



School Of Tech

Intro to DevOps

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Session 1

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Lead Cloud Infrastructure Engineer, International - Tombola

Ops -

Network administrator

Datacenter Engineer

Network manager

DevOp

SysOp

Dev -

Web Developer

PHP Developer

Teacher

KS3 & KS4

KS5 tutor

Startups

Research and Development

Founder

Interactive

Interact & be Social

...

#IntroToDevOps

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Class Background

About You

Background ?

Ops / Dev / Management / QA / Educator ?

Course Expectations

What I know, what I want to know



Introduction to DevOps

Session 1	-	Background on DevOps	1 Hour
		The need for DevOps	
Session 2	-	Methodologies and tools	1 Hour
Session 3	-	Version Control & Accountability	2 Hours
		Processes and Pipelines	
		Automating everything	
Session 4	-	Implementing in your workplace	1 Hour
		Q&A & Feedback	

Background on DevOps

Developer Operations

DevOps

What Is DevOps

*DevOps refers to the emerging professional movement that advocates a **collaborative working relationship** between IT operations and development teams which results in the **fast flow of planned work** (high deployment rates), whilst simultaneously **increasing the reliability, stability and resilience of the production environment.***

Collaborative Working Relationship

Many Cogs together

- DevOps Is a work ethos
- It is not about being a Full Stack Engineer
- Relationships mean interaction
- Working - adjective - doing - not passive

Fast Flow of Planned Work

Speed of deployment

- Development Cycles
- Iterations of software / product
- Testing process
- Quality Assurance process
- Deployment to production

Increase Reliability

- Known entities, Known Outcomes
- Repeatable configuration
- Tested infrastructure
- Feedback at all stages

Increase Stability

- Less reliance on ageing hardware
- Less recovery time from incidents
- Ability to live-switch
- Smaller changes, less risk

Increased Resilience

- Scale out / Scale up
- Mitigating incidents before they escalate
- Increased end-to-end awareness
- Documented processes
- Swappable modules

Why Should I care about DevOps?

Yes that's all good but why should my company worry about this latest "fad"

Crunching Numbers

66%

Adoption rate for DevOps in 2015 *

*Rightscale State of The Cloud Report 2016

740%

Adoption rate for DevOps in 2016 *

*Rightscale State of The Cloud Report 2016

810%

Of Enterprises are adopting DevOps approaches *

*Rightscale State of The Cloud Report 2016

70%

Of SMB's are adopting DevOp approaches *

*Rightscale State of The Cloud Report 2016

49%

Of surveyed companies in US, UK and Australia reported SIGNIFICANT cost savings through DevOps *

* WIRED, Ars & ca technologies report

970%

Of companies practicing DevOps see increased customer conversion, employee engagement and other measurable payoffs *

* WIRED, Ars & ca technologies report

The need for DevOps

~80%

Of all market leaders were first to market.*

* "All about Agile" - Kelly Waters

Separate Teams - The old-school way

Communication between teams requires a defined interface method

Boundaries of responsibility create no-man's land

Silos of information

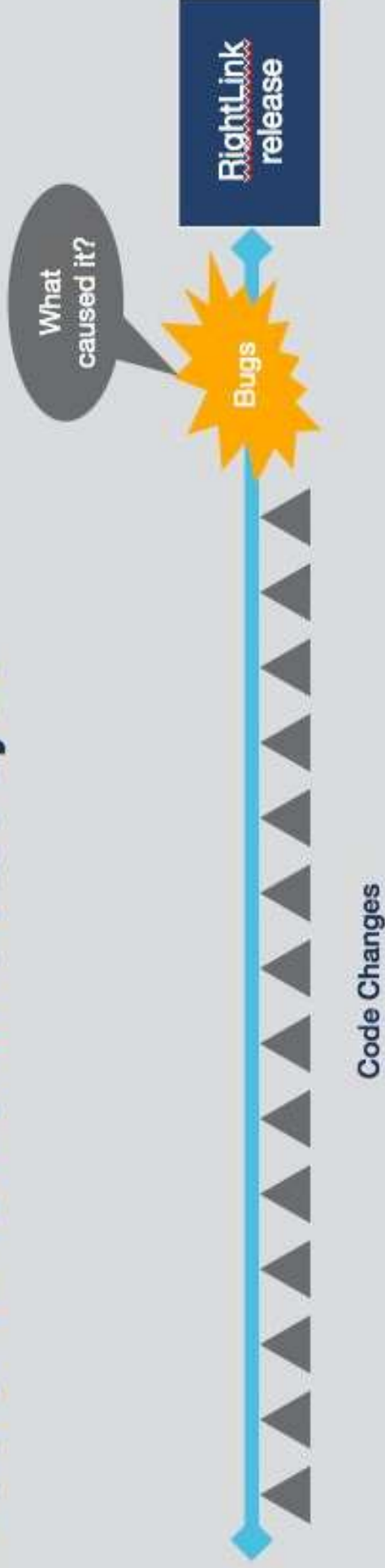
“It works on my machine” mentality

Manual processes for important, mundane and complicated tasks

Release cycles are company-halting events

Release Cycles used to be slow

Before: 12-18 month release cycle



Benefits of DevOps

DevOps - some of the benefits

- Increased communication between teams
- Visible accountability on processes
- Smaller, iterative changes to systems and processes
- Automated processes for monotonous tasks
- Less time fire-fighting day-to-day tasks, more time creating solutions
- Cost management and reduction
- Cope with more utilising your smaller teams

Benefits to your business

Team Strengths & Org Chart



Class Feedback

Strengths / Bottlenecks / Areas of Impact

DevOps Myths

DevOps is not...

- ... a tool or series of tools
- ... just for new-fangled web companies
- ... just for operations teams to learn to code
- ... just for cloud-based companies
- ... unable to be applied to ITIL companies
- ... limited to just operations or development teams
- ... one person or team doing ALL the work

Warnings

DevOps is not Penicillin

**DevOps is not a silver bullet to kill
business process issues**

DevOps is about culture change

Resistance always precedes change

Break