// conference june 13th 2024

## KCD Zürich 2024



Reality vs Hype From the viewpoint of a CNCF Ambassador With a focus on "The Role of Observability"

With inspiration from <a href="https://ksick.dev">https://ksick.dev</a>





Andreas Grabner

PRESENTER

CNCF Ambassador & DevRel @grabnerandi



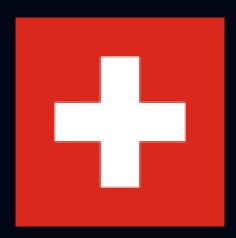












## CONGRATS: 10 YEARS APART - SWITZERLAND AND AUSTRIA WIN THE SONG CONTEST





## LETS SEE IF 16 YEARS AFTER OUR EURO ONE OF US CONQUERS EUROPE ©





### Zurich: It seems we have a problem!



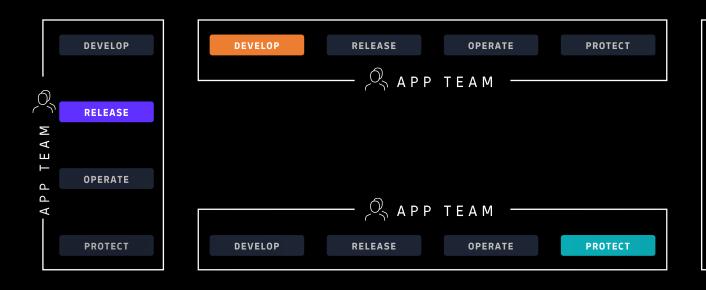
Source: State of DevOps / Platform Engineering Edition



## Shifting left! Teams taking on more responsibility

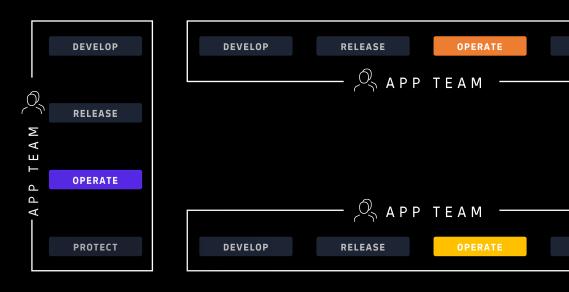


## When Organizations grow - Teams start do things "their way"!





## When Organizations grow - "their way" becomes "duplicated effort!"





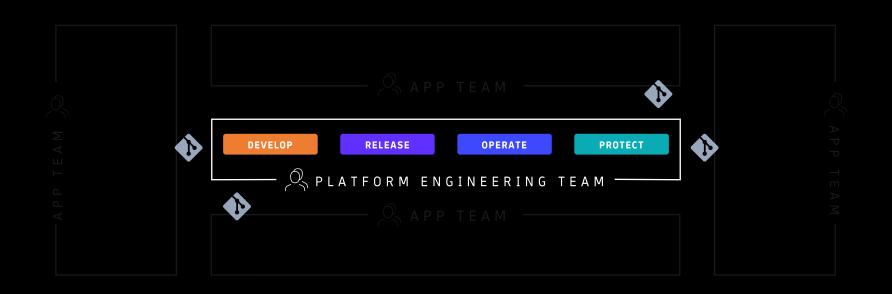
PROTECT

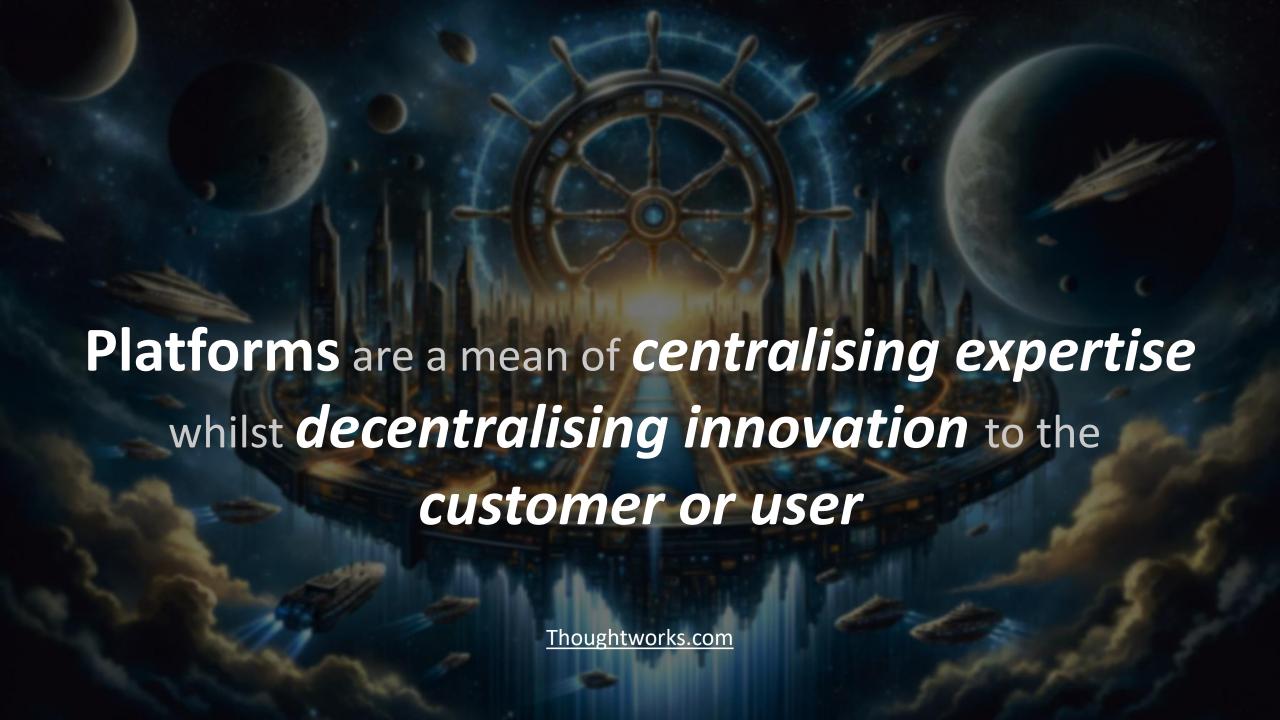
PROTECT

## Central Services became the "Patch Solution"

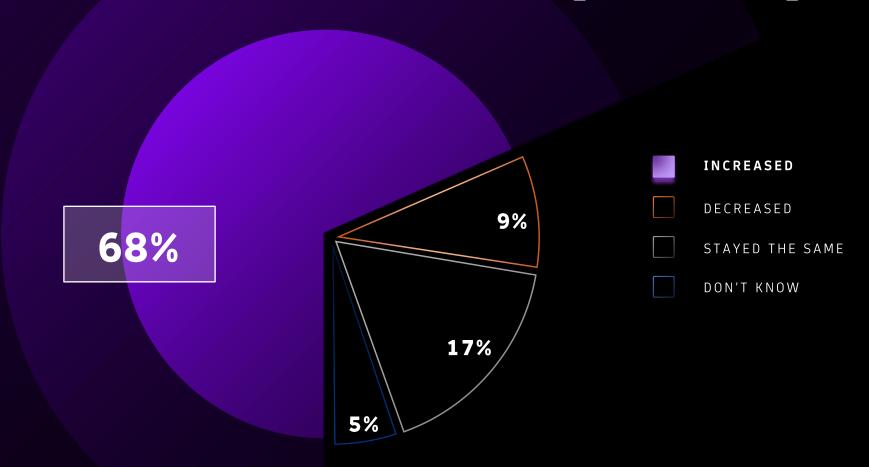


# Leading to Platform Engineering: Git\* as one Interface for "Golden Path Self-Service"





## Developer Productivity as Key Measure of Success to Platform Engineering!



Source: State of DevOps / Platform Engineering Edition

### More tangible KPIs to measure success

### Business benefits achieved and lessons learned Outcomes of developer time is spend in productive activities

50K active projects with 12.7K active users

42.7M pipeline runs by 2023 (*up from 3M, 2019*)

324K user stories by 2023 (up from 22K in FY20)

99% of MTT Instrument reduction (days down to minutes)

Significant reduction in incident count with major improvements in code quality

Dell Digital Proven ঞি

#### Lessons learned

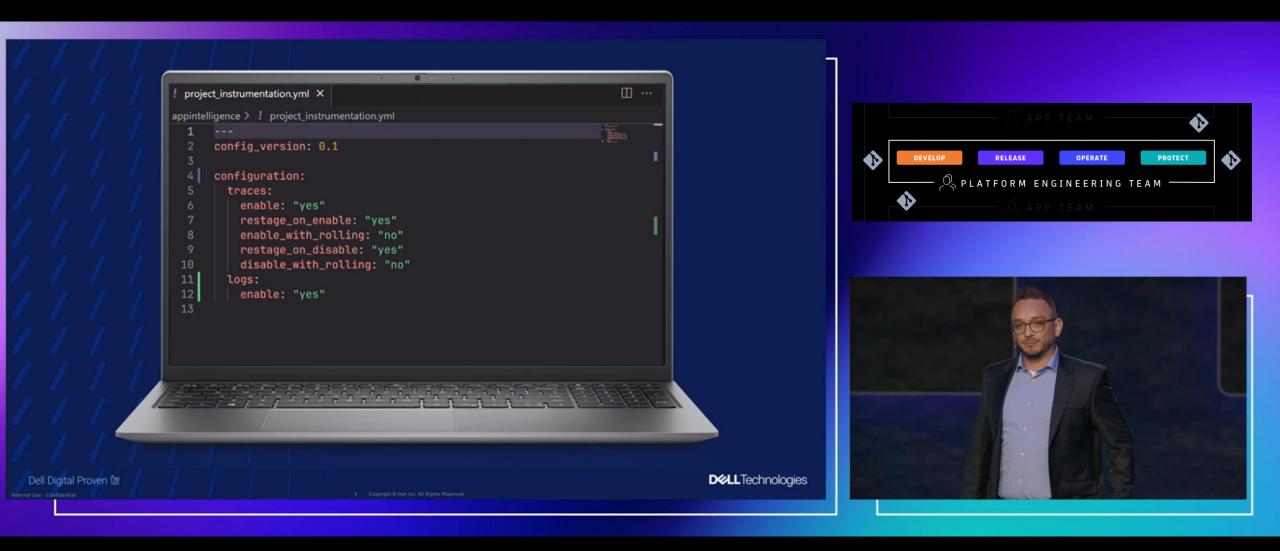
- ✓ Understand the developer journey and how they spend their time
- ✓ Automating standards enables developers to code quickly & with increased security
- ✓ Provide flexibility, but with guardrails
- ✓ Use metrics to measure progress
- ✓ Put the customer at the center (consider product model)

**D¢LL**Technologies



Source: Marcio Lena, Sr. Dir App Intelligence and SRE @ Dell – Dynatrace Perform 2024

### Git enables "Observability as Self-Service"



Source: Marcio Lena, Sr. Dir App Intelligence and SRE @ Dell – Dynatrace Perform 2024

"By 2026, 80% of

large software engineering organizations

will establish platform engineering teams as

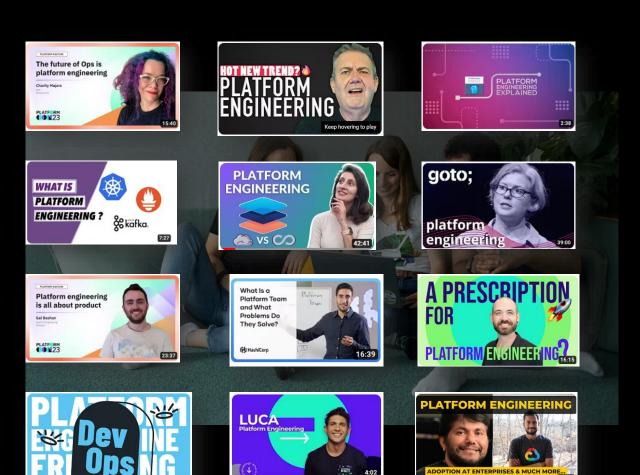
internal providers of reusable services, components and tools for application delivery"

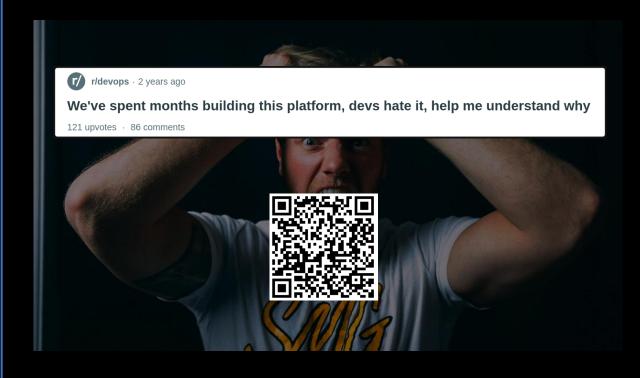
Gartner

Read the full blog here: https://www.gartner.com/en/articles/what-is-platform-engineering



## Hype vs Reality





### Follow a Platform as a Product Mindest



Find the pain points and needs of your users



Have a clear mission with measurable KPIs



Design for a good User/Dev Experience



Start with the TVP (Thinnest Viable Platform)



Make everything observable

## Let's quickly kick off the demo!



https://dt-url.net/devrel-PE-demo

**Developer Self-Service**: Onboarding an app with automated observability & security

















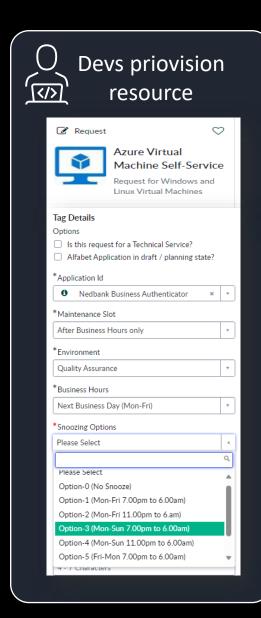


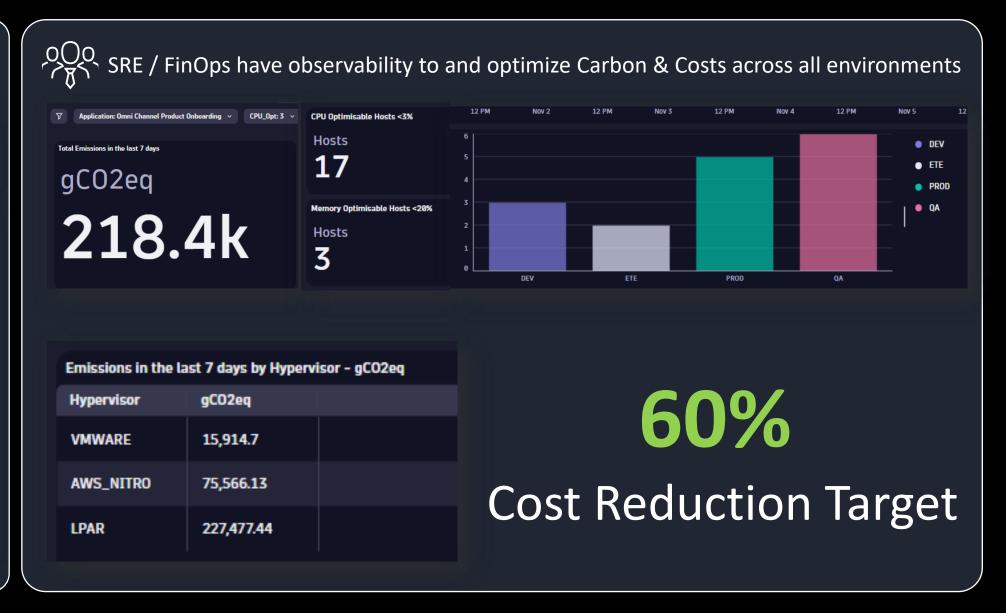




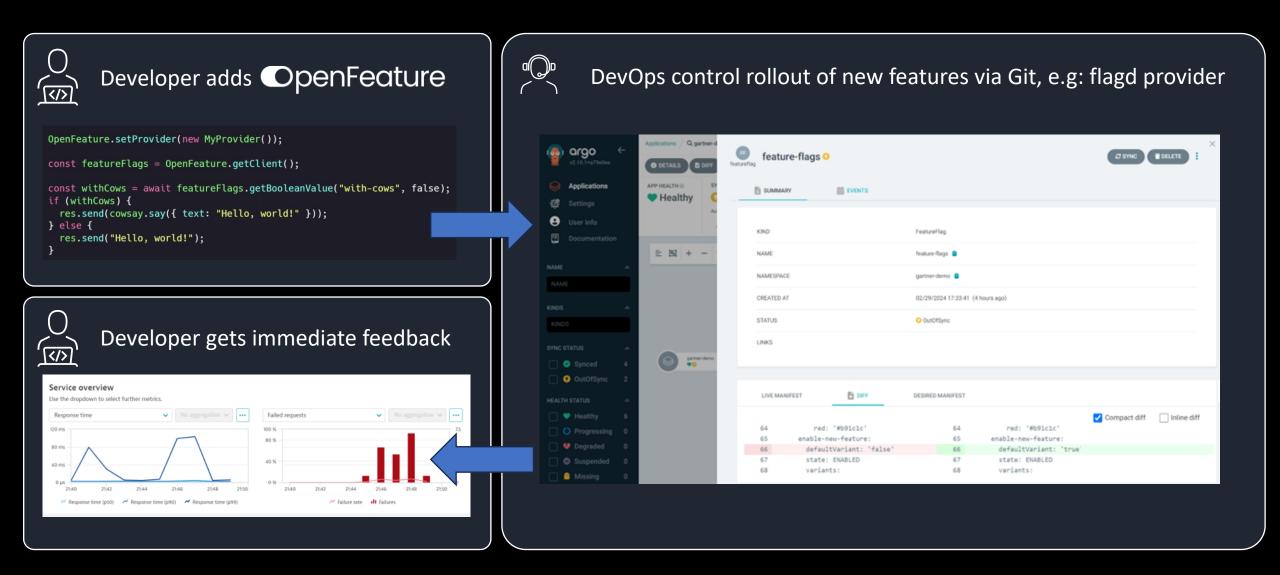


### Use Case: Automated FinOps @ Bank





## Use Case: Self-Service Feature Flagging



## Tip: Follow Cloud Native Best Practices

#### Community providing practices on releases / apps











#### Labels

In order to take full advantage of using these labels, they should be applied on every resource object.

Key	Description
app.kubernetes.io/name	The name of the application
app.kubernetes.io/instance	A unique name identifying the instance of an application
app.kubernetes.io/version	The current version of the application (e.g., a SemVer 1.0, revision hash, etc.)
app.kubernetes.io/component	The component within the architecture
app.kubernetes.io/part-of	The name of a higher level application this one is part of
app.kubernetes.io/managed-by	The tool being used to manage the operation of an application



### Use Case: Self-Service Onboarding @ Dynatrace



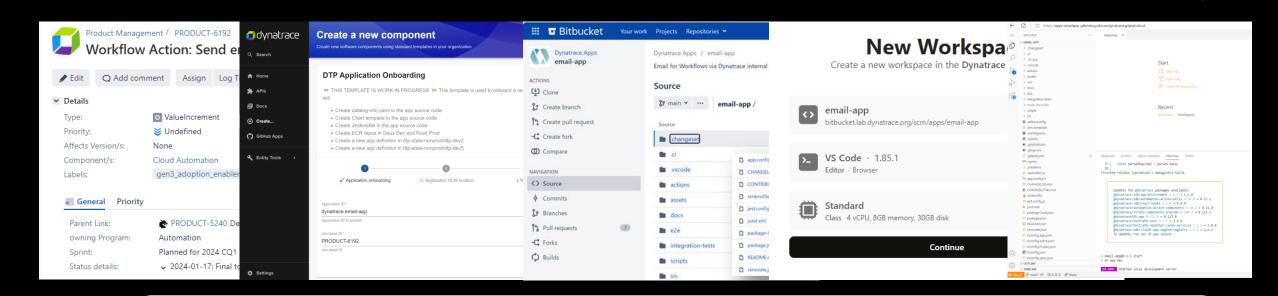




**GitHub** 

























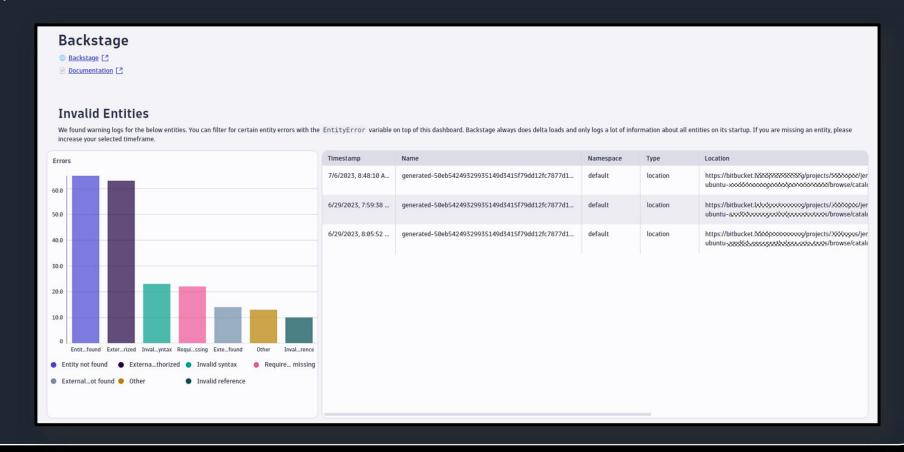


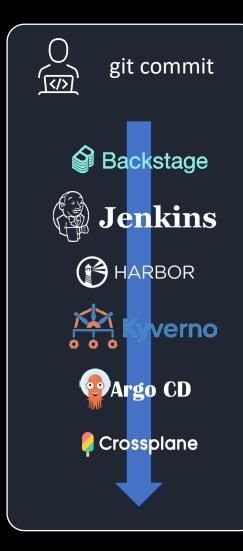






Platform Engineering: Are all templates properly configured and used?





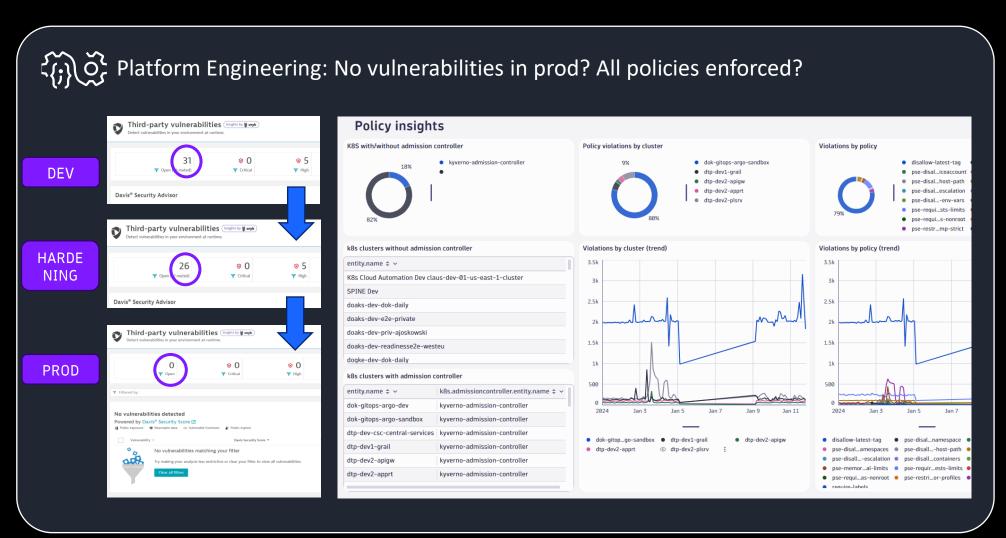
Platform Engineering: Do we have any issues and bottlenecks in our pipelines? May 11 - May 4 v compared to Last 90 days v III Select Visualisation > Average Duration (in min) Standard Deviation 413 (323) +78% **50.6** (66) -31% 102 (110) -8% 30.5 **Response Time** 



Platform Engineering: Is our container registry running smoothly? Which teams use it?

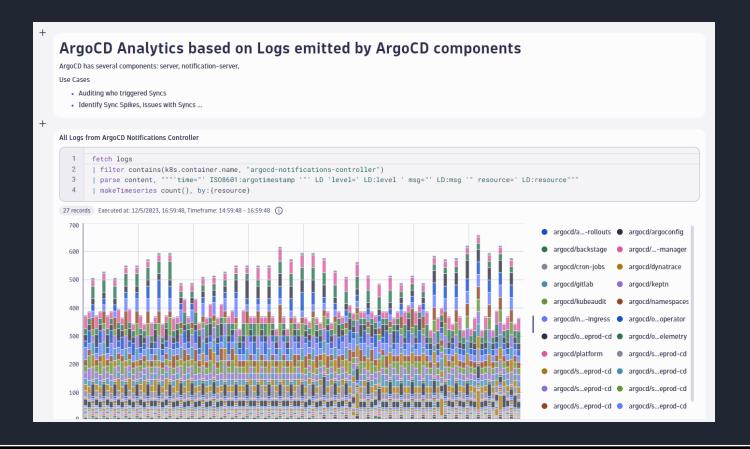






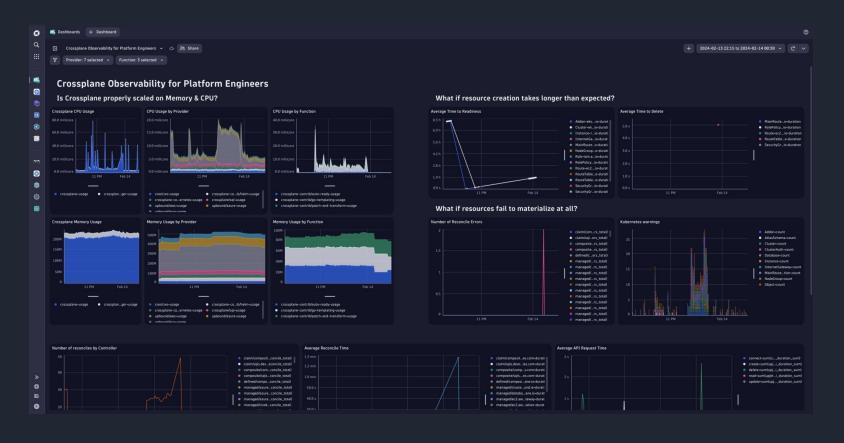


Platform Engineering: How many apps are onboarded? How well does it run?





 $\{\hat{j}\}$   $\hat{o}_{s}$  Platform Engineering: Can we deploy in-time or do we have issues in stages?



## Lets go back to our demo!



https://dt-url.net/devrel-PE-demo

**Developer Self-Service**: Onboarding an app with automated observability & security

























## Successful Platform Engineering: Hype vs Reality!

#### **Status Quo**

~40%

of engineering time is productive

~36%

of developers leave because of bad developer experiences

#### Lessons learned on how to get there



Find the pain points



**Have** a clear mission



**Design for DevExperience** 



**Start** with the **TVP** 



Make everything observable

#### What we see



of engineering time is productive



report increased dev efficiency / dev experience

### All the resources in one slide



**Report**"State of DevOps 2023"



CNCF White Paper "WG on Platform Engineering"



GitHub Tutorial

https://dt-url.net/devrel-PE-demo



**OpenGitOps**https://opengitops.dev/



Katharina Sick

https://ksick.dev/



### Thank You

From DevOps to Platform Engineering and Beyond!



Andreas Grabner
CNCF Ambassador
@grabnerandi











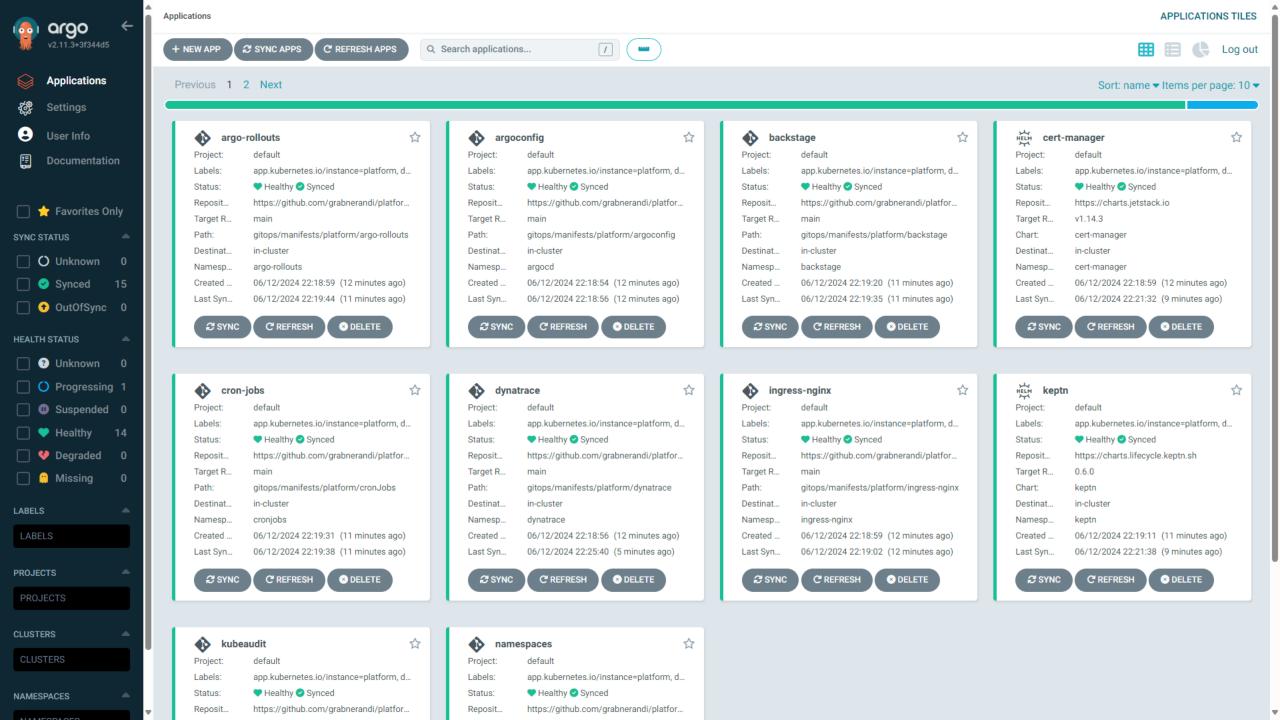


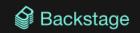
## Demo Backup Images

IN CASE GITHUB CODESPACES DON'T WORK!!!









**↑** Home

APIs

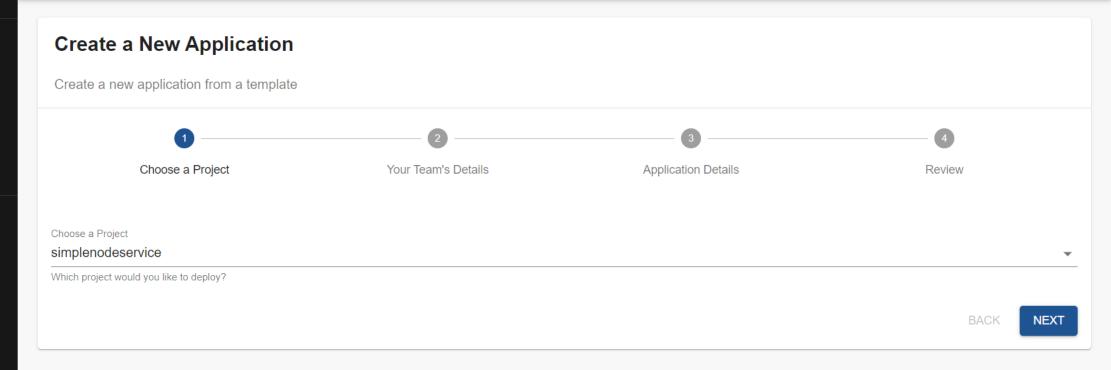
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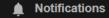
■ Docs

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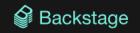
Tech Radar











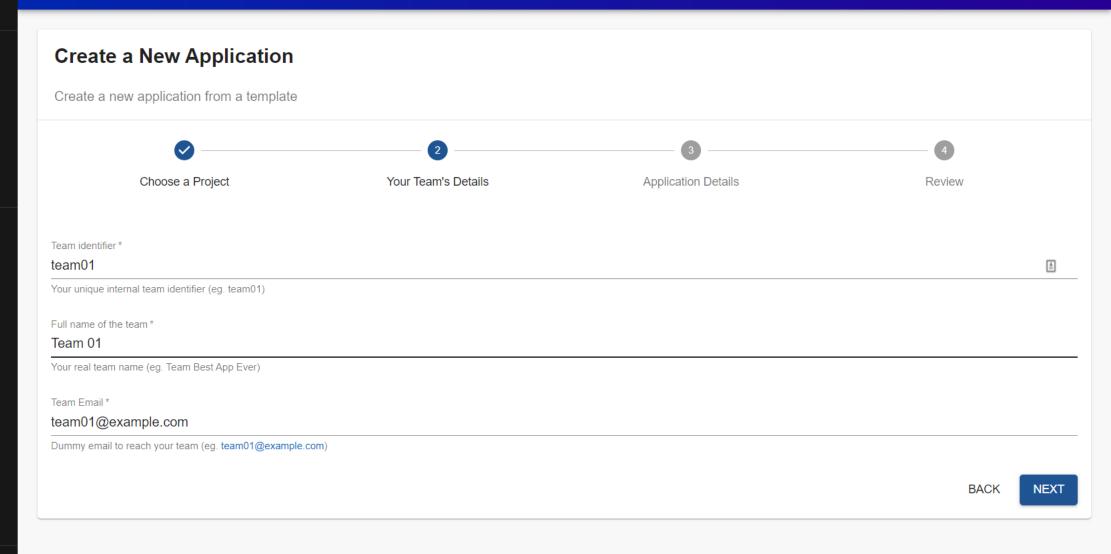
**★** Home

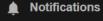
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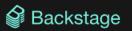
Tech Radar

# **Create a new component**









Create new software components using standard templates in your organization

**Create a new component** 

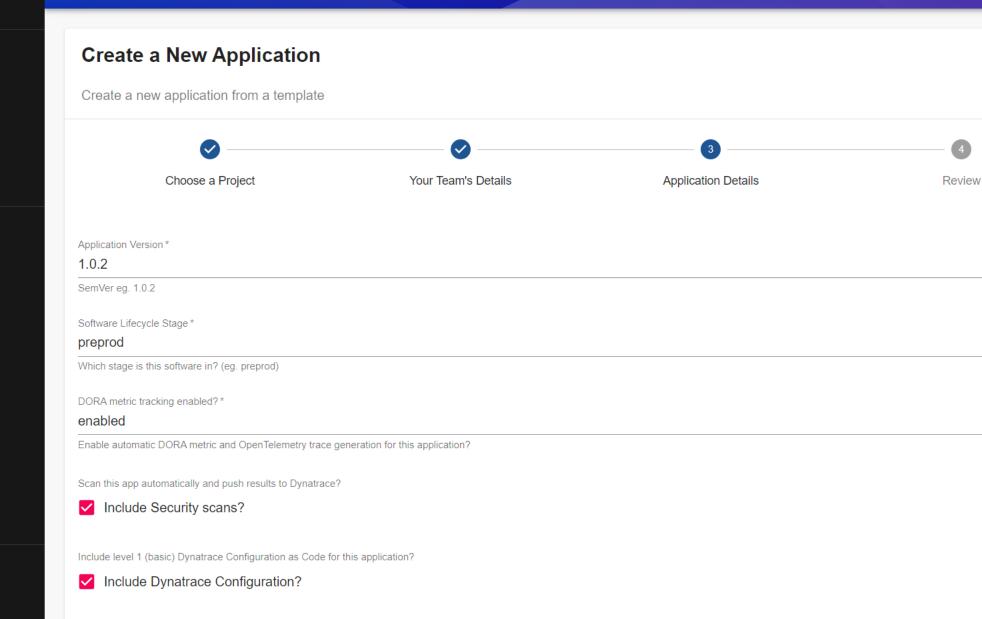
Q Search

★ Home

**■** Docs

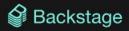
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Tech Radar



**Notifications** 

**Settings** 



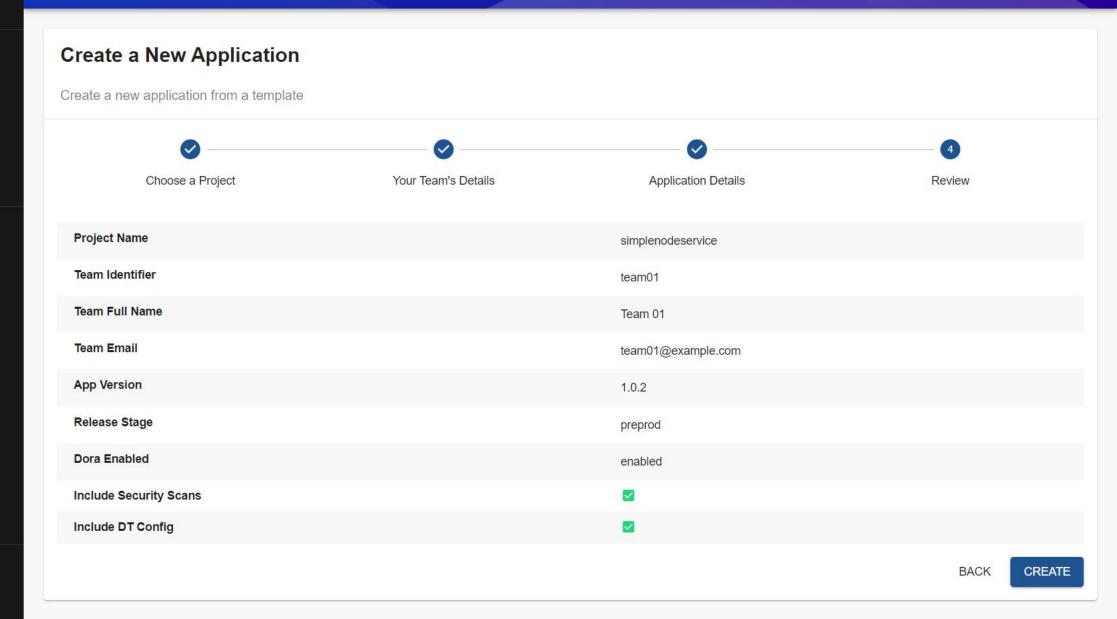
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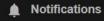
Docs

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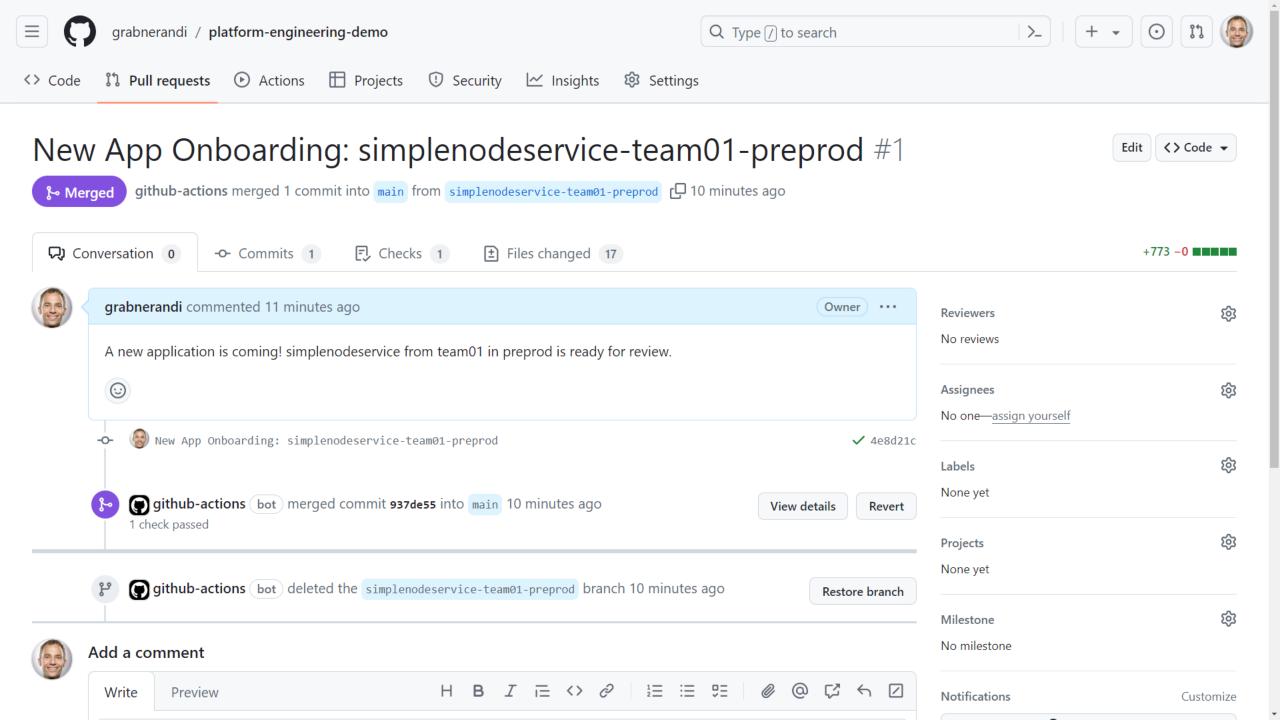
Tech Radar

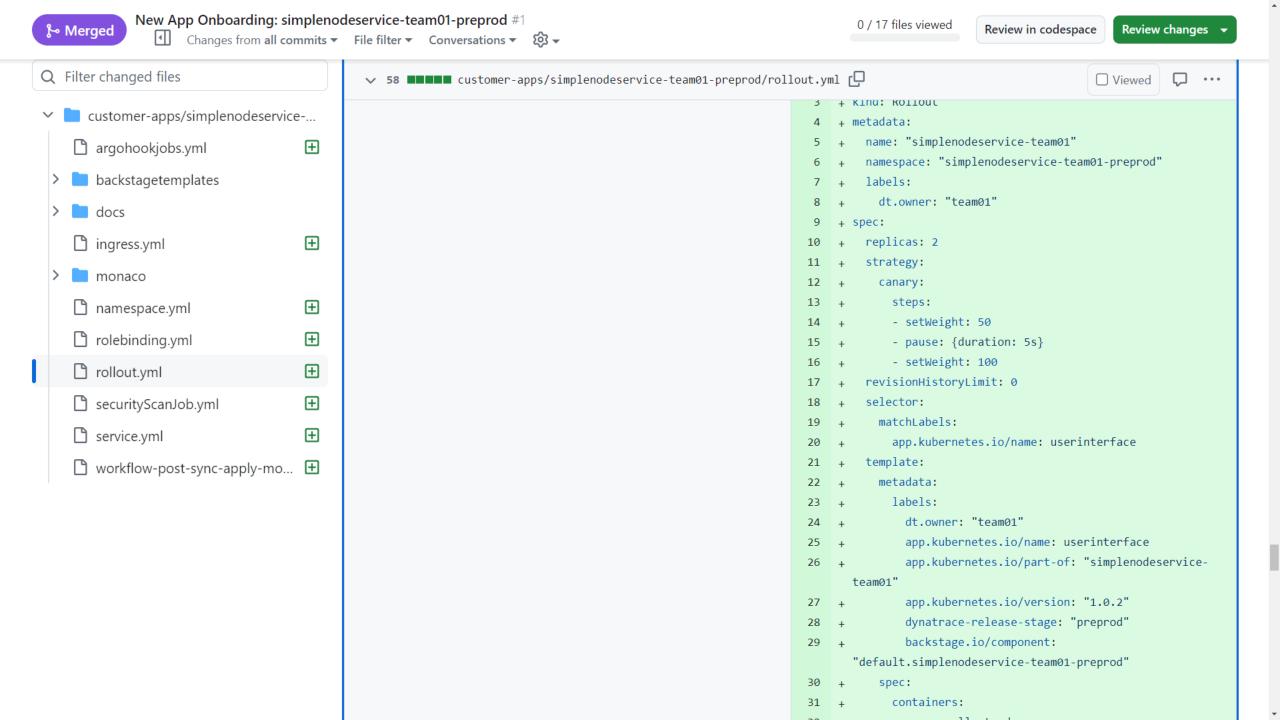
# **Create a new component**

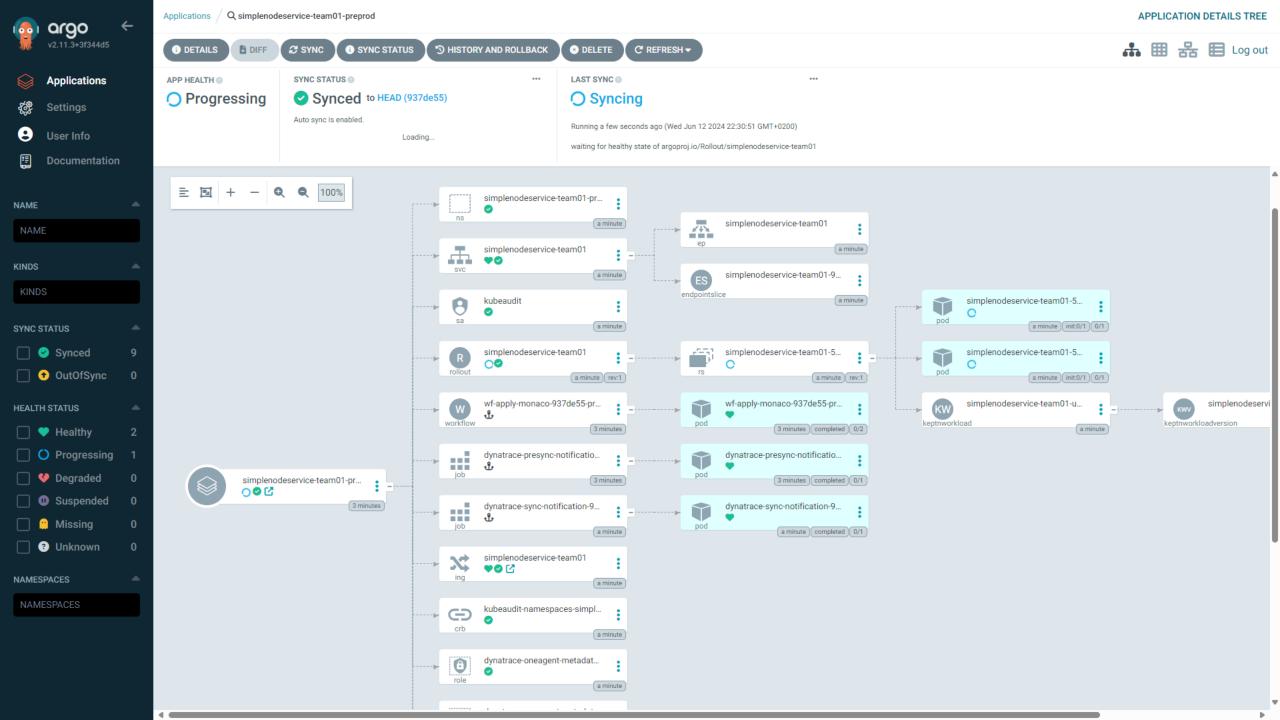


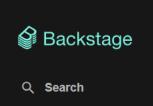






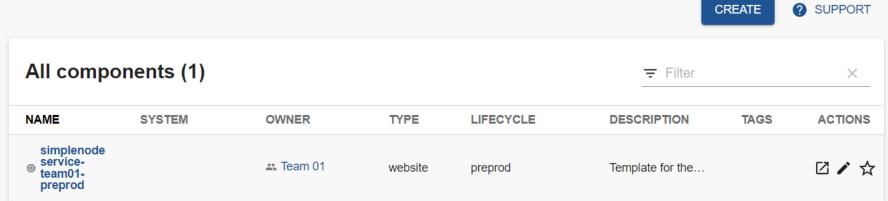


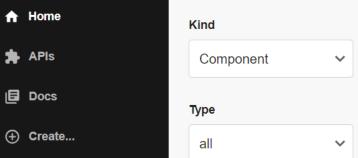


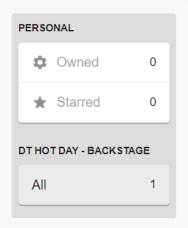


Tech Radar

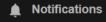
# **DT HOT Day - Backstage Catalog**











# Backstage

Q Search

★ Home

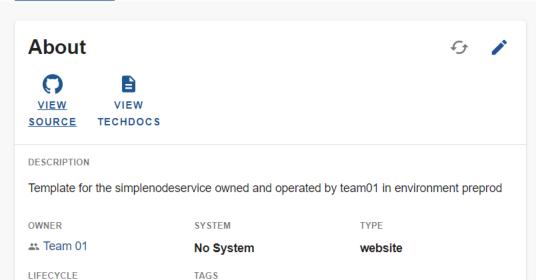
**■** Docs

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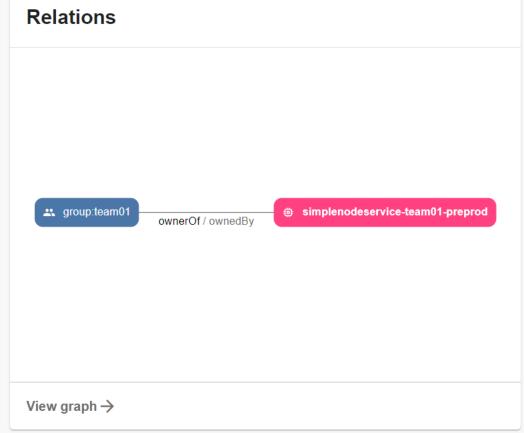
Tech Radar

# simplenodeservice-team01-preprod ☆

OVERVIEW KUBERNETES CI/CD DEPENDENCIES DOCS



No Tags



Notifications

**Settings** 

Links

preprod





APIs

**■** Docs

① Create...

Tech Radar

### Links

Github Repo

■ View in ArgoCD

■ Dynatrace community

Browse Application

View in Dynatrace

### **Kubernetes Deployments**

 $\times$ 

∓ Filter

WORKLOAD	CLUSTER	NAMESPACE	PROBLEMS	VULNERABILITIES	LOGS	ENVIRONMENT
simplenodeservice- team01-5c8647f4c4	platform-engineering- demo	simplenodeservice- team01-preprod	0	0	Show logs	hci34192

 $\times$ 

3 rows ▼ | < < 1-1 of 1 > > |

### **Dynatrace Logs**

TIMESTAMP

= Filter

CONTENT

2024-06-12T20:30:05.458000000Z

{"level":"info","ts":"2024-06-12T20:30:05.458Z","logger":"injectionstartup","msg":"creating standalone runner"}

2024-06-12T20:30:05.458000000Z

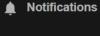
12T20:30:05.458Z","logger":"injectionstartup", "msg": "checking envvars"}

#### We turned up empty

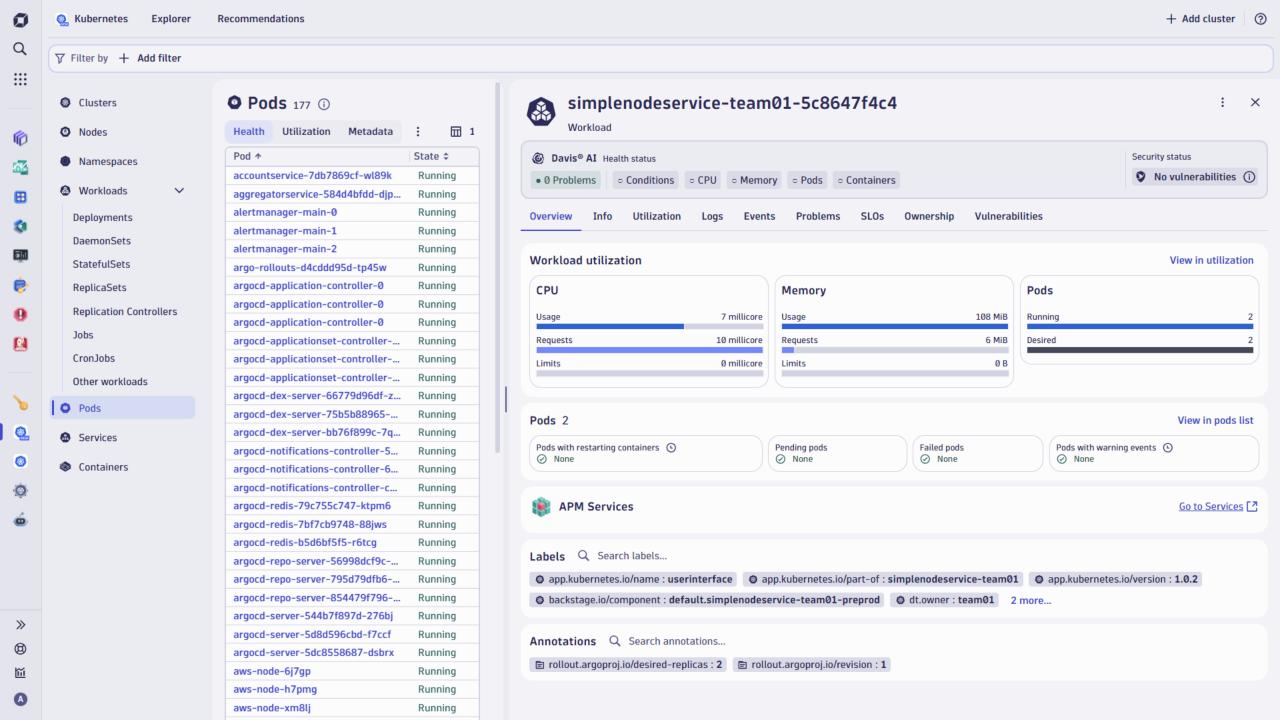
Query custom.validations did not return any data for component default.simplenodeservice-team01preprod.

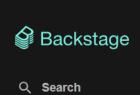
If you recently added the component, it may take a few minutes for Dynatrace to start reporting data. If the component has been running for a while, it may not be reporting data. Please check that your component is indeed reporting data to Dynatrace and, in case you





**Settings** 





# **Create a new component**

Create new software components using standard templates in your organization

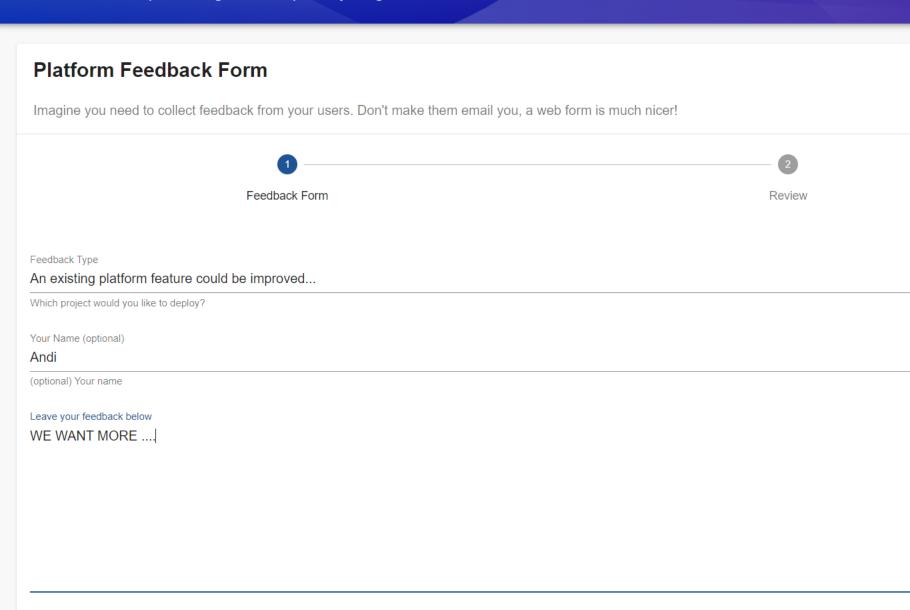


API

**■** Docs

① Create...

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Notifications



Tick this box if you want email updates on this item to be sent from the platform team.

Otavinformed of progress on this item?



**↑** Home

APIs

Docs

① Create...

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# **Create a new component**

