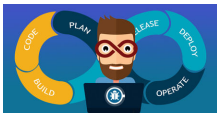


When DevOps goes wrong

An observation story



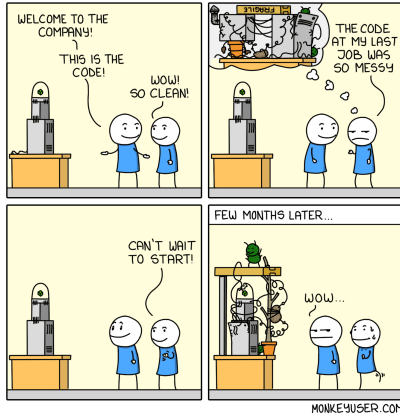
Dr. Sebastian Oehlke

2021-01-26

<https://stackify.com/devops-engineer-starter-guide/>

DevOps is a game-changer

DÉJÀ VU



<https://www.monkeyuser.com/2019/deja-vu>

DevOps is a game-changer ... if done right

Why bother



For me:

- ▶ Faster delivery speed
- ▶ Less pain for involved parties

For me:

- ▶ Faster delivery speed
- ▶ Less pain for involved parties

- ▶ Improved deployment frequency
- ▶ Faster time on market
- ▶ Lower failure rate of new releases
- ▶ Shortened lead time between fixes
- ▶ Faster mean time to recovery

My impression - manual repeatedly work



[https://theconversation.com/
why-sisyphus-comes-to-mind-in-my-daily-struggles-against-coronavirus-136055](https://theconversation.com/why-sisyphus-comes-to-mind-in-my-daily-struggles-against-coronavirus-136055)

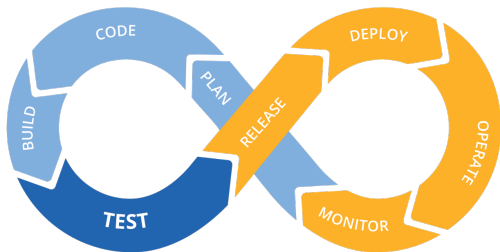


<https://theoldmotor.com/wp-content/uploads/2016/02/1932-Ford-Chasiss-Assembly-Line.jpg>

How to make it possible?



How to make it possible?



<https://hackernoon.com/has-devops-changed-the-role-of-a-tester-b140dddc7824>

What is it about



GOOD



LESS EFFECTIVE

<http://www.asalesguy.com/wp-content/uploads/2014/01/Screen-Shot-2014-01-22-at-11.15.28-AM.png>



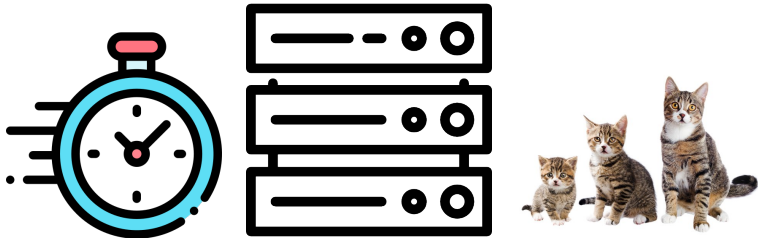
<https://amazing-creature.blogspot.com/2013/07/funny-cats-part-57-30-pics-10-gifs.html>
<https://www.beefcentral.com/wp-content/uploads/2017/02/Elders-cattle-to-China.jpg>



<https://amazing-creature.blogspot.com/2013/07/funny-cats-part-57-30-pics-10-gifs.html>

<https://www.beefcentral.com/wp-content/uploads/2017/02/Elders-cattle-to-China.jpg>

<https://infographsondatacenter.files.wordpress.com/2013/09/serverracksgoogle.jpg>



Icon made by <http://www.freepik.com/> Icon made by <http://www.freepik.com/> Image Credit: perets/E+/GettyImages

Pet vs. cattle – How bad can it be



Pet vs. cattle – How bad can it be



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By KMJ, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=1443327>

Pet vs. cattle – How bad can it be



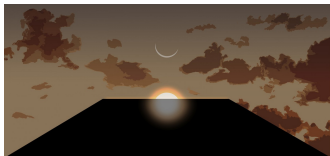
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Where are my data?

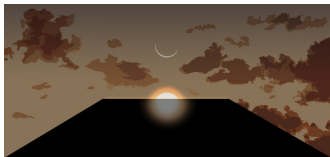
By KMJ, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=1443327>

Pet vs. cattle – How bad can it be



<https://plotandtheme.files.wordpress.com/2015/03/cropped-monolith-poster.jpg>

Pet vs. cattle – How bad can it be



Why does it fail?

<https://plotandtheme.files.wordpress.com/2015/03/cropped-monolith-poster.jpg>

GNU principle: each program should do one thing well. No more and no less.

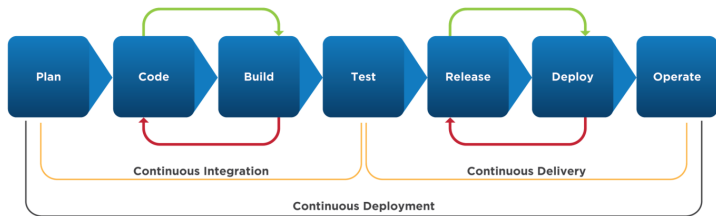
https://www.gnu.org/software/coreutils/manual/html_node/Toolbox-introduction.html

If applicable:

- ▶ Use micro-services
- ▶ Build customized images (Container/VM)
- ▶ Use golden images
- ▶ Configuration management tools



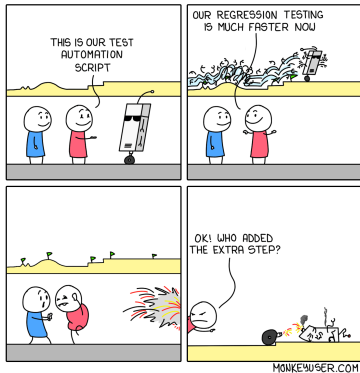
https://govconchannel.files.wordpress.com/2015/03/27080785_ml-keep-it-simple.jpg



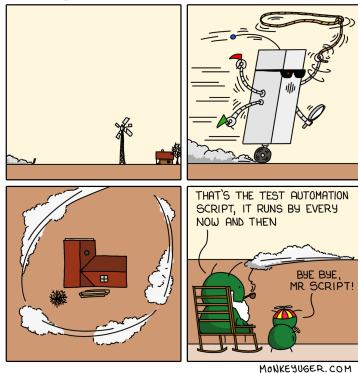
modified from: <https://dfwsystems.com/cloud/devops-secure-and-scalable-ci-cd-pipeline-with-aws/attachment/devops-secure-and-scalable-cicd-pipeline-with-aws-1/>

CI/CD – If it goes wrong

BRITTLE



THE SUPERFICIAL HIGH



<https://www.monkeyuser.com/2019/brITTLE>

<https://www.monkeyuser.com/2019/the-superficial-high>

- ▶ Outdated libraries
- ▶ Each time complete installation routine
- ▶ Lacking tests
- ▶ Non-working tests
- ▶ Many manual steps to start / make pipeline work

CI/CD how you can do better?



- ▶ Take care of your pipeline
- ▶ Pipeline has to develop, like your product does



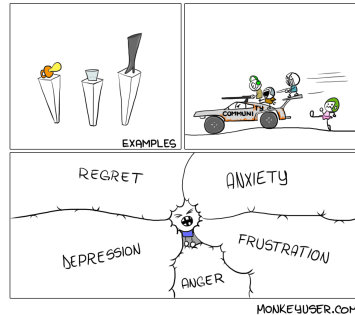
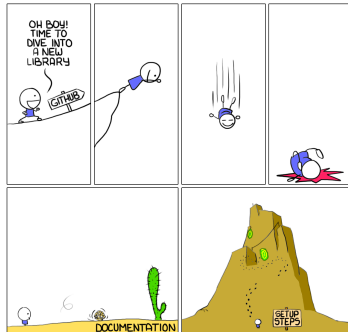
We care about our cattle



- ▶ False alarms
- ▶ Missing alarms
- ▶ Crashing monitoring databases
- ▶ Time-windows > 2 hrs almost crash server
- ▶ Multi-line stack-traces are not parsed

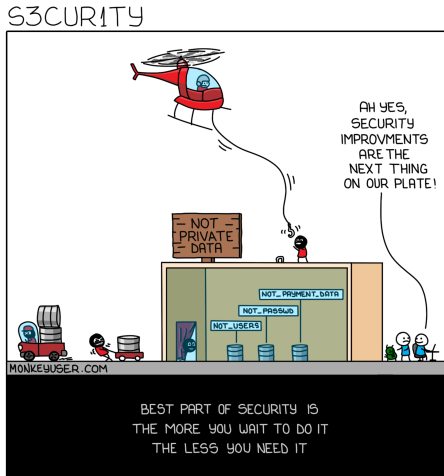
- ▶ Select only meaningful metrics / logs
- ▶ Create optimized queries / dashboards
- ▶ Know your application

KEEP UP TO DATE



<https://www.monkeyuser.com/2017/keep-up-to-date>

- ▶ Regular updates ⇒ better routine
- ▶ Automated updates (CI/CD) ⇒ reduction of human errors
- ▶ More similarity between versions i.e. less effort for associated applications



<https://www.monkeyuser.com/2019/s3curity/>

Bad:

- ▶ Static ... blacklisted ones
- ▶ Keystores but not direct utilization

Better:

- ▶ Script w/ automatic generation and insertion in keystore

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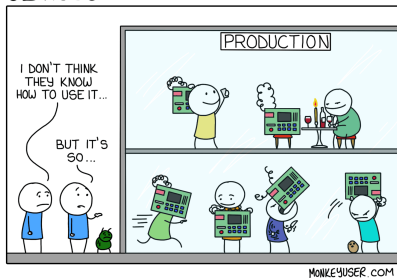
Too many tools doing the same job





<https://chrisandsusanbeesley.com/how-to-overcome-information-overload/>

OBVIOUS



<https://www.monkeyuser.com/2019/obvious>



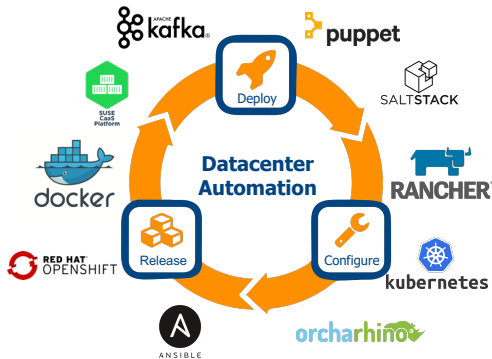
[https://www.slideshare.net/nashjain/
agile-way-of-dealing-with-uncertainty-in-a-complex-adaptive-world/217-Knowledge_Islands_
Metrics_MessSaturday_1](https://www.slideshare.net/nashjain/agile-way-of-dealing-with-uncertainty-in-a-complex-adaptive-world/217-Knowledge_Islands_Metrics_MessSaturday_1)

Communication is the key





icanhascheezburger.com



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 info@atix.de