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# DevSecOps

IT modernization through DevSecOps

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# Tyler Johnson

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## Federal Solutions Architect CloudBees

Tyler is a Solutions Architect at CloudBees focusing on the needs of Federal sector agencies. With a professional services background Tyler works closely with prospects to drive business value through technical solutions. He specializes in helping organizations move toward DevSecOps while establishing structured governance and standardization that large enterprises demand.

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# Software delivery organizations encounter risk and inefficiency from disconnected groups, teams, and tools

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*Disconnected development and operations frequently breeds conflict and **inefficiency**, exacerbated by competing motivations and processes. - Wired*



**Lack of integrated, end-to-end development, delivery and release**

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*84% of respondents say inaccessibility of information gets in the way of their ability to do their jobs and/or make data-driven decisions. Respondents attributed this to **organizational and functional silos**. - ASG 2020 State of Software Delivery*



**Lack of end-to-end visibility into the SDLC**

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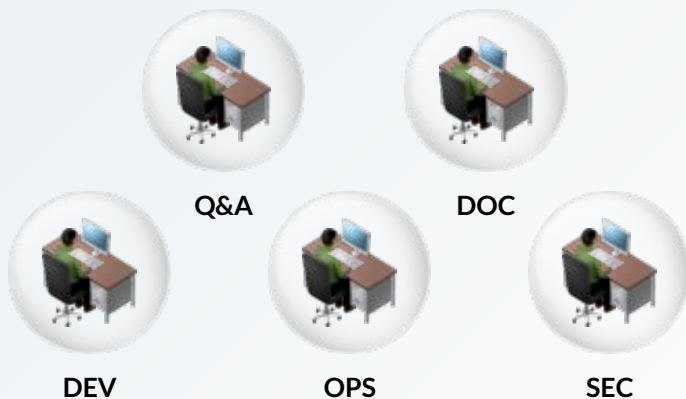
*59% of organizations **cannot keep an audit trail** of who changed what and when - DevSecOps 2019*



**Lack of traceability and governance**

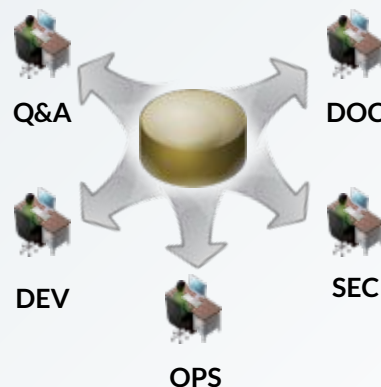
# Connect Fragmented Software Delivery Lifecycle across Groups, Teams and Tools

## Software Delivery in Silos



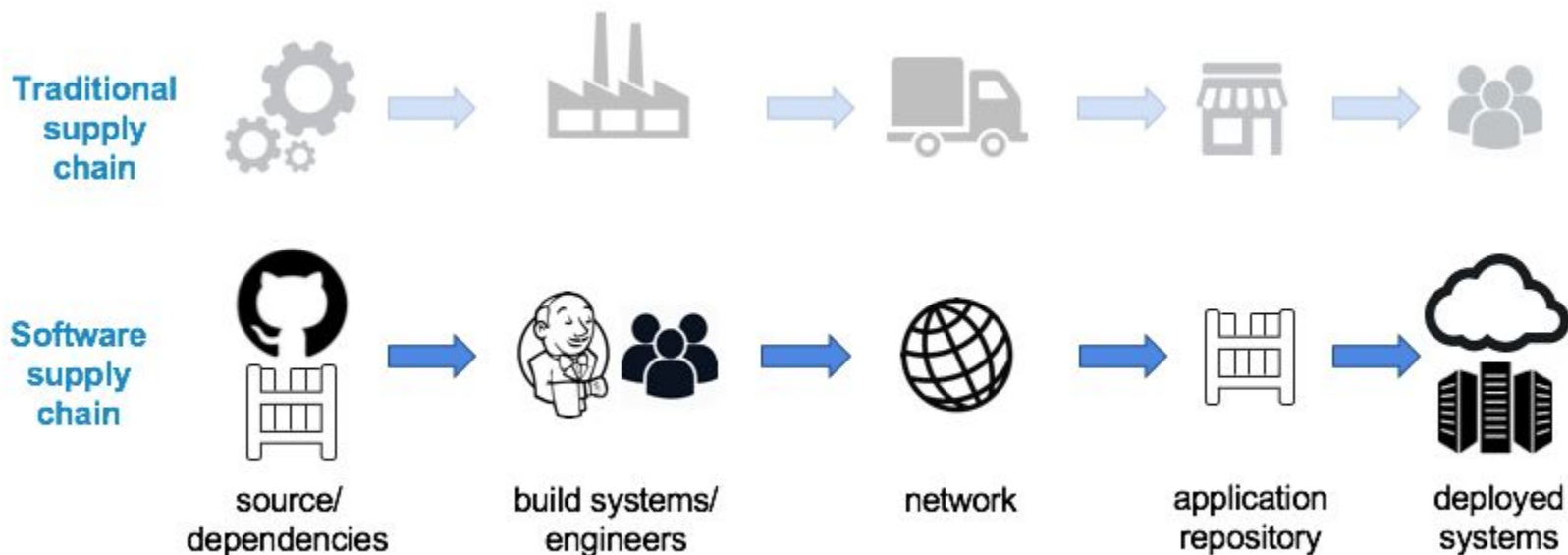
- ❑ Each function uses disconnected point tools, processes and data.
- ❑ Inconsistencies across groups and teams creates friction and slows pace
- ❑ Errors, rework and redundancies escalate cost and audit risk

## CloudBees Software Delivery Automation



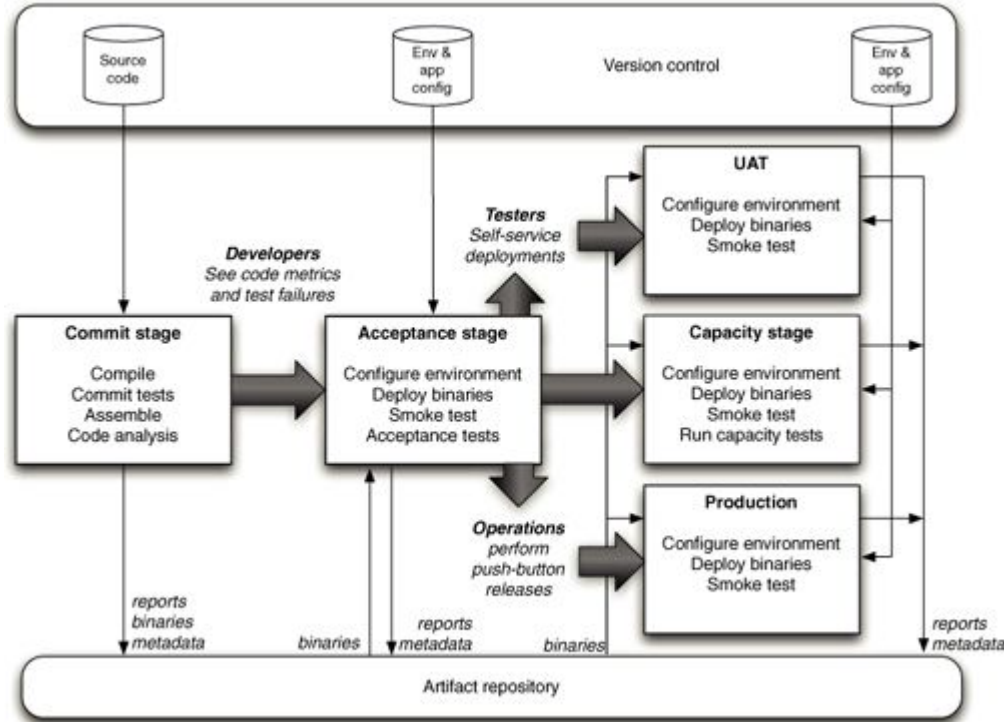
- ❑ Formal enterprise scale connected CI/CD platform architecture provides governance and reuse.
- ❑ Entities process and assets readily available across CI/CD
- ❑ Shared orchestration across all groups, teams and tools provides full visibility across the SDLC

# What is the Software Supply Chain?

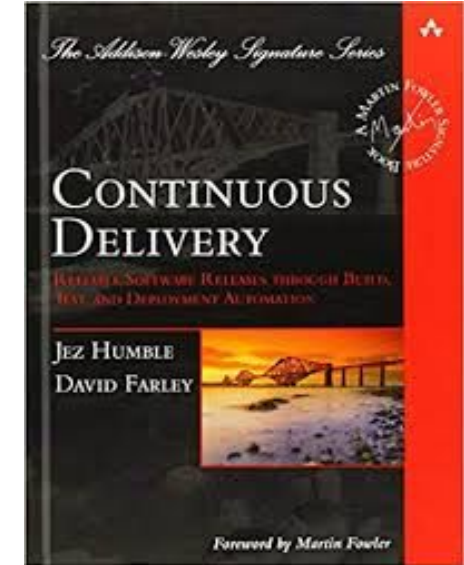


Increasing confidence in build's production readiness

Environments become more production like



Faster feedback



Basic Deployment Pipeline

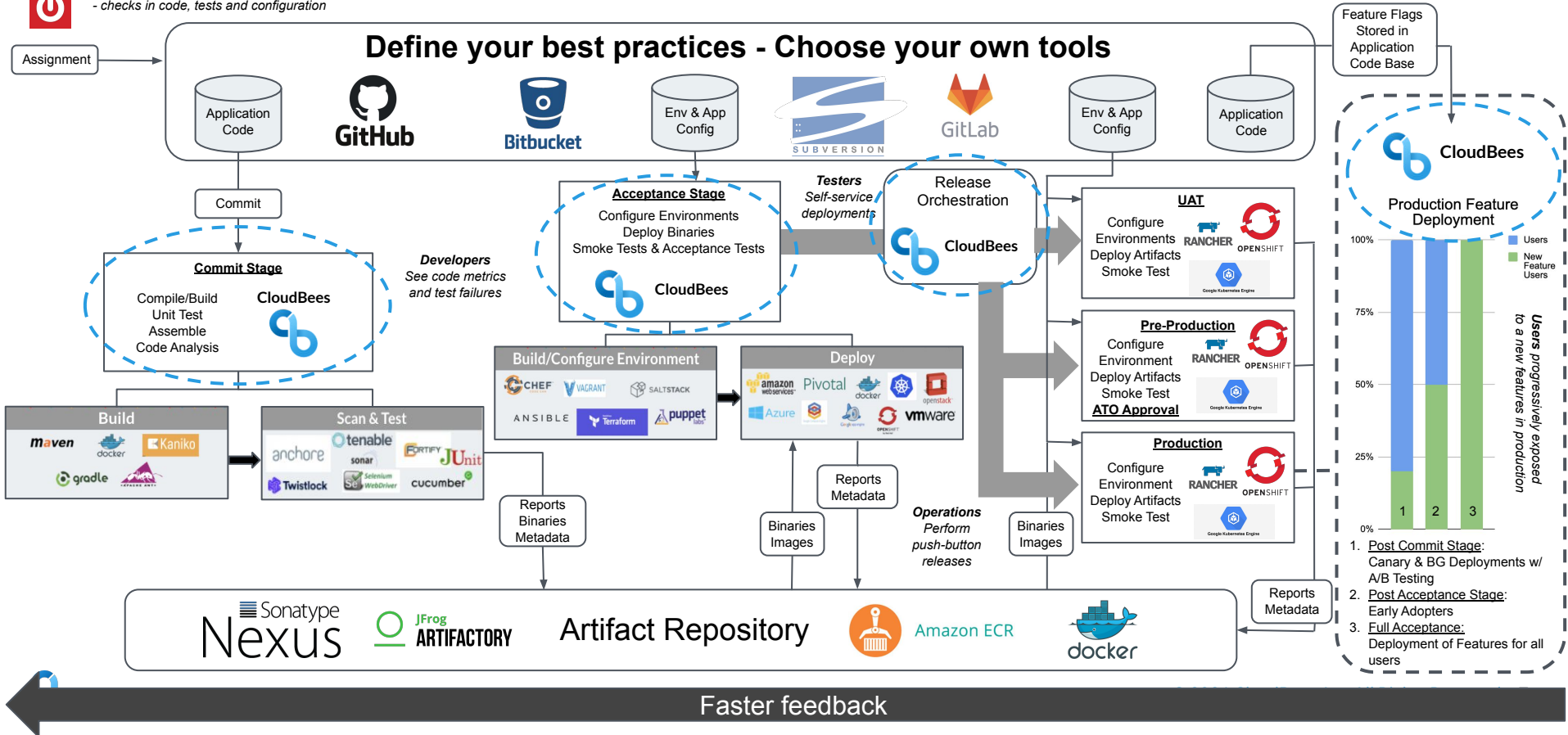


**Developer:**

- based on user story(s) assigned, new request to IT catalog
- get request approval and artifacts
- updates code and tests locally
- checks in code, tests and configuration

**Product Owners**

Determine release approach



# Modern SW delivery drives mission objectives

## Increase Innovation



### Drive Innovation Quickly

*Enhance software development and delivery to increase speed, time to value, and getting capabilities into end users' hands.*

## Reduce Risk



### Reduce Risk by Ensuring Adherence to Internal and External Policies

*Ensure a secure, compliant process and environment that produces safe, reliable outputs.*

## Increase Efficiency & Reduce Cost



### Optimize Software Development and Delivery Function

*Eliminate wasted effort to free up staff to focus on mission-critical activities.*





# Who is DORA?



DORA's research provides insight into software development and DevOps practices applied in industry, backed by scientific studies spanning six years with over 31,000 survey responses from working professionals. DORA releases the "State of DevOps" report yearly summarizing their findings and setting the bar for DevOps performance.

- Accelerate State of DevOps Report, 2019



# Top Performers

## ELITE PERFORMERS

Comparing the elite group against the low performers, we find that elite performers have...



**208**  
TIMES MORE  
frequent code deployments

**106**  
TIMES FASTER  
lead time from  
commit to deploy



**2,604**  
TIMES FASTER  
time to recover from incidents

**7**  
TIMES LOWER  
change failure rate  
(changes are  $\frac{1}{7}$  as likely to fail)



Throughput Stability

