

# Agile + DevOps **EAST**

A TECHWELL EVENT

## **DW7**

DevOps Transformation

Wednesday, November 7th, 2018 2:45 PM

# Enterprise DevOps Is Not an Oxymoron

Presented by:

**Lee Eason**

lpreo  
,

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# Lee Eason

As the director of DevOps at Ipreo, Lee Eason is serious about high-performing teams. After getting a degree in history education, Lee decided to become a self-taught technologist, and over the past seventeen years he has been successful as a direct contributor, a development leader, and a change agent. He has worked in various technology industries, including marketing, education, health care, and finance. You can read Lee's articles on LinkedIn and follow him on Twitter @leejeason.



# To the victor, go the spoils

Tales from an Enterprise DevOps Transformation

Lee Eason

2018

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## *Goal:*

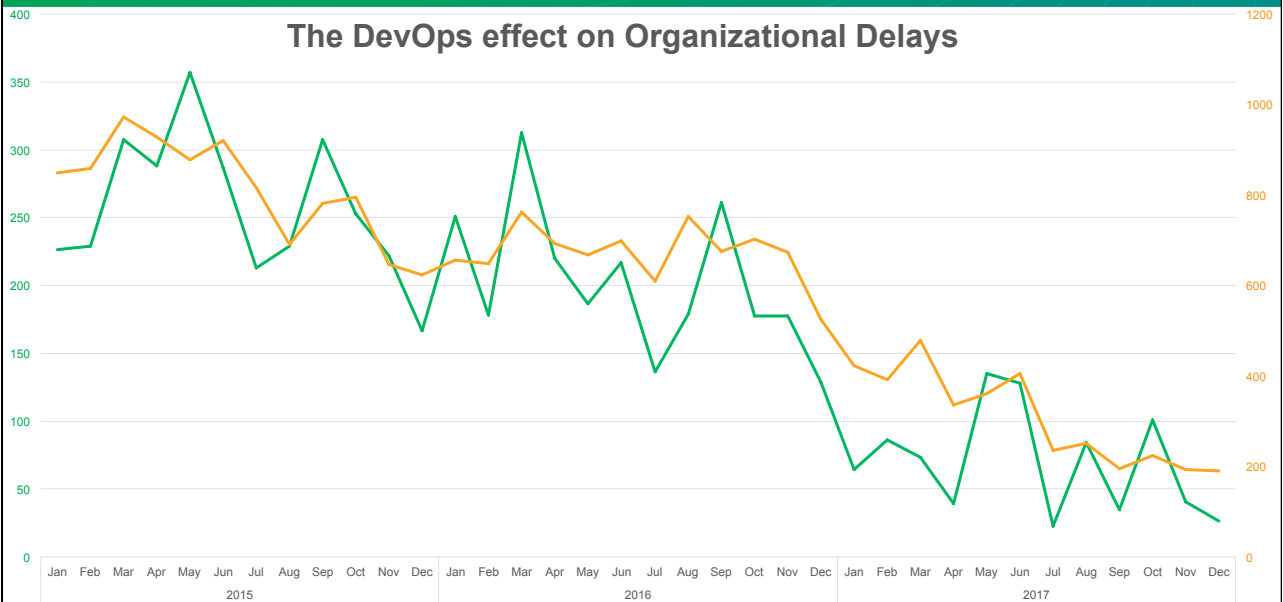
Gain an understanding of the common challenges we face in driving DevOps transformations in the Enterprise, and how to overcome them.

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“DevOps is a culture of continuous improvement applied to the code, build, deploy, and support processes.”

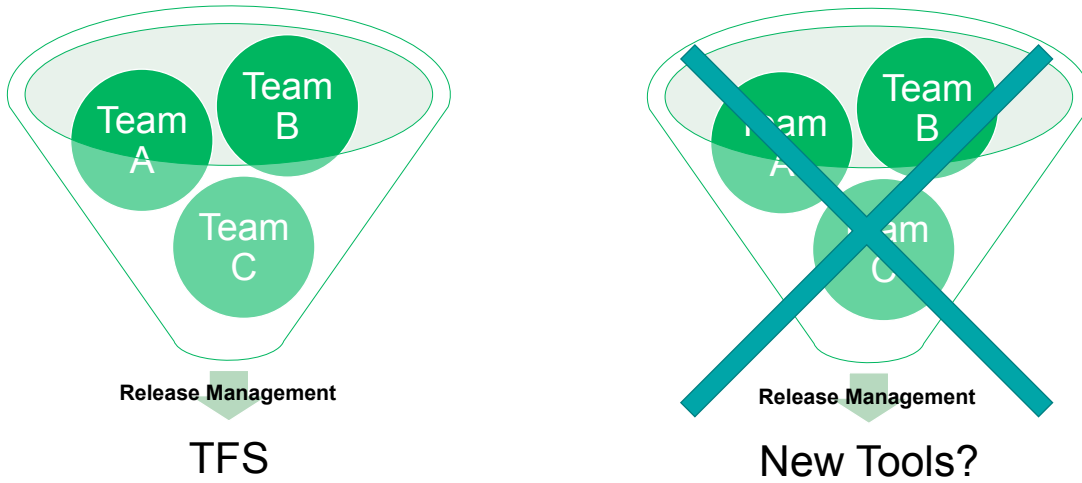
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The DevOps effect on Organizational Delays

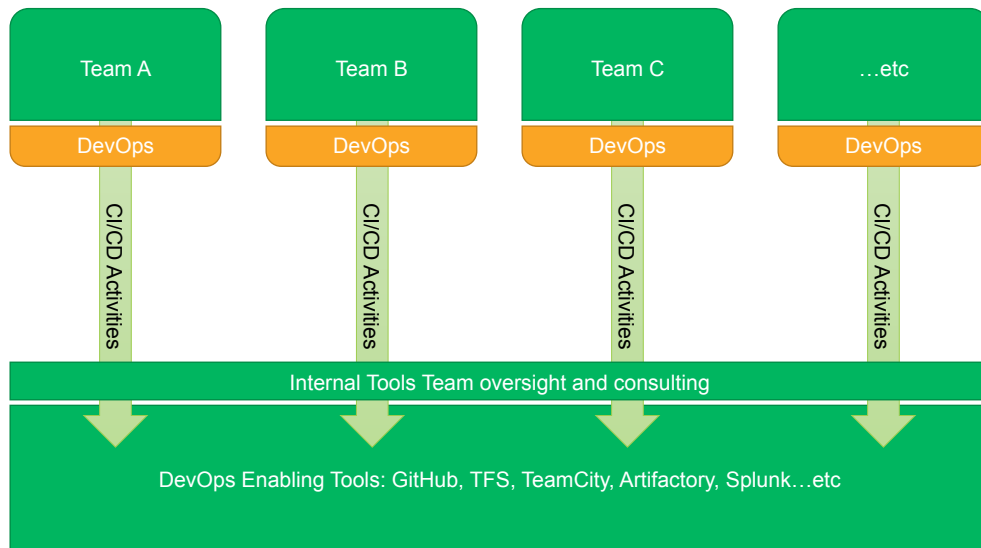


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### Better tools by themselves are not a model change



### The Internal Tools Team Model Change



### What's the value to Ipreo?

#### Reduce Delays

- o 900+ manual operations per month automated
- o 350+ days saved per month
- o Root cause 3x faster

#### Increase Speed

- o 900 manual requests translated to 9,000+ automated operations
- o Refactoring and updating legacy code faster (and at higher quality) than was possible before
- o Zero Downtime releases leads to production deploys every two weeks

#### Improve Quality

- o Sev 1/2 Defects down 24% YoY 2016-17
- o Reliable deployments
- o NPS improvements are higher in advanced DevOps teams

### What are the challenges?

Executives

Culture

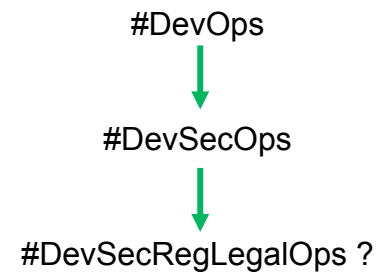
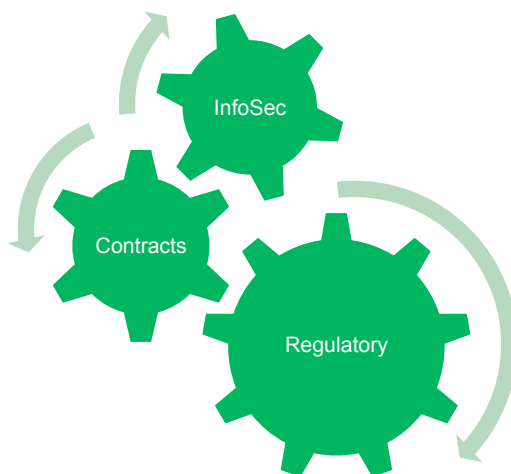
Team Health



## Executives need our help



## Challenge constraints, don't ignore them



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### Primary DevOps KPI's

<b>MTTD</b>	<ul style="list-style-type: none"> <li>•Mean Time To Detection: How long did it take for us to know our system or users were experiencing a problem?</li> <li>•Not tracked for bugs, just system events and performance issues</li> <li>•Captured as part of Incident Management</li> </ul>
<b>MTTR</b>	<ul style="list-style-type: none"> <li>•Mean Time To Resolution: How long from the time of detection to when a fix is in production and the problem is resolved?</li> <li>•Captured as part of Incident Management</li> </ul>
<b>Lead Time</b>	<ul style="list-style-type: none"> <li>•How long does it take to get finished code into production?</li> <li>•Measures our "unsold inventory." Lower is better.</li> <li>•Captured through Jira</li> </ul>
<b>Defect Escapes</b>	<ul style="list-style-type: none"> <li>•How many bugs make it into production grouped by severity per deploy</li> <li>•Captured through Jira</li> </ul>
<b>Deploy Size</b>	<ul style="list-style-type: none"> <li>•What is the changeset size in your deployment?</li> <li>•Smaller usually indicates less change, which is easier to validate and less risky.</li> <li>•Tracked through Jira and code repository integration.</li> </ul>
<b>Deploy Frequency</b>	<ul style="list-style-type: none"> <li>•How often are changes deployed to your environments?</li> <li>•More frequent releases indicates less friction in the deploy process.</li> <li>•Tracked through the pipeline automation tool.</li> </ul>

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## Culture = Values + Behavior

Altering behaviors by altering values...

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DevOps Values

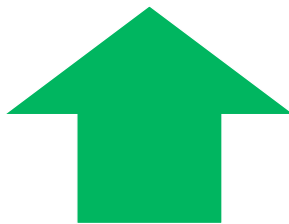


Efficiency



Cost Saving

DevOps Values

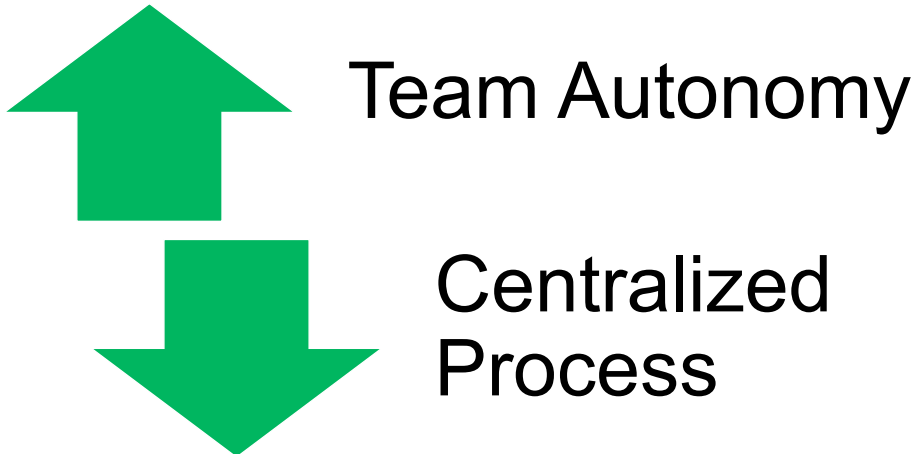


Quality



Speed

## DevOps Values



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## Limitations?

## Legal / Contracts

- Restrictions on accessing prod data
- Separation of Responsibility clauses

## Team Capability

- Hard skills
- Operational DNA

## Information Security

- Data classification

## Site Reliability Engineering

- Operational Reviews
- Chaos Engineering

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### Metrics reinforce values and therefore alter behavior



MTTR  
Lead Time  
LOC per Deploy  
Error Points

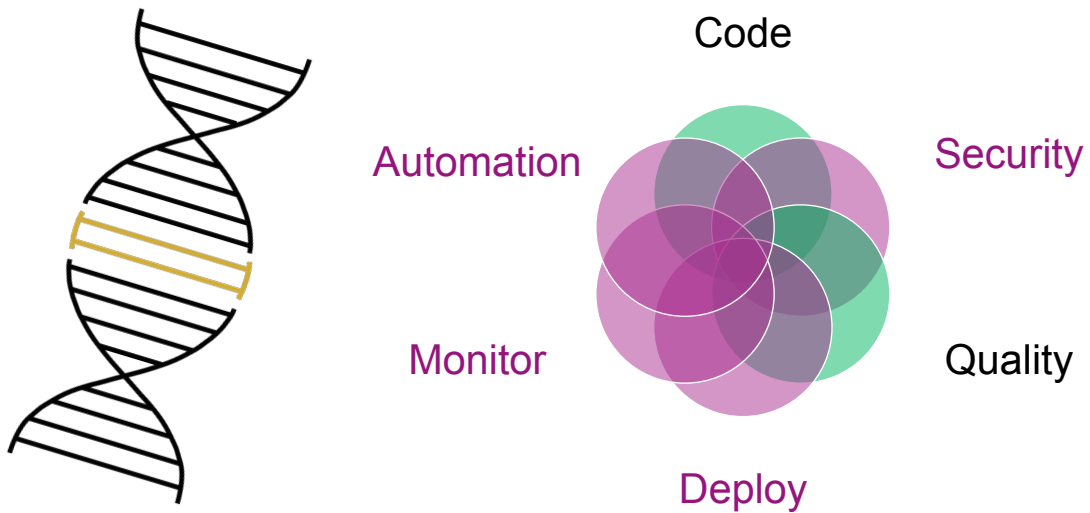
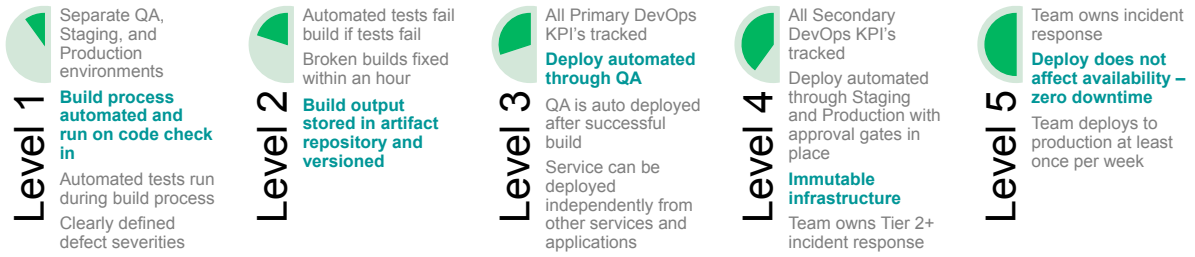


LOC/developer  
Hours per task  
Test coverage?  
# Stories Closed

### Keeping teams healthy

Transformation is the new normal

### Example DevOps Maturity Model



## Unhealthy teams cannot execute

### 9/10 people on teams with bad skill distributions

- Can't plan: "We can't estimate that till Bob..."
- Can't execute: "Bob is the only one..."
- **If you are irreplaceable, you are un-promotable**

### High performers want to learn

- 90% of millennials will stay for 10 years or more if learning
- 78% expect managers to help, only 37% do
- 22% of leavers cite lack of learning and progression

## Fill Gaps

### General

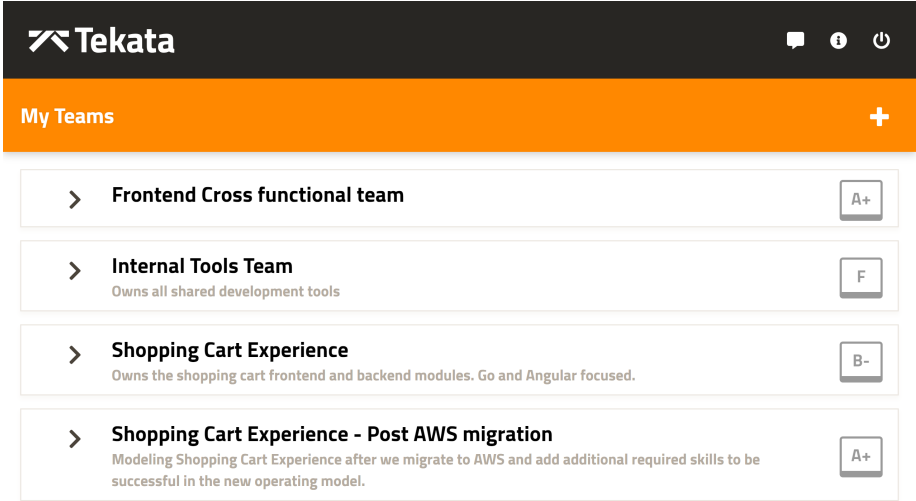
- Buy training
- Hire

### Domain

- Pair programming
- Code review
- Documentation

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## Use Tekata.io or something to support your process



The screenshot shows the Tekata.io interface. At the top, there's a dark header with the Tekata logo and navigation icons. Below that is an orange bar labeled "My Teams" with a plus sign. The main content area lists four teams, each with a chevron icon on the left and a performance rating in a box on the right:


- Frontend Cross functional team** (Rating: A+)
- Internal Tools Team** (Rating: F)  
Owns all shared development tools
- Shopping Cart Experience** (Rating: B-)  
Owns the shopping cart frontend and backend modules. Go and Angular focused.
- Shopping Cart Experience - Post AWS migration** (Rating: A+)  
Modeling Shopping Cart Experience after we migrate to AWS and add additional required skills to be successful in the new operating model.

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## Conclusion



The diagram consists of three colored boxes connected by arrows, representing a three-step process:

- Step 1 Teach Executives** (Grey box)
- Step 2 Evolve culture through values** (Teal box)
- Step 3 Build healthy teams: don't ignore skill gaps** (Green box)

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