



GOTO  
**Guide**

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through **the app**



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**#GOTOams**

Adevinta

# Paving the Golden Path

Achieving High Performance with an  
Internal Developer Platform

#GOTOams



**Alex Bikfalvi**

  @alexbikfalvi

What is **high performance**?

# What is high performance?

2013



2015



2017



2019



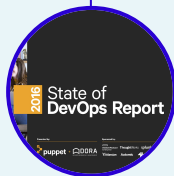
2021



2014



2016



2018

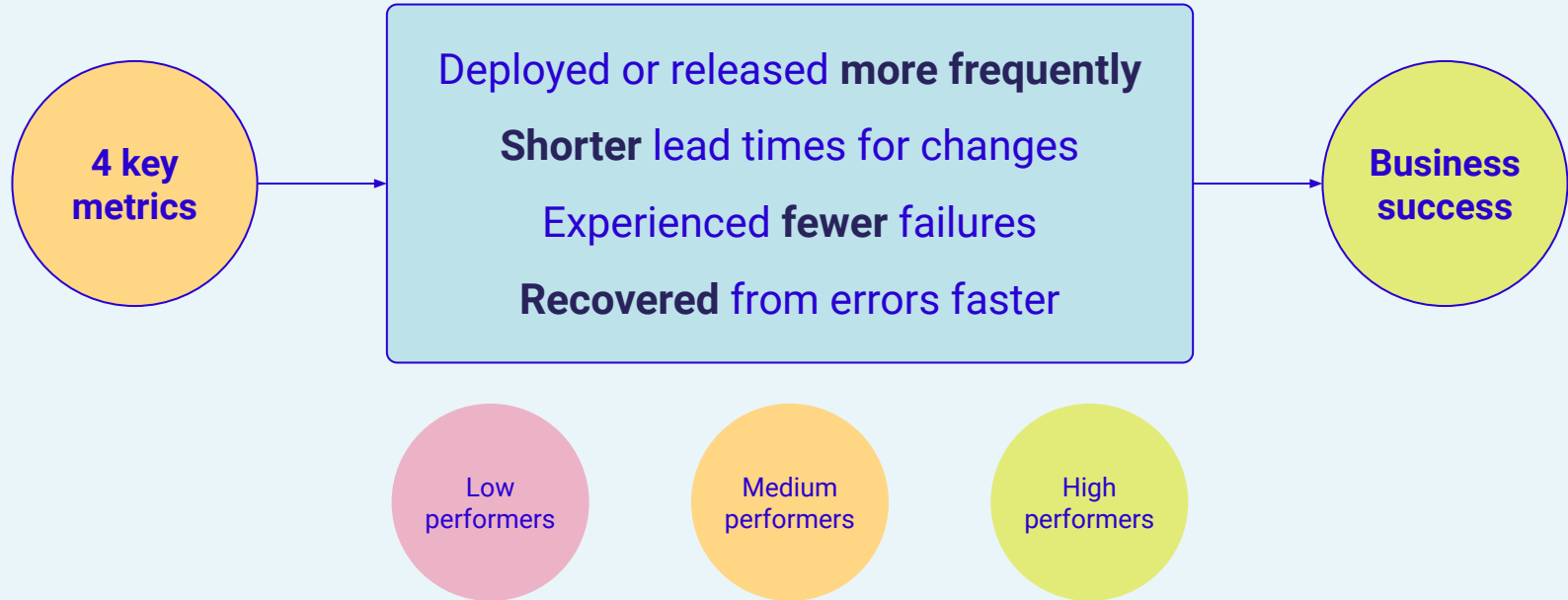


2020



<https://www.devops-research.com/research.html>

# What is high performance?

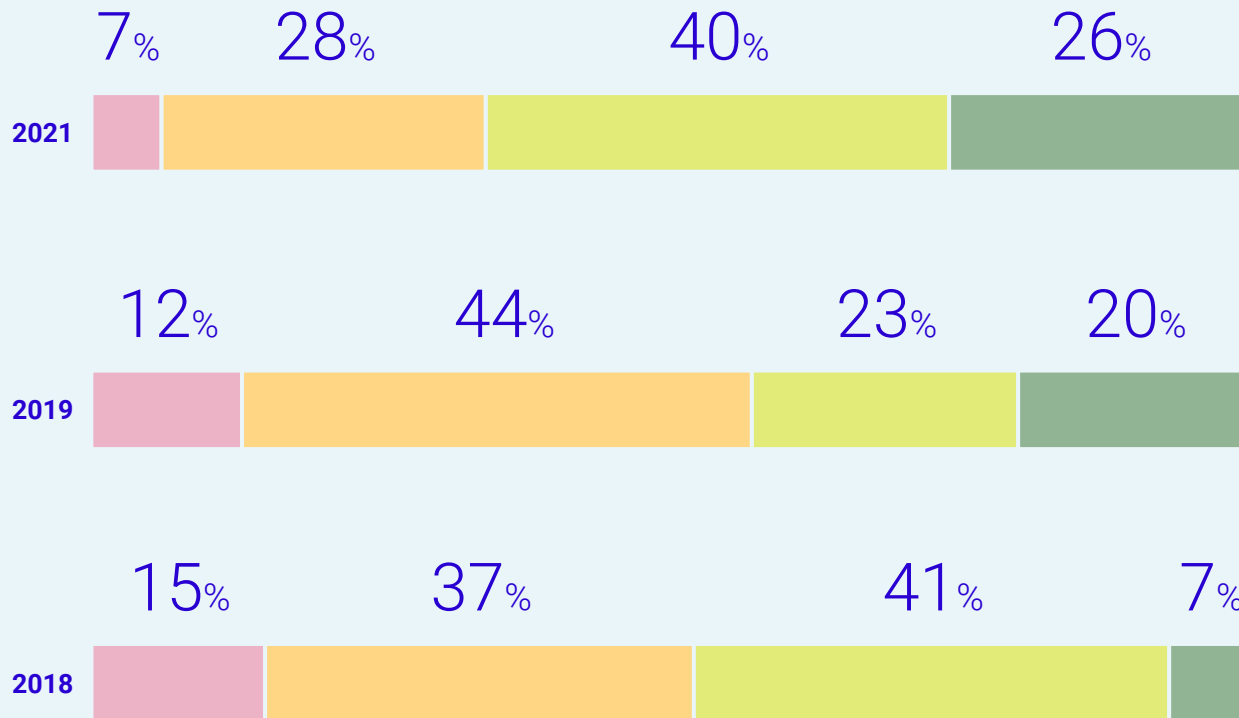


# What is high performance?

	Low performers	Medium performers	High performers	Elite performers
Deploy or release	Less than once a month	Between once a week and once a month	Between once a day and once a week	On demand
Lead time	More than one month	Between once a week and once a month	Between once a day and once a week	Less than a day
Change failures	Above 15%	Less than 15%	Less than 15%	Less than 5%
Restore service	More than one week	Less than one week	Less than one day	Less than one hour

We want to be here

# What is high performance?



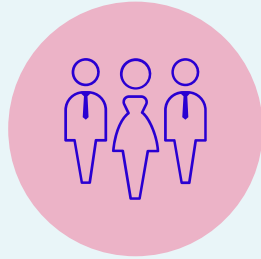
# How can we become **high performers**?



**Code**



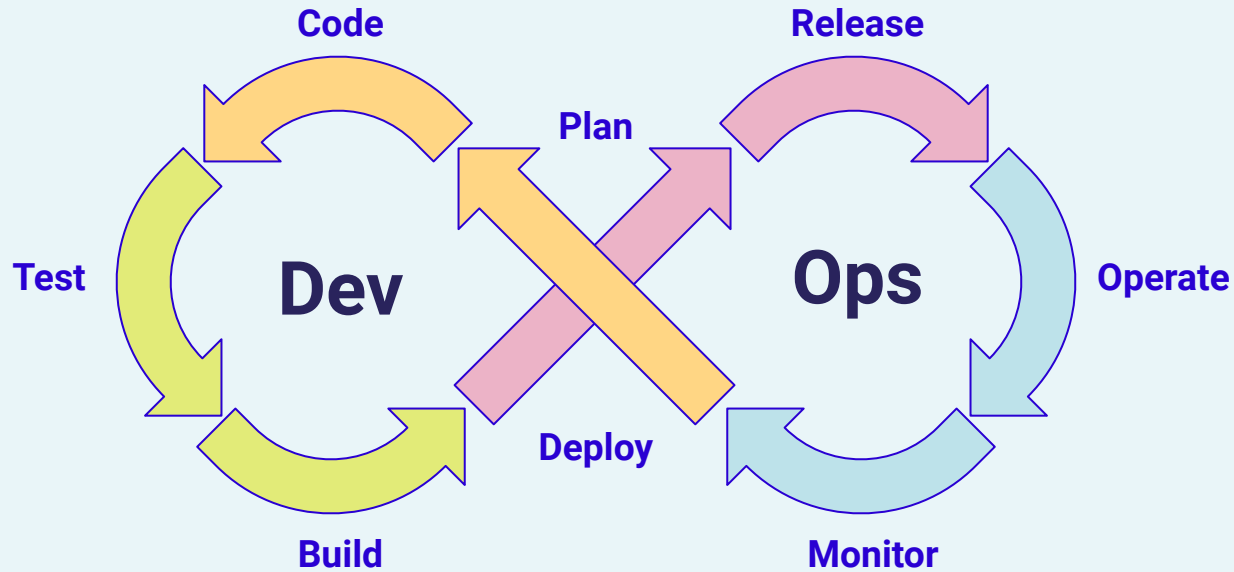
**Test**



**Deploy**



**Operate**



**DevOps** is the practice of **development** and **operations** engineers working together through the entire lifecycle of a service

# How can we become high performers?

## Technical

Version control

Trunk-based development

Continuous integration

Deployment automation

Continuous testing

Continuous delivery

Architecture

Empowering teams

Test data management

Shift left on security

Database change management

Cloud infrastructure

Code maintainability

## Process

Team experimentation

Streamlined change approval

Customer feedback

Visibility of work in the value stream

Working in small batches

## Measurement

Monitoring for business decisions

Proactive failure notification

Work in process limits

Visual management

Monitoring and observability

## Cultural

Job satisfaction

Westrum organizational culture

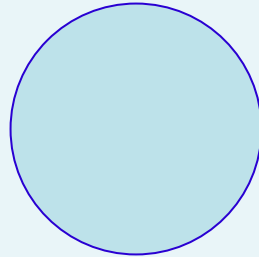
Learning culture

Transformational leadership



<https://www.devops-research.com/research.html>

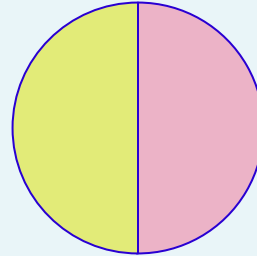
# How can we **scale**?



Time spent by  
one developer

# How can we **scale**?

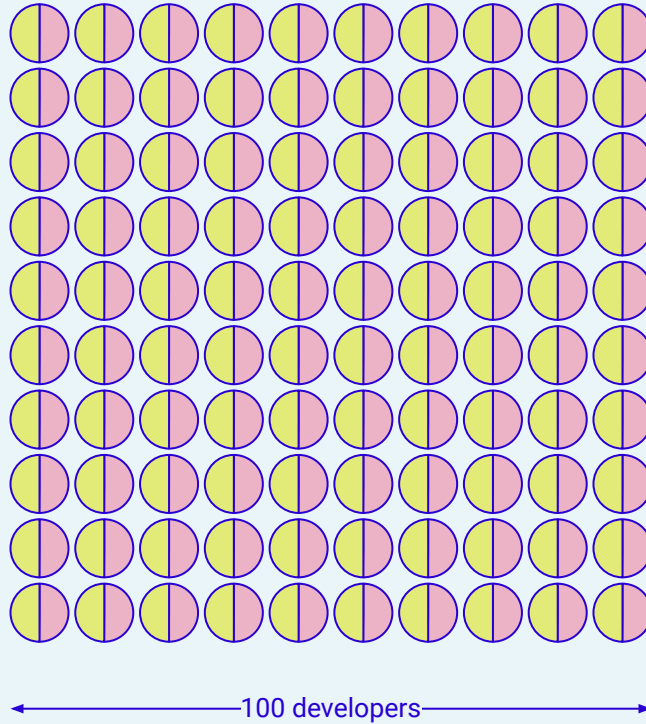
50%  
effort on value



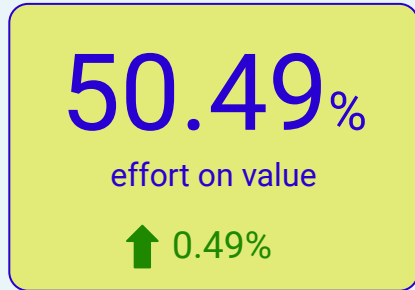
Time spent by  
one developer

50%  
effort on process

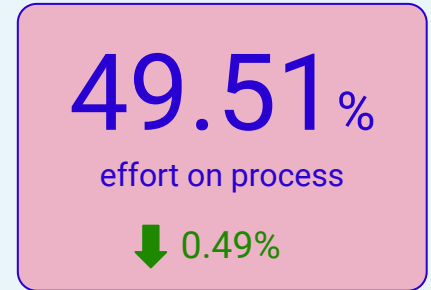
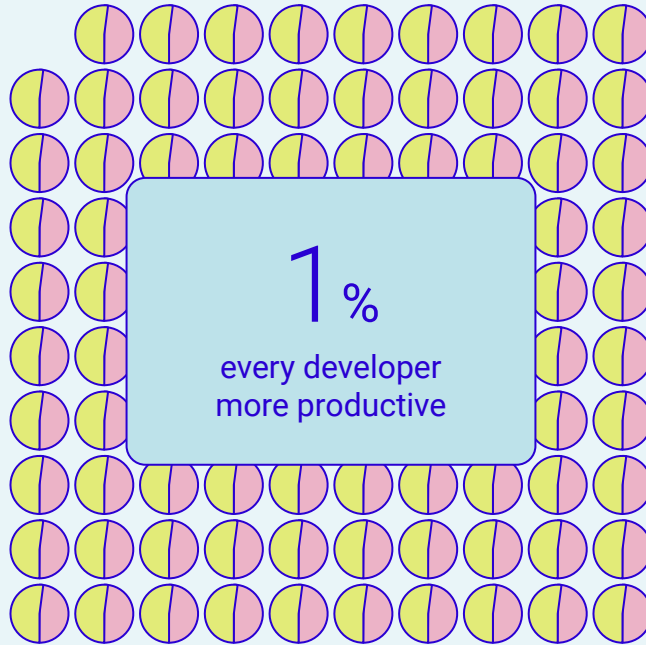
# How can we **scale**?



# How can we **scale**?



$$99 \times 51\%$$



$$99 \times 49\% + 1 \times 100\%$$



# How can we **scale**?

50.86%

effort on value

↑ 0.86%

$98 \times 51.9\%$



49.14%

effort on process

↓ 0.86%

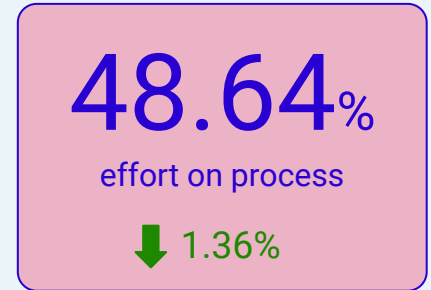
$98 \times 48.1\% + 2 \times 100\%$



# How can we **scale**?



$$96 \times 53.5\%$$



$$96 \times 46.5\% + 4 \times 100\%$$

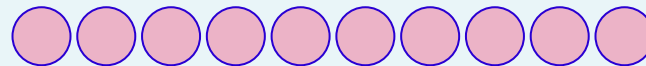
# How can we **scale**?



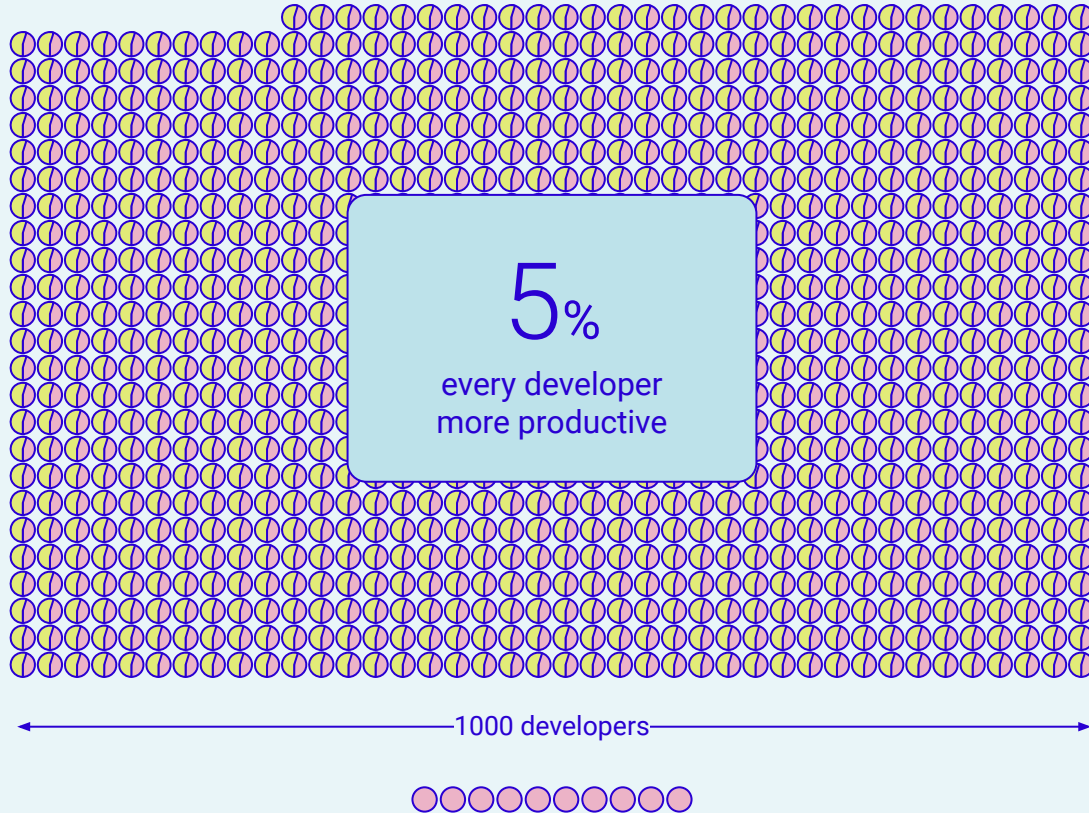
$90 \times 55\%$



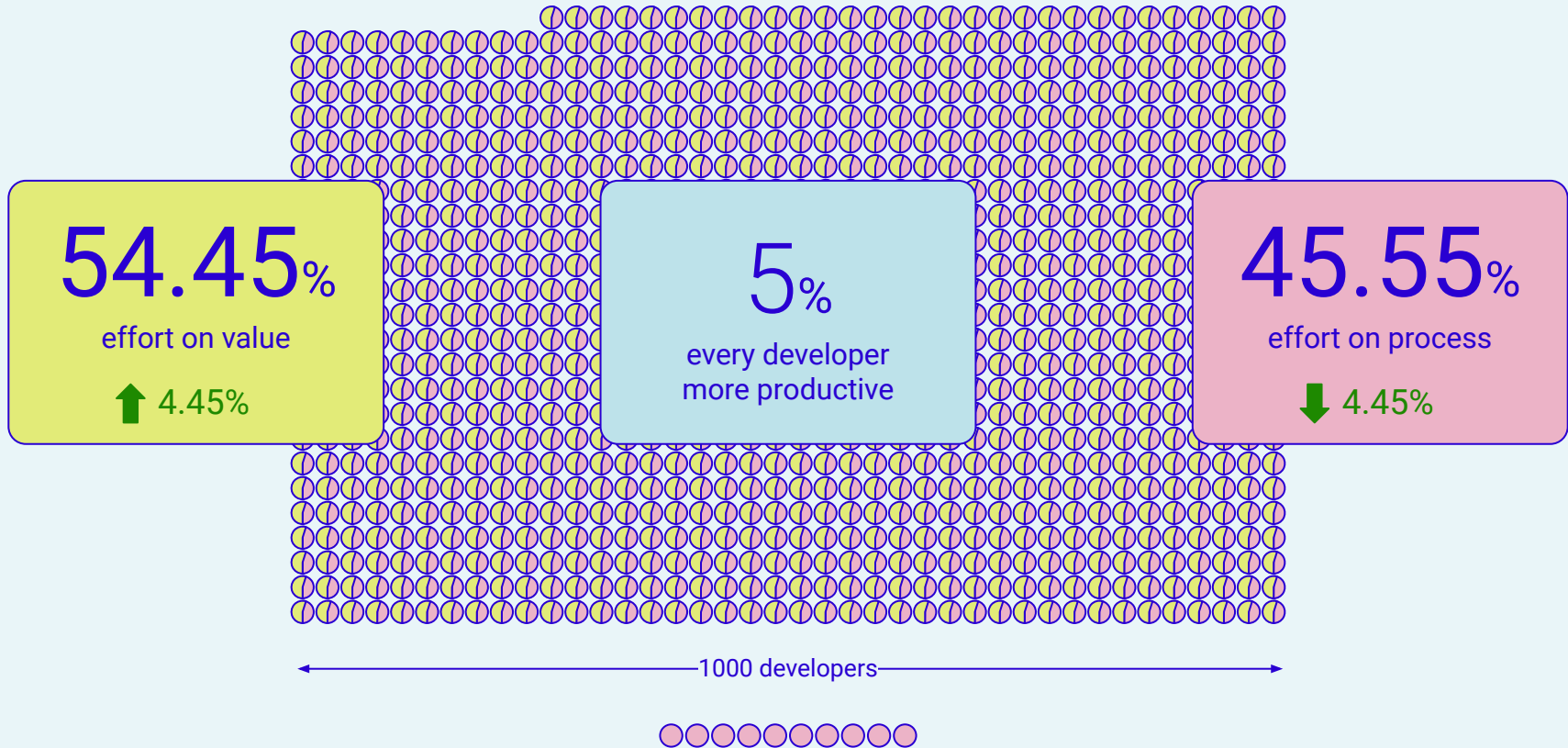
$90 \times 45\% + 10 \times 100\%$

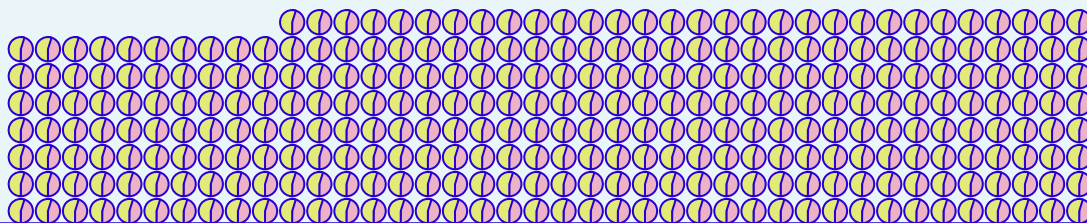


# How can we **scale**?

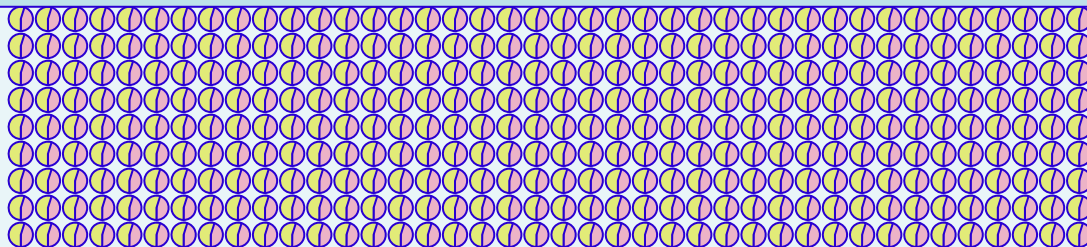


# How can we **scale**?



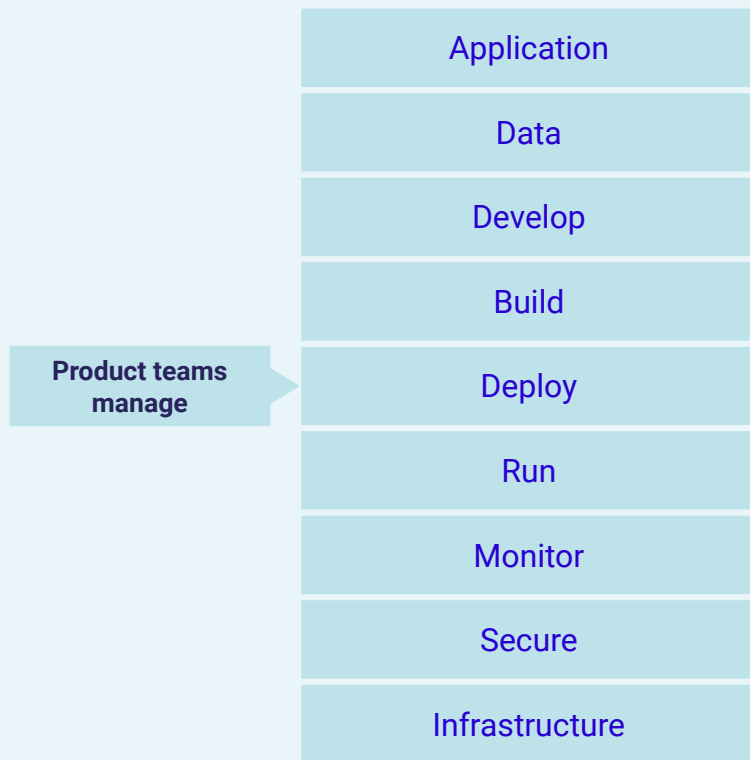


Platform teams can help us **scale** DevOps practices to the entire organization

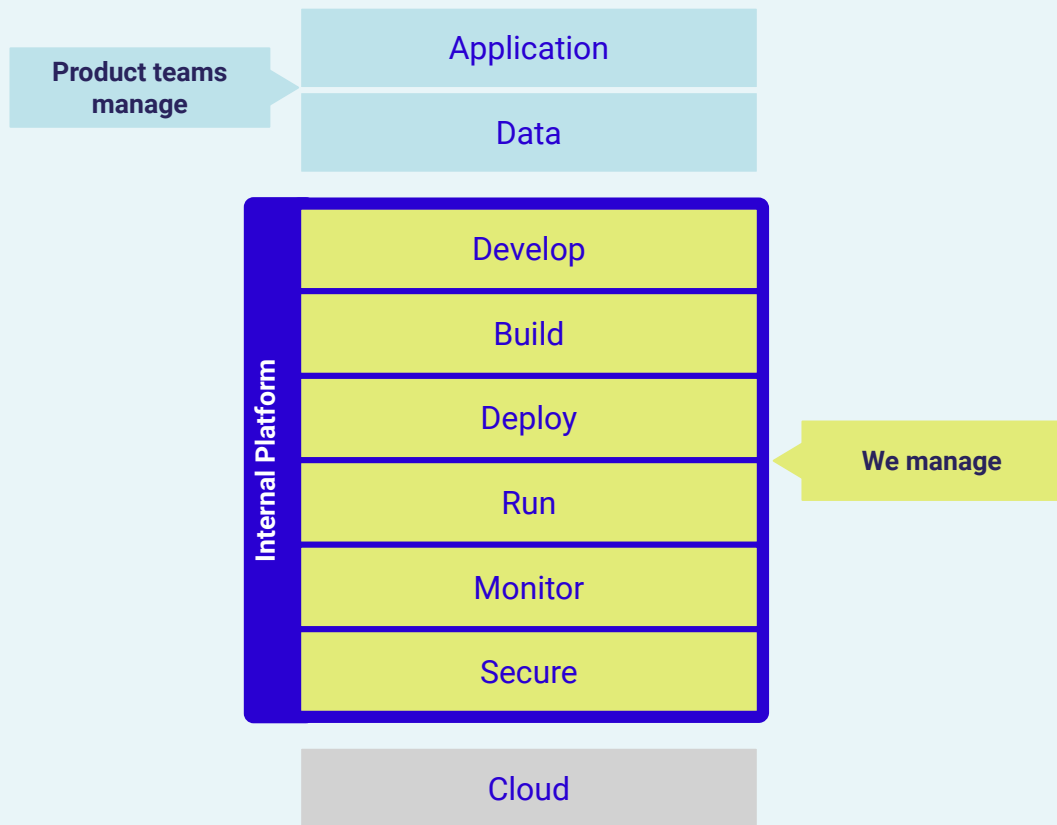


**Use a software development platform**

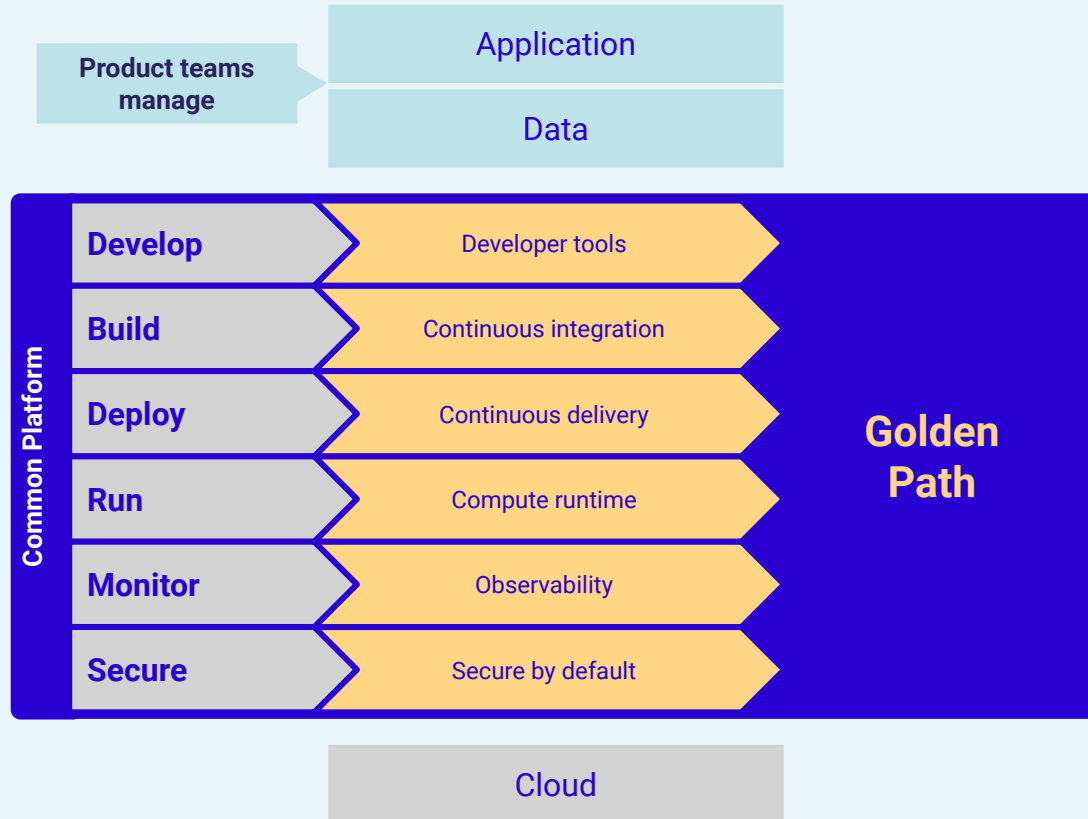
# We start with the **developer journey**



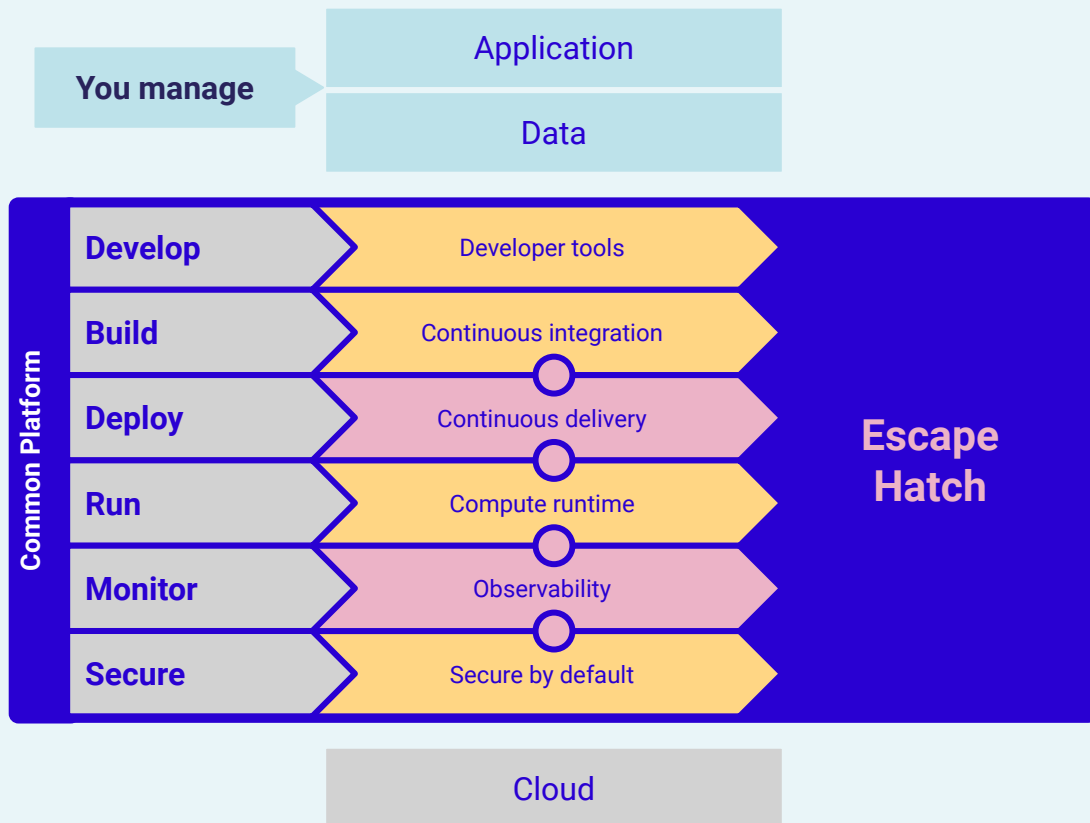
# We build the platform as a **product**



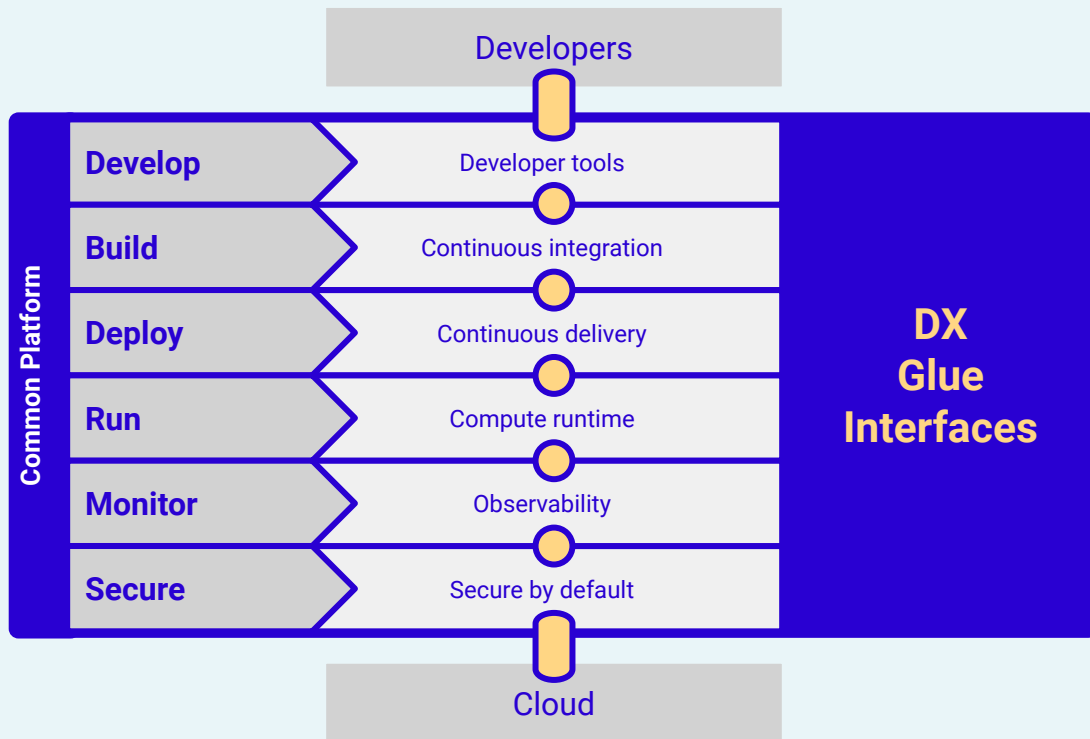
# We focus on the **common ground**



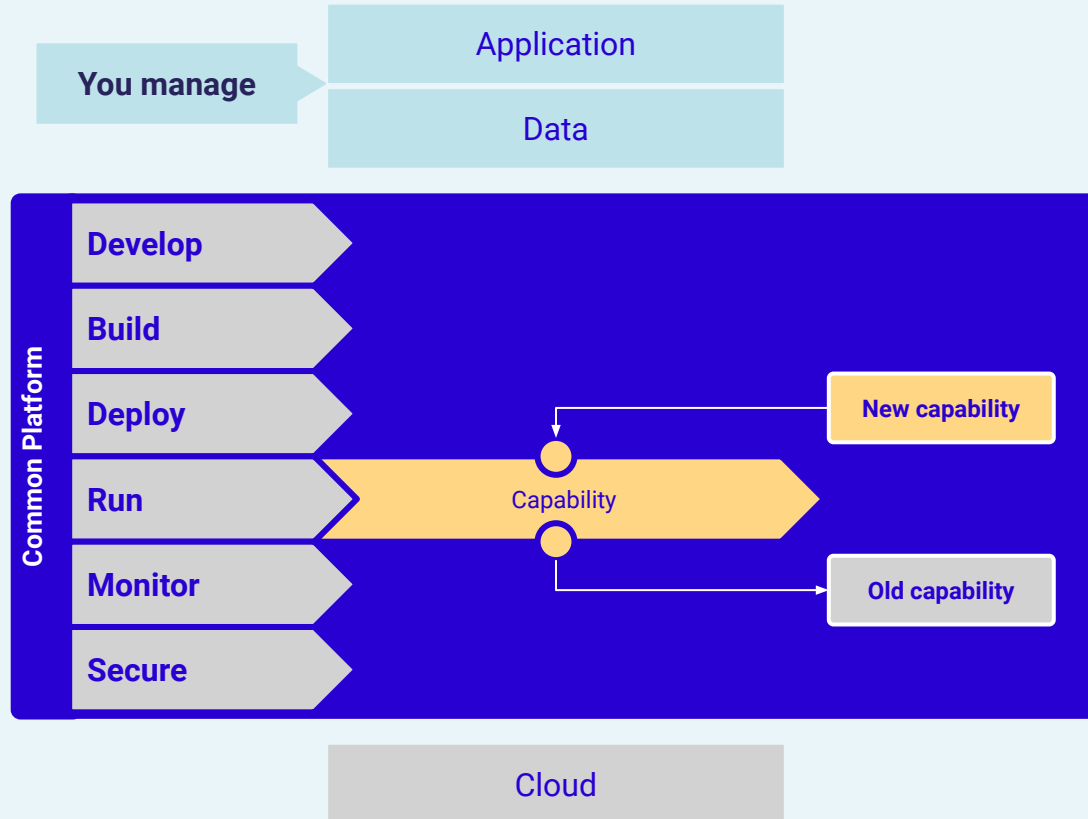
# Opt-outs with to **escape hatches**



# Developer experience, glue, interfaces



# Designed to **evolve** with **transparent** migrations



# Know your **metrics**



## Our **journey** at Adevinta

# From Schibsted to Adevinta

180 years of transformation

1839

Christian Michael Schibsted founded Schibsted Forlag; publishing company



1992

Schibsted listed on the Oslo Stock Exchange

2006

Quickly expanded presence in online classifieds through acquisitions and JV launches

leboncoin

WILLHABEN

segundamano

2008

Schibsted Classified Media established as a separate business unit, with Rolv Erik Ryssdal as the first CEO.

2019

Adevinta

Adevinta is born: The group spins off from Schibsted and IPOs on the Oslo Stock Exchange

Acquisition of

Groupe Argus locasun

PAYCAR

2021



Adevinta acquires eCG, expanding its presence to 16 countries globally

1860

Aftenposten founded  
Aftenposten

2000

First foray into online classifieds



2007-12

Schibsted continues its expansion

subito

DoneDeal

Jófogás

kufar

Használató hu

2014-18

Schibsted acquires

OLX Brasil

revendre alouer

habitaclia

milanuncios

2020

OLX Brasil acquires

grupo ZAP

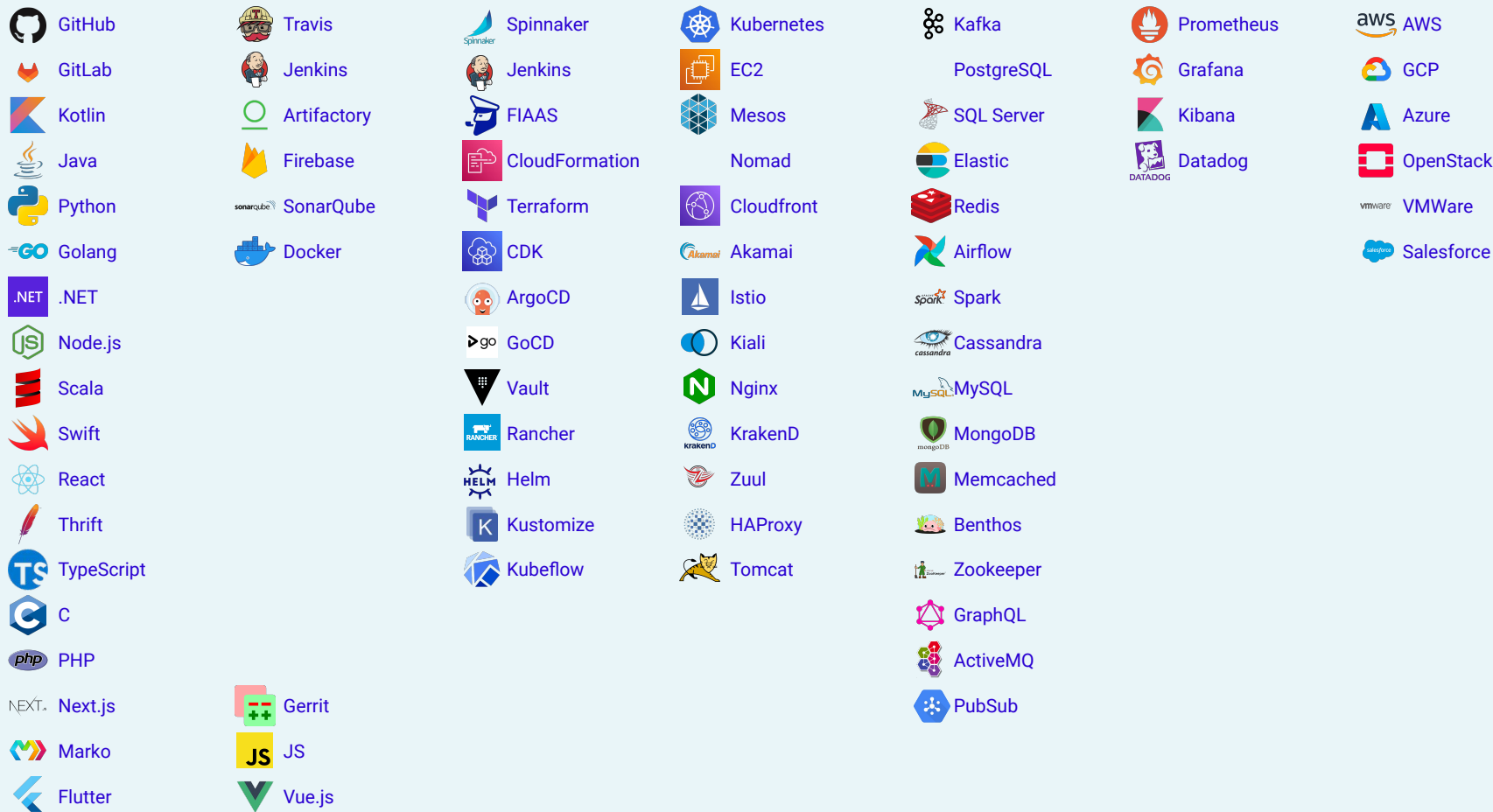
Establishing roots in publishing & media

Schibsted expands into online classifieds

Global leader in digital marketplaces



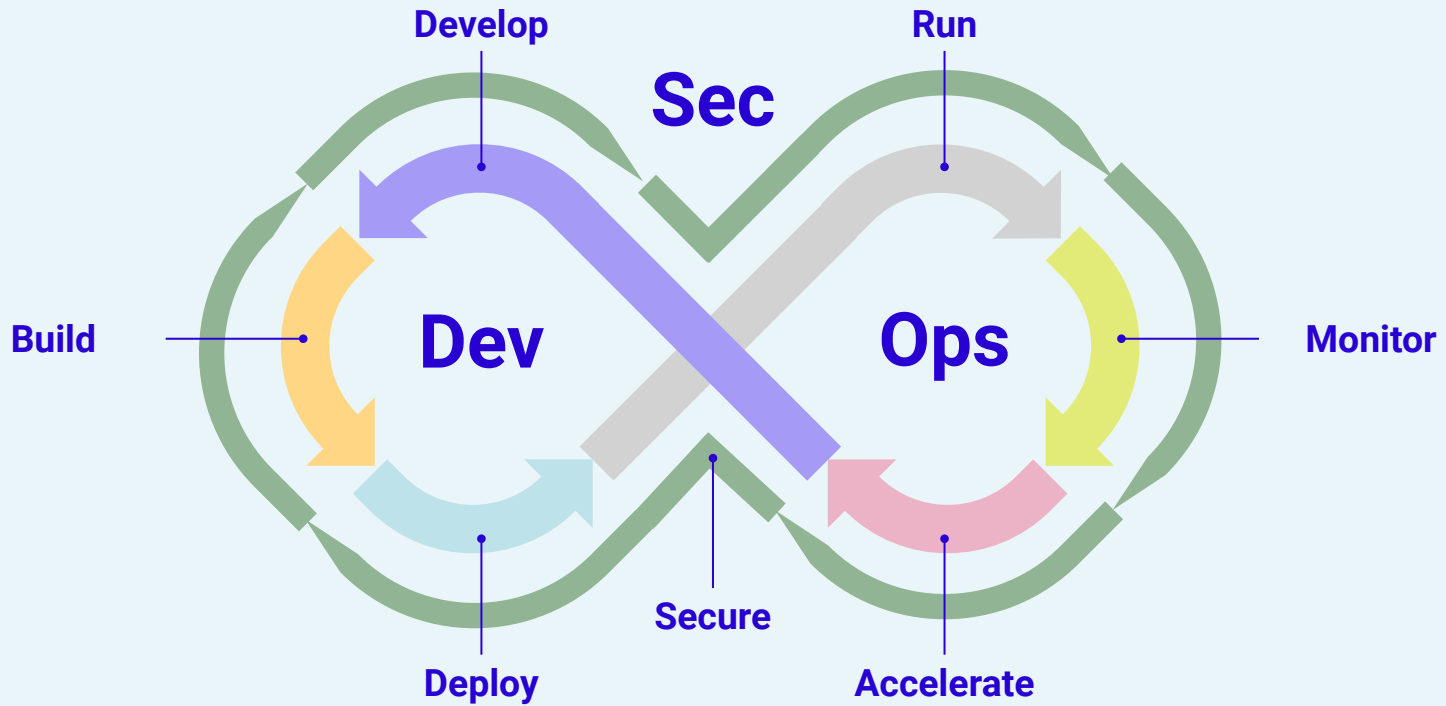
**Adevinta's local marketplaces**  
37 brands across 16 countries





# Common Platform

We built an **internal platform** to enable engineers  
**develop** and **operate** applications faster.



Provides capabilities for the entire  
lifecycle of an application

# Developer journey

## Develop

Code automation and ChatOps tools

### Templates

Code scaffolding

### Skynet

Releases, deps updates, auto merges, review assignments

### Yack

Automatically publish documentation

### Plugins & Libs

Java plugin

## Build

Continuous integration

### Travis CI

Off-the-shelf continuous integration

### Artifactory

Artifact store

### Quality Gate

Continuous control of the quality of the source code

## Deploy

Continuous delivery

### Spinnaker

Continuous delivery pipeline

### FIAAS

Opinionated abstraction layer for Kubernetes

### Cloudformation

Deploy infrastructure as code

## Run

Managed Kubernetes

### SCHIP

Production ready managed Kubernetes with integrations

### Rudder

Orchestration of applications across Kubernetes clusters

### GSN

Network automation

## Monitor

Operational metrics and logs

### Grafana Cloud

Metrics, dashboards, alerts and monitoring as code

### Grafana Loki

Log aggregation

### Alert Gateway

Incident management and response

## Accelerate

Insights and tools for elite delivery

### Ledger

DevOps metrics and cost tracking

### Platform Hub

Setup tools and applications management portal

## Secure

Security awareness and automation

### Ethical Hacking

Security reviews, penetration testing, asset discovery

### Security Advisory

Support for security incidents and non-urgent requests

### Dependabot

Automatic security updates

### Hardened images

Customized images for instances and containers

### Security monitoring

Analysis of cloud events

### Vulcan

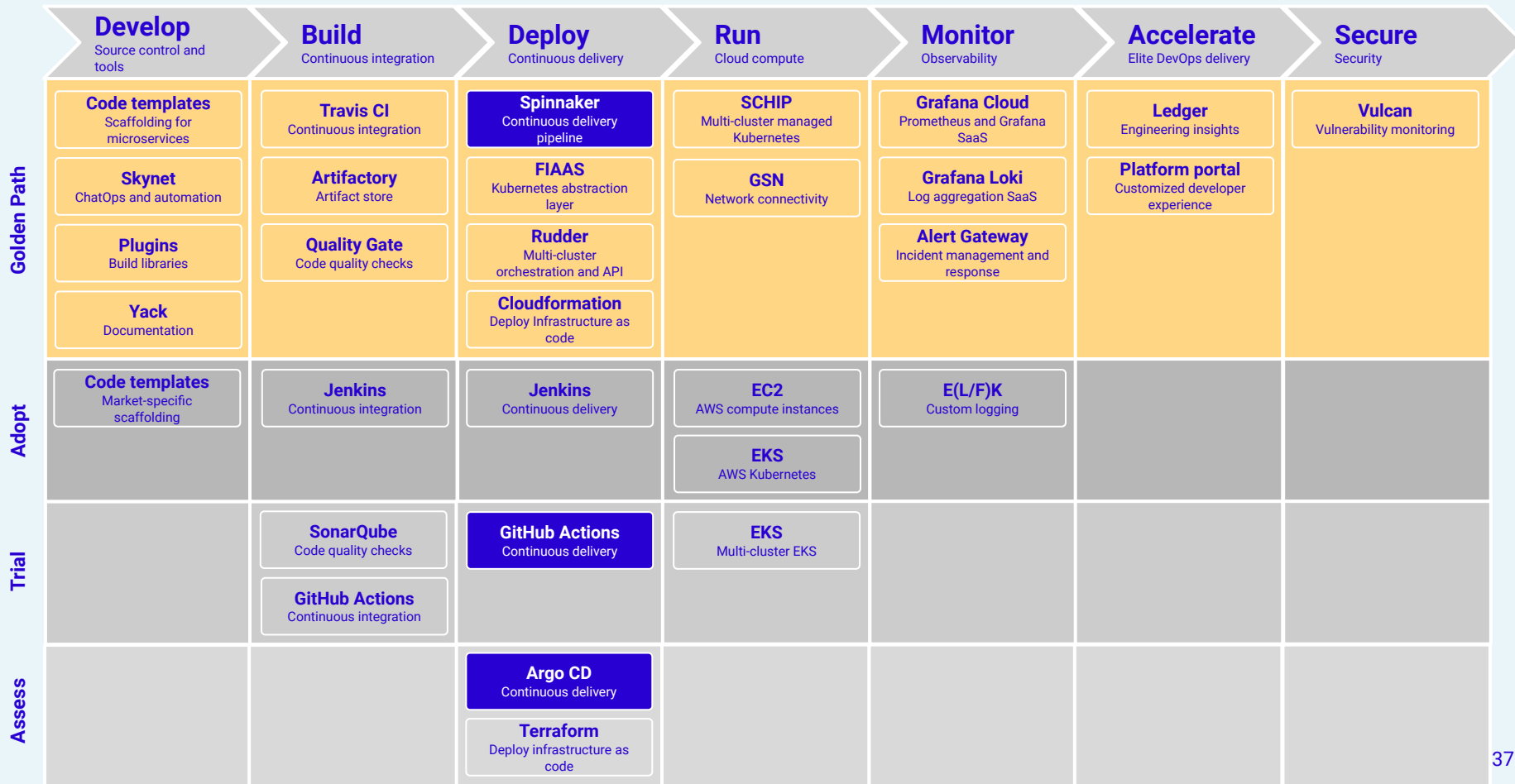
Security vulnerability scanning

# Developer journey

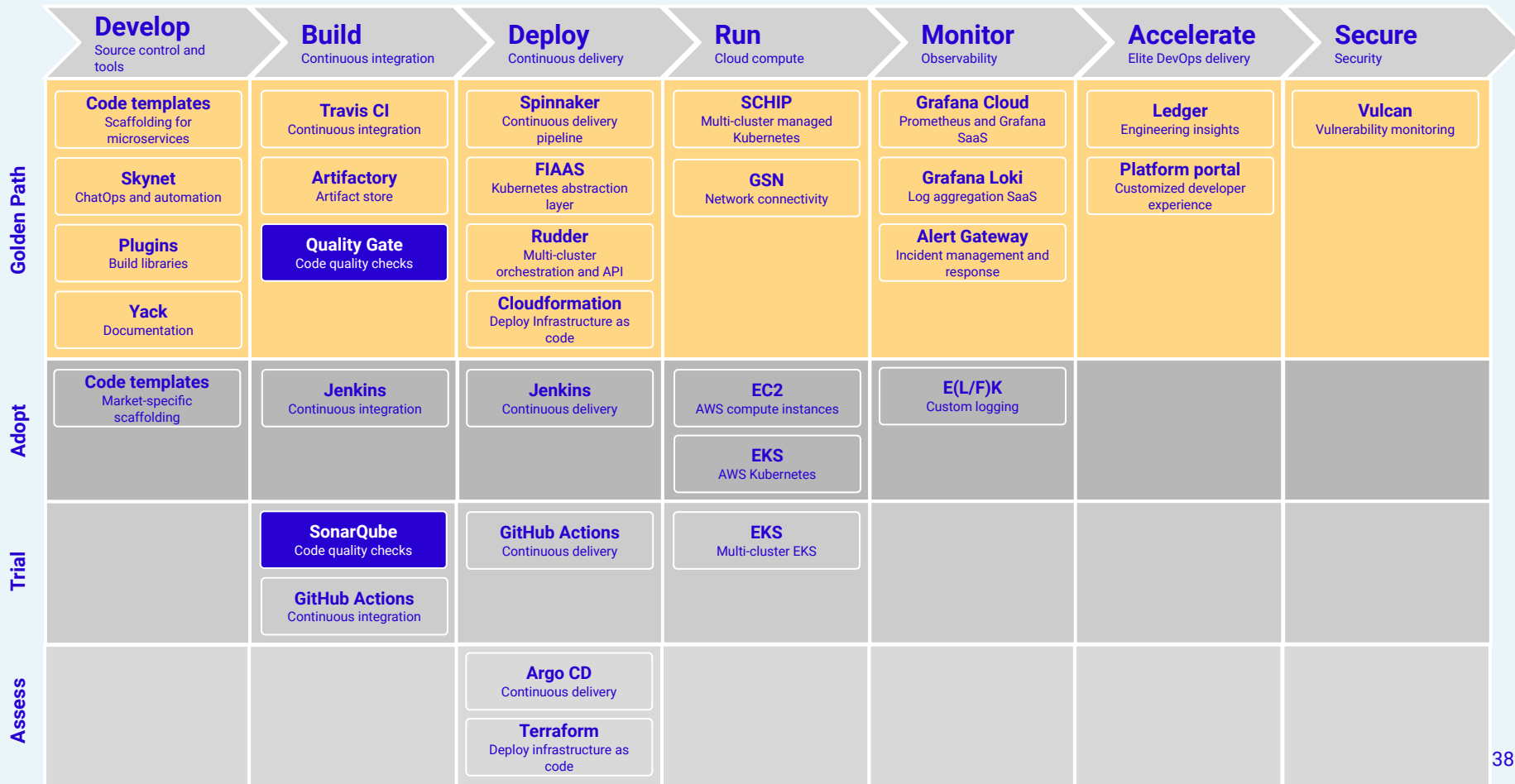
	Develop Source control and tools	Build Continuous integration	Deploy Continuous delivery	Run Cloud compute	Monitor Observability	Accelerate Elite DevOps delivery	Secure Security
Golden Path	<b>Code templates</b> Scaffolding for microservices	<b>Travis CI</b> Continuous integration	<b>Spinnaker</b> Continuous delivery pipeline	<b>SCHIP</b> Multi-cluster managed Kubernetes	<b>Grafana Cloud</b> Prometheus and Grafana SaaS	<b>Ledger</b> Engineering insights	<b>Vulcan</b> Vulnerability monitoring
	<b>Skynet</b> ChatOps and automation	<b>Artifactory</b> Artifact store	<b>FIAAS</b> Kubernetes abstraction layer	<b>GSN</b> Network connectivity	<b>Grafana Loki</b> Log aggregation SaaS	<b>Platform portal</b> Customized developer experience	
	<b>Plugins</b> Build libraries	<b>Quality Gate</b> Code quality checks	<b>Rudder</b> Multi-cluster orchestration and API		<b>Alert Gateway</b> Incident management and response		
	<b>Yack</b> Documentation		<b>Cloudformation</b> Deploy Infrastructure as code				
Adopt	<b>Code templates</b> Market-specific scaffolding	<b>Jenkins</b> Continuous integration	<b>Jenkins</b> Continuous delivery	<b>EC2</b> AWS compute instances	<b>E(L/F)K</b> Custom logging		
				<b>EKS</b> AWS Kubernetes			
Trial		<b>SonarQube</b> Code quality checks	<b>GitHub Actions</b> Continuous delivery	<b>EKS</b> Multi-cluster EKS			
		<b>GitHub Actions</b> Continuous integration					
Assess			<b>Argo CD</b> Continuous delivery				
			<b>Terraform</b> Deploy infrastructure as code				

36

# Designed to evolve



# Thinnest viable platform



# Using escape hatches

	Develop Source control and tools	Build Continuous integration	Deploy Continuous delivery	Run Cloud compute	Monitor Observability	Accelerate Elite DevOps delivery	Secure Security
Golden Path	<b>Code templates</b> Scaffolding for microservices	<b>Travis CI</b> Continuous integration	<b>Spinnaker</b> Continuous delivery pipeline	<b>SCHIP</b> Multi-cluster managed Kubernetes	<b>Grafana Cloud</b> Prometheus and Grafana SaaS	<b>Ledger</b> Engineering insights	<b>Vulcan</b> Vulnerability monitoring
	<b>Skynet</b> ChatOps and automation	<b>Artifactory</b> Artifact store	<b>FIAAS</b> Kubernetes abstraction layer	<b>GSN</b> Network connectivity	<b>Grafana Loki</b> Log aggregation SaaS	<b>Platform portal</b> Customized developer experience	
	<b>Plugins</b> Build libraries	<b>Quality Gate</b> Code quality checks	<b>Rudder</b> Multi-cluster orchestration and API		<b>Alert Gateway</b> Incident management and response		
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Adopt	<b>Code templates</b> Market-specific scaffolding	<b>Jenkins</b> Continuous integration	<b>Jenkins</b> Continuous delivery	<b>EC2</b> AWS compute instances	<b>E(L/F)K</b> Custom logging		
				<b>EKS</b> AWS Kubernetes			
Trial		<b>SonarQube</b> Code quality checks	<b>GitHub Actions</b> Continuous delivery	<b>EKS</b> Multi-cluster EKS			
		<b>GitHub Actions</b> Continuous integration					
Assess			<b>Argo CD</b> Continuous delivery				
			<b>Terraform</b> Deploy infrastructure as code				

# Transparent migrations

On the platform

2

developers for a month

250

repositories

Off the platform

180

pull requests

40

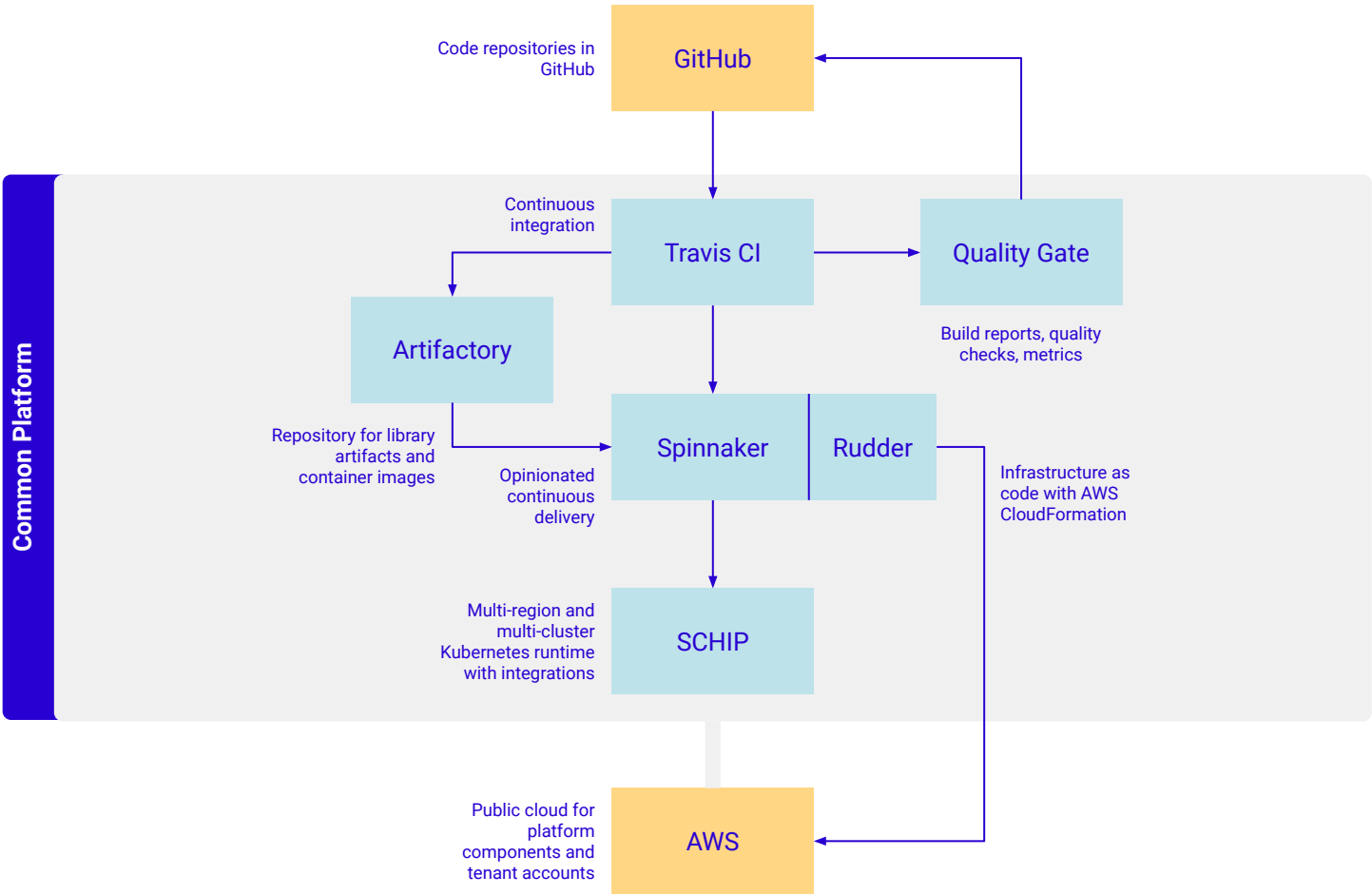
developers

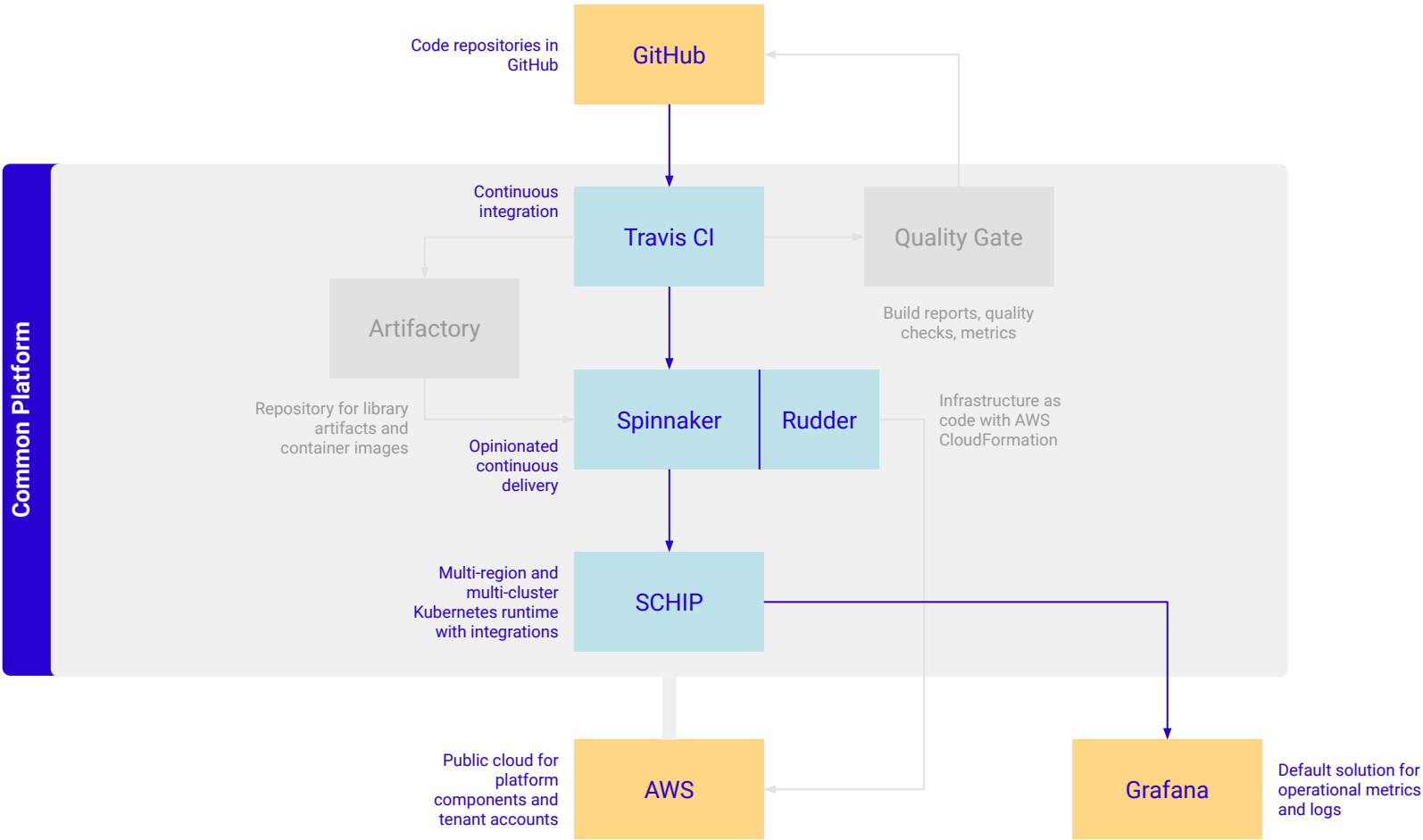
60+

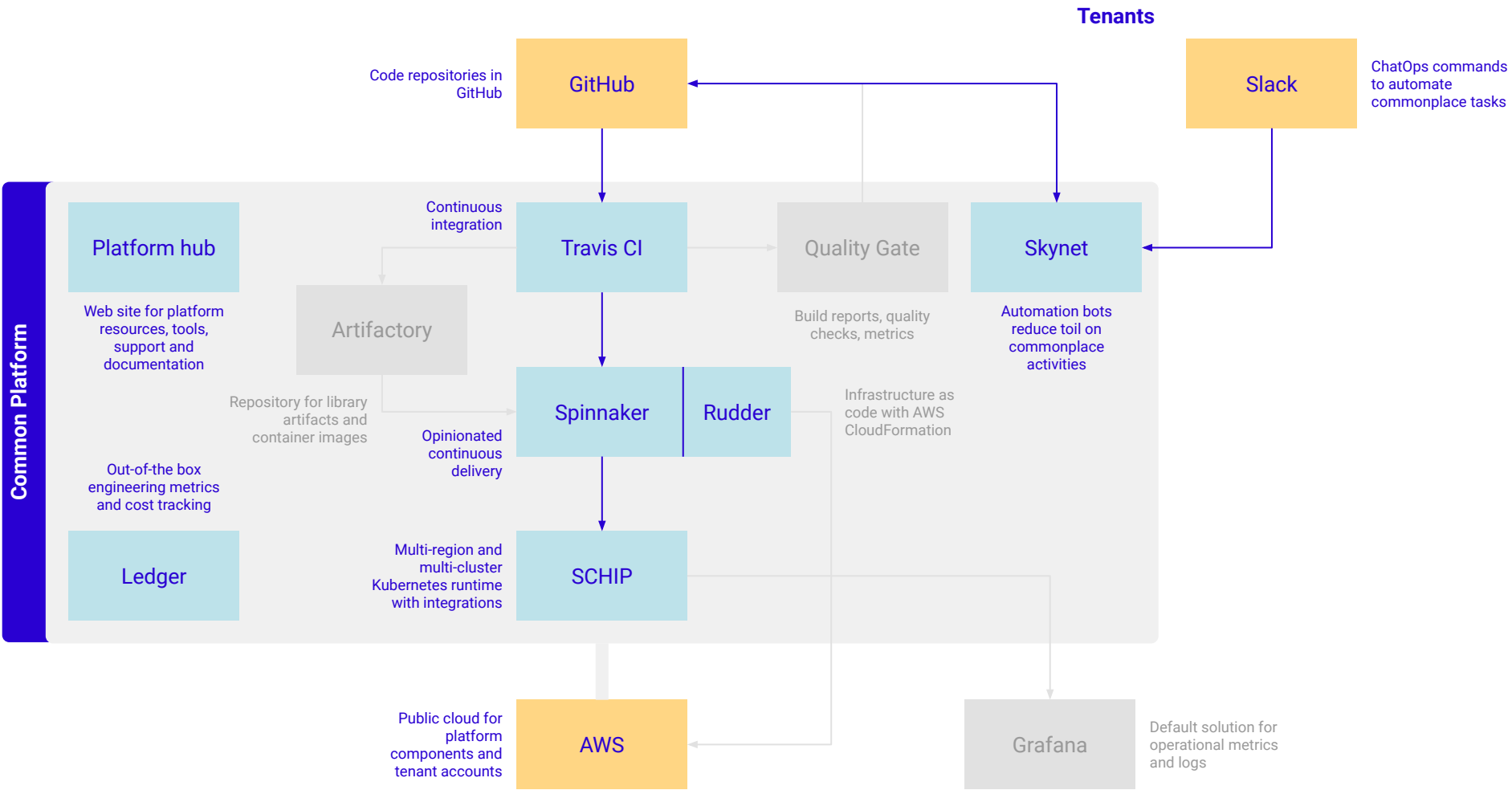
reviewers

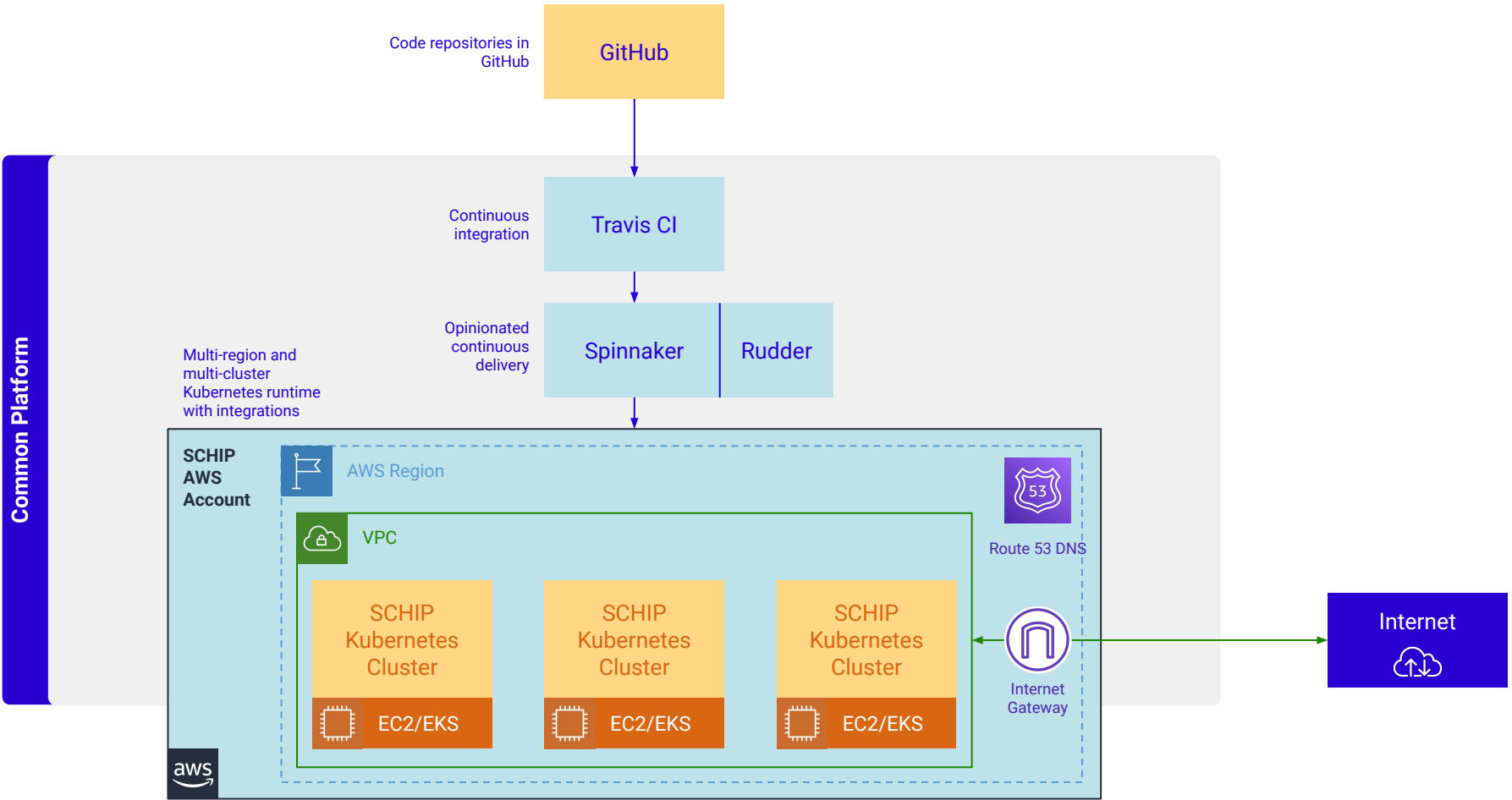
20<sub>x</sub>

less effort







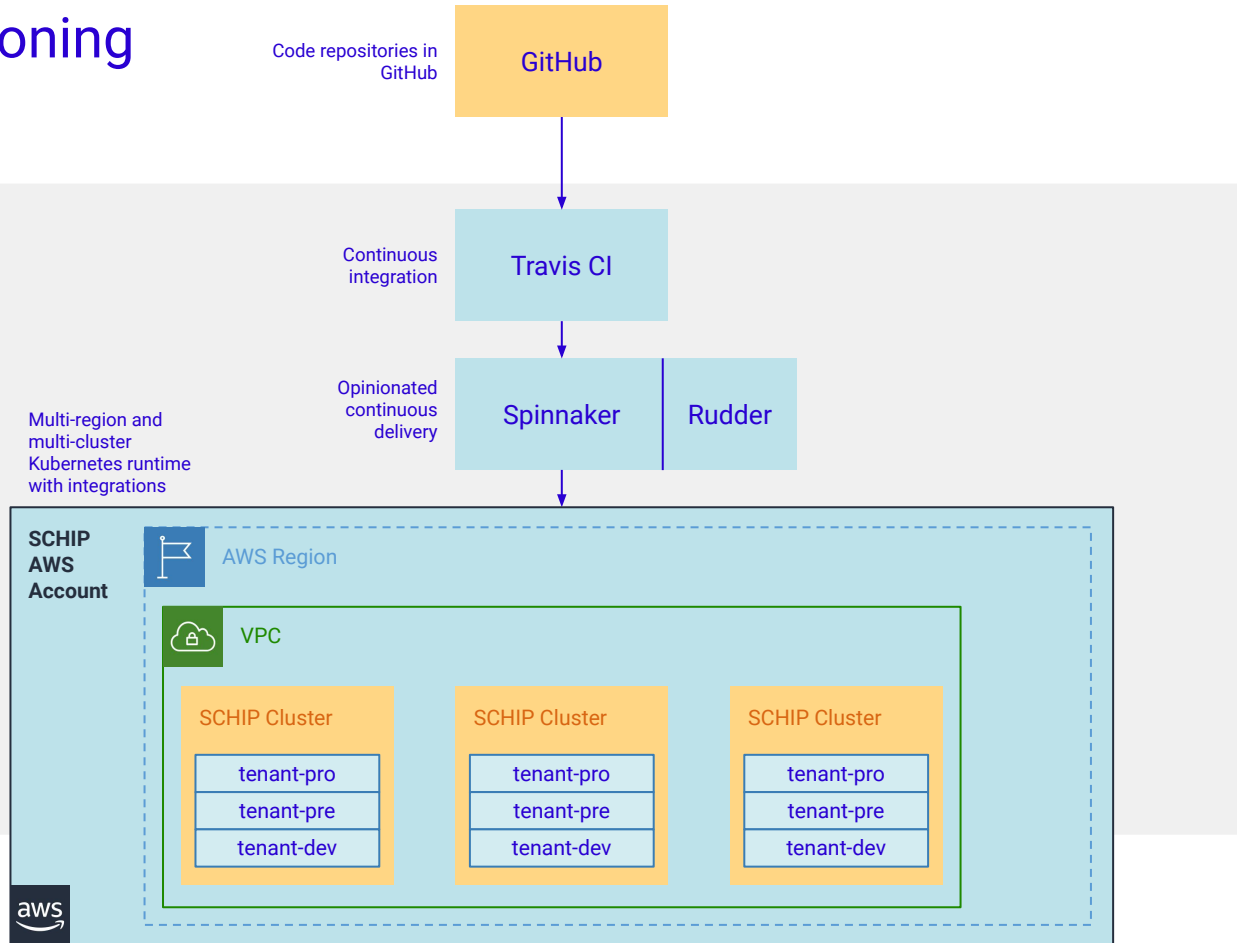


# Tenant Provisioning

Tenants

Common Platform

Public Cloud

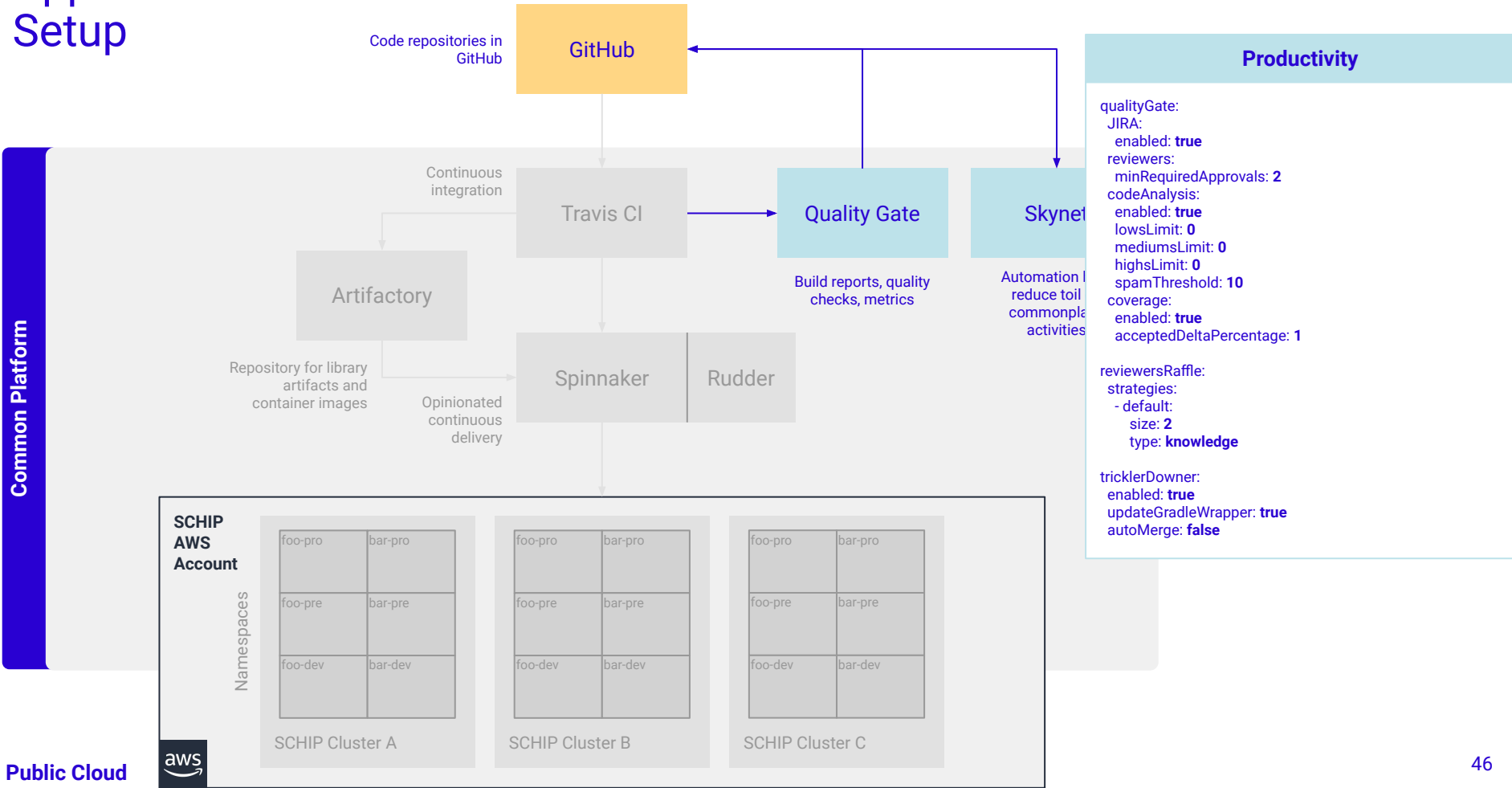


# Application Setup

Tenants

Common Platform

Public Cloud

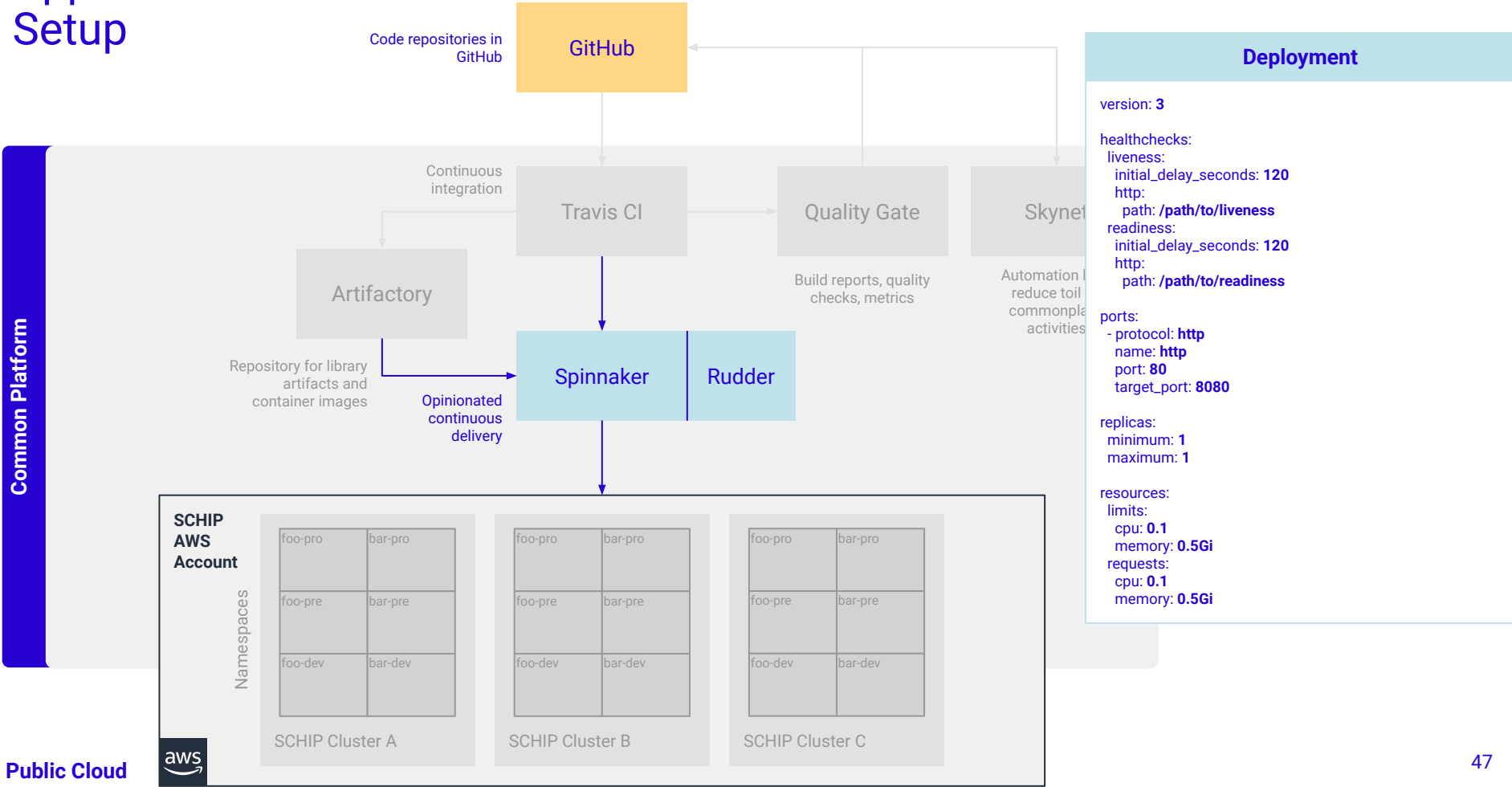


# Application Setup

## Tenants

Common Platform

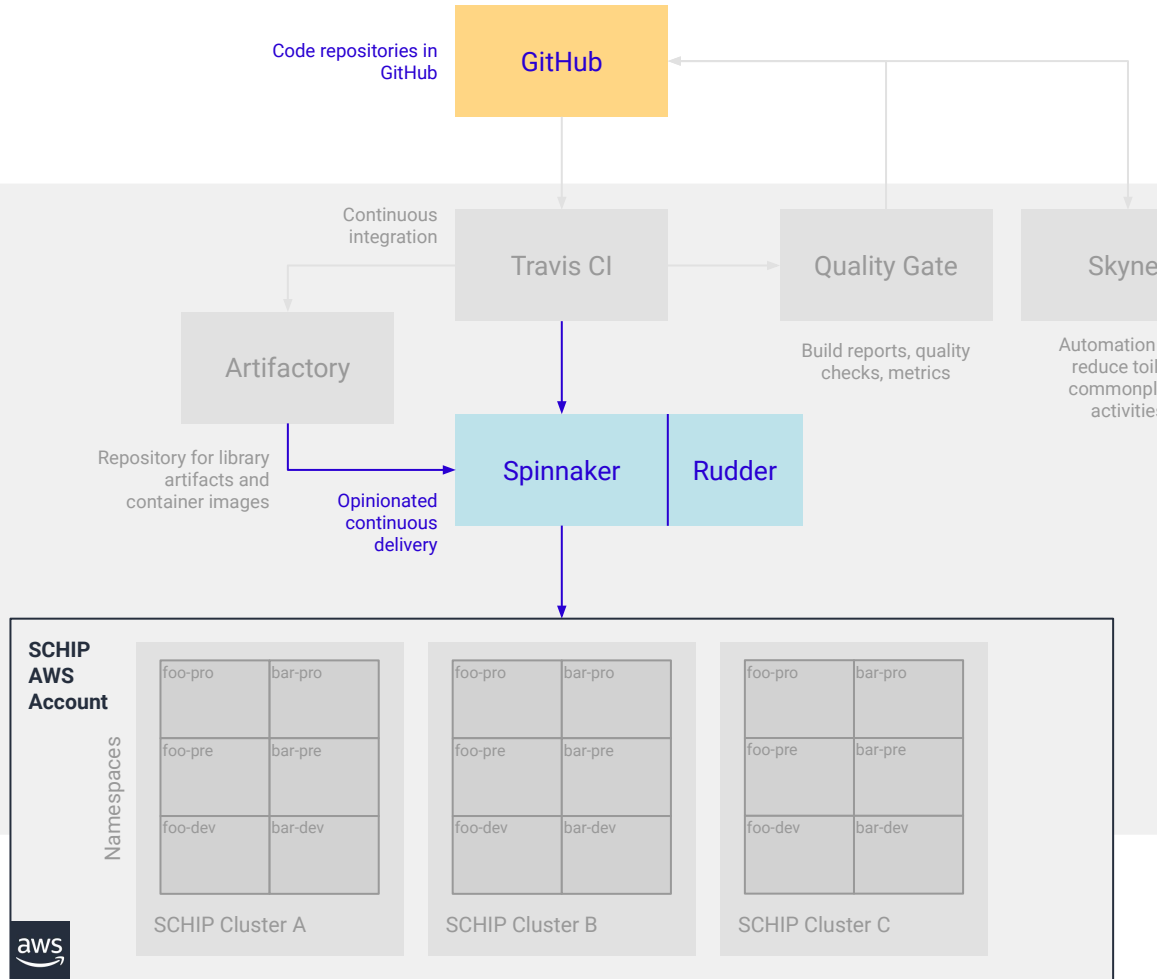
Public Cloud



# Application Setup

## Tenants

### Common Platform



### Pipeline

```
schema: "1"
source: .../paas-v2-general-template.master.yml
metadata:
  name: "app"
  owner: "foo"

variables:
  - name: deployToDev
    type: boolean
    defaultValue: false

  - name: deployToPre
    type: boolean
    defaultValue: false

  - name: deployToPro
    type: boolean
    defaultValue: true

  - name: tenant
    type: string
    defaultValue: "foo"

  - name: kubernetesObjectsName
    type: string
    defaultValue: "app"

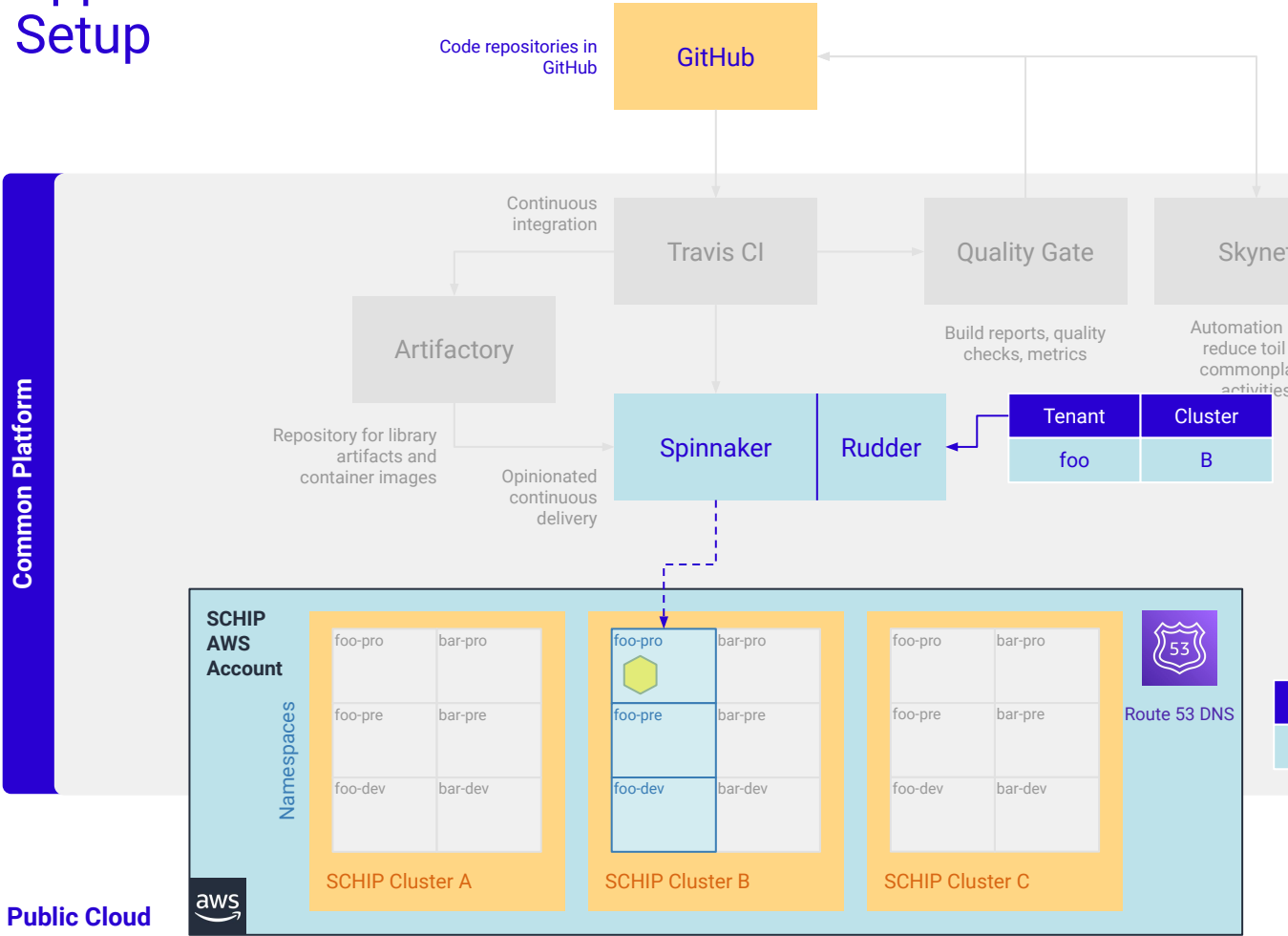
  - name: region
    type: string
    defaultValue: "eu-west-1"

  - name: ha
    type: boolean
    defaultValue: false
```

# Application Setup

Common Platform

Public Cloud



## Tenants

**Pipeline**

variables:

- name: **deployToDev**  
type: **boolean**  
defaultValue: **false**
- name: **deployToPre**  
type: **boolean**  
defaultValue: **false**
- name: **deployToPro**  
type: **boolean**  
defaultValue: **true**
- name: **tenant**  
type: **string**  
defaultValue: **"foo"**
- name: **region**  
type: **string**  
defaultValue: **"eu-west-1"**
- name: **ha**  
type: **boolean**  
defaultValue: **false**

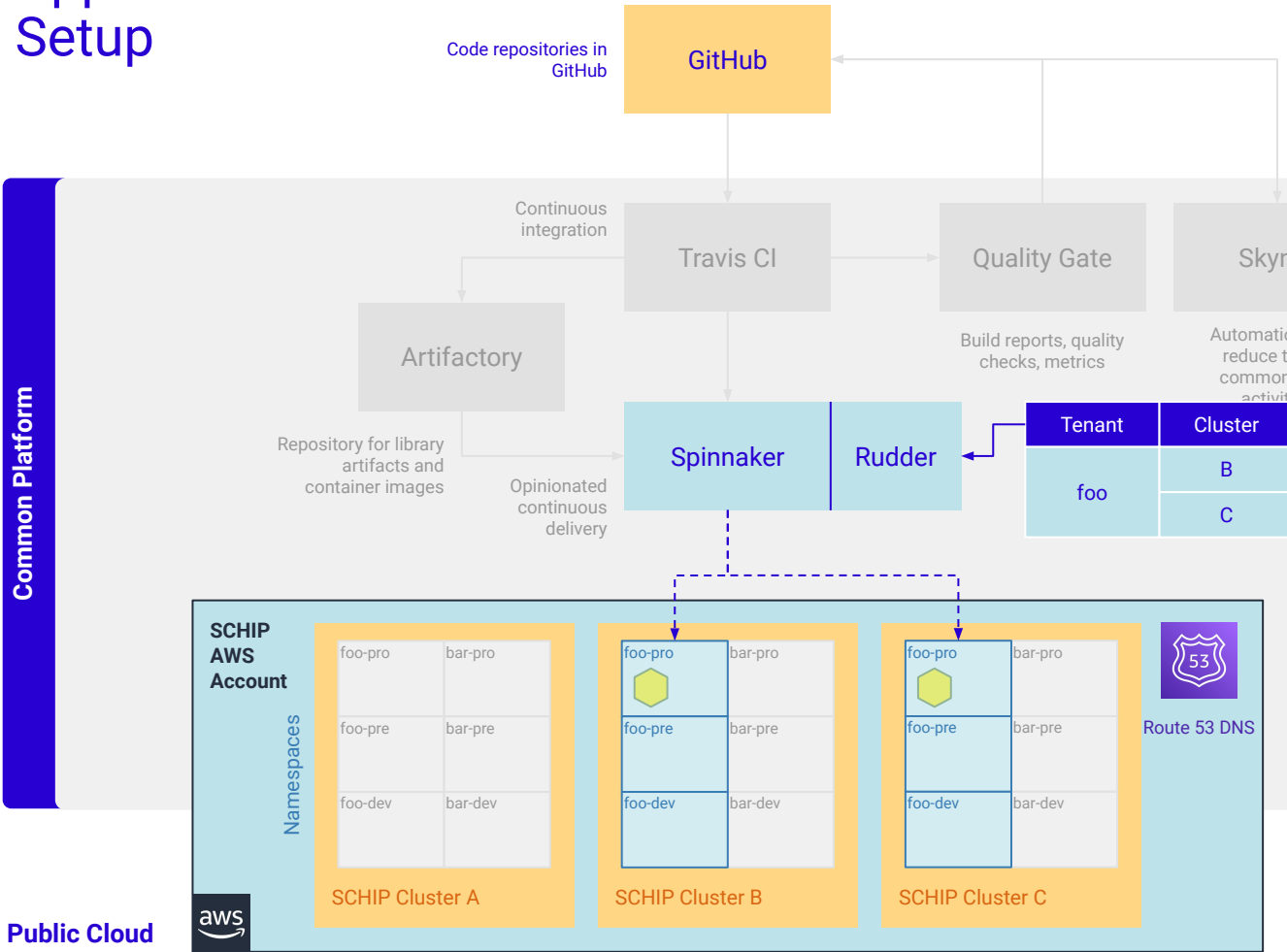
DNS Record	Weight <sup>1</sup>
app.foo-pro.cluster-b.schip.io	100

<sup>1</sup> Not actual weight values 49

# Application Setup

Common Platform

Public Cloud



## Tenants

### Pipeline

variables:

- name: **deployToDev**  
type: **boolean**  
defaultValue: **false**
- name: **deployToPre**  
type: **boolean**  
defaultValue: **false**
- name: **deployToPro**  
type: **boolean**  
defaultValue: **true**
- name: **tenant**  
type: **string**  
defaultValue: **"foo"**
- name: **region**  
type: **string**  
defaultValue: **"eu-west-1"**
- name: **ha**  
type: **boolean**  
defaultValue: **true**

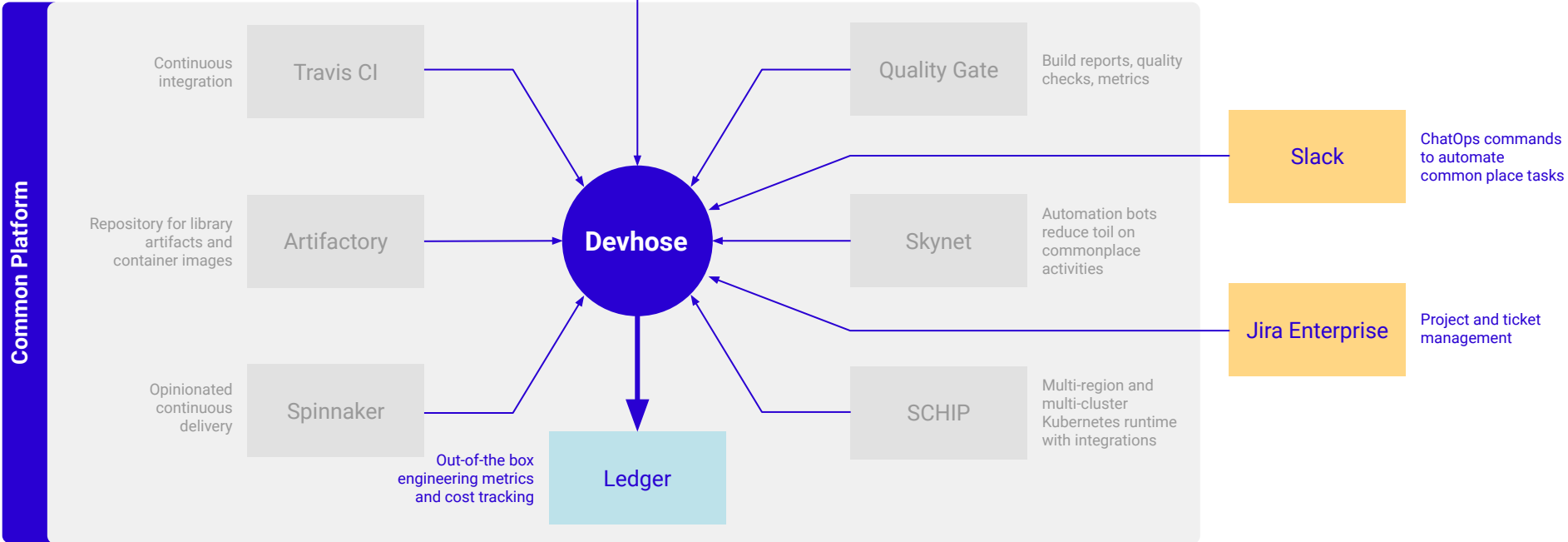
Tenant	Cluster
foo	B
	C

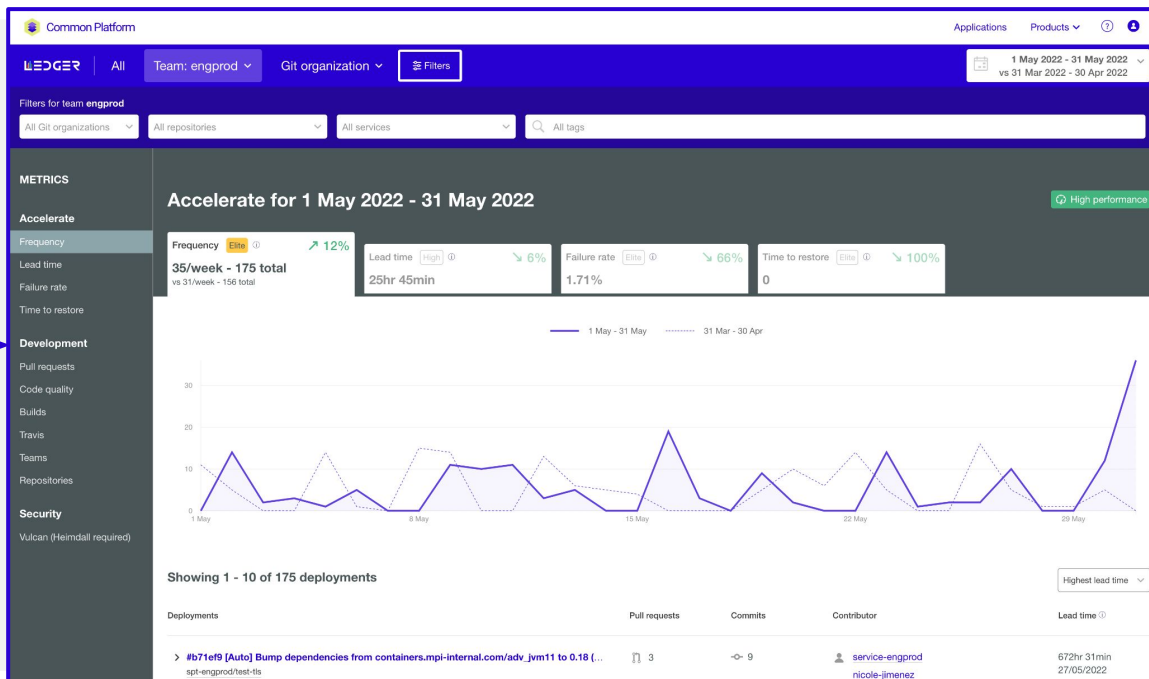
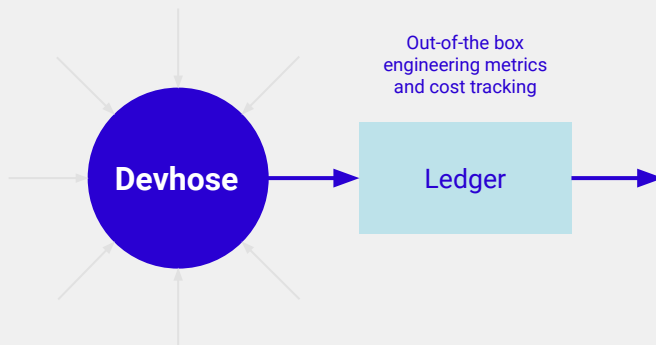
DNS Record	Weight <sup>1</sup>
app.foo-pro.cluster-b.schip.io	50
app.foo-pro.cluster-c.schip.io	50

<sup>1</sup> Not actual weight values 50

# Architectural glue

Tenants





**Let's have a look**

# Our journey and lessons learned

2017

**Create a platform services team** to consolidate infrastructure and software development services

2018

**Create a Golden Path** with tooling already provided globally to the organization

2019

**Nail the MVP** with a focus on automated self-service onboarding on the Golden Path but with enough escape hatches to enable teams to keep desired capabilities

2020

**Enhance the developer experience** with a developer portal to help product teams unfamiliar with the new technologies

2021

**Scale the platform** with multi-cluster Kubernetes and refined insights

2022

**Modernize and consolidate** the platform capabilities while enabling other teams to extend and build on top

**Let's recap**

Thank you





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**Guide**



Remember to  
**rate this session**

THANK YOU!



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