

The DevOps Journey in an Enterprise


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**DEVOPS
ENTERPRISE
SUMMIT**



**DEVOPS
ENTERPRISE
SUMMIT**

AN  REVOLUTION EVENT

Anders Lundsgård

1ε37

2021



Cloud Solutions Architect



Cloud Solutions & Security Architect



2015

Cloud & Delivery Engineer



Solution Architect



2008

Developer & Release Engineer



2004

Developer & Instructor



1ε37

we've got this.



trætton37



Anders Lundsgård



DEVELOPERS

Try to make engineers much more productive than I've ever been



DEV ♥ OPS

Try to teach developers to operate
Try to teach operations how to code



CLOUD

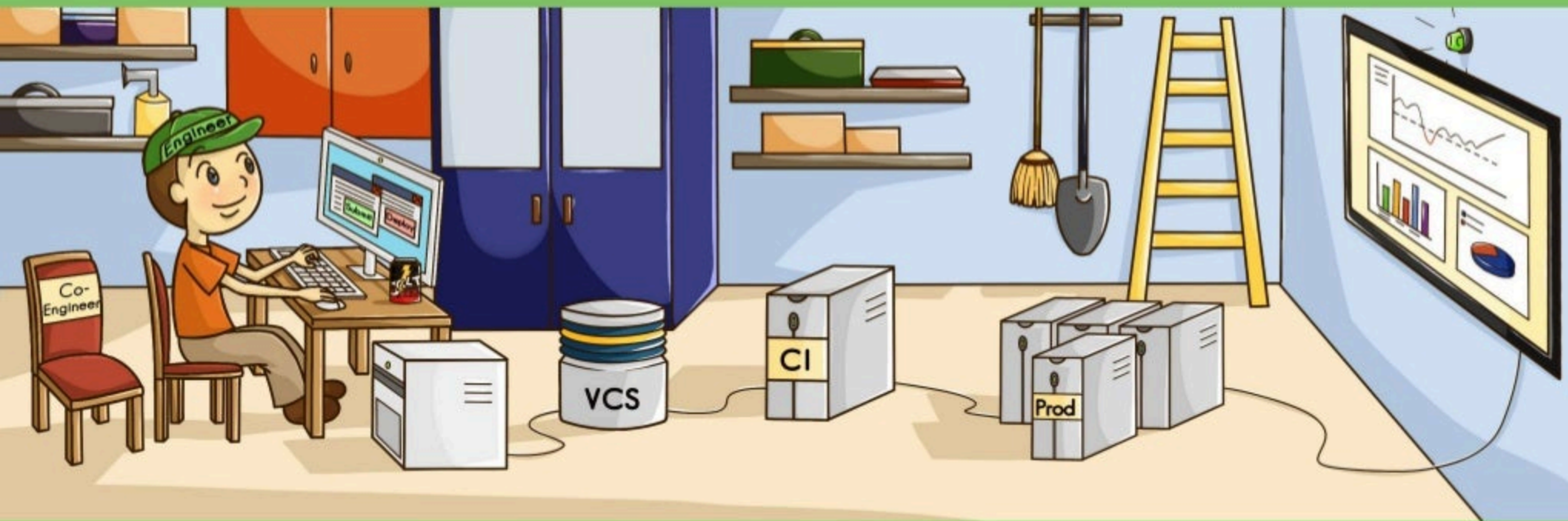
The gift from above to achieve my first two goals

A Scania tanker truck is shown driving on a road, with a green tint overlay. The truck is a modern model with a large tank. The license plate is THJ 955. The background shows a road with trees and a cloudy sky.

Disclaimer

There is no official “DevOps manifest definition”.

DevOps in this presentation is only one view of DevOps based on the presenters experience in building, deploying and operating software.



Startup

ENTERPRISE





Manual Deployments

Prior to 2015, me and other engineers went into the office for quarterly/monthly manual releases.

Not DevOps

A non-DevOps situation where Dev blame Ops for being slow and Ops blame Dev for being stupid

Me until 2014



Me Today



I tested and coded it

I deployed it to Prod after lunch

12

9

3

6

I woke up with an idea
this morning

Can't wait until tomorrow to
verify my idea...



Vision

Idea to Prod the same day



Continuous Integration

- ✓ Version Everything*
- ✓ Automation
- ✓ Trunk based development
- ✓ Claim over Blame

*except secrets

Deploy frequency

Scania Connected Services

2016

(Still On-Prem)

Autonomous Teams

- Continuous Delivery
- **30+ deploys per day**

1. Microservice Architecture
2. Challenged and improved infra related processes
3. Trust and courage from management



2011

Software projects

- 2-3 in parallel
- 3 deploys per year

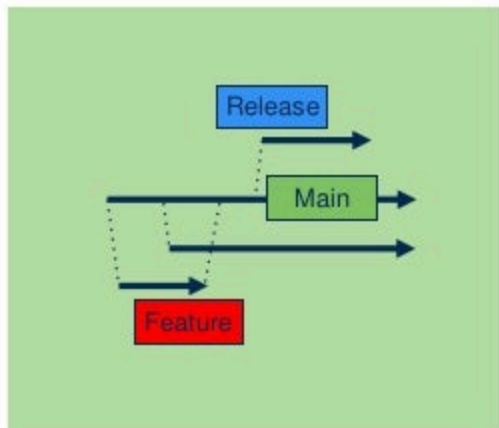
2015

Agile teams

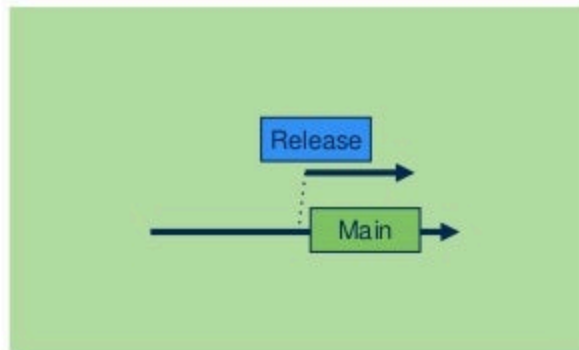
- 12 deploys per year

Continuous Integration

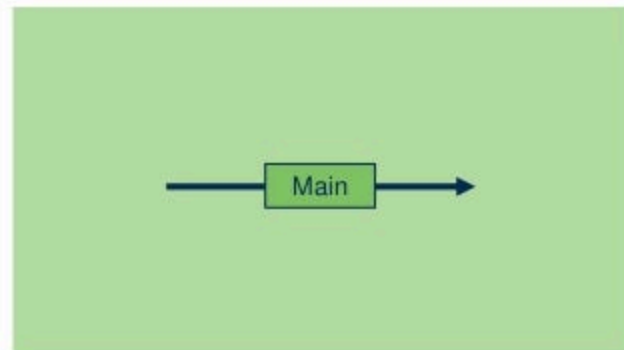
Branch strategies



50+ developers per
code repository



50+ developers per
code repository



5 developers per
code repository



Autonomous teams

Autonomous teams can have their own pace without affecting other.



@anderslundsgard



Autonomous teams

With independent teams, all teams are not affected if one team experience problems.



Zero Downtime

Enables engineers to be present when their code goes live



The background of the slide is a photograph of an archery competition, showing several archers in a line, aiming their bows. The entire image is overlaid with a semi-transparent green filter. A dark blue rectangular box is centered over the image, containing the title and text.

Immutable Production

Developers should not log in to production servers!
Operations should not log in to production servers!

Remove Handovers

Avoid sub optimize in organizational silos

Deploy \neq Release

```
graph BT; A[Development Team Concern] --> C[Deploy != Release]; B[Business Decision] --> C;
```

Development Team
Concern

Business
Decision



FmpNextGenRampUp

Last updated (UTC timezone): 2016-08-26 11:08:24

Enabled For All: False

Last changed by:

Customers

Scania Transp x

Users

Select users that will have this feature...

Countries

Sweden (SE) x

Germany (DE) x

Austria (AT) x

Australia (AU) x

Argentina (AR) x

Save

Cancel

© 2016 - Scania

Release at Scania

Zero downtime using
Feature Toggles



Tilda 4 y/o releasing to production

Tilda 4 releases the new Fleet
Management Portal for Great
Britain market
(2016-09-01).



Affinity

Maintaining infrastructure is very complex

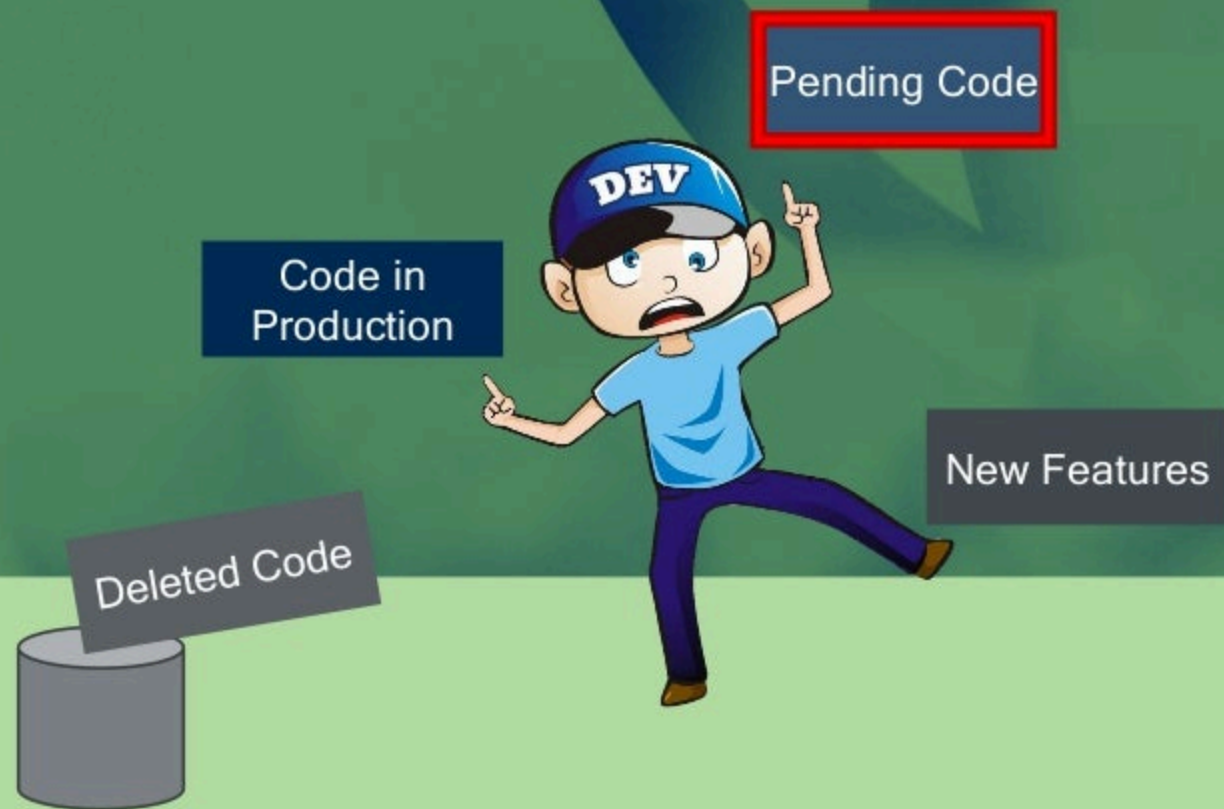
Durability

Capacity

Availability

Security





Affinity

Maintaining different state of code is very complex



The shift to Infrastructure as Code



```
Resources:
ElasticLoadBalancer:
  Type: AWS::ElasticLoadBalancing::LoadBalancer
  Properties:
    SecurityGroups:
      - !Ref LoadBalancerSecurityGroup
    Subnets:
      - !ImportValue: PublicSubnet1A
      - !ImportValue: PublicSubnet1B
    Listeners:
      LoadBalancerPort: 443
      InstancePort: 8080
      Protocol: HTTPS
      SSLCertificateId: !ImportValue CertificateId
    HealthCheck:
      Target: 'HTTP:80/'
      HealthyThreshold: 2
      UnhealthyThreshold: 3
      Interval: 20
      Timeout: 10
```

Cloud Security Team - Principles

Cloud Native Security



Gamifying Security



Share failures



Ubiquitous encryption



Get out from the cave



Don't just say "NO"





Here is how YOU can help...



Here is how YOU can help...



Anders Lundsgård

<https://devops.vision>
@anderslundsgard

we've got this.
tretton37

