Mit Platform Engineering die Produktivität von Entwicklern verbessern

Karsten Kempe

Senior Digital & App Innovation Specialist

Sebastian Förg

Digital & App Innovation Technology Specialist

Driving business performance through software development by empowering developers, creating the right environment for them to innovate, and removing points of friction.

azure.com/developervelocity

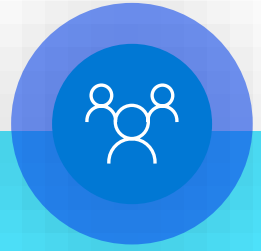
By 2026, 80% of software engineering organizations will establish platform teams!

Gartner ranks Platform Engineering as top technology trend in 2023.

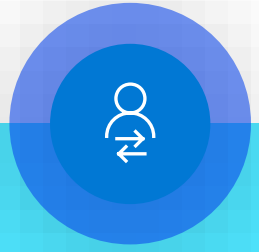
Definition:
Platform engineering is the practice of building and maintaining the underlying infrastructure and tools that support software development, deployment, and delivery

Common pain points in software engineering

Time spent onboarding new projects

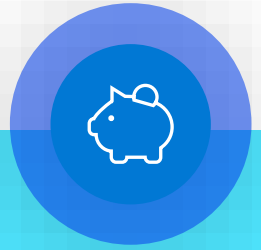


Limited reuse and collaboration across teams



Slow to adopt new tools or technology

Difficulty to meet governance and security



Manage costs across projects

What is state of the art in software engineering

	Top Enterprise Customer	Top Division at Tech Company	What can we achieve?
Setup Environment	3 days	2 days	<1 minute
Test Code Change	14 days	4-8 hours	10 minutes
Merge New Code	3-5 days	2-3 days	30-60 minutes
Deploy to Production	5 days	0.5-1 day	1-2 hours

Challenges

Keep all development resources secure while allowing flexibility

Share/adopt common services and architecture across teams

Collaborate with inconsistent tools

Onboarding new projects or new employees in a timely manner

Optimize costs across various tools, vendors, and teams

Platform Engineering

Developer Teams

use

central engineering platform

Reusable Components

Developer Tools

Self-Service

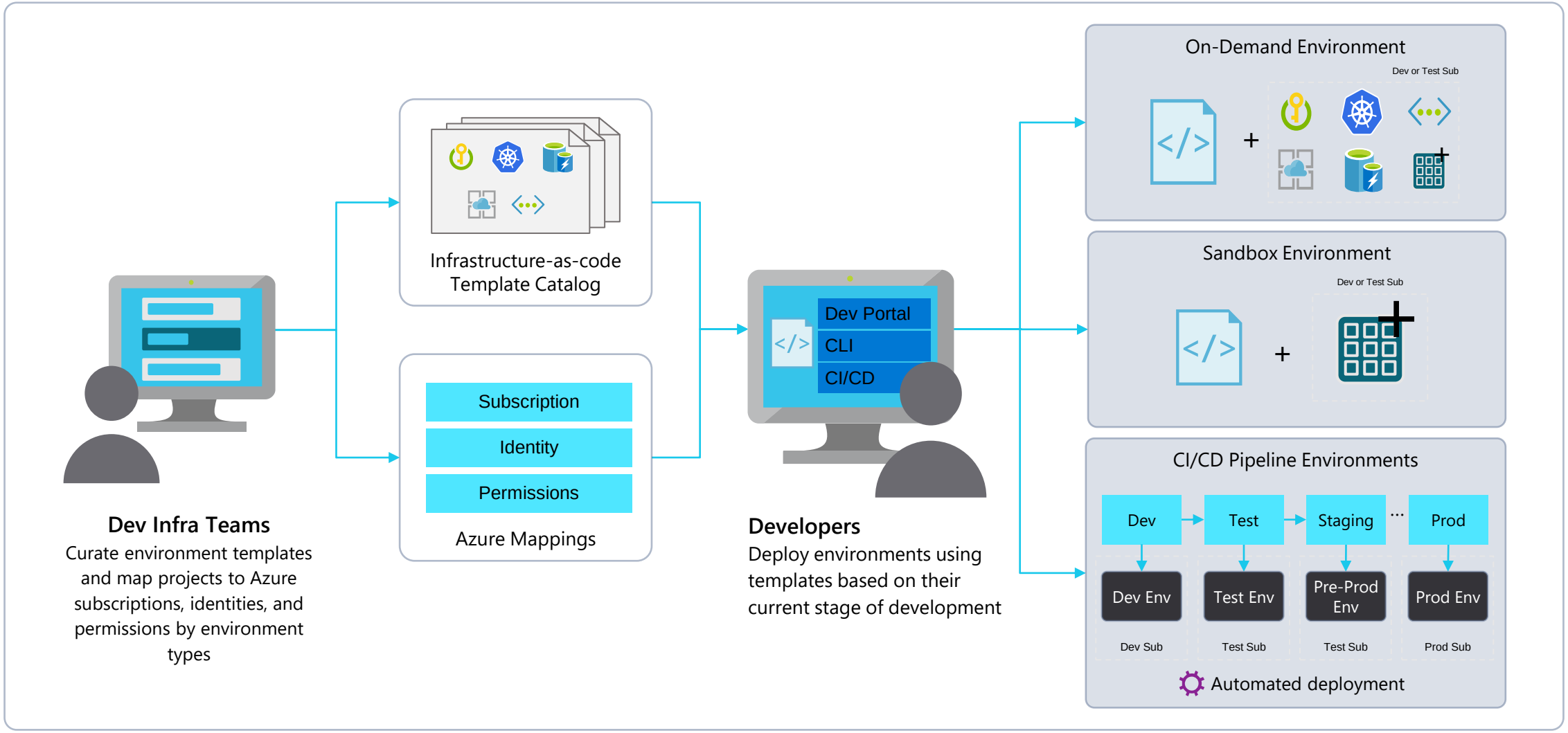
provide

complex infrastructure

DEMO: PART 1

PLATFORM ENGINEERING TEAM

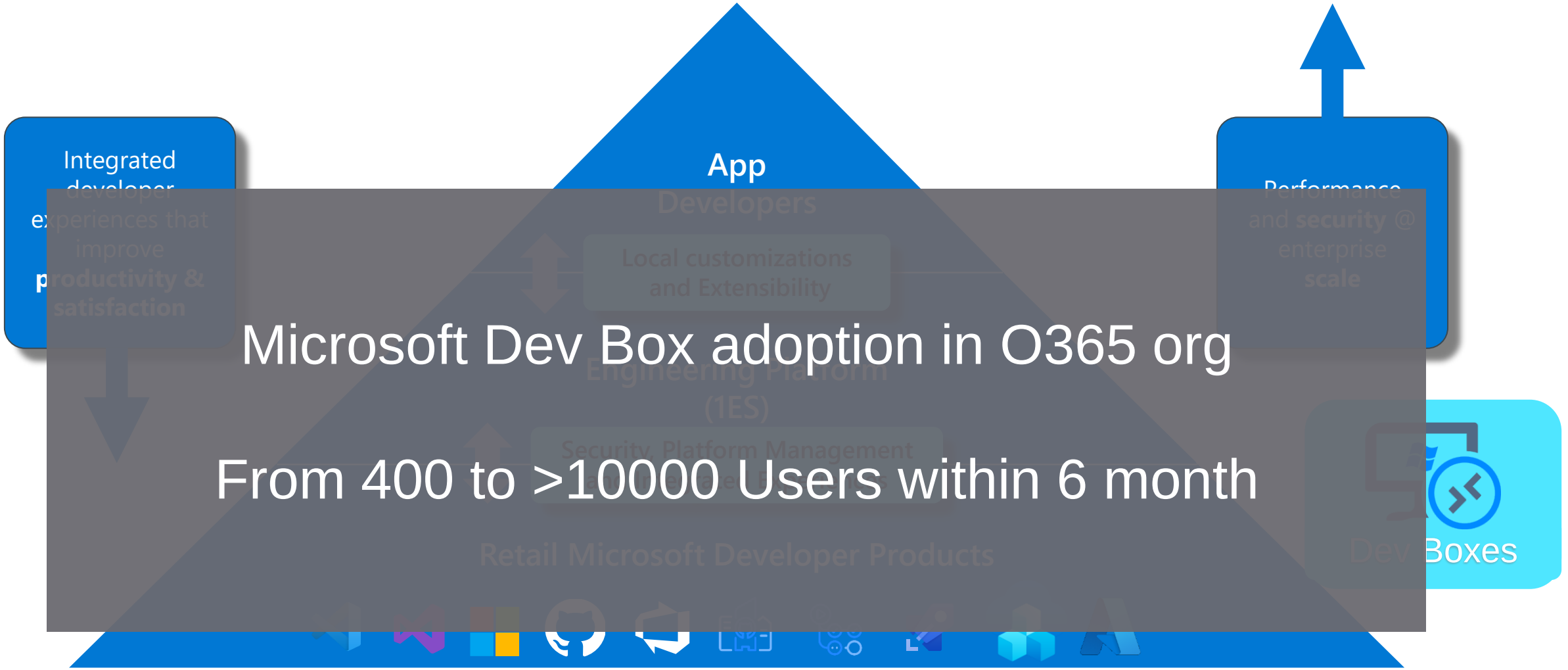
Setting up the Azure DevCenter



Dev Infra Teams
Curate environment templates and map projects to Azure subscriptions, identities, and permissions by environment types

Developers
Deploy environments using templates based on their current stage of development

Microsoft's approach: 1ES



Microsoft Dev Box adoption in O365 org

From 400 to >10000 Users within 6 month

What is Microsoft Dev Box good for?

Developer onboarding

Get devs up and running with ready-to-code, preconfigured dev boxes

Complex configurations

Empower devs to deploy multiple workstations tailored to different tasks

Legacy applications

Quickly spin up dev boxes built for troubleshooting legacy apps

Remote dev experience

Ensure a low-latency, high-performance dev experience wherever they are in the world

Security and compliance

Centrally manage dev devices and keep them secure across locations

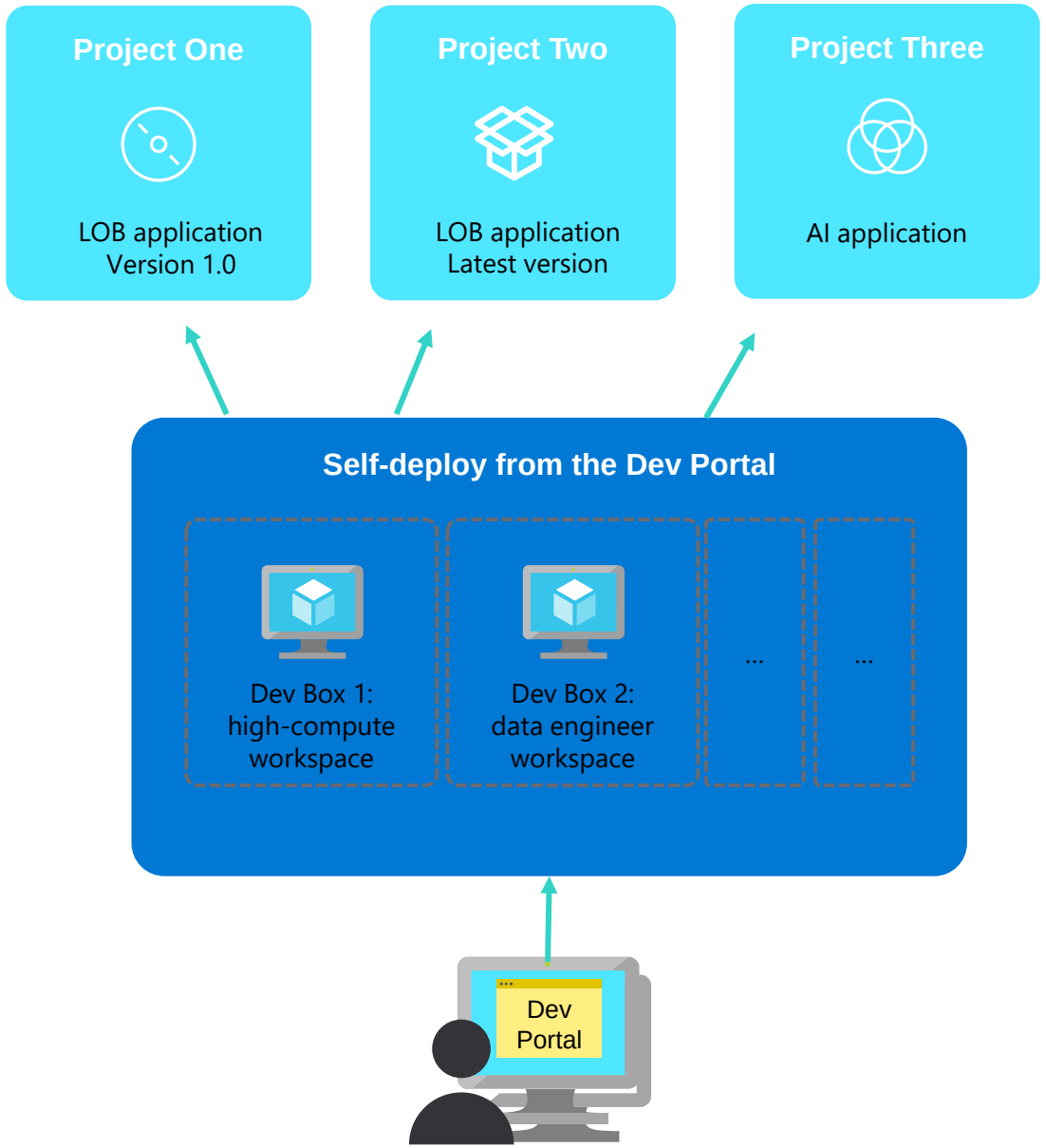
User permissions

Provide different permissions for contingent staff and fulltime devs

DEMO: PART 2

IT / DEV INFRA TEAM

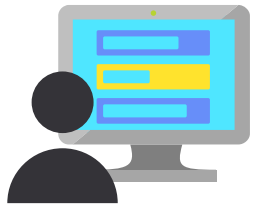
& DEV TEAM LEAD


Project One
LOB application
Version 1.0
Project Two
LOB application
Latest version
Project Three
AI application
Self-deploy from the Dev Portal
Dev Box 1:
high-compute
workspace
Dev Box 2:
data engineer
workspace
...
...
Dev
Portal

How different roles use Microsoft Dev Box

Set and manage security policies

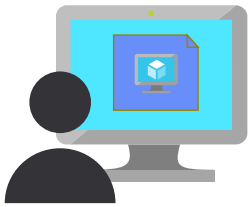
- Network configurations
- Security settings
- Organizational policies



IT / Dev Infra Teams

Configure dev boxes by project

- Dev Box SKU
- Cost controls
- Toolset customization
- Dev experience settings



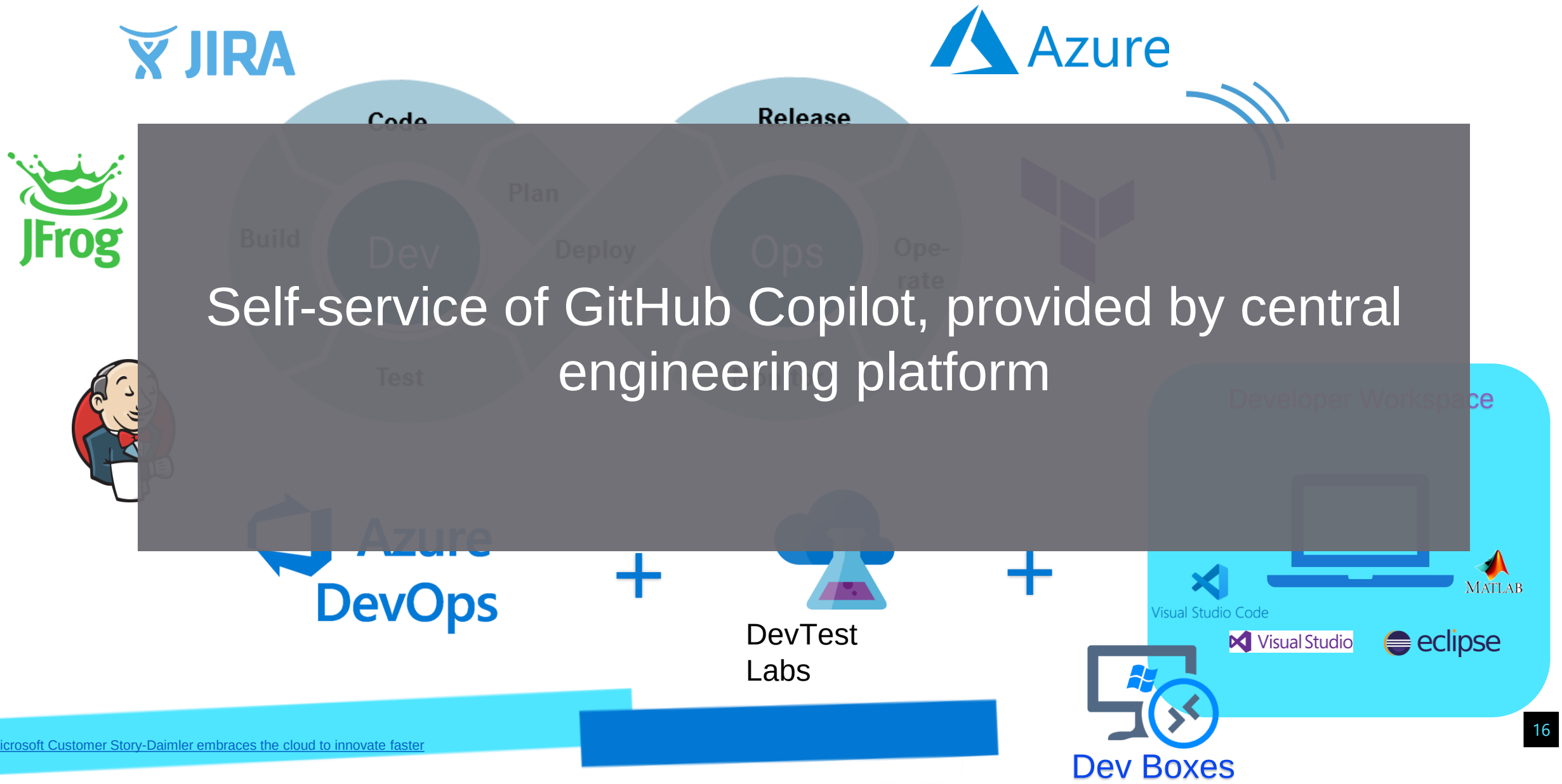
Dev Teams

Deploy from the Dev Portal

- Dev Box 1: high-compute workspace
- Dev Box 2: data engineer workspace

Developers

Mercedes Benz embraces cloud to innovate faster

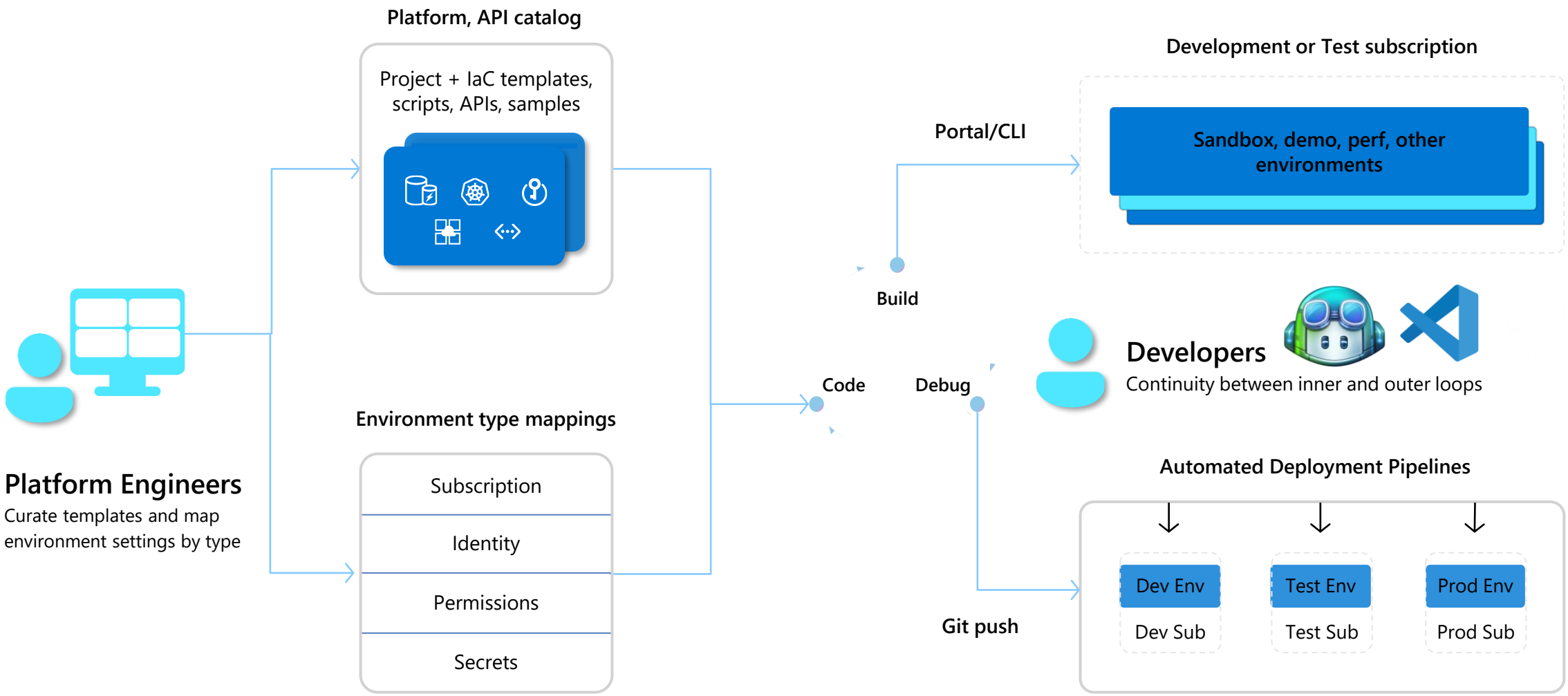


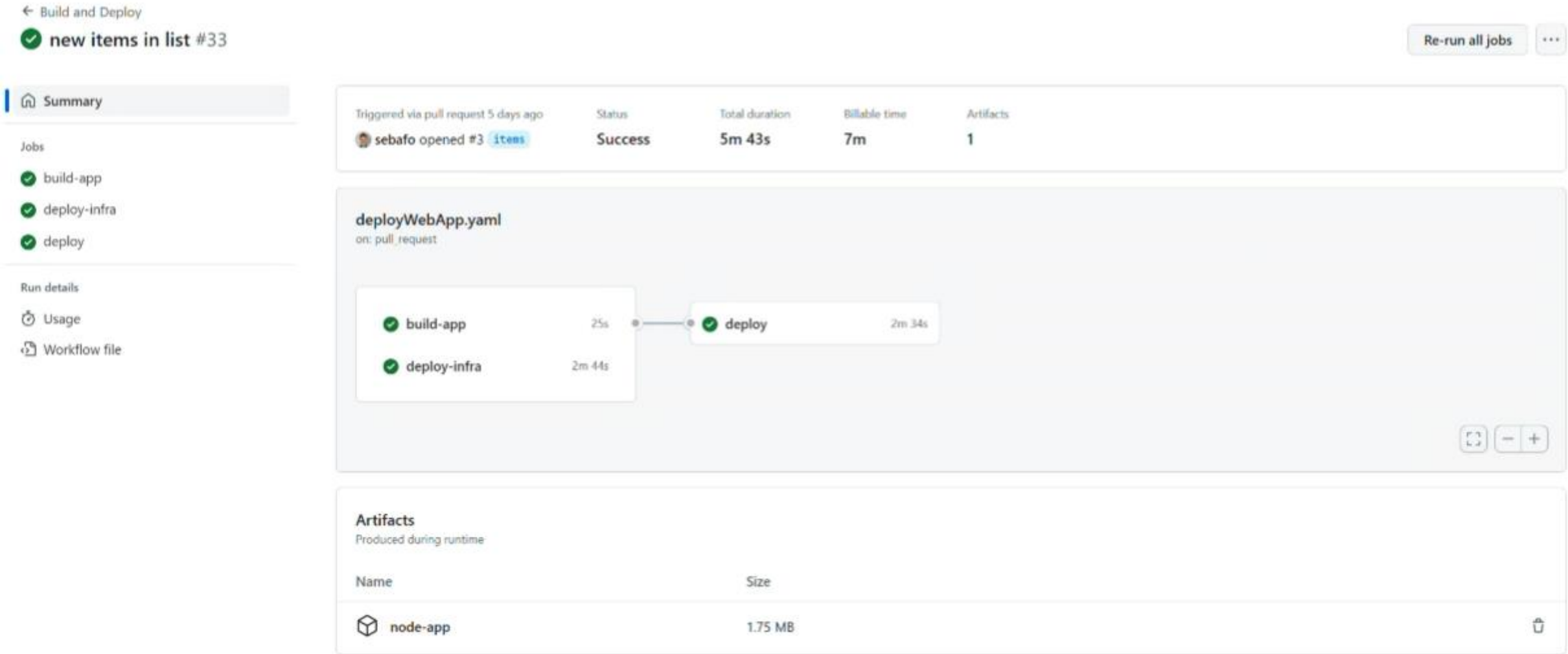
Microsoft Customer Story-Daimler embraces the cloud to innovate faster

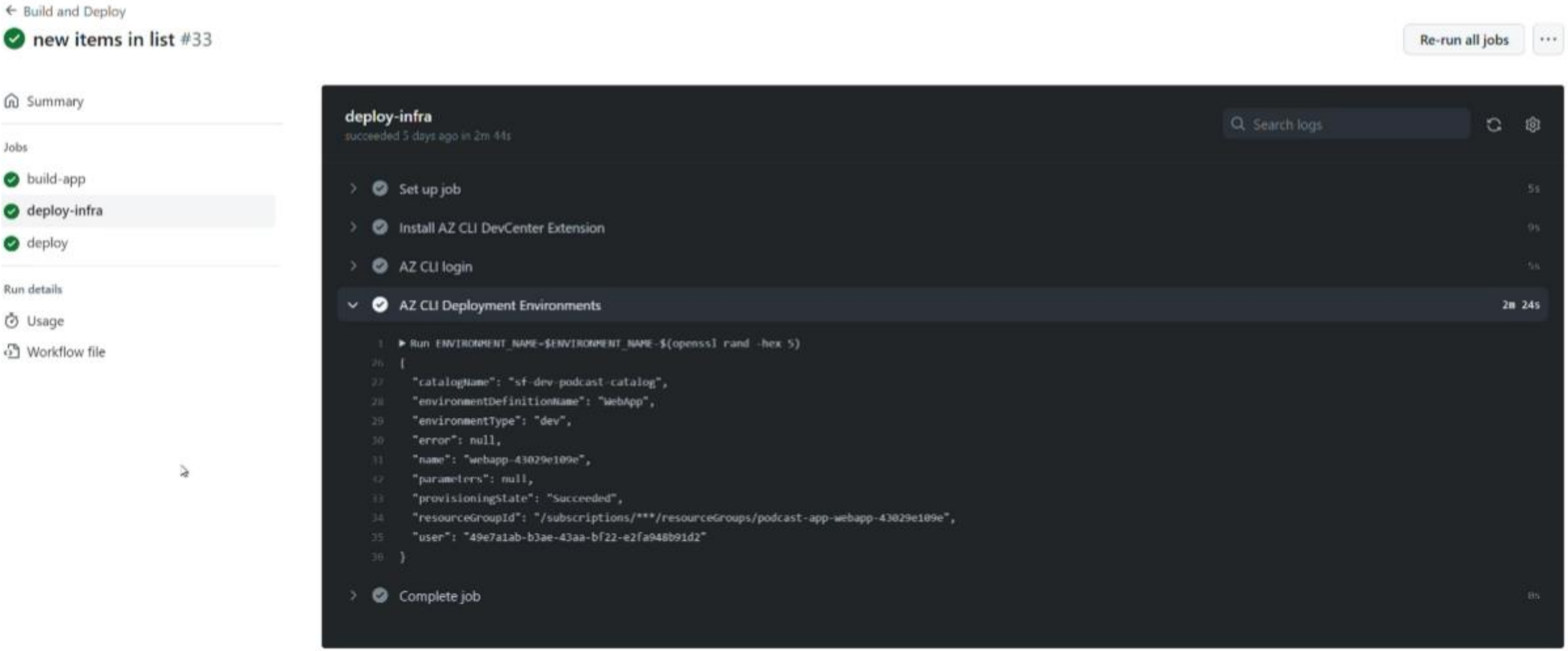
DEMO: PART 3

DEVELOPER

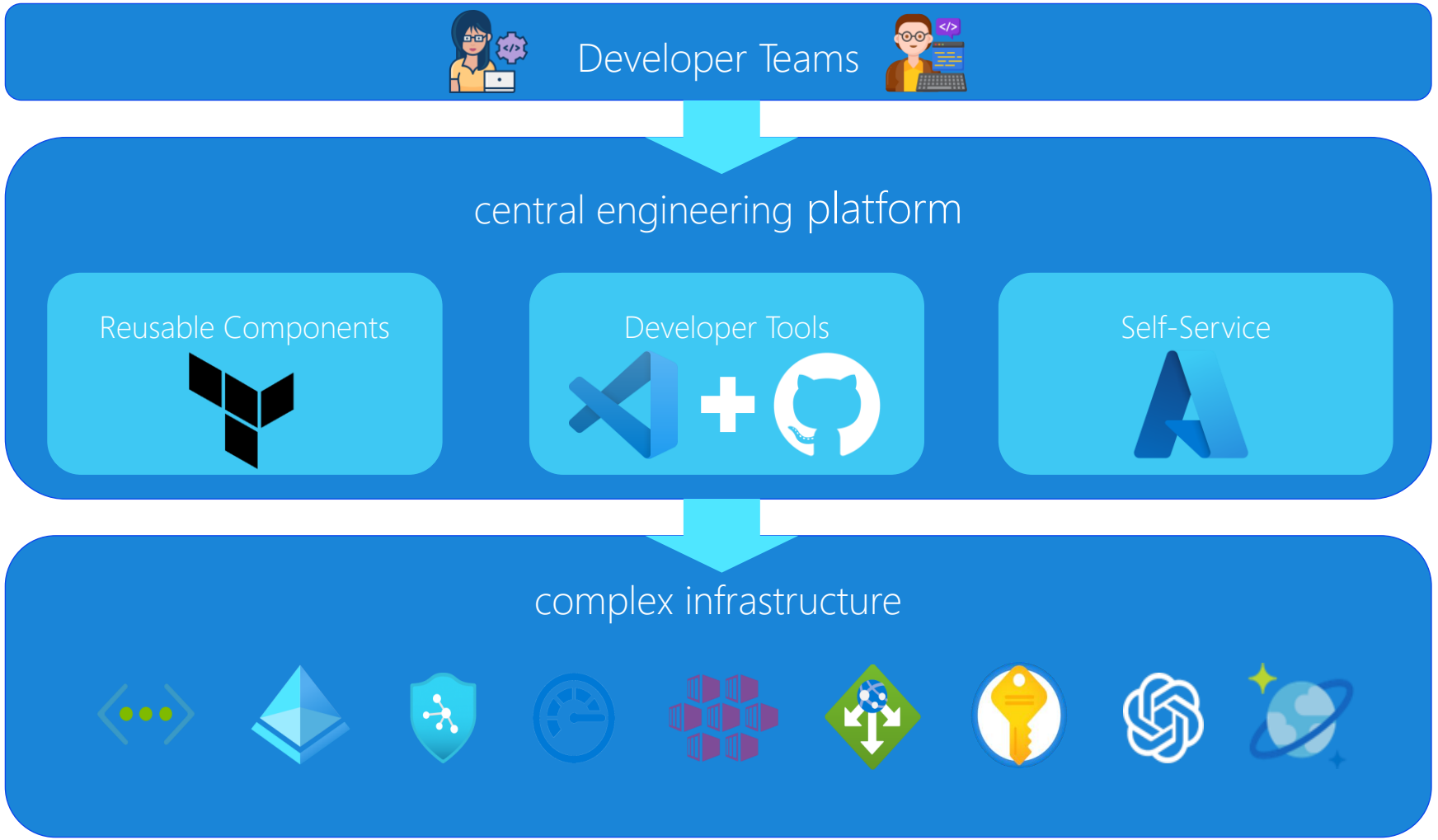
Empowering developers through end-2-end platform engineering




Build and Deploy
new items in list #33
Re-run all jobs
Summary
Jobs
build-app
deploy-infra
deploy
Run details
Usage
Workflow file
Triggered via pull request 5 days ago
sebafo opened #3 items
Status
Success
Total duration
5m 43s
Billable time
7m
Artifacts
1
deployWebApp.yaml
on: pull_request
build-app 25s
deploy-infra 2m 44s
deploy 2m 34s
Artifacts
Produced during runtime
Name
Size
node-app
1.75 MB


Build and Deploy
new items in list #33
Re-run all jobs
Summary
Jobs
build-app
deploy-infra
deploy
Run details
Usage
Workflow file
deploy-infra
succeeded 5 days ago in 2m 44s
Search logs
Set up job
5s
Install AZ CLI DevCenter Extension
9s
AZ CLI login
5s
AZ CLI Deployment Environments
2m 24s
Run ENVIRONMENT_NAME=$ENVIRONMENT_NAME-$(openssl rand -hex 5)
{
"catalogName": "sf-dev-podcast-catalog",
"environmentDefinitionName": "WebApp",
"environmentType": "dev",
"error": null,
"name": "webapp-43029e109e",
"parameters": null,
"provisioningState": "Succeeded",
"resourceGroupId": "/subscriptions/***/resourceGroups/podcast-app-webapp-43029e109e",
"user": "49e7a1ab-b3ae-43aa-bf22-e2fa948b91d2"
}
Complete job
0s

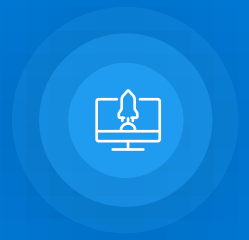
Platform Engineering Mindset



Platform Engineering Services Team

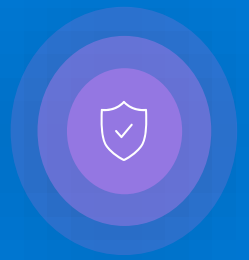
- Dev Identity
- Orchestration
- Component & API Inventory
- Team Insights

Greatest benefits of platform engineering



Accelerated Development

Platform Engineering streamlines development and reduces time-to-market for new applications.



Consistency and Compliance

Ensures adherence to company guidelines, best practices, standards, and regulatory requirements.

Scalability and Efficiency

Offers scalable infrastructure and resource optimization for cost-effective operations

SESSION FEEDBACK

Session Title: Mit Plattform-Engineering die Produktivität und Zufriedenheit von Entwicklungsteams verbessern

https://aka.ms/AzSum-S023

Thank you!