

# The State of DevOps

Capabilities for Building High-performing  
Technology Teams





[bit.ly/sodr-does](https://bit.ly/sodr-does)



# STORY TIME



**The story, all names, characters, and incidents portrayed in this production are fictitious. No identification with actual persons (living or deceased), places, buildings, and products is intended or should be inferred.**

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**No animals were harmed in the telling of this story**



log4j Shell tm



# Timelines



*Where were you when you heard about  
Log4Shell?*

*Where were you when you heard about  
Log4Shell?*



DEC  
10

- 9:00 - 10:00

Coffee Chats

- 4:00 - 5:00

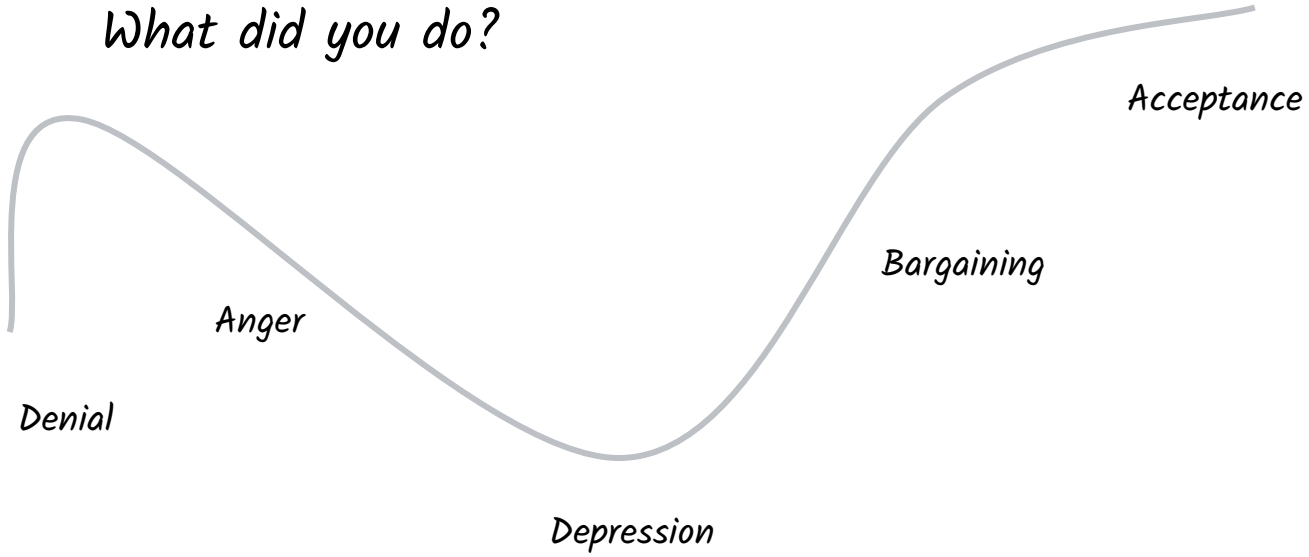
Holiday shopping

*What did you do?*

*CVE*



*What did you do?*



*Denial*

*Anger*

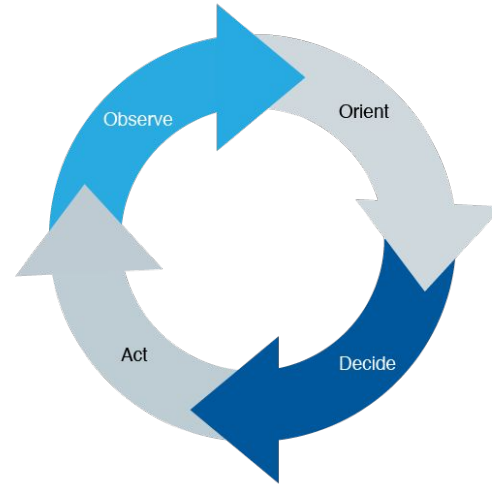
*Depression*

*Bargaining*

*Acceptance*

*Getting started..*

*400 systems*



*Getting started..*



# *E-commerce Website*

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- *Microservices*
- *27 repos*



→ *tightly coupled*



*Vendor Built - no longer engaged*



*little documentation*



# E-commerce Website

- Microservices
- 27 repos



→ tightly coupled

#nodeployfridays

❌ Vendor Built - no longer engaged

❌ little documentation

❌ CAB

12 Days

## Lead Time

1-2 Months

## Deployment Frequency

1-2x a year

## Change fail rate

50%ish

## TTR

???

## Reliability

Usually reliable

*Did you burnout?*



## *Order Management System:*

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- *Active development*
- *Team has been focused on improving*
- *Loosely coupled components*



*Automated testing*



*Automated builds*

# Order Management System:

- Active development
- Team has been focused on improving
- Loosely coupled components
- Prioritizing fixing broken builds 😊



Automated testing



Automated builds



CAB



## Lead Time

1 week

## Deployment Frequency

weekly

## Change fail rate

15%

## TTR

Less than a day

## Reliability

Usually reliable



“How do we help the website team have the Order Management System team experience in the future?”









DESIGNATED OUTDOOR REFRESHMENT AREA



DESIGNATED OUTDOOR REFRESHMENT AREA

*Bucyrus, Ohio*



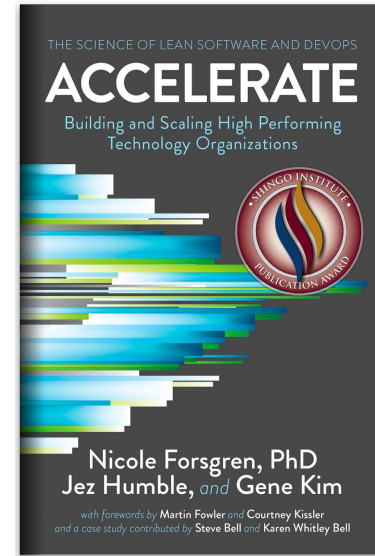
DESIGNATED OUTDOOR REFRESHMENT AREA

MINERVA, OHIO



DESIGNATED | OUTDOOR | REFRESHMENT | AREA

WOOSTER • OHIO





## Capabilities

### Technical

- Trunk-based development
- Cloud infrastructure
- Shifting left on security
- ...

### Process

- Work in small batches
- Streamlined change approval
- Visibility of work in value stream
- ...

### Cultural

- Generative, trust-based
- Learning culture
- Transformational leadership
- ...

Predict

## Software Delivery and Operations Performance

Predict

## Commercial Outcomes

(e.g. market share, profitability, employee retention)

 As measured by

- **Throughput**
  - lead time for changes
  - deployment frequency
- **Stability**
  - time to restore service
  - change failure rate
- **Reliability**



# Context Matters

There is no well-paved, one-size-fits-all roadmap to follow

Delivery performance **drives** organizational performance only when operational performance is **also** high

Teams must **mature reliability practices** to meet reliability targets which then impact organizational performance

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# Reliability practices

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Regular reliability **reviews**

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Well defined **reliability targets**

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Reduce **toil**

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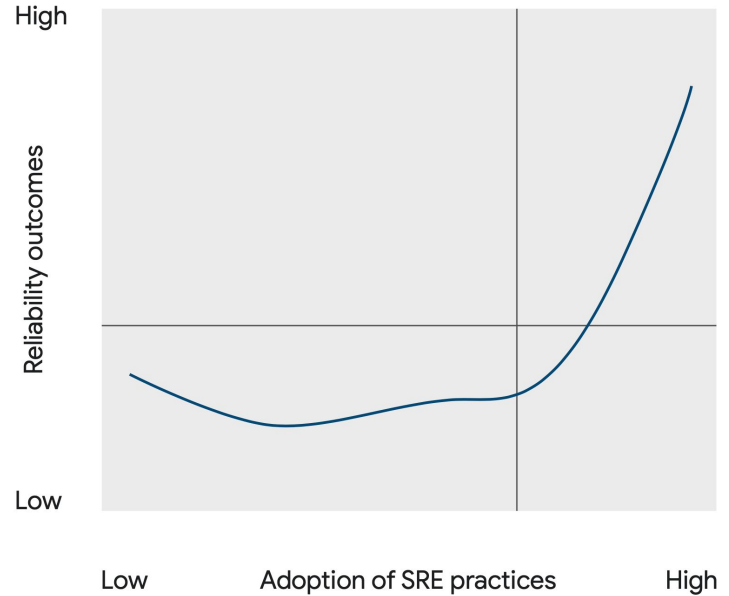
**Re-prioritize** work when  
reliability targets are missed

# Reliability

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Investment yields improvements to reliability, but only once a **threshold of adoption** has been reached

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# Context Matters

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Delivery performance **drives** organizational performance only when operational performance is **also** high

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Technical capabilities **build on one another**







# Technical Capabilities

Drivers of organizational performance

Version control

Continuous Delivery

Continuous Integration

Loosely-coupled architecture

**3.8x higher organizational performance**



# Context Matters

There is no well-paved, one-size-fits-all roadmap to follow

Delivery performance **drives** organizational performance only when operational performance is **also** high

Teams must **mature reliability practices** to meet reliability targets which then impact organizational performance

Technical capabilities **build on one another**

**Security controls** have a positive effect when continuous integration is in place

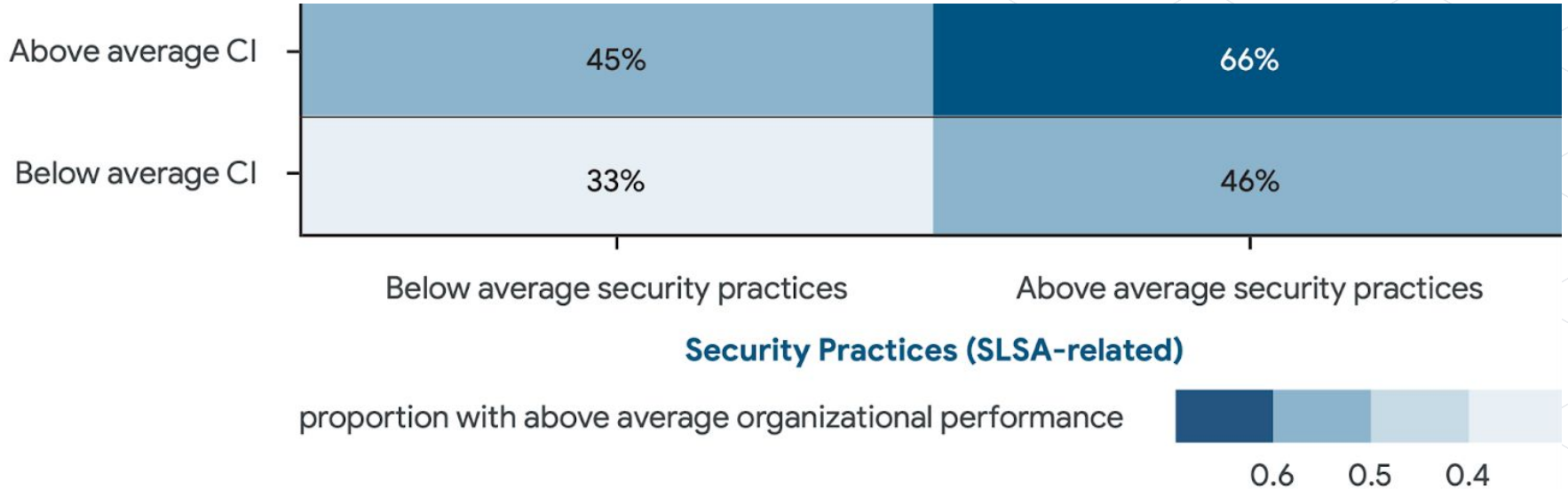
# Security

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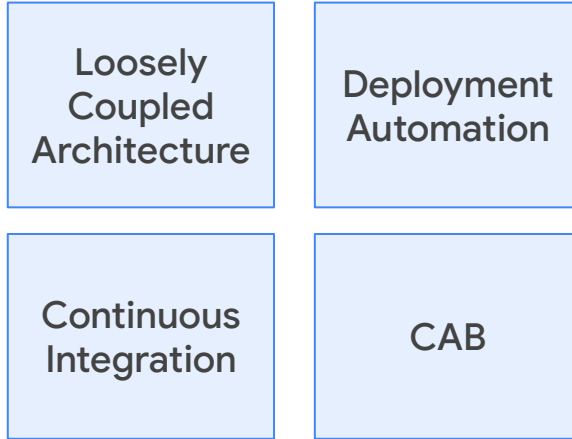
**Incorporating security processes into existing workflows help reduce security risks and increase developer joy**

- 01 Adoption has already begun
- 02 Healthier cultures have a head start
- 03 It provides unexpected benefits
- 04 There's a key integration point

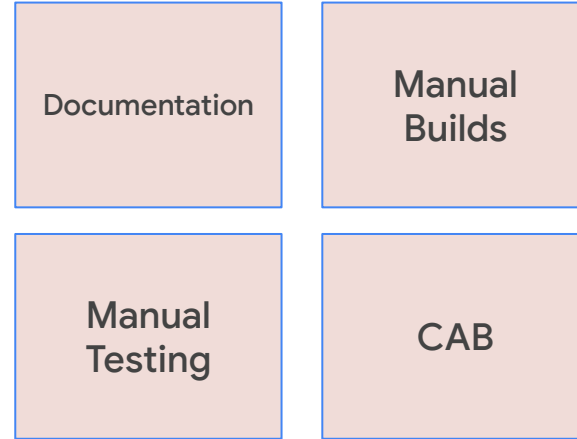
# Continuous Integration & Security Practices

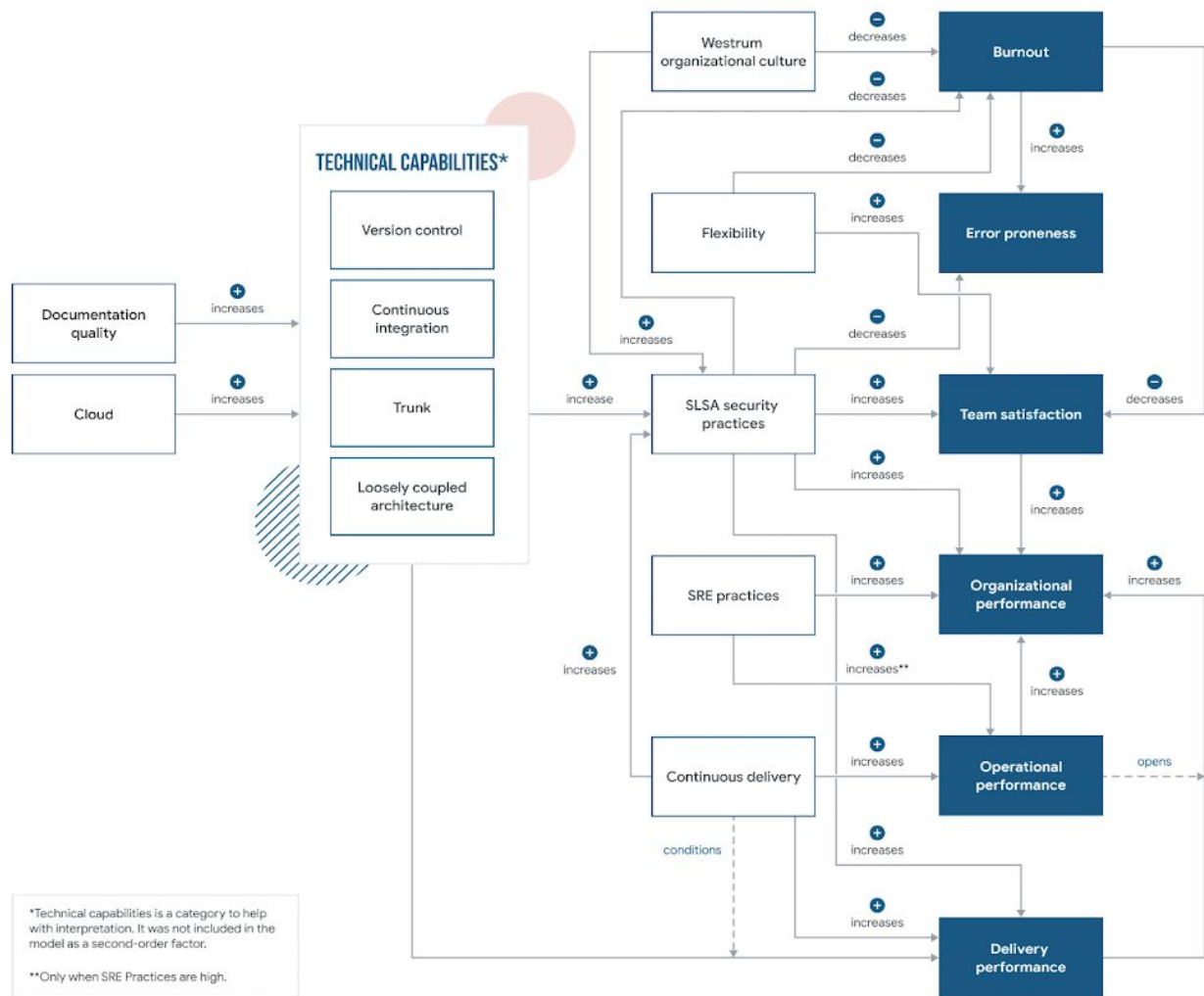


## OMS team



## Website team





Nathen Harvey  
Developer Advocate  
@nathenharvey



Amanda Lewis  
Developer Advocate  
@swansama



# How can you help?



**Upcoming  
Community Discussions:**

October 26th 9am EDT

November 2nd 4pm EDT

**Share, listen, and collaborate**

**Join the [DORA.community](https://dora.community)**



# Thank you.



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