



DevOps World



Jenkins World

**Build Continuous Improvement for Your
CD Pipelines with Value Streams, DevOps
Metrics, and CD Platform Insights**

Measure DevOps Performance

[Log in](#) to save this to your schedule and see who's attending!

<https://sched.co/SgtE>

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CloudBees DevOptics is your DevOps radar. It allows organizations to measure, analyze and manage DevOps. CloudBees DevOptics provides a comprehensive view of the status of your CD platform and software value streams, correlated from data collected across software delivery pipelines. In this workshop you will learn: - How CD platform monitoring (Run Insights) capabilities allow you to track availability, usage and team engagement of your CD platforms to ensure they are optimally supporting your software delivery activities. - How to create value streams in CloudBees DevOptics and understand how built in value streams capabilities make it easy to map, then actively measure and manage your software delivery process and activities. - How industry standard DevOps metrics allow you to measure performance across teams to leverage best practices and enable continuous improvement.

Speakers



Cassiano Ziegler-Bein

Sr. Solutions Architect, CloudBees

Experienced technical sales engineer consultant. Proactive professional, result oriented, good communication skills, leadership, team-worker, seeks for challenges and constant professional improvement. Experience in leading software development teams and supporting sales team.



Anand Chauhan

Sr. Solutions Architect, CloudBees

My professional mission is simple: Customer success. Customer goals become my goals and I'm not satisfied with outcomes until customers' objectives have been met or exceeded—which they typically are. For more than 15

What we'll learn...

- **Overview:**

- Why measure DevOps performance?
- Common barriers to measurement & how to overcome them?
- How to baseline, adapt & *continuously* improve?

- **The Workshop:**

- Setup: Jenkins Team Master & Multibranch Pipelines
- Lab 1: Visibility & Measurement with DevOptics Value Streams
- Lab 2: Platform Monitoring with DevOptics Run Insights
- *BONUS Lab: Setup DevOptics FREE with your own Jenkins Master(s)*

**Ask CloudBees team for FREE sign up for a Trial with full access*

Why measure DevOps performance?

COMPARING THE ELITE
GROUP AGAINST THE LOW
PERFORMERS, WE FIND THAT
ELITE PERFORMERS HAVE...



46 TIMES MORE
frequent code deployments



2,555 TIMES FASTER
lead time from commit to deploy



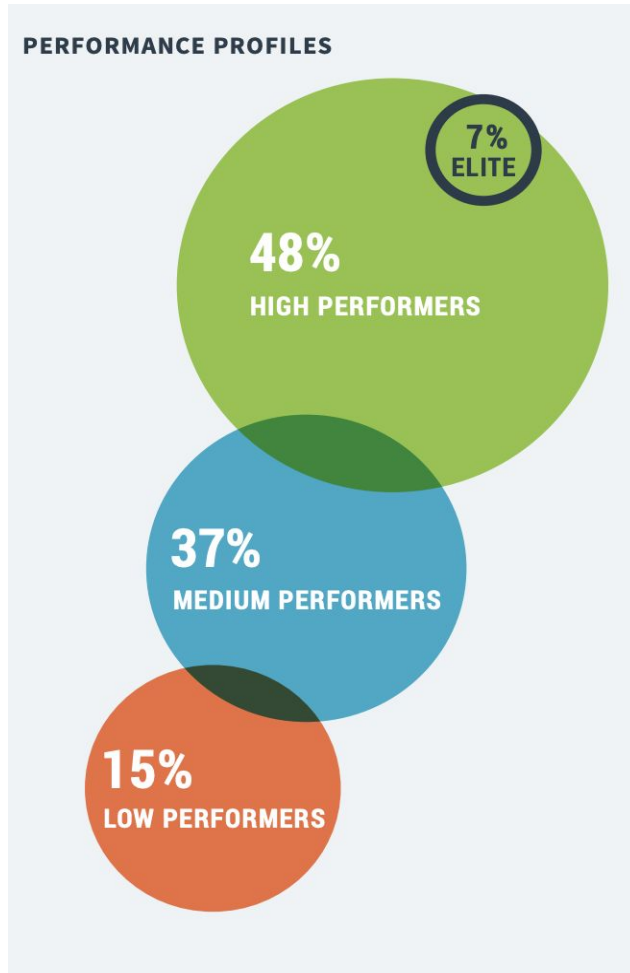
7 TIMES LOWER
change failure rate
(changes are 1/7 as likely to fail)



2,604 TIMES FASTER
time to recover from incidents

*Source: 2018 State of DevOps Report

Why measure DevOps performance?



*Source: 2018 State of DevOps Report

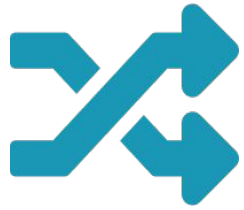
Are we really delivering better software faster?

Where do we rank among peers & enterprise-class companies?

What do we measure? ...and how?

What do we need to improve?

Reality today: SDLC & Observability is (VERY) Complicated!



Increased
complexity



Lack of
visibility



Can't
identify
blockers



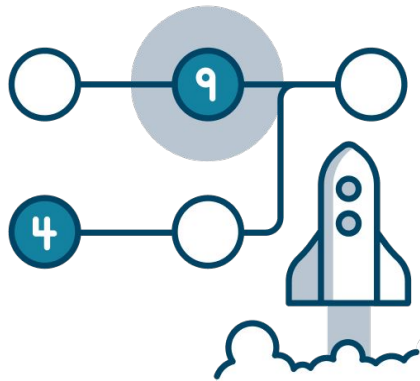
Measuring
is difficult*

***“Just 21% of respondents** feel they have a “very good” ability to understand how DevOps performance is impacting the business.”

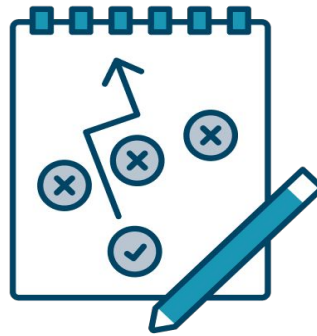
- IDG & CloudBees Marketpulse Survey, August 2018

The Recipe: 3 *Dimensions* of DevOps Measurement

CloudBees DevOptics provides **transparency** into the end-to-end software delivery process enabling organizations to eliminate **automation constraints**, remove **blockages and bottlenecks**, and improve **DevOps performance**



Real-Time
Value Streams



Industry
Standard
DevOps Metrics

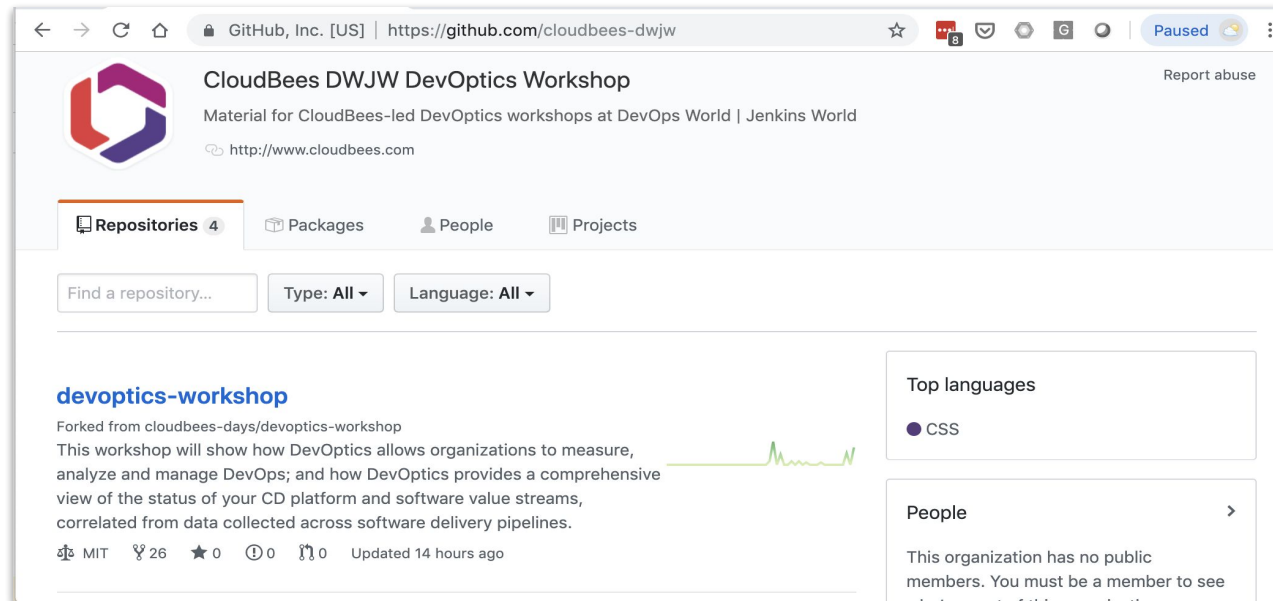


CD Platform
Monitoring

The Workshop...

<https://github.com/cloudbees-dwjlw>

(Go here ^, and click on repository for the workshop: devoptics-workshop)



<https://github.com/cloudbees-dwjw/devoptics-workshop>



The screenshot shows a web browser window displaying the GitHub repository page for "CloudBees DevOptics Workshop". The browser's address bar shows the URL "https://github.com/cloudbees-dwjw/devoptics-workshop". The page title is "CloudBees DevOptics Workshop". The main content area has a heading "CloudBees DevOptics Workshop" followed by a paragraph: "This workshop will show how DevOptics allows organizations to measure, analyze and manage DevOps; and how DevOptics provides a comprehensive view of the status of your CD platform and software value streams, correlated from data collected across software delivery pipelines." Below this is a section titled "Workshop Prerequisites" with a paragraph: "In order to follow along with the hands on portion of the workshop students should have the following resources available to them:". This is followed by a bulleted list: "• Internet access to include access to [https://github.com](\"https://github.com\") to include the ability to access and use [the GitHub File Editor](\"https://github.com\")" and "• A basic understanding of Jenkins Pipelines: [https://jenkins.io/doc/book/pipeline/getting-started/](\"https://jenkins.io/doc/book/pipeline/getting-started/\")". Below the list is a paragraph: "The setup guide will walk students through:". This is followed by another bulleted list: "• Creating an account on [https://github.com](\"https://github.com\") and a basic understanding of how to use GitHub to do things like fork a repository, edit files in the web UI, and create pull requests" and "• Creating a personal access token for your Github account with the following permissions:" followed by a sub-list: "◦ repo: all", "◦ admin:repo_hook: all", "◦ admin:org_hook", and "◦ user: all". Below this is a paragraph: "To start on the setup, navigate to [Setup](\"#\")." Below this is a section titled "Workshop Labs" with a paragraph: "The labs covered in this workshop are available at the following links:". This is followed by a bulleted list: "• Lab 1. [Introduction to Value Streams](\"#\")" and "• Lab 2. [Introduction to Run Insights](\"#\")".

CloudBees DevOptics Workshop

This workshop will show how DevOptics allows organizations to measure, analyze and manage DevOps; and how DevOptics provides a comprehensive view of the status of your CD platform and software value streams, correlated from data collected across software delivery pipelines.

Workshop Prerequisites

In order to follow along with the hands on portion of the workshop students should have the following resources available to them:

- Internet access to include access to <https://github.com> to include the ability to access and use [the GitHub File Editor](#)
- A basic understanding of Jenkins Pipelines: <https://jenkins.io/doc/book/pipeline/getting-started/>

The setup guide will walk students through:

- Creating an account on <https://github.com> and a basic understanding of how to use GitHub to do things like fork a repository, edit files in the web UI, and create pull requests
- Creating a personal access token for your Github account with the following permissions:
 - repo: all
 - admin:repo_hook: all
 - admin:org_hook
 - user: all

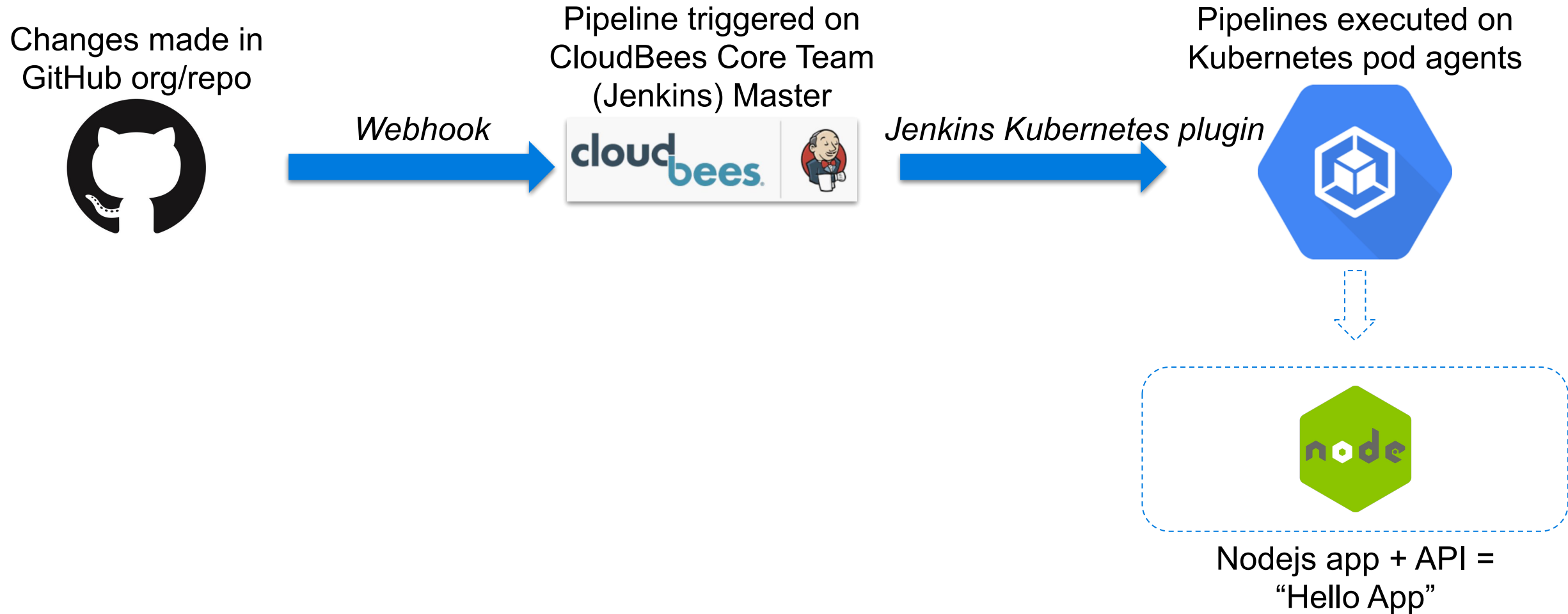
To start on the setup, navigate to [Setup](#).

Workshop Labs

The labs covered in this workshop are available at the following links:

- Lab 1. [Introduction to Value Streams](#)
- Lab 2. [Introduction to Run Insights](#)

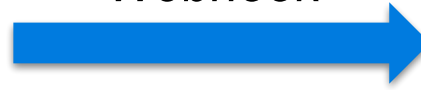
Workshop: Setup Jenkins Master & Sample Pipelines



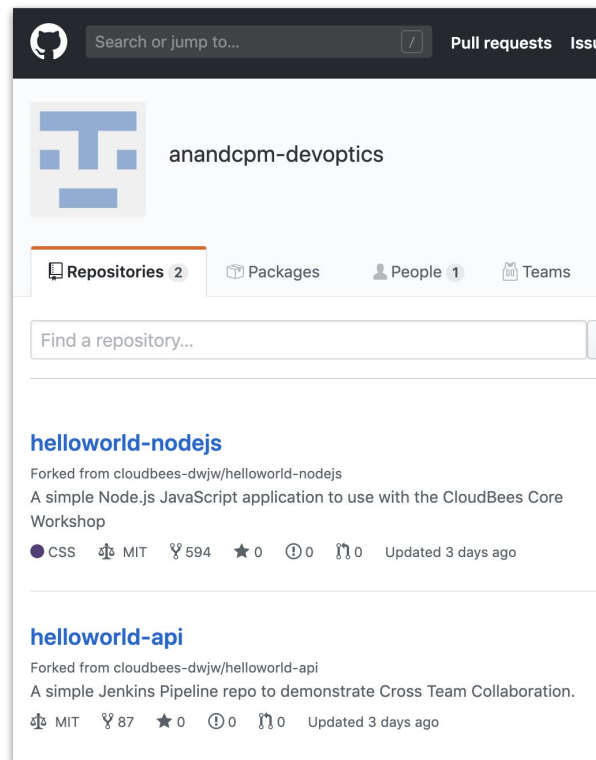
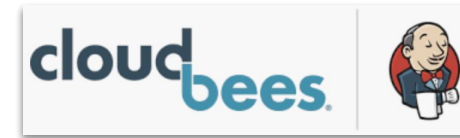
Changes made in
GitHub org/repo



Webhook



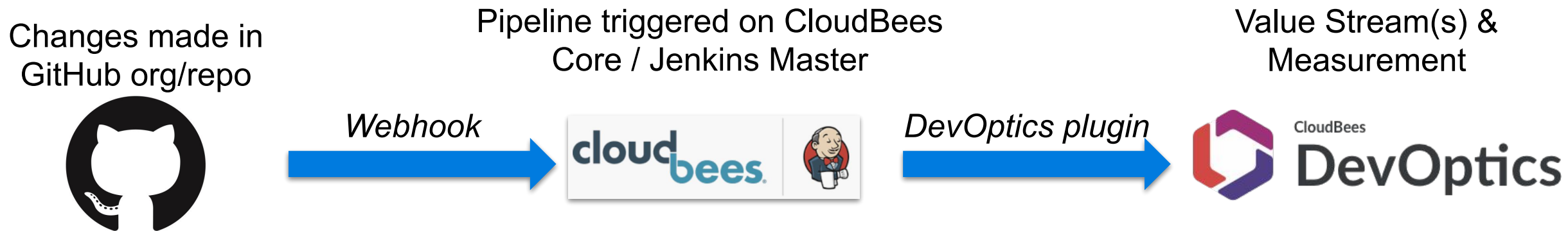
Pipeline triggered on
CloudBees Core Team
(Jenkins) Master



CloudBees Core			
anandcpm-devoptics / helloworld-nodejs ☆			
STATUS	RUN	COMMIT	BRANCH
✗	1	1159498	development
✓	1	1159498	master

CloudBees Core		
anandcpm-devoptics / helloworld-api ☆		
HEALTH	STATUS	BRANCH
☁️	✓	master
☀️	✓	development
☁️	✓	test

Workshop: Value Streams & Run Insights



Changes made in
GitHub org/repo



Webhook



Pipeline triggered on CloudBees
Core / Jenkins Master



DevOptics plugin



Value Stream(s) &
Measurement



CloudBees Core

anandcpm-devoptics / helloworld-api

HEALTH	STATUS	BRANCH
	✓	master
	✓	development
	✓	test

Value streams Run insights Settings Help

cloudbees-dwjjw

anandcpm helloworld-api

Search tickets

Edit

Build Test Release

development branch
Last run: 3 minutes ago
1 tickets 1 commits

test branch
Last run: a few seconds ago
1 tickets 2 commits

Deployment Gate master
Last run: 15 minutes ago
0 tickets 1 commits

Gate: test branch

Metrics for this gate Showing: last 24 hours

6m 18s 66.7%
Mean lead time Change failure rate

3 / day 4m 52s
Run activity Mean time to recovery

100ms 6m 18s
Mean queue time Mean processing time

0ms
Mean idle time

Export to CSV

More ticket details available via JIRA.
Connect to JIRA

Current Tickets

Filter tickets

Run 3 - Failed finished a few seconds ago

API-1001

No additional runs with tickets at this gate

Changes made in
GitHub org/repo



Webhook



Pipeline triggered on CloudBees
Core / Jenkins Master



DevOptics plugin



Value Stream(s) &
Measurement



CloudBees Core

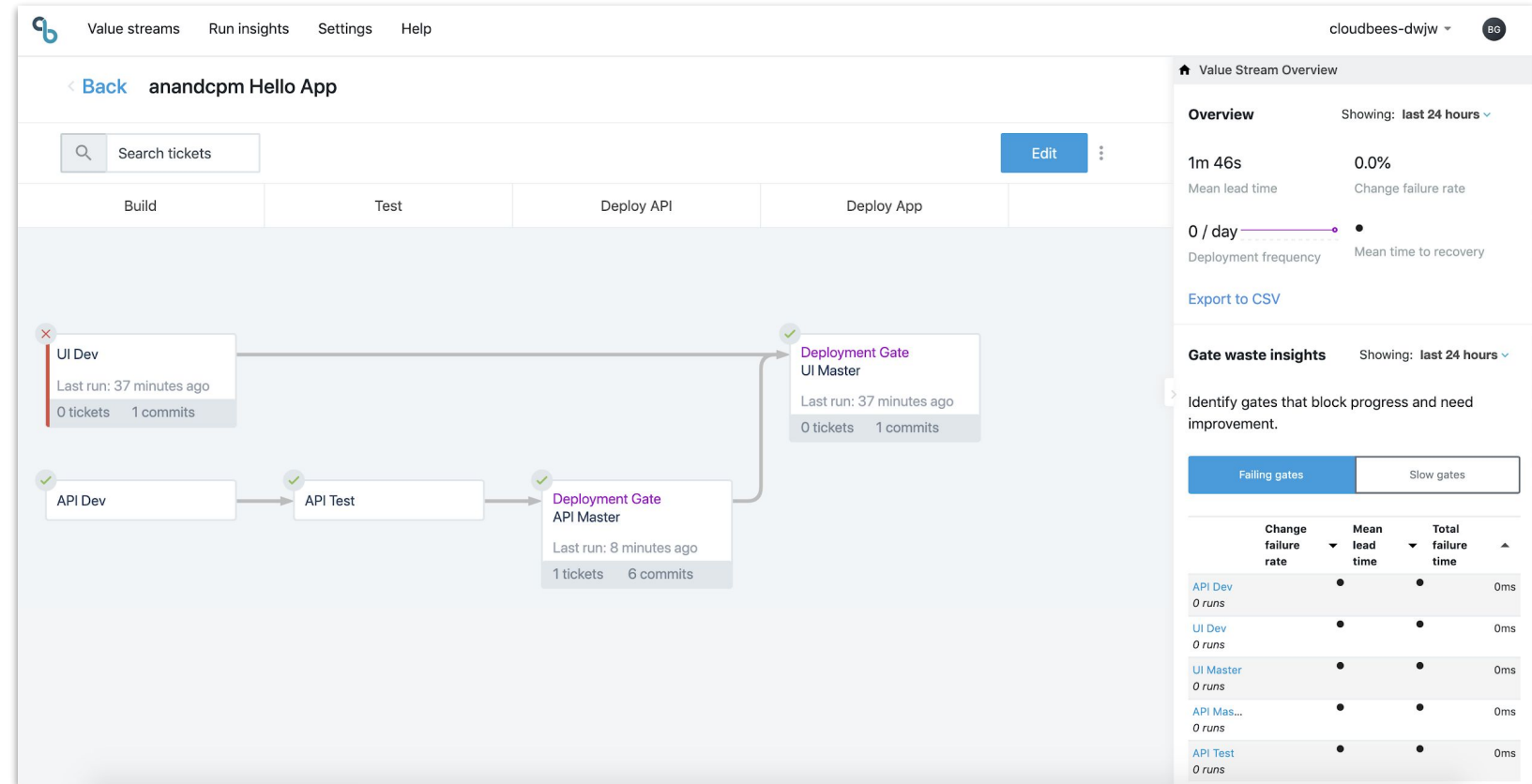
anandcpm-devoptics / helloworld-nodejs ☆

STATUS	RUN	COMMIT	BRANCH
❌	1	1159498	development
✅	1	1159498	master

CloudBees Core

anandcpm-devoptics / helloworld-api ☆

HEALTH	STATUS	BRANCH
☁️	✅	master
☀️	✅	development
☁️	✅	test



Summary

- **Overview:**

- Be a DevOps Superhero – Elite Performers measure DevOps performance
- Utilize Value Streams & Proven, Metrics for Continuous Improvement
- Benchmark internally and externally - with your industry peers

- **The Workshop:**

- Lab 1: Visibility & Measurement with DevOptics Value Streams
- Lab 2: Platform Monitoring with DevOptics Run Insights
- *BONUS Lab: Setup DevOptics FREE with your own Jenkins Master(s)*

**Ask CloudBees team for FREE sign up for full access, standard DevOptics Trial*

Call to action: Be an Elite Performer!

Benchmark Industry Standard Metrics

Aspect of Software Delivery Performance	Elite ^a	High	Medium	Low
Deployment frequency For the primary application or service you work on, how often does your organization deploy code?	On-demand (multiple deploys per day)	Between once per hour and once per day	Between once per week and once per month	Between once per week and once per month
Lead time for changes For the primary application or service you work on, what is your lead time for changes (i.e., how long does it take to go from code commit to code successfully running in production)?	Less than one hour	Between one day and one week	Between one week and one month ^b	Between one month and six months ^b
Time to restore service For the primary application or service you work on, how long does it generally take to restore service when a service incident occurs (e.g., unplanned outage, service impairment)?	Less than one hour	Less than one day	Less than one day	Between one week and one month
Change failure rate For the primary application or service you work on, what percentage of changes results either in degraded service or subsequently requires remediation (e.g., leads to service impairment, service outage, requires a hotfix, rollback, fix forward, patch)?	0-15%	0-15%	0-15%	46-60%

*Source: 2018 State of DevOps Report

Build Your Own Value Streams - Signup today!

<https://bit.ly/2MaYtb0>

(Go here ^, and sign up for access to a DevOptics Trial version with full access)

Learn more about DevOptics at the event

- [Sign up DevOptics Free](#) to start modeling your software delivery process
- Visit us at the CloudBees DevOptics demo booth in the exhibit hall
- Scan the QR code sticker at the booth for information
- Recommended session on Wednesday, August 14 10:30am - 11:15am
 - Value Stream Management: Using Proper Metrics to Understand if You're Delivering Better Software Faster (Room 2010)



Continuous Delivery Products and Services



Rollout

Feature
Flag
Management



Core

Unified Software
Delivery &
Governance



Flow

Adaptive
Release
Orchestration



CodeShip

CI/CD as a
Service



DevOptics

Software Delivery
Visibility & Insights

Jenkins



CloudBees Jenkins
Distribution



CloudBees Jenkins X
Distribution

DevOps Excellence



Accelerator



Training



DevOps Consultants

Support



24x7 Technical Support



Assisted Updates



Customer Success Managers

DevOps World



Jenkins World

Thank you

