



DevOps

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What is DevOps?



Different definitions

DevOps represents a change in IT culture, focusing on rapid IT service delivery through the adoption of agile, lean practices in the context of a system-oriented approach. DevOps emphasizes people (and culture), and seeks to improve collaboration between operations and development teams. DevOps implementations utilize technology, especially automation tools, that can leverage an increasingly programmable and dynamic infrastructure from a life cycle perspective. [1]



[1] <http://www.gartner.com/it-glossary/devops/>

Gartner:

<http://www.gartner.com/it-glossary/devops/>

Different definitions

The screenshot shows a web browser displaying a blog post. The page has a dark sidebar on the left and a main content area on the right. The sidebar contains a profile picture of Donovan Brown, his name, social media icons, a search bar, and an 'ABOUT THE AUTHOR' section. The main content area has a breadcrumb trail at the top, a title 'What is DevOps?', a date and author line, the main text of the article, tags, and a star rating. The URL is visible at the bottom of the browser window.

← 2015 Ignite New Zealand demo prep: Step 1 Auto start build agent in interactive mode →

What is DevOps?

01 SEPTEMBER 2015 · DONOVAN-BROWN · WORK

DevOps is the union of people, process, and products to enable continuous delivery of value to our end users.

I am very deliberate in the terms used in this definition. I choose value over software. DevOps is not just automating a pipeline so we can quickly deliver software. Our goal is to deliver value. The term end users was also very carefully chosen. The value we produce must reach our end users. If the value only reaches the Dev and QA environments but is held up before reaching production where it can be realized by our end users, we are still failing.

It is very important to realize that DevOps is not a product. You cannot buy DevOps and install it. DevOps is not just automation or infrastructure as code. DevOps is people following a process enabled by products to deliver value to our end users.

Tags : [DevOps](#)

★★★★★ Currently rated 4.8 by 58 people

<http://www.donovanbrown.com/post/what-is-devops>

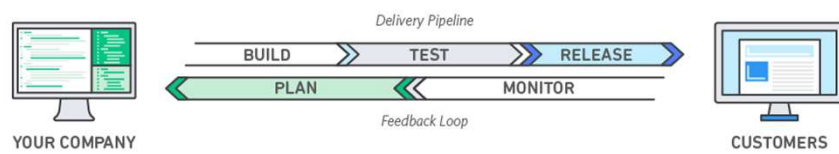
PXL IT

Microsoft

<http://www.donovanbrown.com/post/what-is-devops>

Different definitions

DevOps is the combination of cultural philosophies, practices, and tools that increases an organization's ability to deliver applications and services at high velocity: evolving and improving products at a faster pace than organizations using traditional software development and infrastructure management processes. This speed enables organizations to better serve their customers and compete more effectively in the market.




<https://aws.amazon.com/devops/what-is-devops/>



Amazon:

<https://aws.amazon.com/devops/what-is-devops/>

DevOps origins

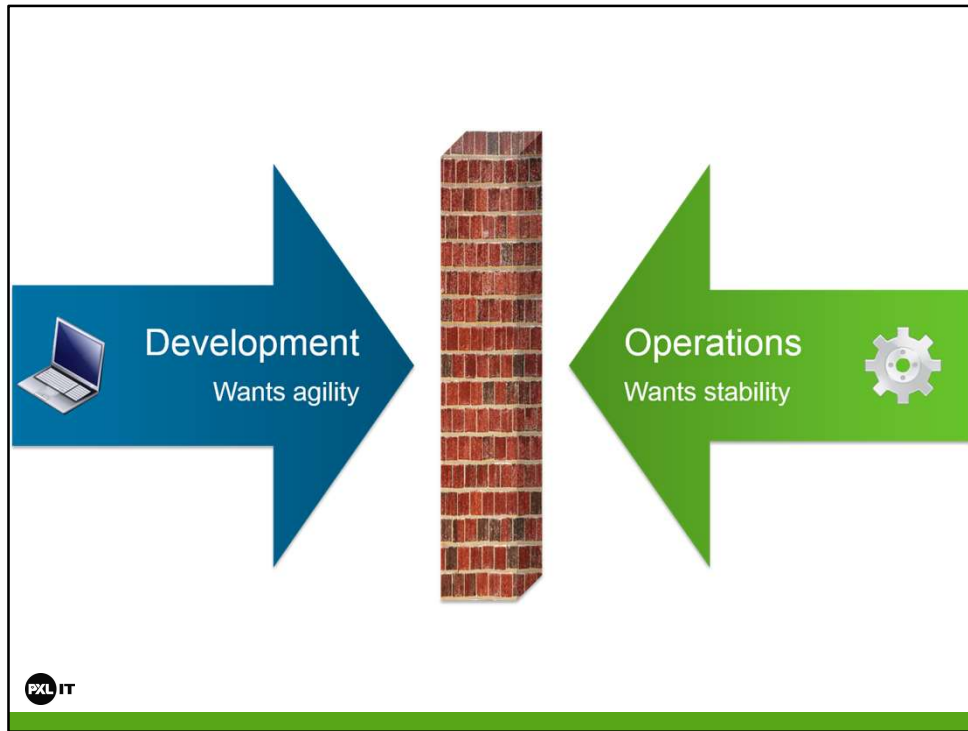
- Term is first coined in 2009 (Patrick Debois )
- Enterprise Systems Management (ESM)
 - Forward thinking sysadmins
 - configuration management, system monitoring, automated provisioning, and the toolchain approach
 - Automate everything!
- Agile Development
 - Extends the idea of close cooperation with all stakeholders
 - Not only for delivering code but for delivering “value”

If you do Agile without DevOps, it's like you're trying to race with a tractor instead of a car. You can go and do the laps but it's not going to go very fast, you're probably going to consume a lot of fuel and it won't be a lot of fun.



Why DevOps?

- Dilemma
 - Push new features
 - Stable system
- Frictions between Dev and Ops



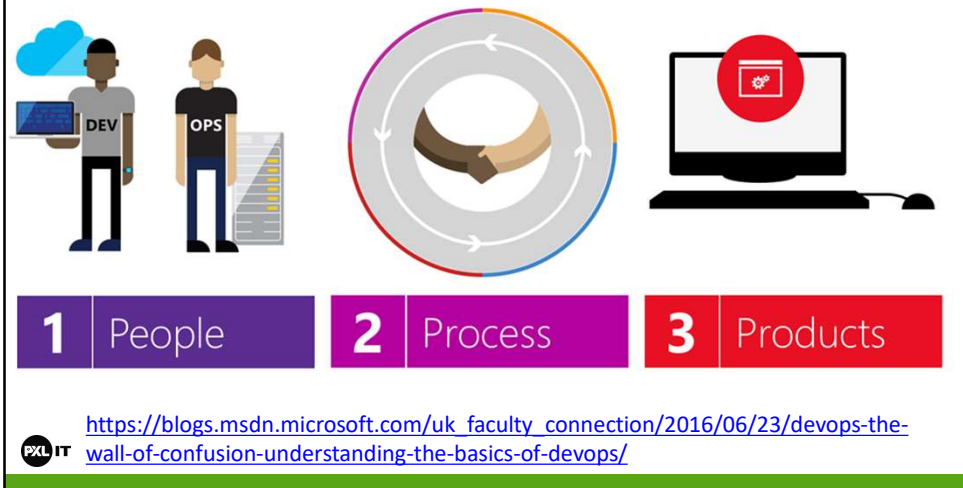


Dev and Ops join forces

- Set expectations and priorities and the fundamental beliefs that guide them.
- Collaborate both within and between teams on problem solving.
- Automate common and repetitive processes to free up time for higher-level work.
- Integrate feedback into the work, measuring everything that is moved into production
- Share the data with everyone involved to foster a more effective culture of working well together across different skills and specialized knowledge.




DevOps: the three stage conversation



https://blogs.msdn.microsoft.com/uk_faculty_connection/2016/06/23/devops-the-wall-of-confusion-understanding-the-basics-of-devops/

Foundations for DevOps

- Collaboration
- Automation
- Continuous Integration
- Continuous Testing
- Continuous Delivery
- Continuous Monitoring



Requires mental (culture) shift

Benefits of DevOps

- Speed
- Rapid Delivery
- Reliability
- Scale
- Improved Collaboration
- Security



Speed



- Move at high velocity
→ faster innovation
- Impact on development:
 - Microservices
 - Continuous Delivery

Rapid Delivery



- Frequency and pace of releases go up
- Faster innovation, bug fixes, etc
- Impact on development:
 - Continuous Integration
 - Continuous Delivery

Reliability



- Ensure quality
- Impact:
 - CI/CD
 - Monitoring
 - Logging

Improved Collaboration



- Teams are more effective
- Impact:
 - Ownership
 - Accountability
 - Closed cooperation

Scale



- Automation, Consistency and Repeatability → fast scaling
- Impact:
 - Infrastructure as code

Security



- Mindset: everyone needs to be aware
- Impact:
 - DevSecOps
 - Policy as code

References

- <https://newrelic.com/navigating-devops?content=eBook>
- <http://www.donovanbrown.com/post/what-is-devops>
- https://blogs.msdn.microsoft.com/uk_faculty_connection/2016/06/23/devops-the-wall-of-confusion-understanding-the-basics-of-devops/
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