

Are You Keeping Up with Platform Engineering?

The Next Step for Large-scale Organizations

Scott Liao

Sr. Solutions Architect
Amazon Web Services

Who am I



Scott Liao
Senior Solutions Architect
AWS

Mr. 沙先生 Blog



Who has adopted

The logo for Nintendo Direct, featuring the word "Nintendo" in white on a red background, followed by a white arrow pointing right containing the word "Direct" in red.

Nintendo Direct



The New York times



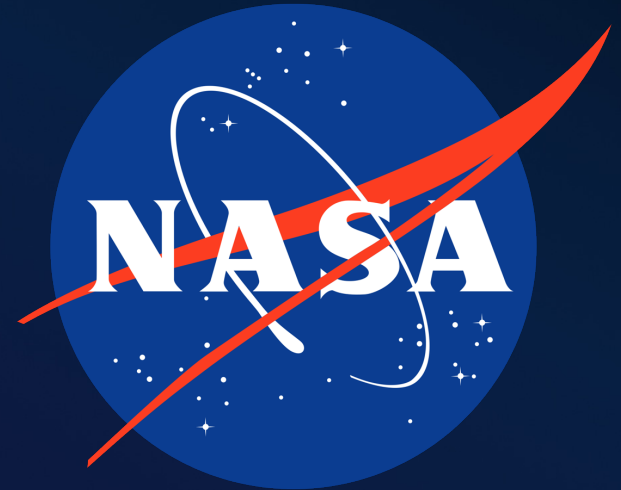
Adobe

The Salesforce logo, featuring the word "salesforce" in white lowercase letters inside a blue cloud shape.

salesforce

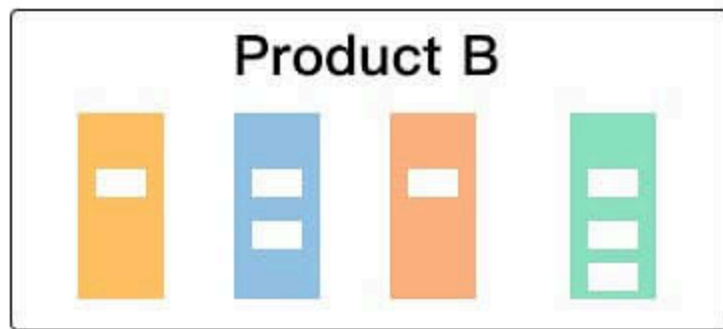
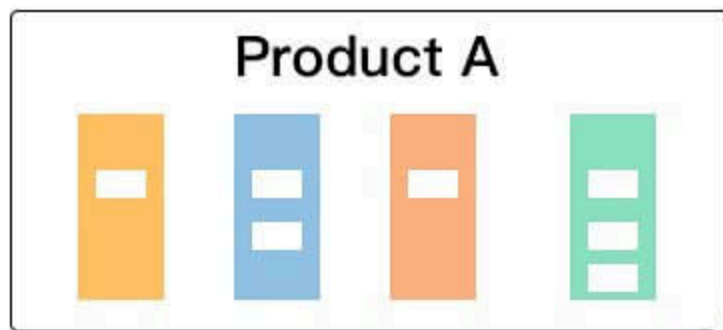


Spotify®



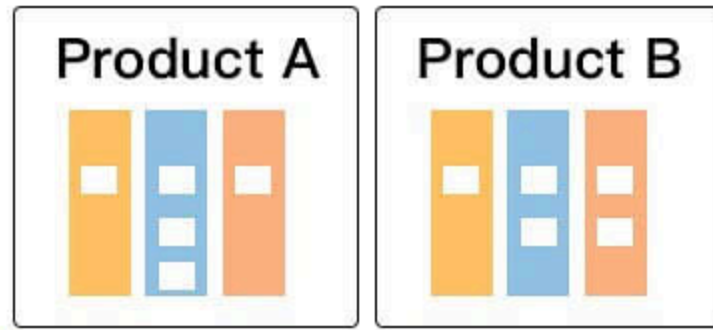
DevOps vs SRE vs Platform Engineering

DevOps

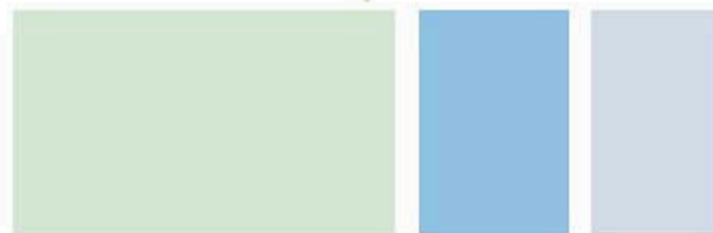


V5

SRE

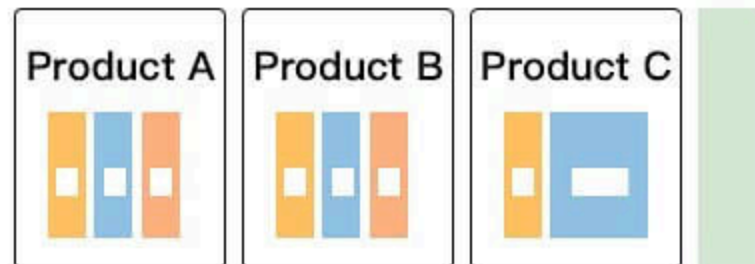


Handoff



V5

Platform Engineering



Platform Tooling

Unified Infrastructure

“Any improvements made anywhere besides the **bottleneck** are an illusion.”

— Gene Kim, The Phoenix Project



Developer



Environment

Ship software to Prod



Develop



Tools



Testing



DevOps



Security



Developer



Environment

Ship software to Prod





Wiki



Collaboration



Document



Workflow



Training



Compliance



Requests



Observability



Develop



Tools



Testing



DevOps



Security



Container



Developer



Ship software to Prod

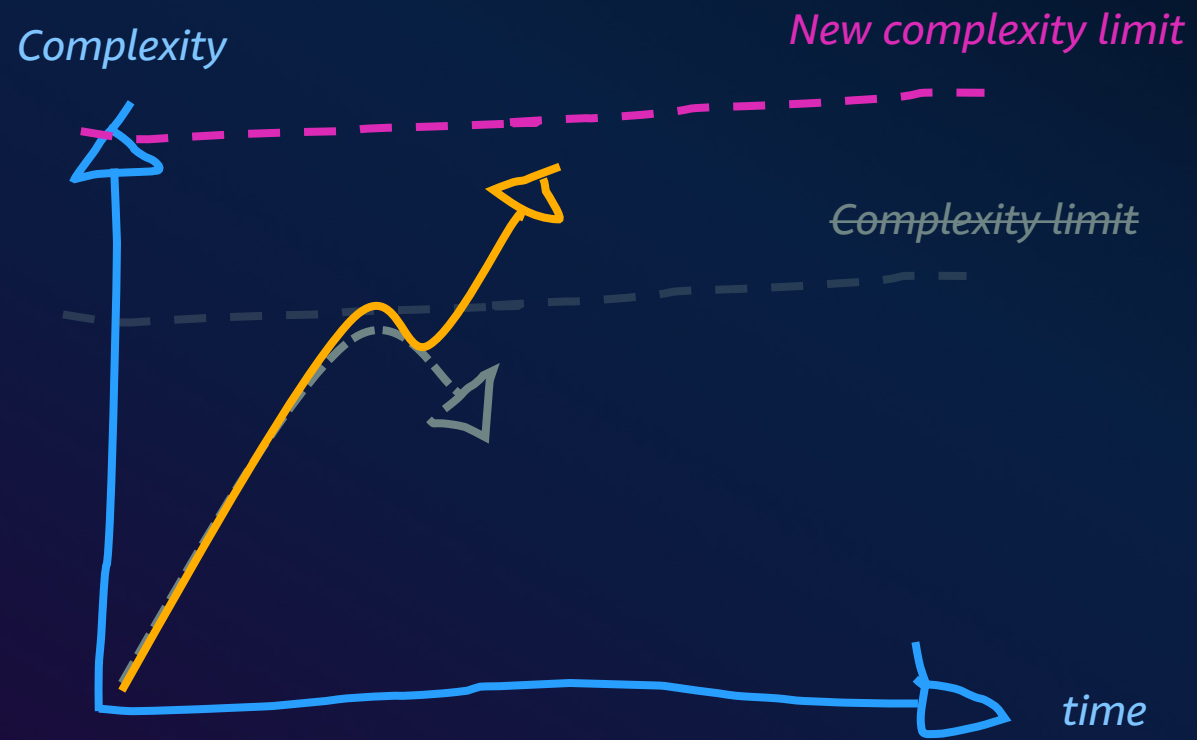


Cloud

The complexity limit



Increase complexity limit



DORA metrics



Quality

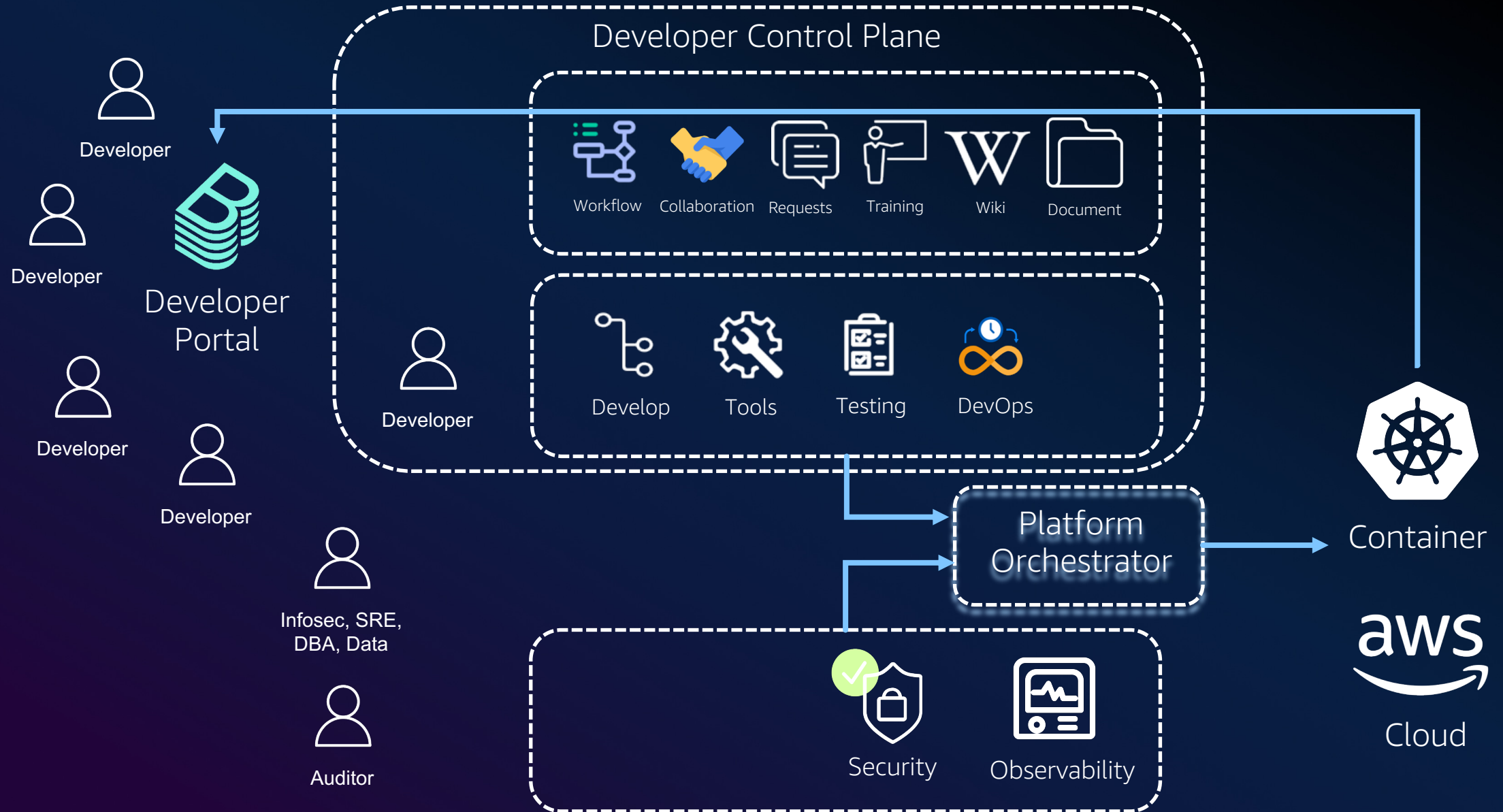


Security

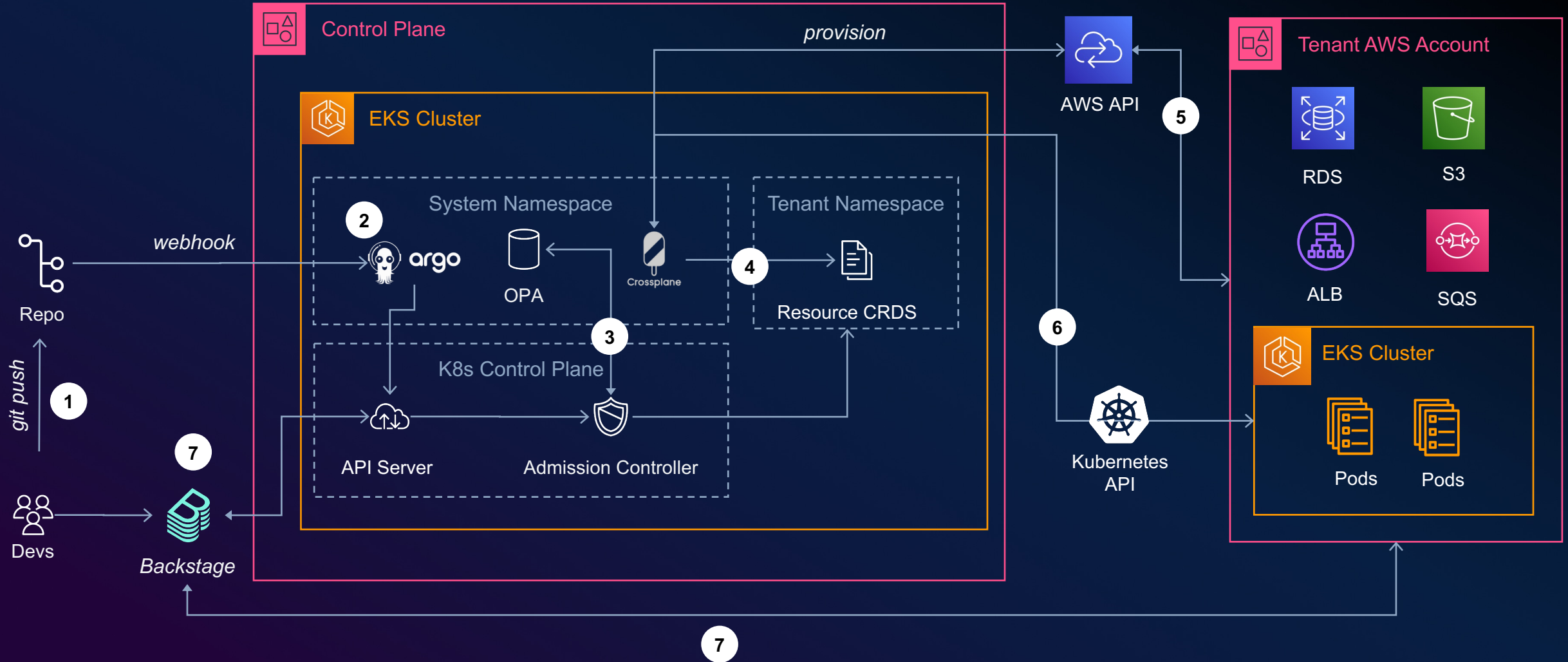


Happy life

Reference architecture



Building a platform Orchestrator with Kubernetes





Backstage is an open source platform
for **building developer portals**

Created at

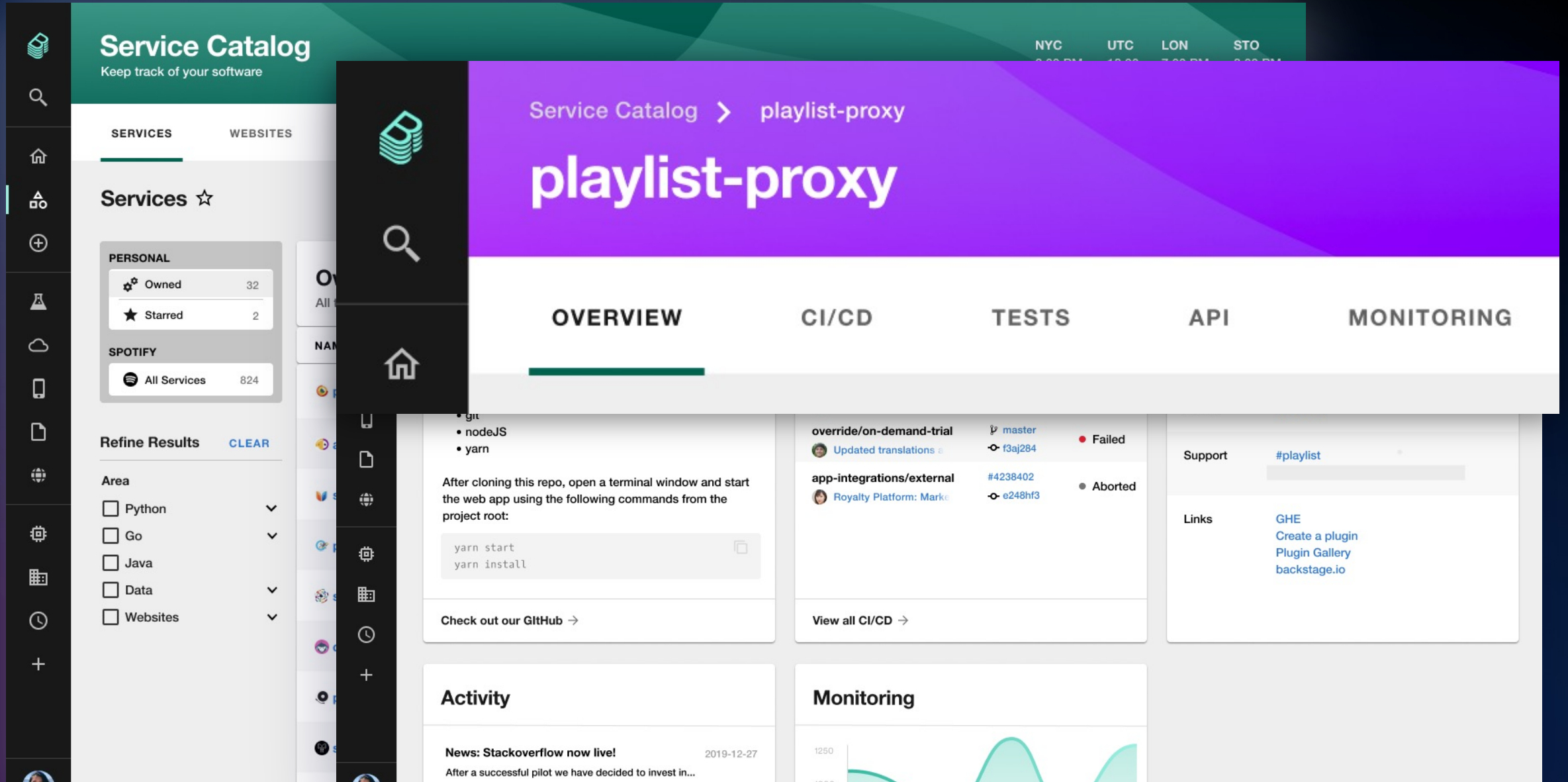


Donated to



The project has 2K+ adopters and
1K+ contributors worldwide

Service Catalog





Wiki



Collaboration



Document



Workflow



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Cloud

Security management



Kyverno



OPA



synk



Github security insight



COMPONENT — SERVICE

sample-service-4 in default ☆

Owner david@roadie.io Lifecycle experin

OVERVIEW CI/CD SENTRY API DOCS KUBERNETES PULL REQUESTS CODE INSIGHTS SECURITY INSIGHTS

Security Insights

roadiehq/sample-service

OPEN FIXED DISMISSED Search

ID	DESCRIPTION	SEVERITY	STATE	TOOL	DETECTED
#16	Incomplete string escaping or encoding	Warning	Open	CodeQL command-line toolchain	9 days ago
#15	Hard-coded credentials	Warning	Open	CodeQL command-line toolchain	14 days ago
#14	Hard-coded credentials	Warning	Open	CodeQL command-line toolchain	14 days ago
#13	Hard-coded credentials	Warning	Open	CodeQL command-line toolchain	14 days ago
#12	Hard-coded credentials	Warning	Open	CodeQL command-line toolchain	14 days ago



Workflow



Compliance



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Cloud

3rd-party plugins

COMPONENT — SERVICE

sample-service-4 in default

Owner Lifecycle

OVERVIEW

CI/CD

SENT

Security Insights

roadiehq/sample-service

ID	DESCRIPTION
#16	Incomplete string escaping or
#15	Hard-coded credentials
#14	Hard-coded credentials
#13	Hard-coded credentials
#12	Hard-coded credentials

Jira

ExampleJiraProject | software

Task

134

Sub-task

0

Story

1

Bug

122

Epic

1

Activity stream

Mateusz Lewtak created EX-258 - Issue #241

18 hours ago

Mateusz Lewtak created EX-257 - Issue #240

18 hours ago

Mateusz Lewtak created EX-256 - Issue #239

18 hours ago

Mateusz Lewtak created EX-255 - Issue #238

18 hours ago

Mateusz Lewtak created EX-254 - Issue #237

18 hours ago

Go to project →



Workflow



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Cloud



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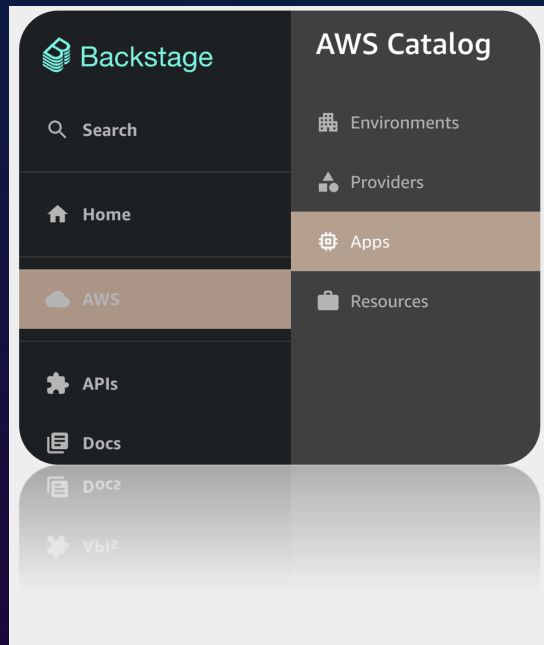


Cloud

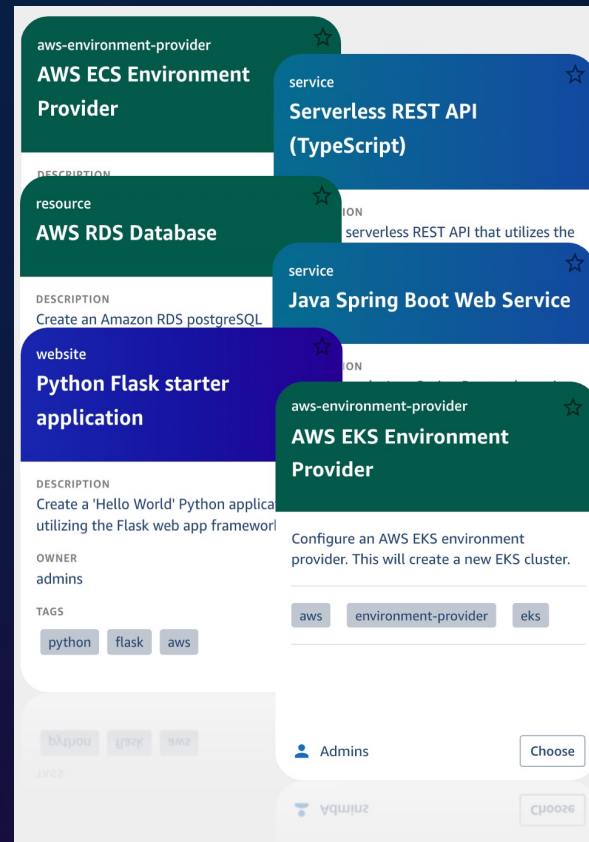
Orchestrate Platforms and Applications (OPA) on AWS

<https://opaonaws.io/>

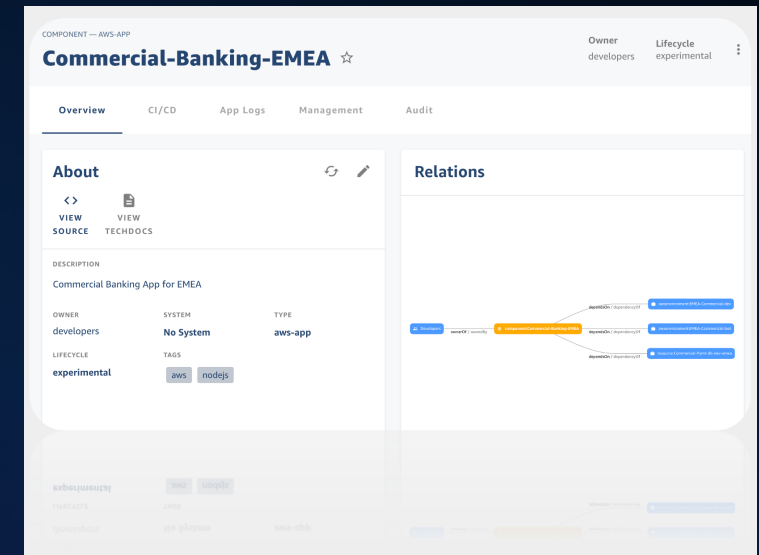
Software catalog



Scale AWS services using templates



Manage apps on single interface





Develop



Tools



Testing



DevOps



Container



Developer



Ship software to Prod



Cloud



Develop



Tools



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DevOps



Developer



Environment

Ship software to Prod

DevOps

COMPONENT — SERVICE

sample-service ☆

Owner
david@roadie.io

Lifecycle
experimental

OVERVIEW

CI/CD

SENTRY

API

DOCS

KUBERNETES

PULL REQUESTS

CODE INSIGHTS

About

VIEW SOURCE

DESCRIPTION
A service that does these are

OWNER
group:dev

TAGS
No Tags

OVERVIEW

CI/CD

AMAZON ECS

DEPENDENCIES

DOCS

AWS CodePipeline

Filter

EXECUTION	LAST RUN	STATUS	SOURCE REVISION
c74e116a-c3de-4e38-b205-5ab99ee83875	1 minute ago	<div></div> Succeeded	Source 010450 - Edited test.txt
d7ea8430-6603-4307-b8ad-e3adb6cf00b8	9 minutes ago	<div></div> Failed	Source 010450 - Edited test.txt

5 rows |< < 1-5 of 5 > >|



Develop



Tools



Testing



DevOps



Developer



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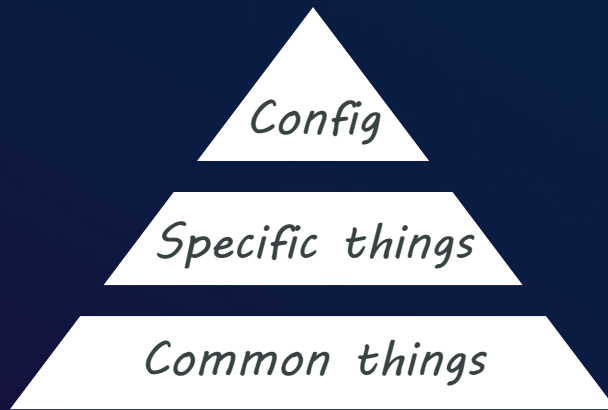
Developer



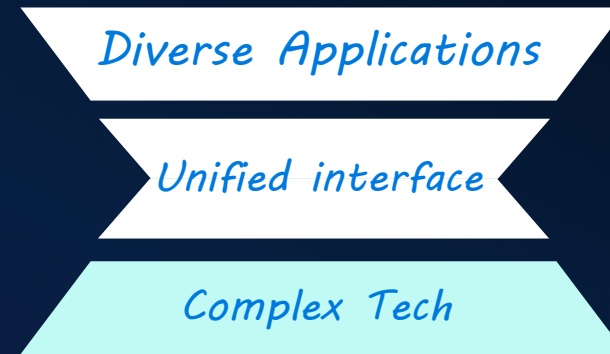
Ship software to Prod



Platform are not a pyramid



Traditional Model



Platform Model

“Any improvements made anywhere besides the **bottleneck** are an illusion.”

— Gene Kim, The Phoenix Project

Thank you!