The ABCs of VSM

CloudBees.

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DevOpsInstitute
Government SKILupday
9 September 2021

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Software Value Stream

Steps used by an organization to continuously deliver value to stakeholders

Value Stream Mapping

Value Stream Management

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Software Value Stream

Value Stream Mapping

Value Stream Management

Visualize and measure flow, performance, constraints, quality

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Software Value Stream

Value Stream Mapping

Value Stream Management

Track and improve
“software factory” performance
(The flow of value from
ideation to delivery)

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Today’s Landscape

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Delivering fast and securely is nearly impossible with disconnected groups and tools….

….which harms the mission

Slow

Difficult to continually deliver business impact.

Expensive

Low confidence in on-time and on-budget delivery, due to low visibility and ever evolving technologies.

Fragile

Risk of security breaches, regulatory violations, production failures and failed audits due to siloed tools and processes.

Value Must Flow From Software Delivery

Doing it well requires:

Solving the **disconnection problem**

Making sense of software releases in a **consistent**, **reliable** and **repeatable** way

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DEVOPS WORLD by CloudBees

Organizers of **DevOps World**

28-30 September 2021

The Company Behind Jenkins

FORTUNE 500 2018

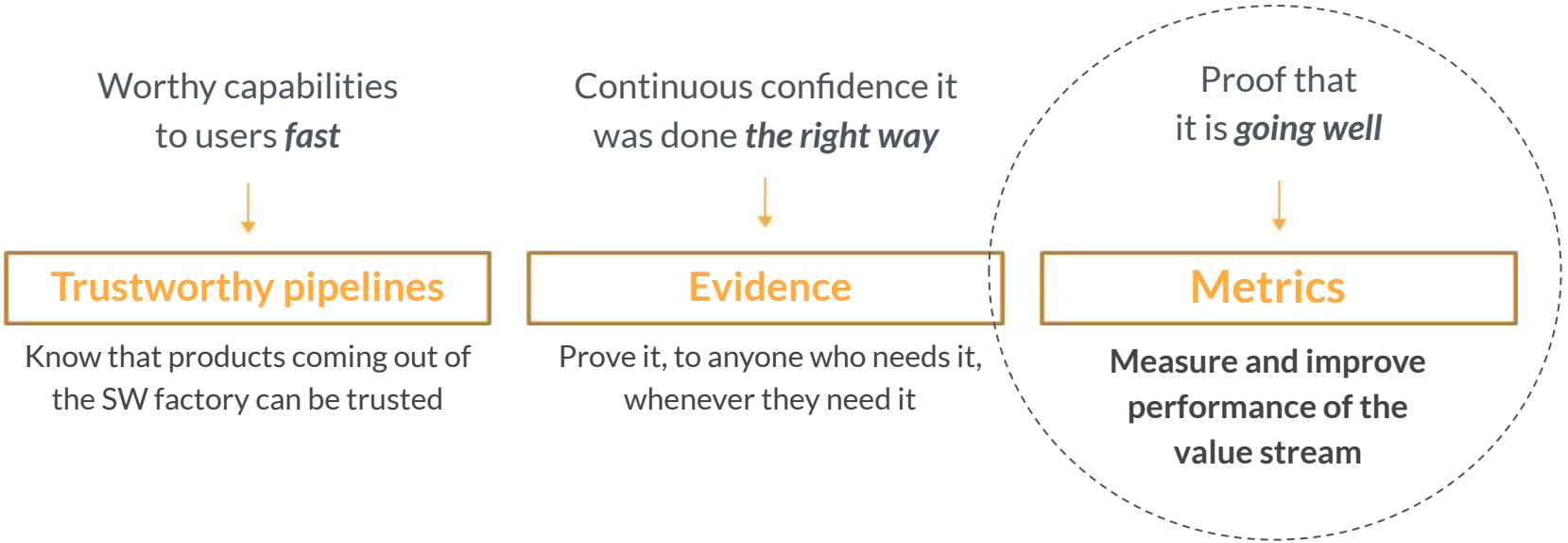
FORTUNE 100 50%

42% Global 50

CloudBees Tech

DevSecOps orchestration to connect tools into high-functioning delivery pipelines

Why It Matters



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CloudBees Platform: Software Delivery Automation (SDA)

Ingredients for Modern Software Delivery

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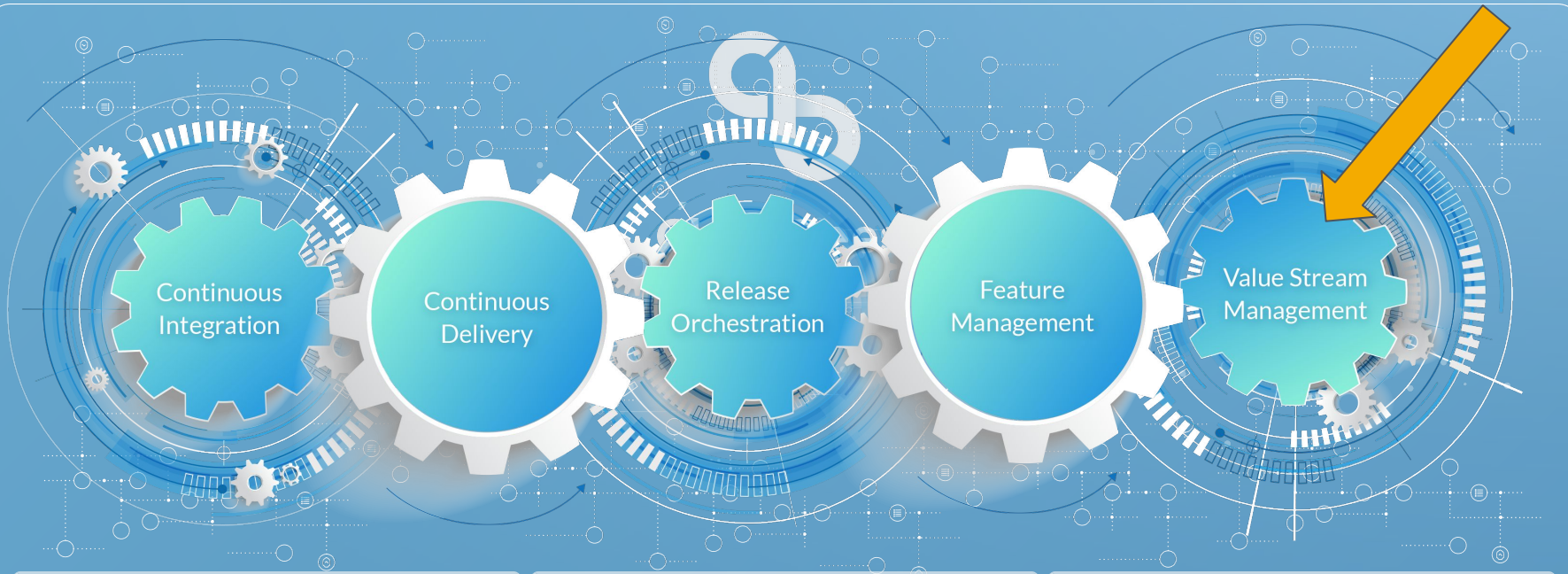
Ingredients for Modern Software Delivery



Multiple Teams | Multiple Processes | Multiple Tools/Stacks

DevOps Control Plane

CloudBees.
Software Delivery Automation

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Value Stream Management

Measuring - and Improving - Software Factory Performance

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“You can’t measure what you can’t see.”

“What gets measured gets done.”

“Does it spark joy?”

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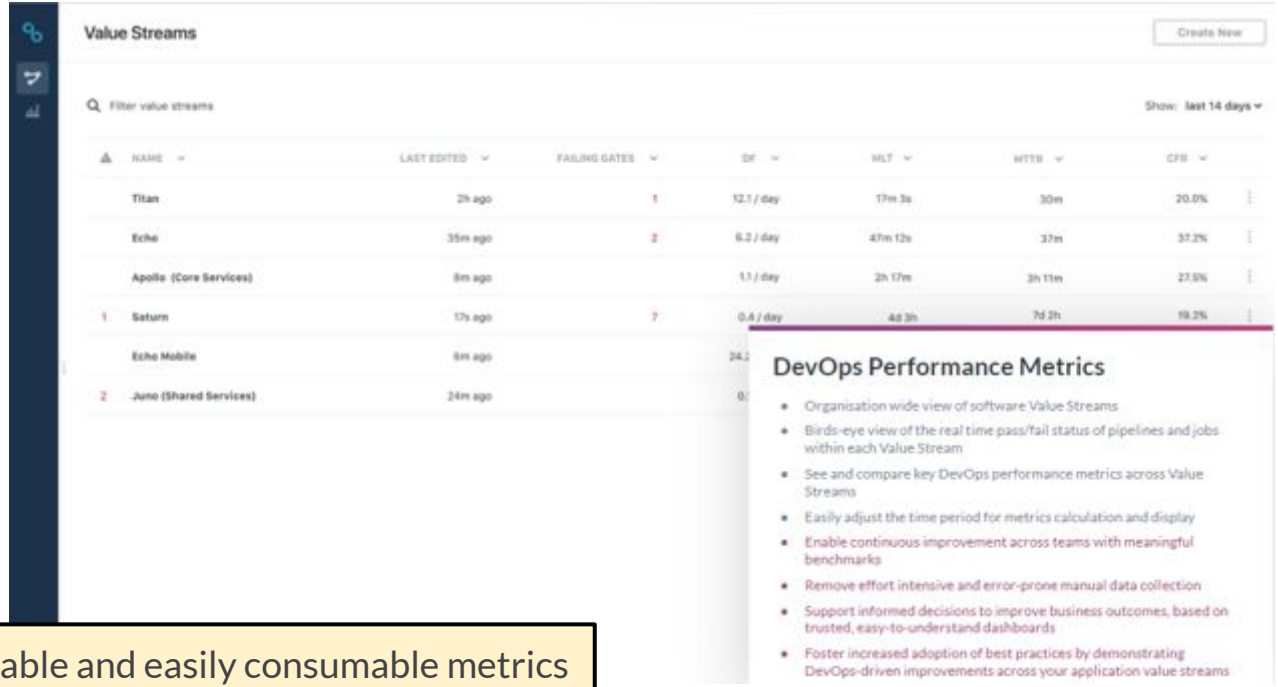
Industry Standard DevOps Metrics

Throughput

- Deployment Frequency
- Mean Lead Time

Stability

- Change Failure Rate
- Mean Time to Recover



Demonstrable and easily consumable metrics enable efficient communication with executive stakeholders

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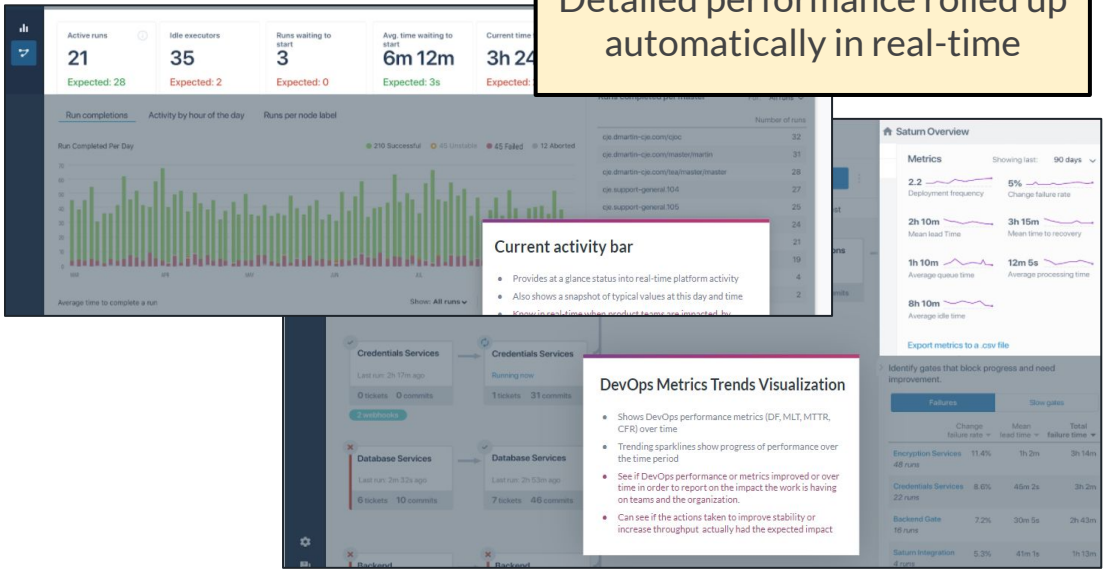
Real-Time Value Stream

Detailed performance rolled up automatically in real-time



Measure and Improve

A strategic view of software value streams allows managers to objectively and reliably measure and monitor improvements to software delivery teams

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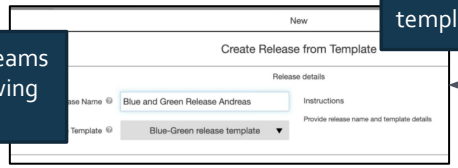
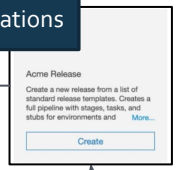
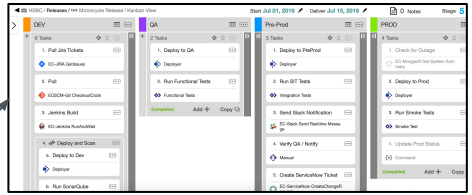
Operational Context

Operations teams define templates for going to operations

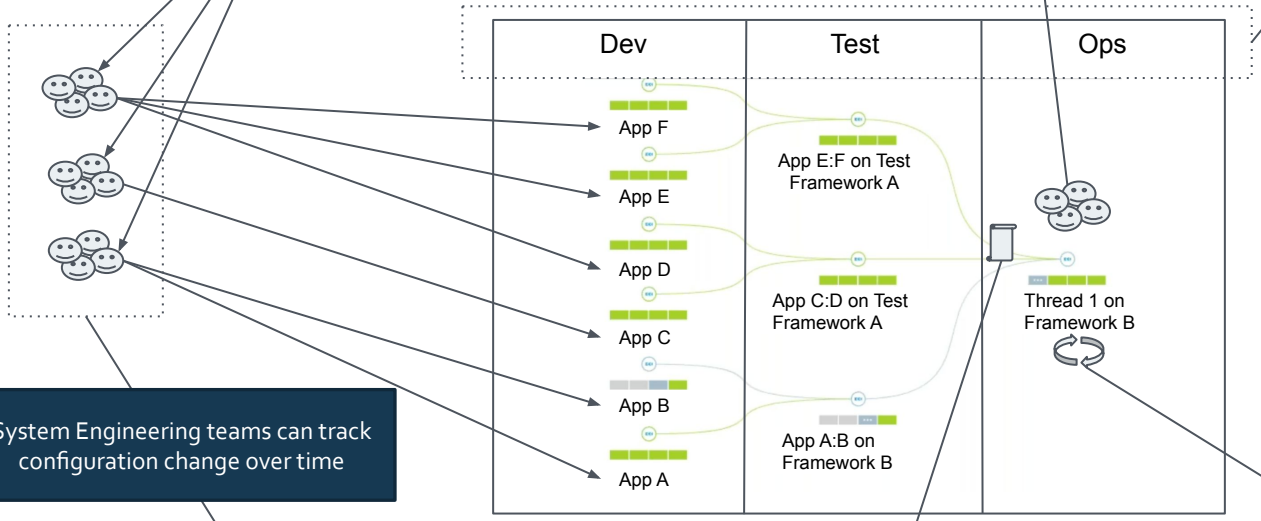
Distributed development teams can build confidently knowing integration is assured



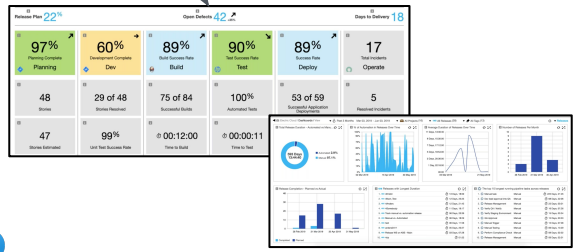


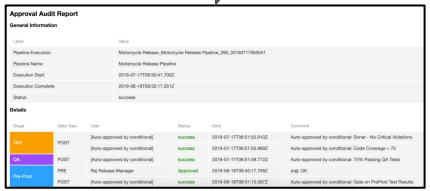


Management can track metrics on all teams and progress against program closure

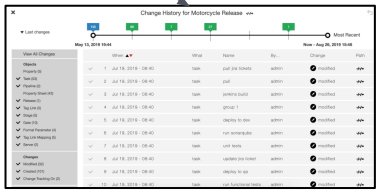


System Engineering teams can track configuration change over time





IA can aggregate evidence from DevSecOps tools and enforce compliance goals



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IRS

25,000

Hours saved

CHALLENGES: Deployment and test times

BEFORE: 8 months to set up software on 17,000 servers used to store data and run applications

AFTER: 22 minutes

INSIDER

US MARKETS OPEN
In the news

Dow Jones +0.07% | Nasdaq +0.48% | S&P 500 +0.13% | TSLA +0.06% | FB +0.76% | BABA +7.18%

Premium HOME > ENTERPRISE

The IRS saved 25,000 hours of work by adopting new technology to automate code testing and releases

Rosalie Chan Apr 16, 2021, 10:50 AM

REAL-WORLD VALUE:
More quickly process stimulus checks during the coronavirus pandemic, track investments outside the U.S., and reduce fraudulent tax refunds

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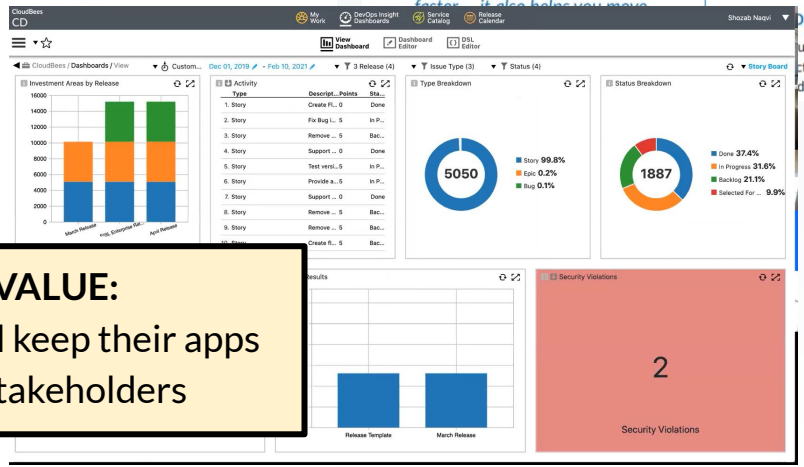
CENTERS FOR MEDICARE & MEDICAID SERVICES

CHALLENGE: Poor visibility across the software delivery process

FOCUSED ON: Speed to onboard new teams. Pipeline efficiency.



REAL-WORLD VALUE:
More quickly update and keep their apps awesome for their stakeholders

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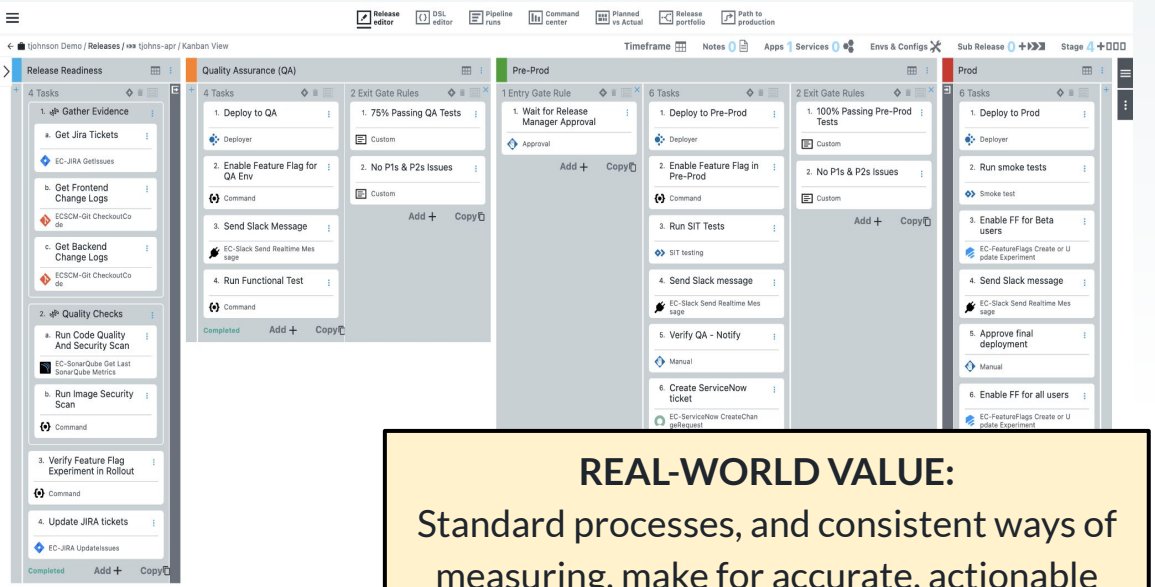
U.S. Citizenship and Immigration Services

CHALLENGE: Get answers: “Where is this particular feature? Is it done? Are we ready for launch?”

BEFORE: Time-consuming and uncertain release readiness reviews

AFTER: Real-time data to understand release status and readiness



REAL-WORLD VALUE:

Standard processes, and consistent ways of measuring, make for accurate, actionable insights and less squandered time

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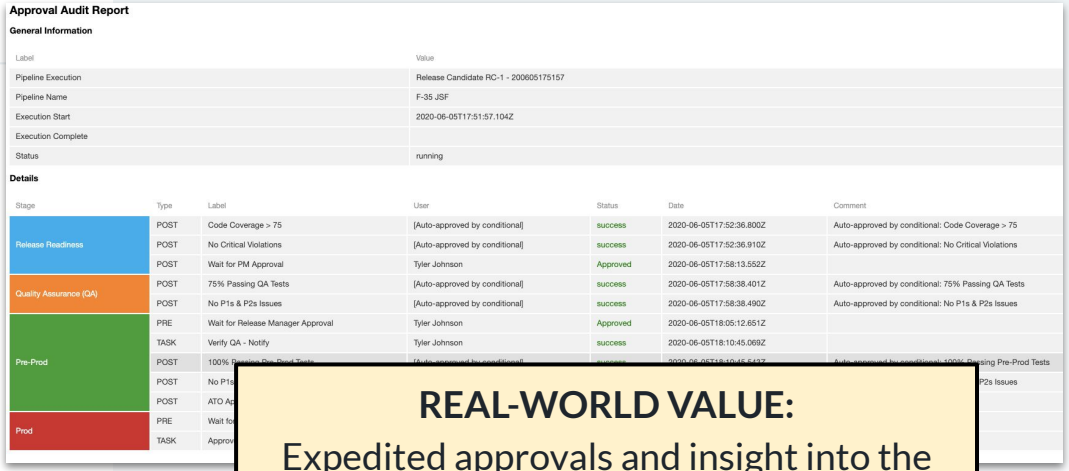
CHALLENGE: **Audit trail** and **compliance** report needed for every release

BEFORE: Hire **10 interns for 2-3 weeks** to walk around with spreadsheets to each person's desk

AFTER: Value stream performance and audit data **collected automatically** and displayed in custom reports



Approval Audit Report

General Information

Label	Value
Pipeline Execution	Release Candidate RC-1 - 200605175157
Pipeline Name	F-35 JSF
Execution Start	2020-06-05T17:51:57.104Z
Execution Complete	
Status	running

Details

Stage	Type	Label	User	Status	Date	Comment
Release Readiness	POST	Code Coverage > 75	[Auto-approved by conditional]	success	2020-06-05T17:52:36.800Z	Auto-approved by conditional: Code Coverage > 75
	POST	No Critical Violations	[Auto-approved by conditional]	success	2020-06-05T17:52:36.910Z	Auto-approved by conditional: No Critical Violations
	POST	Wait for PM Approval	Tyler Johnson	Approved	2020-06-05T17:58:13.552Z	
Quality Assurance (QA)	POST	75% Passing QA Tests	[Auto-approved by conditional]	success	2020-06-05T17:58:38.401Z	Auto-approved by conditional: 75% Passing QA Tests
	POST	No P1s & P2s Issues	[Auto-approved by conditional]	success	2020-06-05T17:58:38.490Z	Auto-approved by conditional: No P1s & P2s Issues
Pre-Prod	PRE	Wait for Release Manager Approval	Tyler Johnson	Approved	2020-06-05T18:05:12.651Z	
	TASK	Verify QA - Notify	Tyler Johnson	success	2020-06-05T18:10:45.069Z	
	POST	100% Passing Pre-Prod Tests	[Auto-approved by conditional]	success	2020-06-05T18:10:45.543Z	Auto-approved by conditional: 100% Passing Pre-Prod Tests
	POST	No P1s				P2s Issues
	POST	ATO Ap				
Prod	PRE	Wait fo				
	TASK	Approv				

REAL-WORLD VALUE:

Expedited approvals and insight into the readiness of capabilities to proceed down the value stream into Ops

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THANK YOU

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