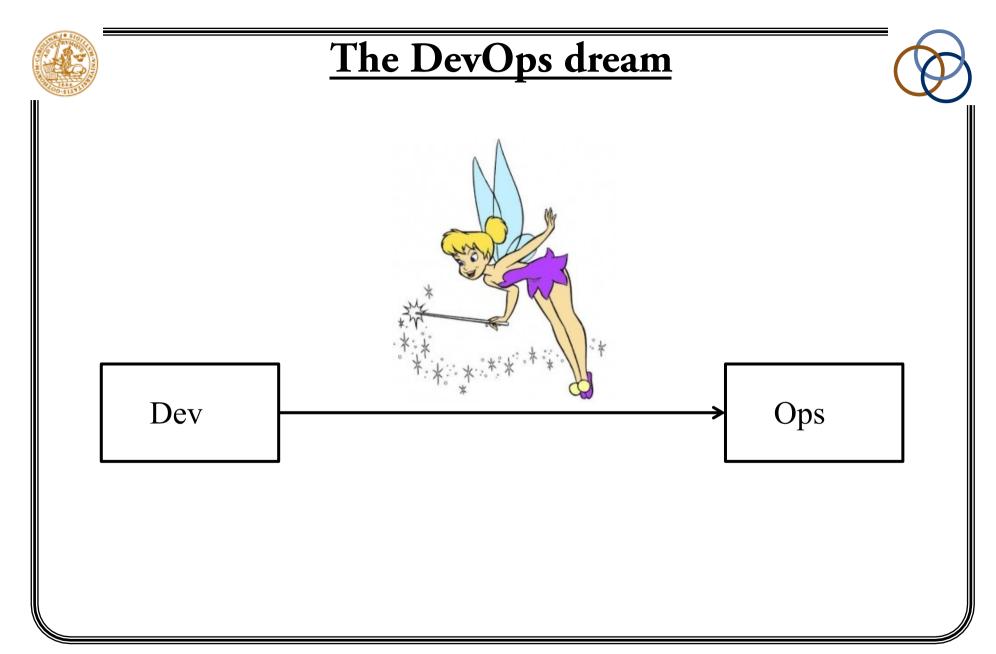




# Automated communication for improved deliveries

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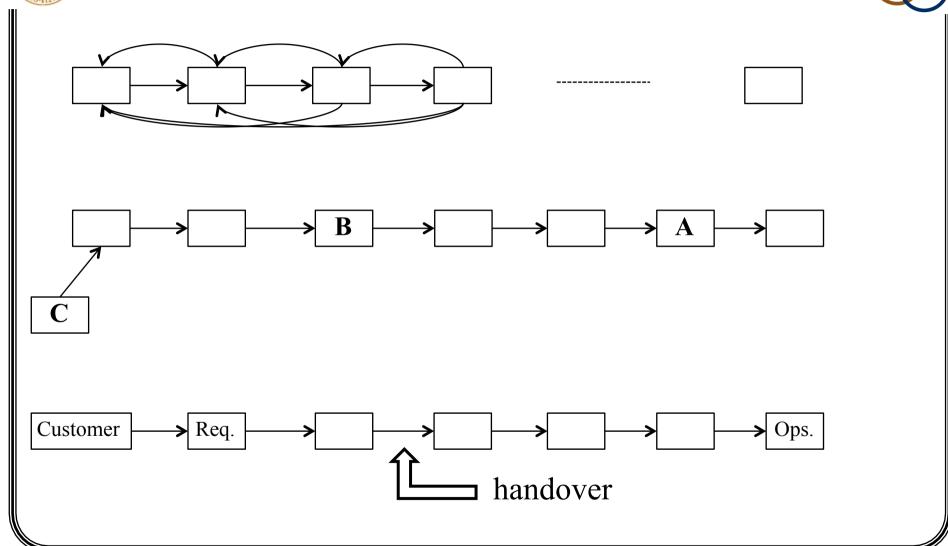
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BCS-CMSG, June 10, 2014



# DevOps realities









Why do you want to do DevOps?

- •
- •
- •

What can you learn from our students?

- •
- •



### Context



#### Our students – since 2001:

- second year students
- groups of 8-12 developers
- two coaches (fourth year students)
- one customer (to share between three teams)
- agile development (eXtreme Programming)
- course part and project part



## Setup



#### Six weekly iterations:

- 2-hour Planning Game on Wednesdays
- 4 hours of individual/pair work
- 8-hour programming session on Mondays
- release to customer every other week (+1)
- using all XP practices:
  - Frequent Releases ("DevOps")
  - Continuous Integration
  - Test Driven Development
- something more



## Real life



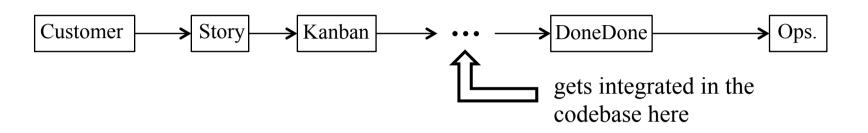
#### Can our students do:

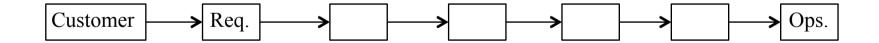
- DevOps?
- Continuous Delivery?
- Frequent Releases?
- On-demand releases?
- Anything at all? ;-)



## Bottlenecks and more





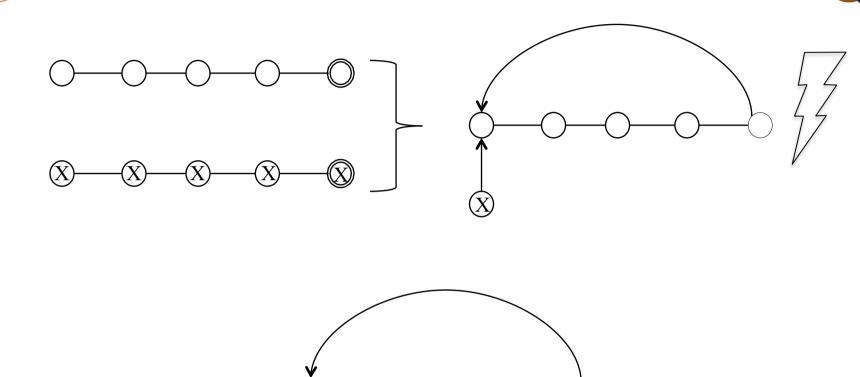


Done – DoneDone – ReallyDone - ...



# Parallel work







# Parallel strategies



Branching and merging

VS.

Change sets

VS.

Strict long transactions



## Why look at DevDev?



High quality allows us to go from Dev to Ops in a nanosecond – and with probable success.

To create a good start for DevOps.



## Situational awareness



#### Digital data means:

- copies and parallel work
- merge

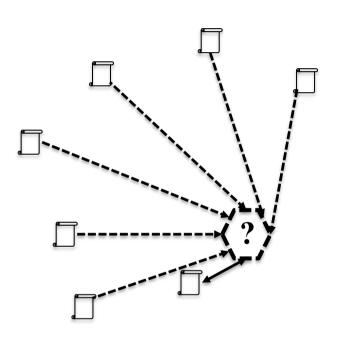
#### Easing merge:

- locking
- (stable and traceable) APIs
- (decoupled) modularization
- strict long transactions
- (VCT) notification
- "virtual continuous integration"



# Virtual Continuous Integration







## What did you learn today?



Take-away #1: avoid bottlenecks – plan for scalability

Take-away #2: deal with parallellism – branching / change sets

Take-away #3: DevOps looks like TDD

Take-away #4: ...