smaller percentage of respondents reported they were managers in their organization.
Do you write code as a hobby or a profession?

- Both professionally and as a hobby: 63%
- As a hobbyist: 18%
- Professionally: 14%
- I don’t write code: 5%

Do you mostly work on open or closed source code?

- Mostly open: 34%
- Mostly closed: 33%
- A bit of each: 30%
- I don’t work on code: 3%
What size is your company (number of employees)?

- 1-5: 38%
- 6-25: 17%
- 26-99: 13%
- 100-999: 16%
- 1000+: 16%

Where are you located?

- Europe: 37%
- North America: 36%
- Asia: 15%
- South America: 7%
- Australia/Oceania: 3%
- Africa: 2%
Platforms & Tools

Developers often have strong opinions about the tools they prefer to use to do their work. This quarter, we asked our respondents about their preferences in SSL providers, operating systems and CI/CD solutions.

What is your programming language of choice?

- **PHP** 27%
- **Python** 24%
- **Javascript** 15%
- **Java** 8%
- **Golang** 5%
- **C#** 5%
- **C++** 5%
- **Ruby** 4%
- **Perl** 1%
- **Other** 6%
Who is your SSL Certificate provider of choice?

Despite its newness to the scene, respondents overwhelmingly chose LetsEncrypt as their SSL provider of choice, with 67 percent favoring it. Comodo came in second with just 8 percent.
Are you using a CI/CD solution? If not, why?

- 58% Do not use CI/CD
- 42% Use CI/CD

The majority of respondents (58 percent) reported they are not using a CI/CD solution in their development pipeline. While 38 percent of those respondents plan to implement CI/CD, 46 percent do not believe it’s needed for their current workflow.
Which CI/CD solution are you using?

- Jenkins: 44%
- GitLab: 39%
- Travis: 26%
- CircleCI: 12%
- Team City: 8%
- Bamboo: 6%
- Other: 12%

What is your Desktop operating system of choice?

- MacOS: 39%
- Linux: 32%
- Windows: 29%
What is your Server operating system of choice?

- Linux: 89%
- Windows: 8%
- MacOS: 2%
- BSD: 1%
Artificial intelligence and machine learning technologies (AI/ML) continue to grow in popularity. This trend is likely to continue as these technologies begin to mature into more robust, production-ready solutions. Only 17 percent of our respondents indicated they had worked with AI/ML in 2017. However, among those that have not, 72 percent intend to learn more about AI/ML in 2018.
Are you interested in learning about or trying ML or AI technologies in 2018?

Most respondents (83 percent) did not work with Artificial Intelligence and Machine Learning technologies in 2017 but 7 percent are interested in learning about these technologies in the coming year.
What did you use AI / ML for in 2017?
Reflections on 2017 and a sneak peek at 2018

With a new year comes the opportunity to reflect on what worked well for us in 2017 and what didn’t. We asked our respondents about their biggest pain points and achievements this year as well as what technologies they were excited about in the year to come. Fifty-six percent told us that integrating different software and services was their biggest pain point this year, and the majority believe automating their workflows will be the major challenge they face in the coming year.

What is the biggest technology pain point that became easier for you in 2017?

- Integrating different software services: 56%
- Lack of adequate security: 22%
- Accessibility to data: 19%
- Other: 3%
What is your biggest professional accomplishment in 2017?

- Worked on an amazing project: 33%
- Started a new job: 20%
- Helped my team members grow in their careers: 11%
- Launched my new app or startup: 11%
- Received a promotion: 9%
- Joined a new community: 7%
- Graduated / earned degree: 6%
- Other: 3%

Did your organization introduce any new technology tools or processes in 2017 that created more problems than it / they solved?

- No: 78%
- Yes: 22%
Which new technology caused your team problems in 2017 and what problems did you encounter?
Have you ever contributed to an open source project?

- Yes: 66%
- No: 34%

Which technology are you most rooting for in 2018?

- Open Source: 33%
- AI and ML: 28%
- Internet of things: 15%
- Blockchain: 11%
- Virtual Reality: 4%
- Drones and Robotics: 4%
- Edge computing: 3%
- Other: 2%
What big challenges do you anticipate for your work in 2018?

- Automating Workflows: 63%
- Incorporating ML / AI: 32%
- Eliminating Dependencies: 26%
- Working with distributed teams: 24%
- Other: 2%

Are you considering looking for a new job in 2018?

- Not likely: 31%
- Yes: 27%
- I'm considering it: 27%
- No: 15%
What is most important to you when considering which company to work at?

- Work environment / culture: 46%
- Technology or work involved: 28%
- Salary: 18%
- Benefits: 4%
- Recognition: 2%
- Equity: 1%
- Other: 2%
What is the one new skill you’re hoping to learn in 2018?