

best boy electric

What is DevOps?

An introduction to
high velocity value creation

Many definitions of DevOps exist

Many of them invented by recruiters or tool vendors!

- A role: “I want to hire 4 DevOps...”
- A set of tooling: “We need to start doing DevOps, let’s get Docker/Ansible/Puppet/Cloud Foundry”
- A process: “We’re doing DevOps because we’re doing automated builds”

However, all of these definitions are really too narrow
and focused on the wrong thing

What do the ‘Fathers of DevOps’ say it is?

Jez Humble –
Thoughtworks,
author of
'Continuous Delivery'
and 'Lean Enterprise'



“a cross-disciplinary community of practice dedicated to the study of building, evolving and operating rapidly-changing resilient systems at scale”

“Currently, DevOps is more like a philosophical movement, and not yet a precise collection of practices ... At this early stage we're in, DevOps is more like a vibrant community of practitioners who are interested in replicating the performance outcomes and culture as exemplified in the seminal John Allspaw/Tim Hammond 2009 Velocity presentation about doing “ten deploys a day” at Flickr”



Gene Kim –
CTO of Tripwire, author of
“The Phoenix Project”

Key terms

In most articles by these experts and others, you see themes of

- Culture
 - Velocity
 - Community
 - Evolution
 - Resiliency
- It's not just an onboarding of tooling!

DevOps is all about optimising for customer value

Creating a self-tuning delivery machine that evolves
over time and learns from failure

“ There is no charge for awesomeness
or attractiveness ”



Or ‘making your company
awesome at what it does’

- Culture
- Automation
- Measuring
- Sharing

Culture

- How does your organization use and share information? How are different departments incentivised? How is failure handled? How enjoyable a work environment do you have?
- These organisational qualities have a massive impact on how competitive and efficient an organisation can be.
- An effective culture provides a robust foundation for change and trying to bring in large change without addressing cultural defects often leads to failure

Automation

- This is the one that most springs to mind when talking about DevOps. Taking repetitive manual tasks and automating them.
- Benefits include reduced human error, faster turnaround time and ease of repeatability.
- Builds, test suites, environment creation, releases, cluster scaling, failover, disaster-recovery etc

Measuring

- How do we know that
 - We're achieving our business goals?
 - We're being well served by our systems in terms of responsiveness and reliability?
 - Our systems can comfortably handle projected load?
- Applying the scientific method to everything we do
 - Form hypotheses, design and carry out experiments, gather data, validate hypothesis

Sharing

- Sharing the tools, libraries, successes, failures and lessons learned with others in our organisation
- Starting small and allowing good ideas to propagate virally around the organisation vs big bang change
- Fostering a culture of sharing and reuse with the larger community, external to the company. Reading and writing papers, attending meetups and conferences, public speaking, lunch and learn.

What we talk about, when we talk about DevOps

Based on the the PuppetLabs 2015 State of DevOps report and the popular articles listed at the end

The background of the slide features a deep space scene with numerous stars of varying sizes and colors. A bright, yellow-orange sun is positioned in the lower-left quadrant, casting a warm glow and creating a lens flare effect. The Earth's horizon is visible in the foreground, showing a mix of blue oceans and green continents.

DevOps is about increasing Velocity

To get ideas into production faster,
and to reduce the cost and risk of change

Operational benefits of a DevOps transformation

- High-performing IT organizations deploy **30x** more frequently with **200x** shorter lead times; they have **60x** fewer failures and recover **168x** faster.
- Lean management and continuous delivery practices create the conditions for delivering value faster, sustainably.
- High performance is achievable whether your apps are greenfield, brownfield or legacy.

Business benefits of a DevOps transformation

- Faster iterations mean that you can get **more done in less time**.
- The speed of development gained from your Agile adoption can be extended to be end to end. From idea to sales.
(from “Aha! to Kerching!”)
- New ideas can be trialed out in the marketplace at **low cost** and with **low risk**
- Cost of change becomes much lower
- Higher velocity promotes much **closer interactions with your customers** as you become more able to measure how they’re interacting with your proposition and how they respond to changes

Summary

- A DevOps transformation brings the magic of Agile to your entire value-delivery chain, boosting your business's competitiveness, agility and cost efficiency. It knits your whole organisation together so that they're working toward the same mission and allows the creativity and expertise of your workforce to be used to best effect to create value not just for the customer, but for others within the organisation too.

Further reading

- [Seven Essential DevOps resources for beginners](#) The videos, blogs etc to get up to speed (blog post by Peet Denny)
- [Convergence of DevOps](#) Where did DevOps come from? (article by John Willis)
- [DevOps cookbook](#) (book in progress by Gene Kim)
- PuppetLabs [2015 State of DevOps](#) report



best boy electric

**To see how DevOps could revolutionise the way
you deliver software, get in touch!**

team@bestboyelectric.io