What kind of SCM is needed in a DevOps context?

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Sponsors

Who is sponsoring this event:

- Facilities – IT University
- Coffee and cake – sneSCM.org
- Drinks and snacks – Praqma, the DevOps consultants

Objectives

Our objectives for this Meetup:

- To get an idea on what DevOps is (we have it, just want to check)
- So we hope that some of you are DevOps practitioners ;-)
- To understand what and where SCM in general can be useful in DevOps (we have some questions – you will provide some answers/input)
- We hope that everyone will contribute - and get - something useful today
- To get into contact with DevOps practitioners (Master's thesis)

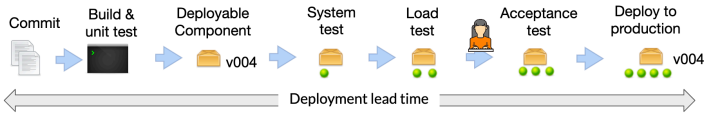
Agenda

What will we do now:

- What is DevOps? (very short)
- SCM in a DevOps context (Q&A **discussions** – active audience participation)
- Wrap-up (group effort – what were the important take-aways today?)
- Networking

What is DevOps – short version

DevOps is: "a set of practices intended to **reduce the time** between **committing a change** to a system and the change being placed into normal **production**, while ensuring **high quality**"



Also includes **monitoring** and **measuring** of the software in runtime!

What is DevOps – longer version I

Culture (People, processes and tools)

Automation (Do it once, do it twice, automate)

Lean (Continuous improvement and learning)

Measurement (development, production, business)

Sharing (Collaborate, give feedback, don't copy)

What is DevOps – longer version II

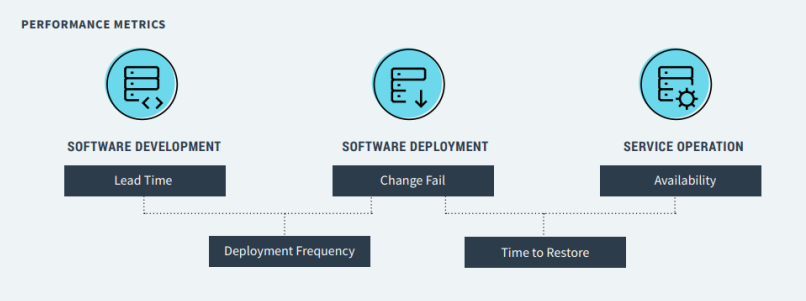
Goals:

- improved deployment frequency
- lower failure rate of new releases
- shortened lead time between fixes
- faster mean time to recovery

Aims to maximize the **predictability**, **efficiency**, **security** and **maintainability** of operational processes.

Five metrics define SDO performance

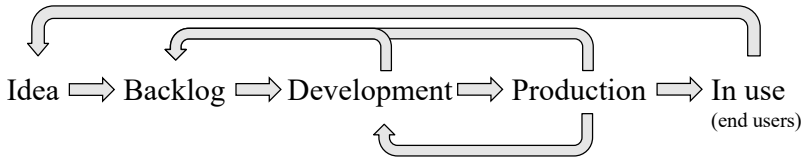
Software delivery and operational performance:

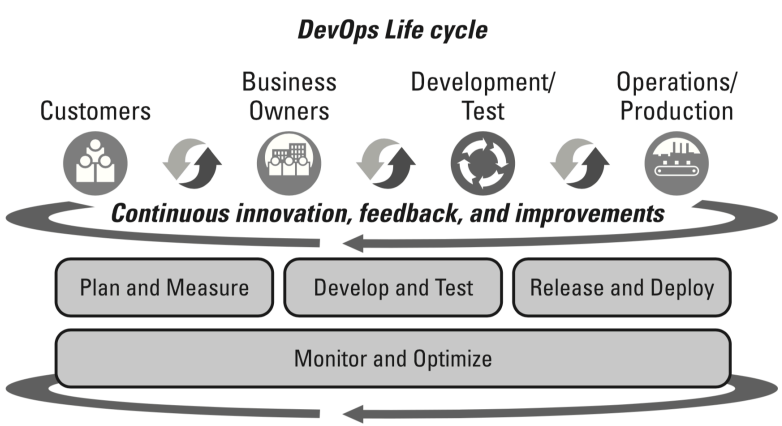


What is DevOps – longer version III

DevOps ⟺ Scrum
XP
…

DevOps = Dev + Ops + more?





What is SCM?

Software Configuration Management is this cool stuff that will facilitate a team to coordinate people and things so they can carry out changes in an orderly fashion right from idea/conception to production – and retirement – and avoid any chaos and confusion in the process.
SCM will make sure that you know exactly what you have, not just when it is in production but also while you are developing it and SCM will provide a project with all the quality gates they could desire for.
SCM can be done in formal and rigid ways (top-down/waterfall) - or it can be done in more informal and flexible ways (bottom-up/Agile, DevOps).

Guidelines for the following Q&A

We: ask a question

You: give some answers

Group: discuss question and answers and implications

We: cut discussion and move on to next question

For some of these questions your reply might be ”not applicable”.

Q&A – I

Do you use git?

Why do you use git?

How do you use git to handle parallel work?

How do you handle CMDB aspects with git?

Q&A – II

Do you know what features (and bugfixes) are in production now?

Do you know what features (and bugfixes) are on-going?

Do you know what features (and bugfixes) are planned?

Do you work with CRs and a CCB?

Q&A – III

How fast are you able to “release” a “Hello World” functionality?
How quickly can you “release” a fix to a broken “release”?

How fast can you (re-)create a clean test environment?
Can you ”reproduce” a test run?

Do you work with explicit quality gates?
Gatekeeping for what?

Q&A – IV

Do you use “external” components?
How are they handled?

Do you know exactly how an old release / executable was created?
Are you able to exactly reproduce it?
How do you do that?

Are you able to test a bugfix to an old release?
How do you do that?

Do you know exactly what was in production on April 1st?
Can you deliver the source code for that?
Can you create an exact copy of that (prod. env. plus executable)?

Q&A – V

Do you know who will be impacted by a change to an API?

Are you able to work in parallel on different features?

Are you able to work in parallel on the same feature?