

# ADDO<sup>®</sup>

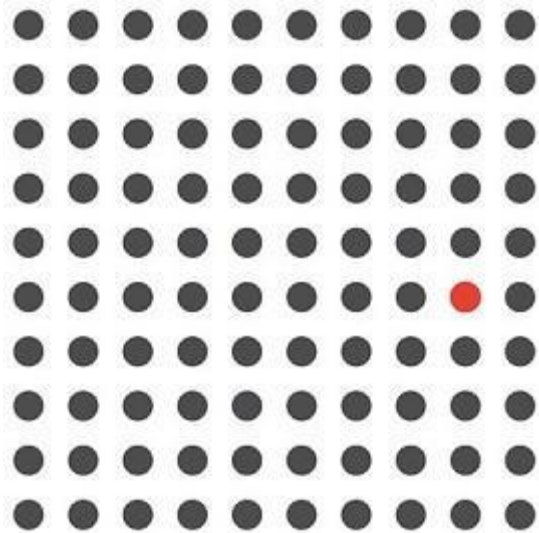
ALL DAY DEVOPS

NOVEMBER 6, 2019

Manuel Pais, Team Topologies

Beating the 1:100  
Odds with Team  
Design for Security



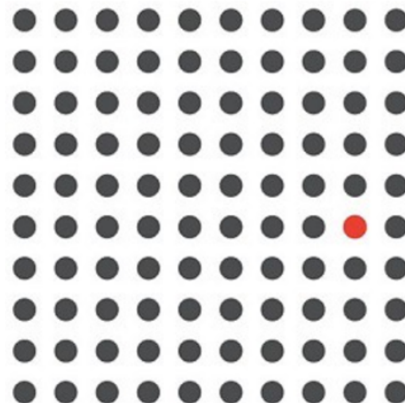


# 1 in 100: How to Design Teams to Bridge the Security Gap



Manuel Pais

Apr 16, 2018 · 8 min read



1 in 100

*What other team topologies and security strategies have you seen in your organizations or clients? Please comment below or email me at:*

*me at manuelypais dot net*

DevOps

Devsecops

Teamwork

Team Design

Team Topologies



322 claps

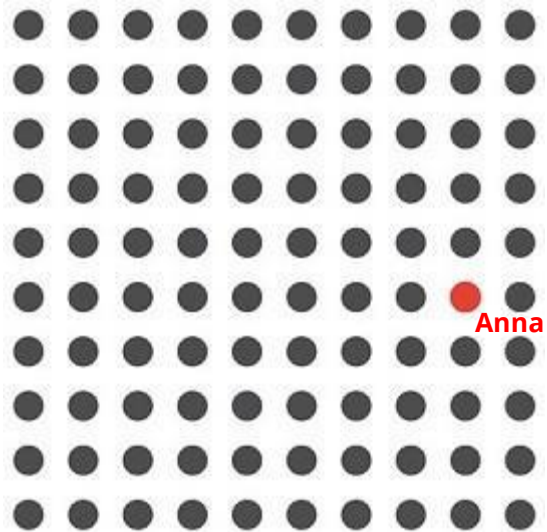
Applause from Matthew Skelton, Guy Podjarny, and 11 others

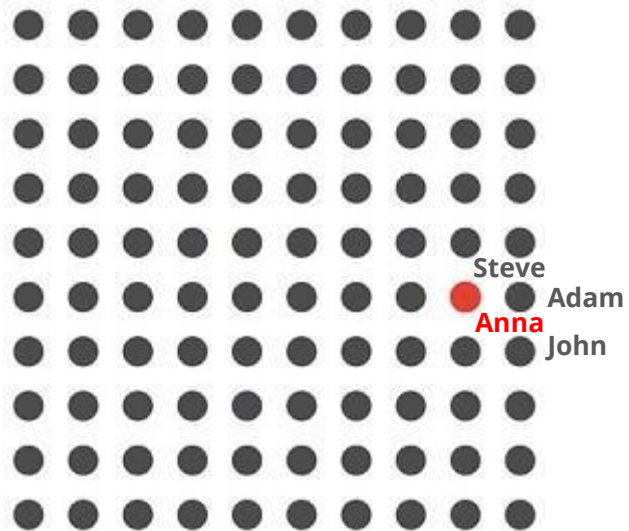


WRITTEN BY

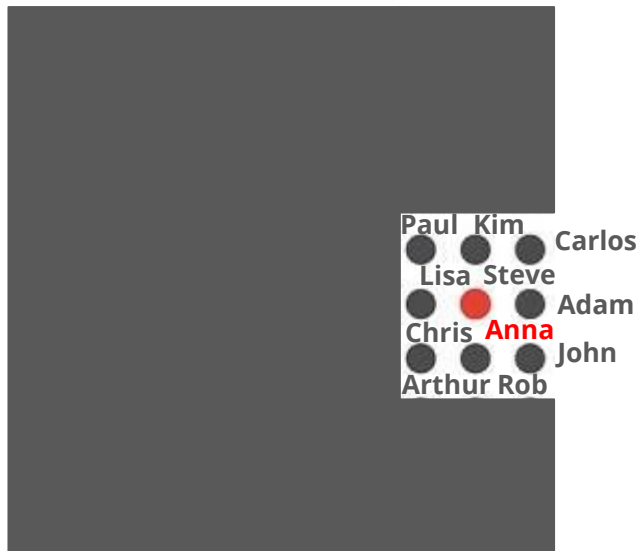
**Manuel Pais**

Independent Consultant. Co-author of "Team Topologies" book













**CYBER THREAT DATA**

ATTACKS RISK CLOUD MANAGEMENT ENTERPRISE MOBILE WORLD NETWORK APPLICATION MALWARE INTELLIGENCE INCIDENT SYSTEMS PASSWORDS MAKING SERVICES PROGRAM FRAMEWORK PRACTICAL SOLUTIONS VULNERABILITY GENERATION MODEL DEFENDING BEHAVIOR LESSONS IMPROVING TRUST STUDY DEVELOPMENT RESPONSE INFORMATION BUSINESS COMPANY DEVICE BASED APPS CASE INSIDER PREVENTING DIGITAL BIG INDUSTRY NEW TRANSFORMING INNOVATION EFFECTIVE LEVERAGING COMPROISED DEFENSE CONTROL FUTURE TESTING INFRASTRUCTURE ENGINEERING CRITICAL AWARENESS BREACH ANALYSIS ARCHITECTURE HACKERS ADVANCED ACCESS IMPLEMENTING COMMUNICATING STRATEGY MITIGATION OPERATIONS UNDERSTANDING SHARING ANALYTICS PRIVACY LEARNING ACCESS GOVERNMENT STANDARDS AUTHENTICATION BUILDING PROTECTING THINGS IDENTITY INTERNET AUTOMATION ENCRYPTION ENVIRONMENT USING HACKING TECHNOLOGY APPROACH DETECTION SOFTWARE COMPLIANCE MACHINE

Security team



Product team

Security team

```
graph TD; PT[Product team] --> SC[Secure code analysis]; PT --> VC[Vulnerability checking]; PT --> CP[Closed ports]; PT --> SM[Secrets management]; PT --> SA[Scan artifacts]; PT --> AA[Authentication & authorization];
```

The diagram illustrates the responsibilities of the Product team in a security workflow. A central yellow box labeled "Product team" is connected by arrows to six surrounding black boxes, each representing a specific security task: "Secure code analysis", "Vulnerability checking", "Closed ports", "Secrets management", "Scan artifacts", and "Authentication & authorization". The boxes are arranged in a circular pattern around the central team box, with arrows pointing from the team to each task.

**Product team**

- Secure code analysis
- Vulnerability checking
- Closed ports
- Secrets management
- Scan artifacts
- Authentication & authorization

## SCAN ARTIFACTS

## SECRETS MANAGEMENT

## AUTHENTICATION & AUTHORIZATION

# Product team



# Security team

## VULNERABILITY CHECKING

SECURE CODE ANALYSIS

SCAN ARTIFACTS

CLOSED PORTS

AUTHENTICATION &  
AUTHORIZATION

SECRETS MANAGEMENT

# OWASP TOP 10

Product team



Security team



**Patrick Debois @home**

@patrickdebois



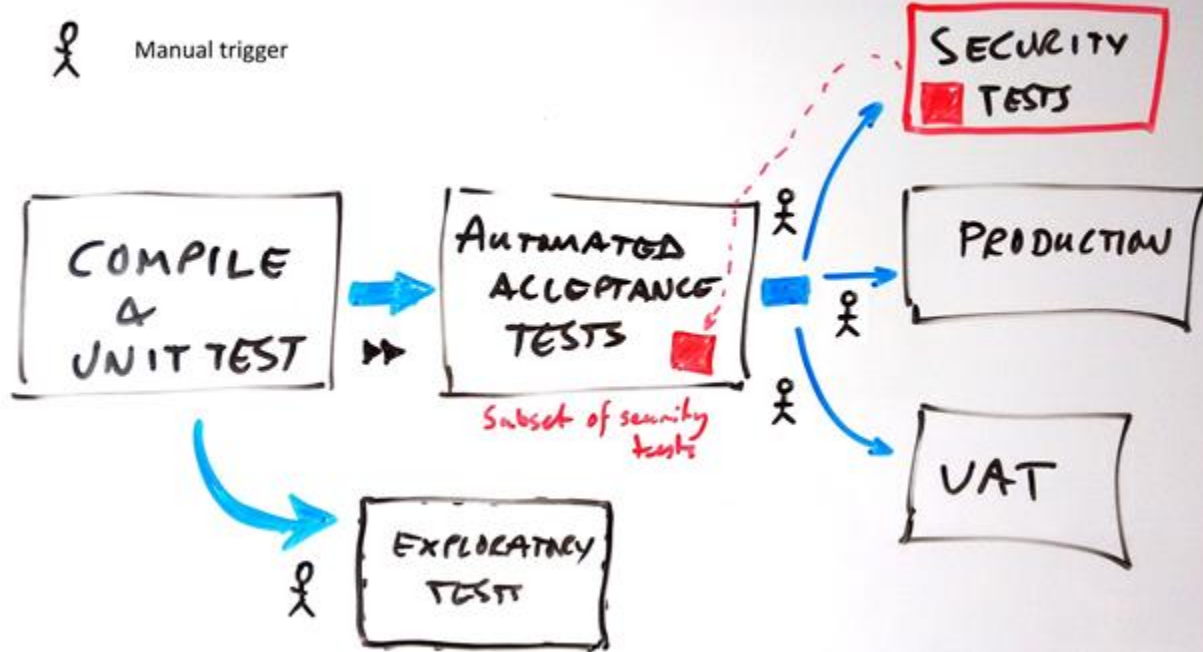
Honest question: besides adding the sec tools to the pipeline what are some great examples of [#devsecops](#) improving collaboration to improve things. Bonus if you experienced it yourself

11:52 PM · Oct 16, 2019 · [Twitter for iPhone](#)

➡➡ Automatic trigger



Manual trigger



# Securing a Continuous Delivery Pipeline

BY MATTHEW SKELTON & MANUEL PAIS

## QUICK VIEW

### 01

With a collaborative mindset, security officers, developers, and testers can come together and help each other with their respective gaps in knowledge and experience.

### 02

At an early stage it might be advisable to keep manual security controls in the delivery pipeline.

### 03

Tools and practices alone don't lead to more secure systems; we also need frequent and open communication, feedback, and empathy for other people.



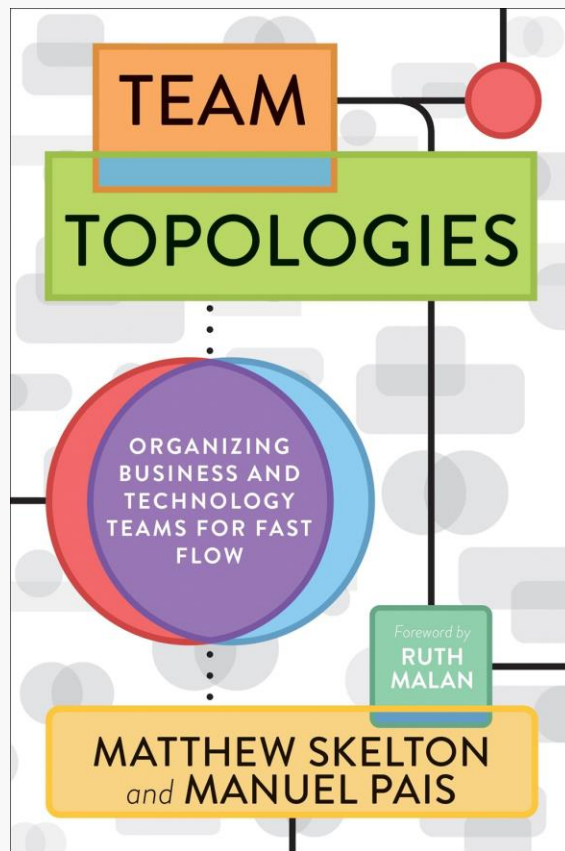
# Team Topologies

*Organizing business and technology teams for fast flow*

**Matthew Skelton & Manuel Pais**

IT Revolution Press (2019)

<https://teamtologies.com>

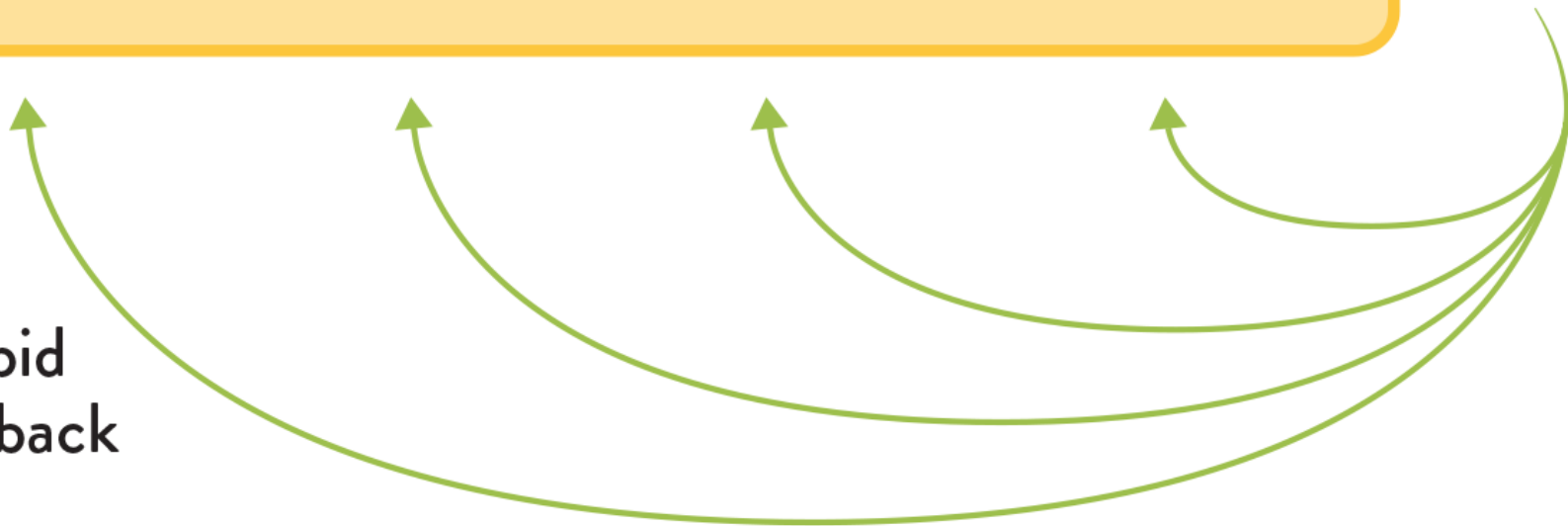




**Product Team**

**LIVE**

**Rapid  
Feedback**

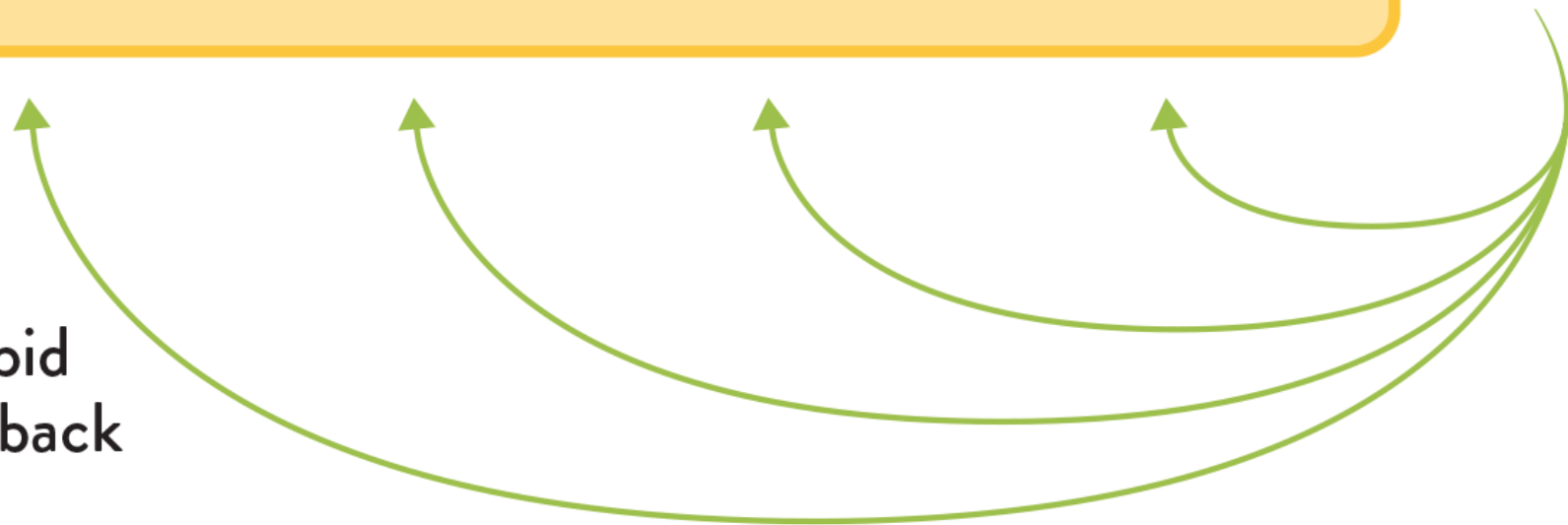




**Stream-Aligned Team**

**LIVE**

**Rapid  
Feedback**

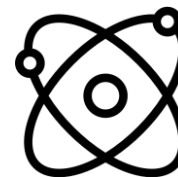




Stream-aligned  
team



Enabling team

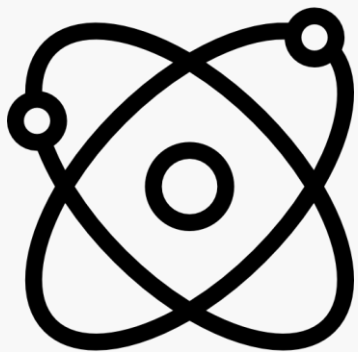


Platform team



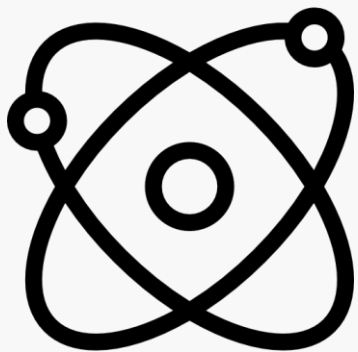


# Enabling Purpose



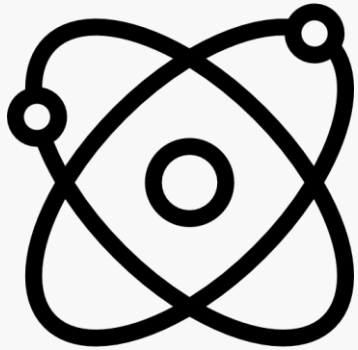
**orbit around stream-aligned  
teams**

# Enabling Purpose



team of **security** experts to  
detect and help bridge gaps

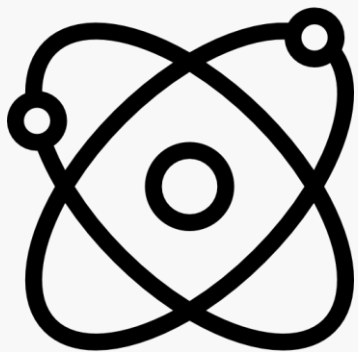
# Enabling Purpose



reduce dependencies on  
**security** experts by teaching  
rather than doing the work



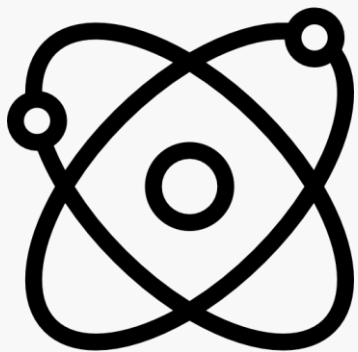
# Enabling Behaviors



**regular checkpoints  
with stream-aligned team**

**jointly agree when more  
collaboration is needed**

# Enabling Behaviors



stay on top of new **security**

- strategies
- practices
- tools
- frameworks
- threats / behaviors

# GAUNTLET

BE MEAN TO YOUR CODE AND LIKE IT

Scenario: Check standard web ports

When I launch an "nmap" attack with:

"""

```
nmap -F <hostname>
```

"""

Then the output should match /80.tcp\s+open/

Then the output should not match:

"""

```
25\/tcp\s+open
```

"""

**Scenario:** Passwords should be case sensitive

**Given** a new browser or client instance

**When** the default user logs in

**Then** the user is logged in

**When** the case of the password is changed

**And** the authentication tokens on the client are deleted

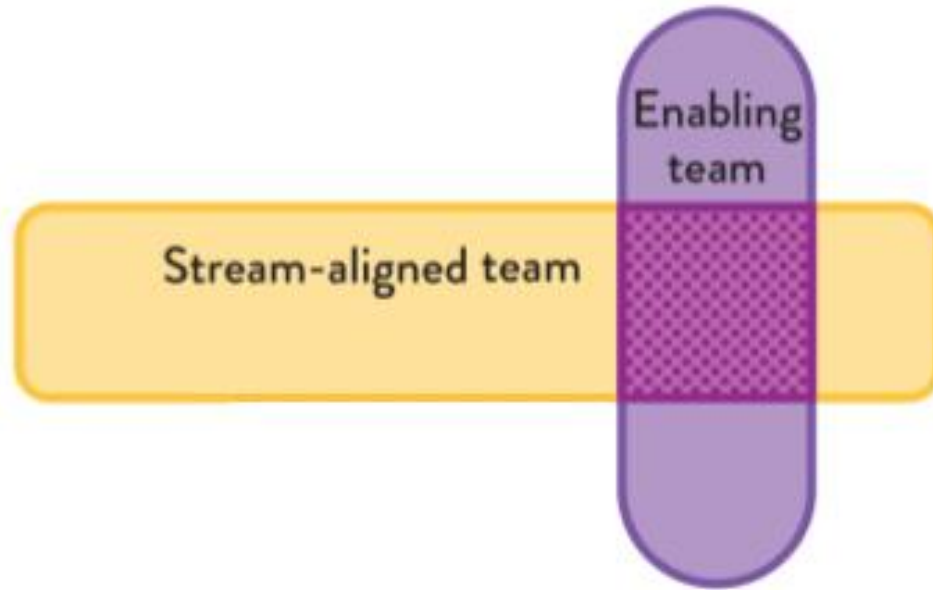
**And** the login page is displayed

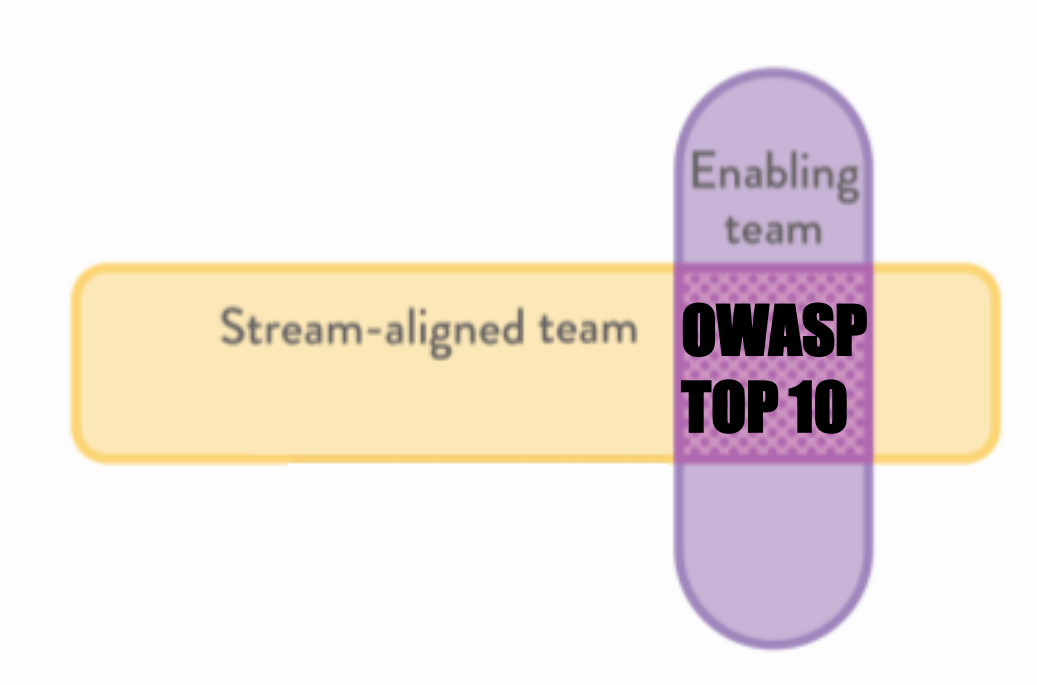
**And** the user logs in

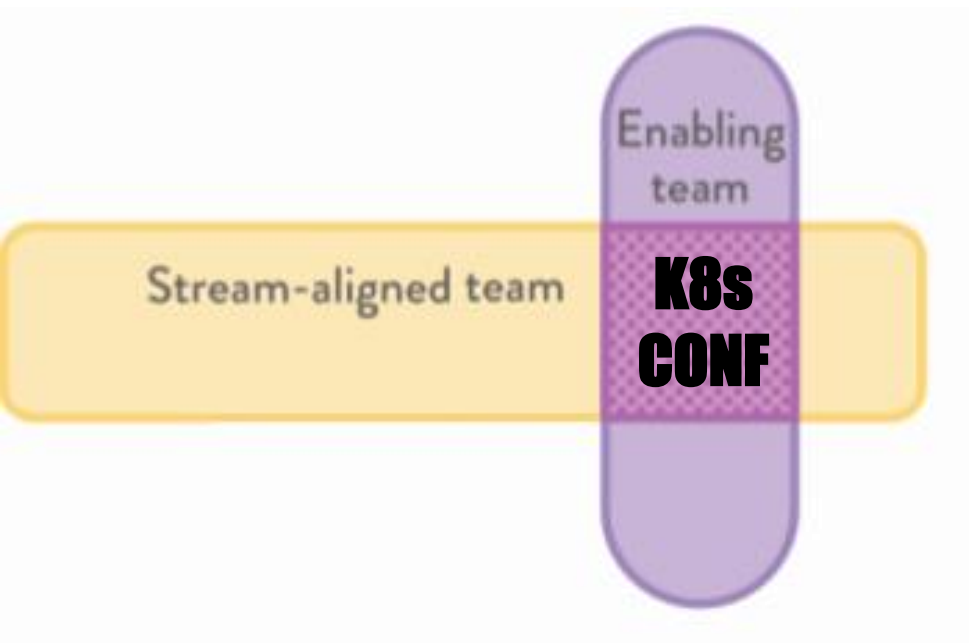
**Then** the user is not logged in

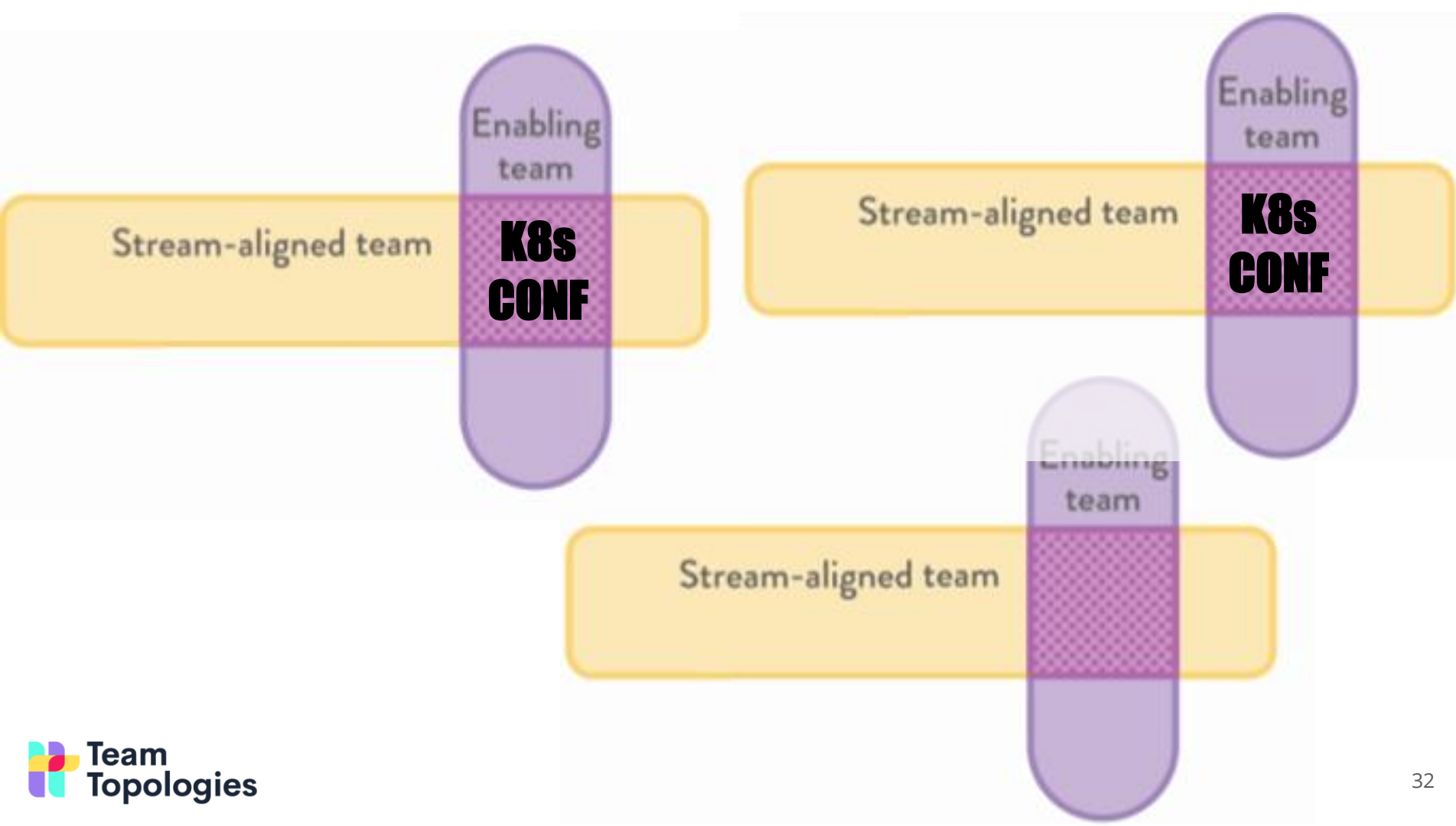


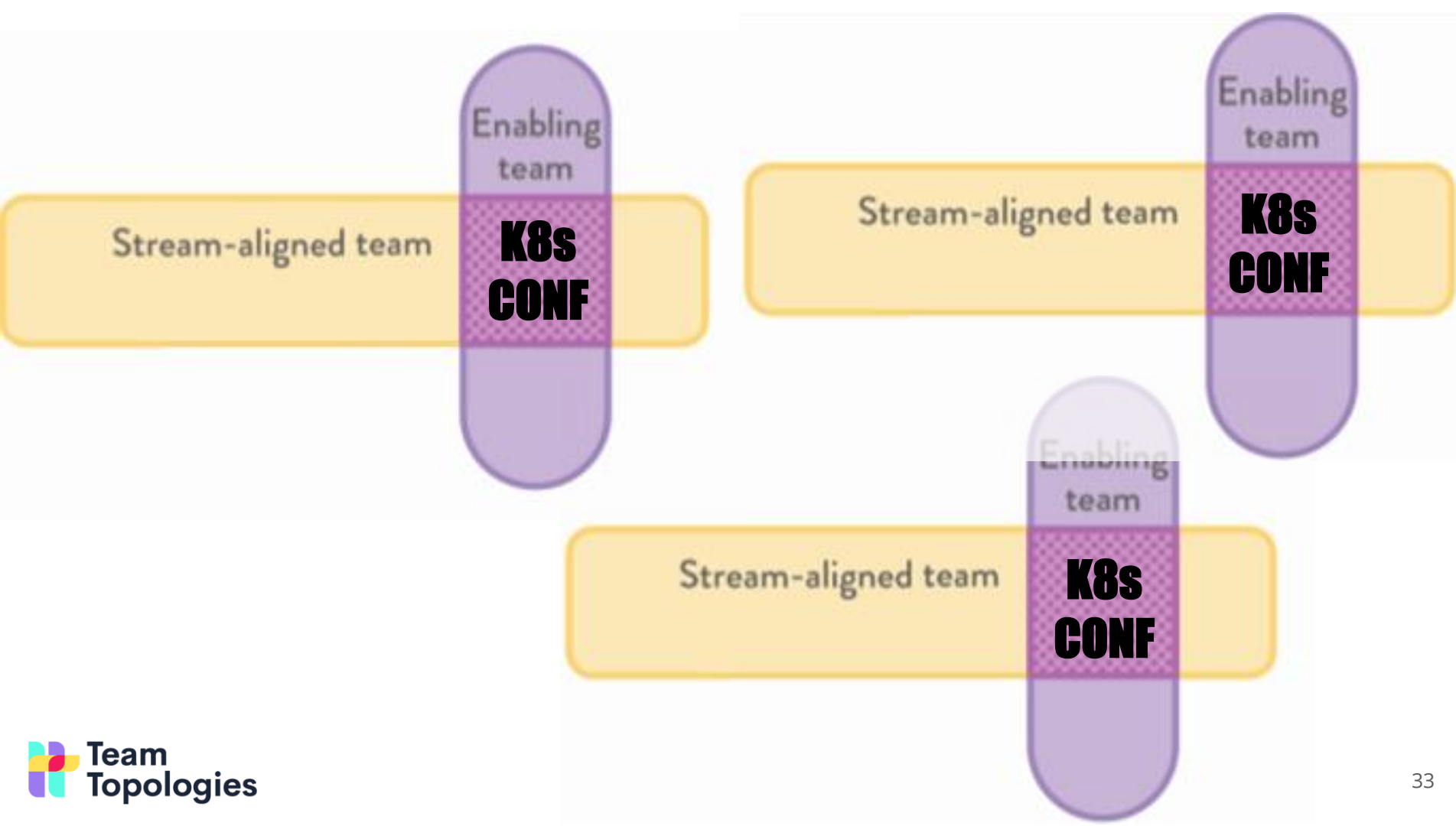
**BDD-security**







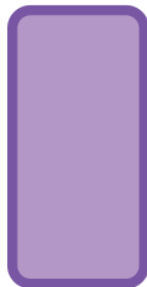




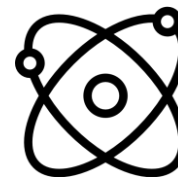




Stream-aligned  
team



Enabling team

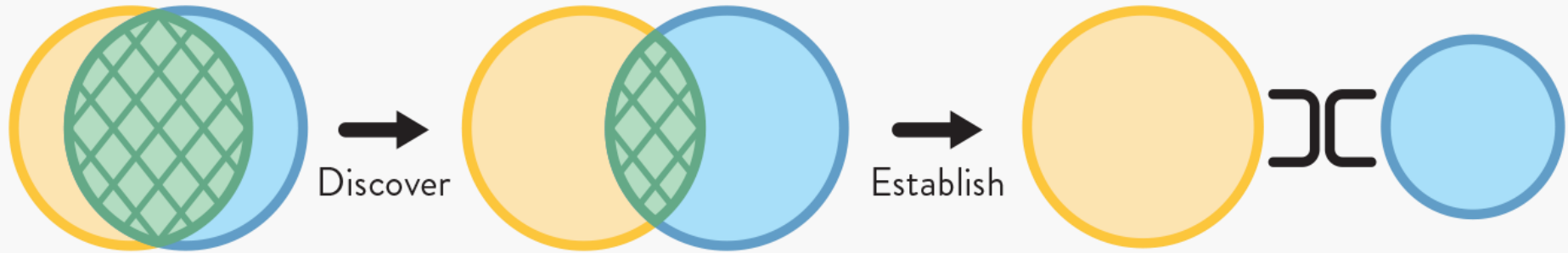


Platform team





***Discover useful patterns  
then push to platform  
(sensing for evolution)***



# How Dropbox Security builds tools for threat detection and incident response

Mayank Dhiman, Wilson Kong, and Colin O'Brien | October 16, 2019



34



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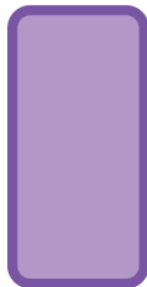
The Dropbox Detection and Response Team (DART) detects and mitigates information security threats to our employees, infrastructure, and customer data. DART ingests security-relevant logs for building detection, threat hunting and responding to potential incidents. Our log volume is huge, averaging tens of terabytes a day.

# The problem we're solving

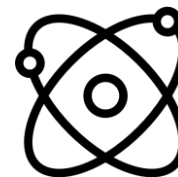
Apart from building detections to track suspicious behavior and triaging incidents, we also spend large chunks of our time triaging false positive alerts and building context around individual alerts. This was time not spent hunting for attackers. As a result, any way to automate or improve triage process efficiency was appealing.



Stream-aligned  
team



Enabling team



Platform team



<https://twitter.com/patrickdebois/status/1184587947607314433>



**Patrick Debois @home**

@patrickdebois



Honest question: besides adding the sec tools to the pipeline what are some great examples of [#devsecops](#) improving collaboration to improve things. Bonus if you experienced it yourself

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Security team



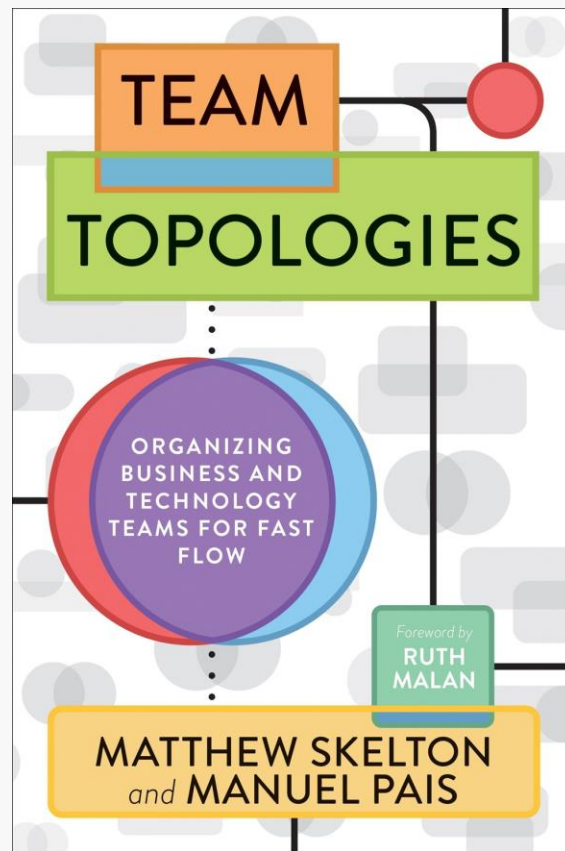
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# Training



1-day training

**Team Topologies**

**FUNDAMENTALS**

**Day 1**  
**Fundamentals**



1-day advanced training

**Team Topologies**

**DEEP DIVE**

**Day 2**  
**Deep Dive**



1-day advanced workshop

**Team Topologies**

**APPLYING IN CONTEXT**

**Day 3**  
**Applying in Context**

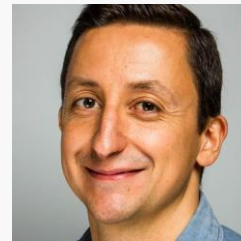
[teamtopologies.com/training](https://teamtopologies.com/training)

# Thank you!

## teamtologies.com



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**@matthewpskelton**



**Manuel Pais, Independent**  
**@manupaisable**



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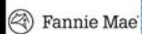


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