



Microsoft Azure Training Day: Modernizing Web Applications and Data



Managing Delivery of your App via DevOps

Melony Qin
Cloud Solution Architect

Agenda

- 1 | What is DevOps?
- 2 | People, Process and Products
- 3 | Demo: DevOps in Action
- 4 | Audience participation (have your phones ready!)

An Example:
**The Evolution of People, Process and
Products**

What is DevOps?

DevOps Accelerates Delivery

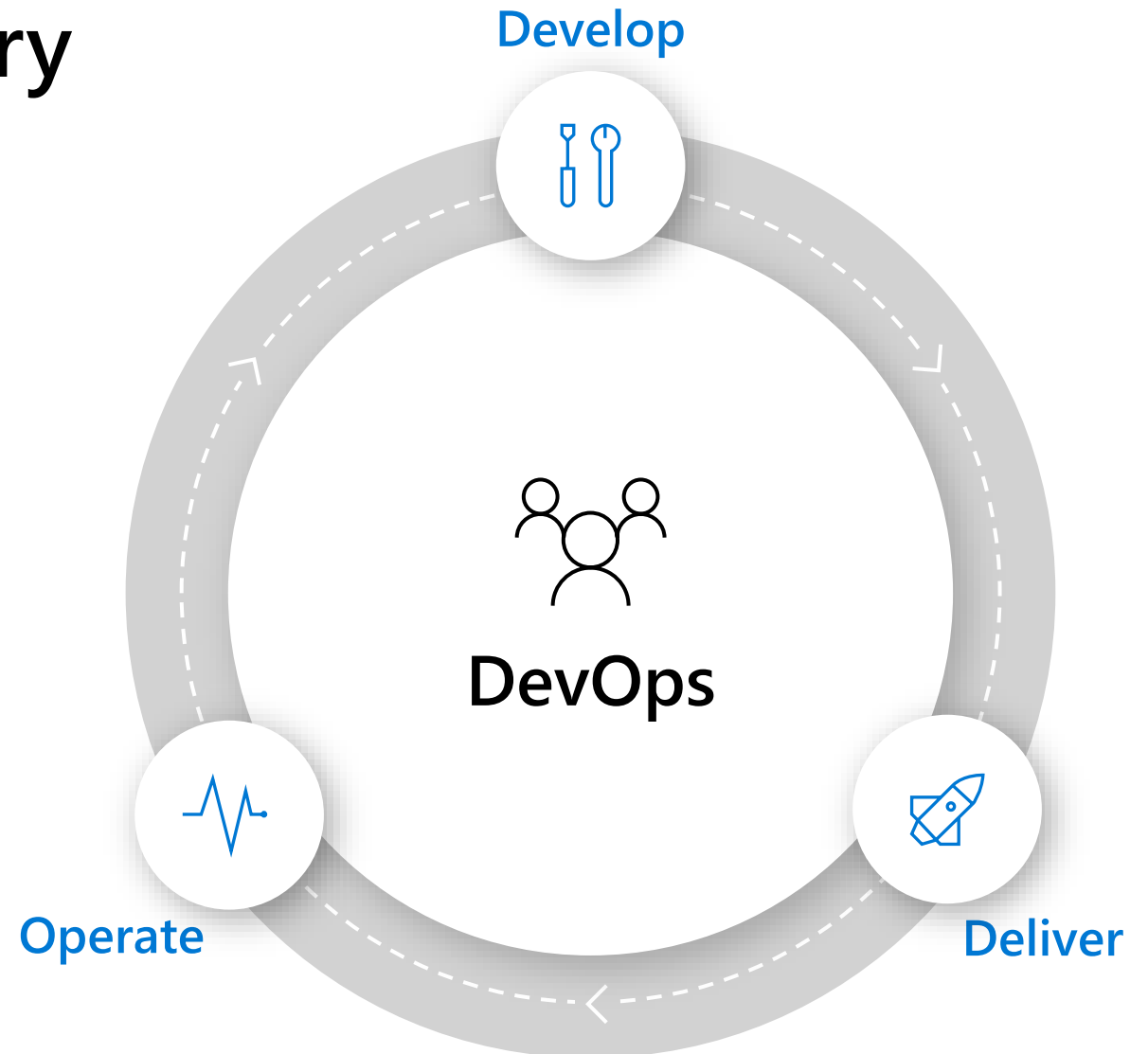


DevOps is the union of **people**, **process**, and **products** to enable continuous delivery of value to your end users.

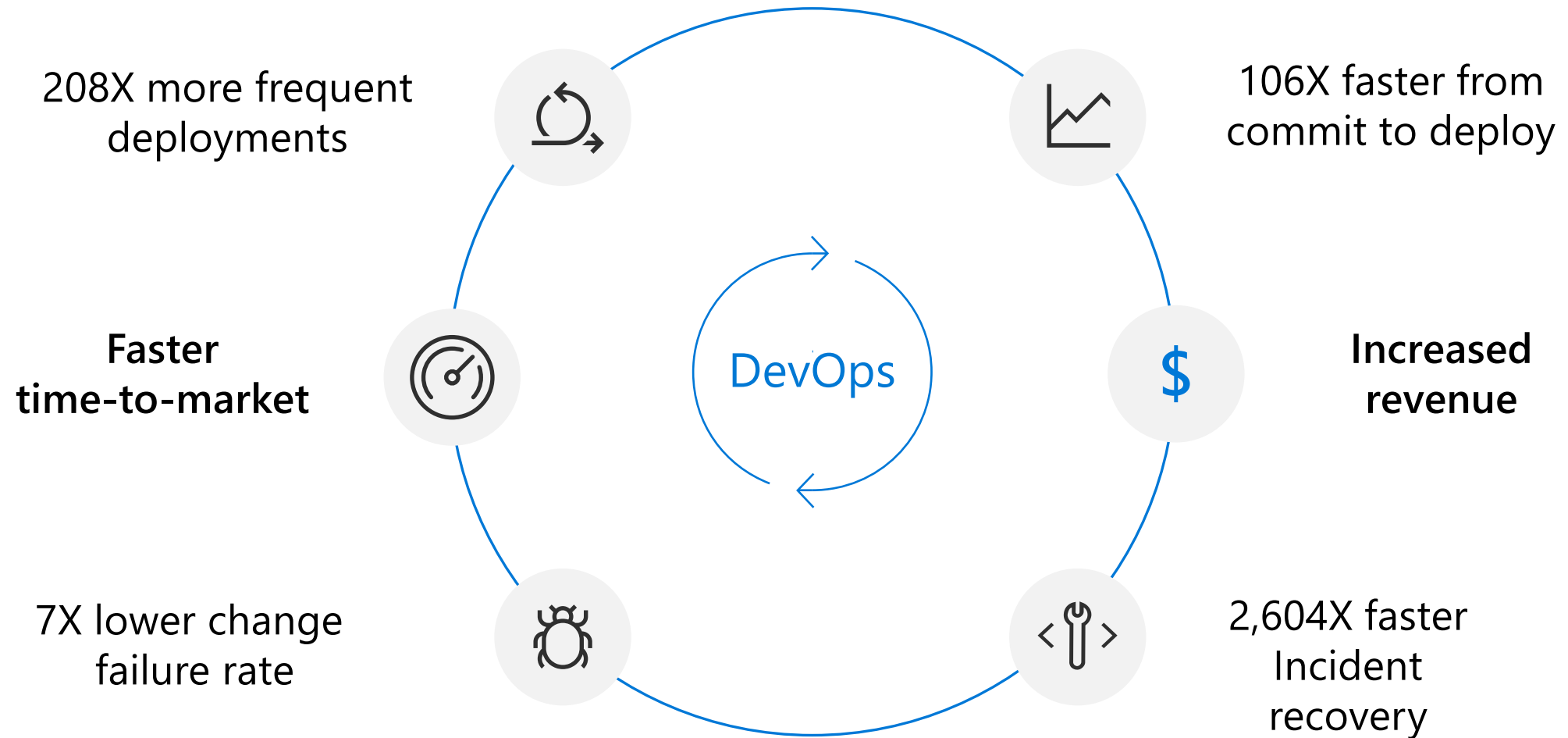


—Donovan Brown

<http://bit.ly/WhatIs-DevOps>



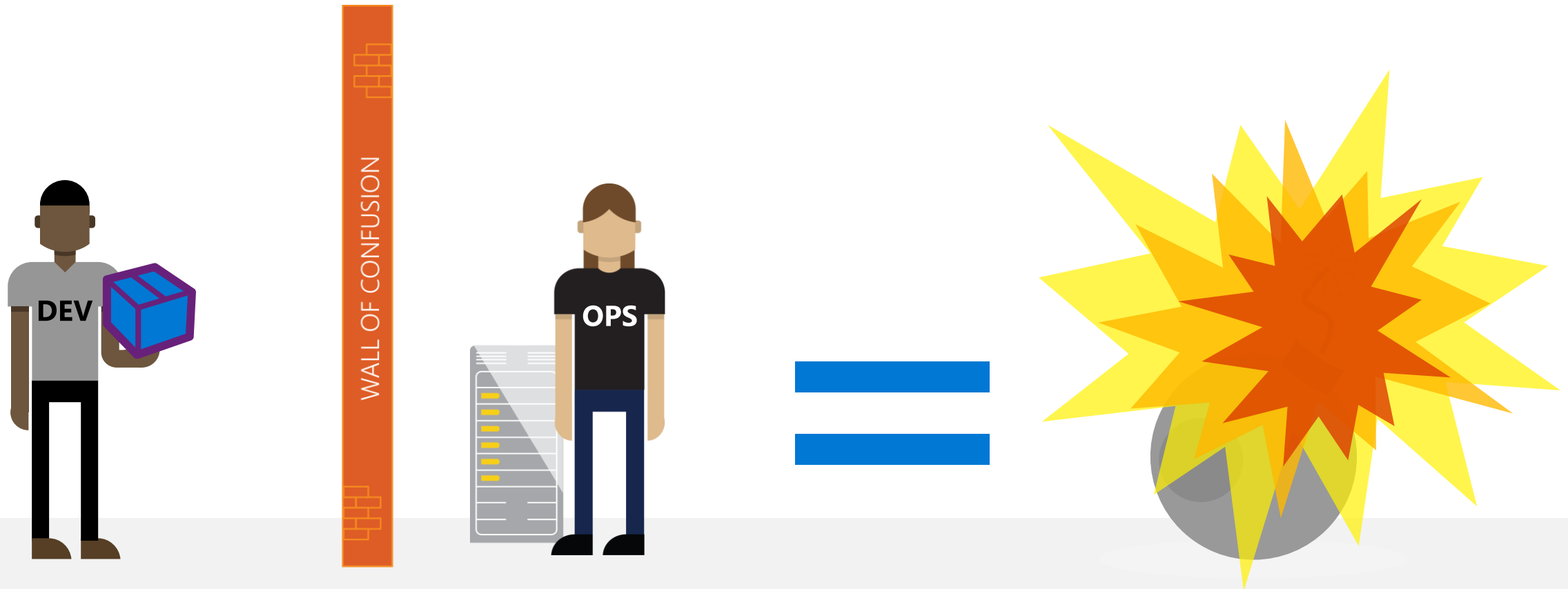
High performance DevOps companies achieve...



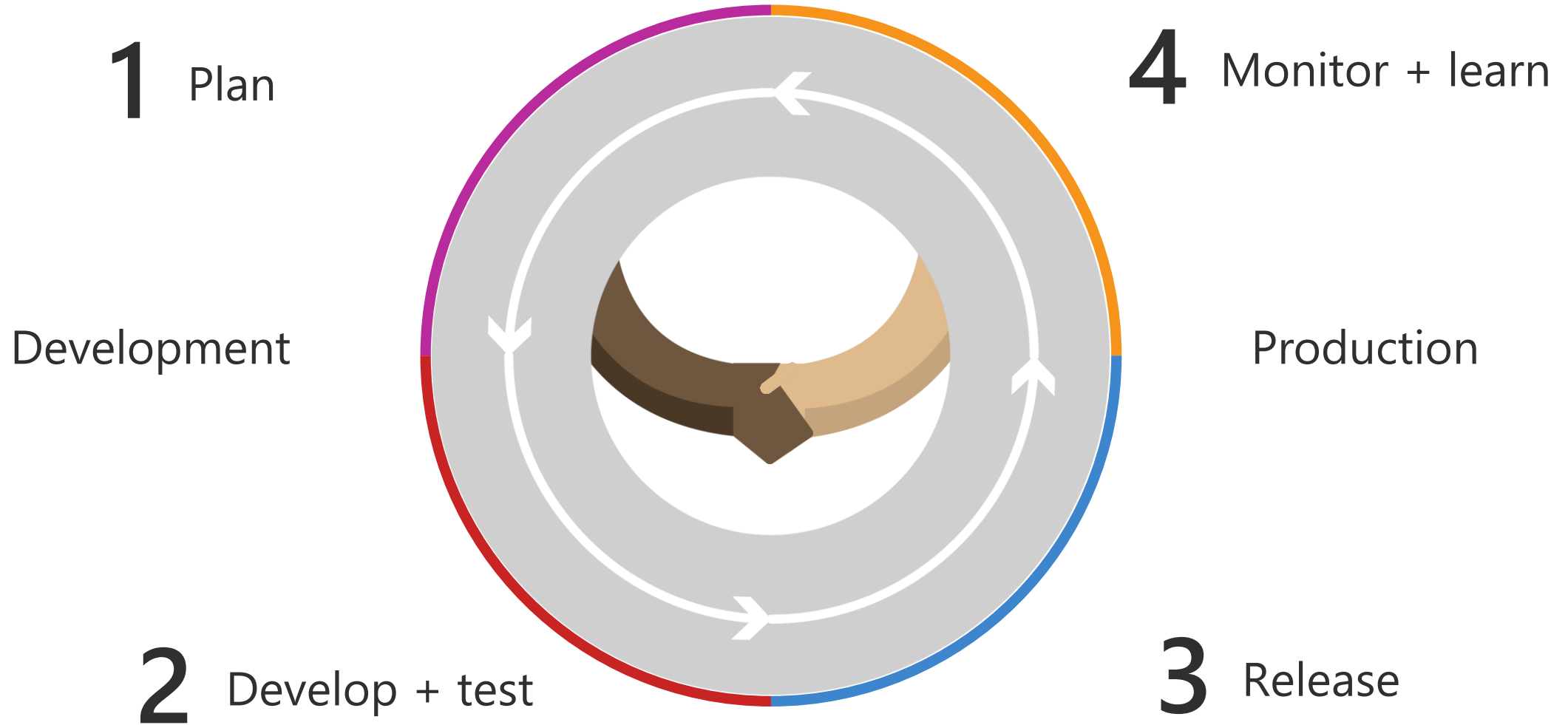
Source: 2019 Accelerate State of DevOps Report by DORA and Google Cloud DevOps & SRE

People, Process and Products

People



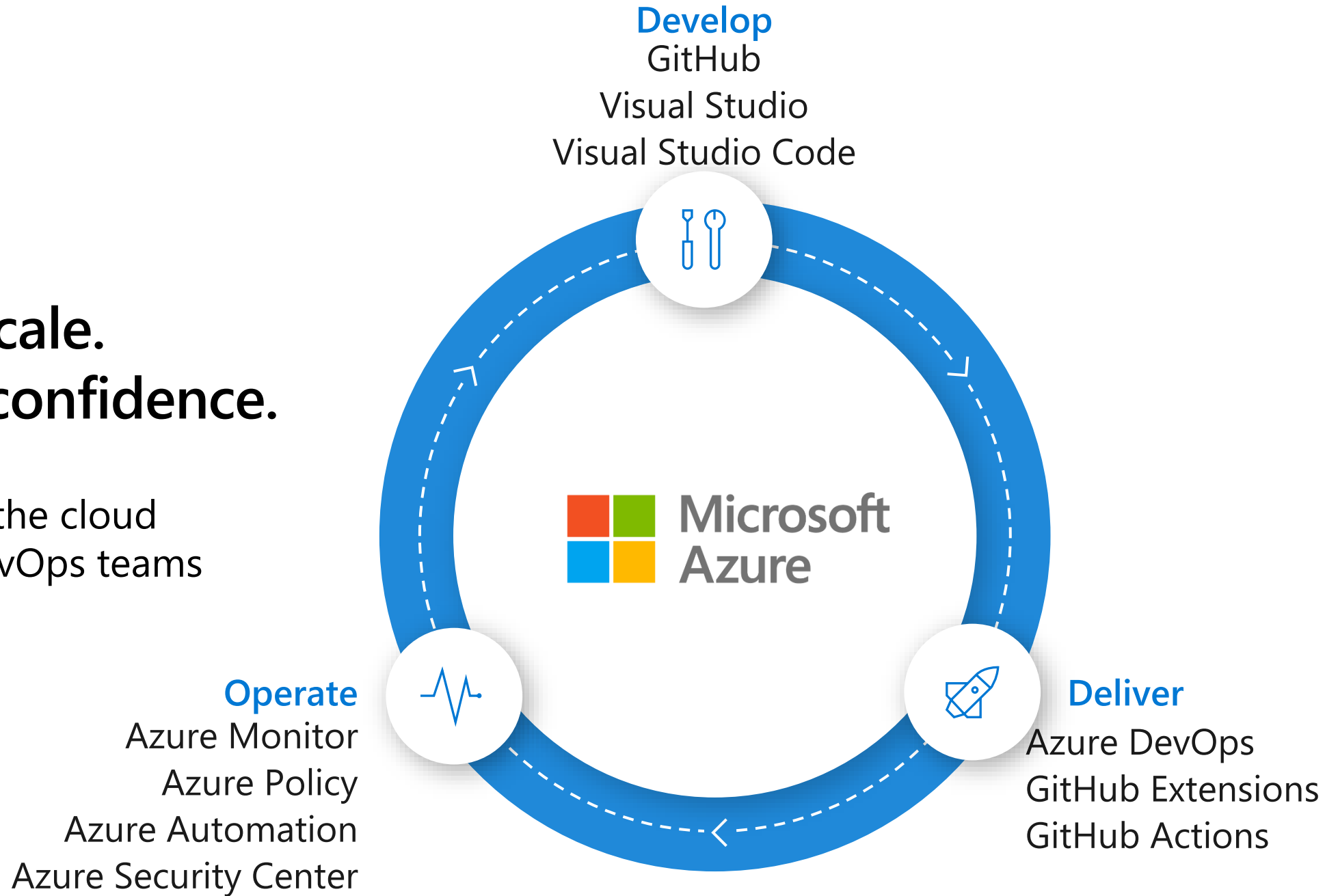
Process



Products

Innovate at scale.
Deliver with confidence.

Microsoft Azure is the cloud
with tooling for DevOps teams
built in





Deliver with Azure DevOps



Azure Boards



Azure Repos



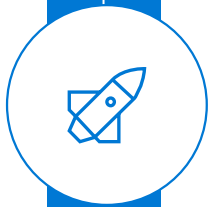
Azure Pipelines



Azure Artifacts



Azure Test Plans



Deliver



Azure Boards



Azure Repos



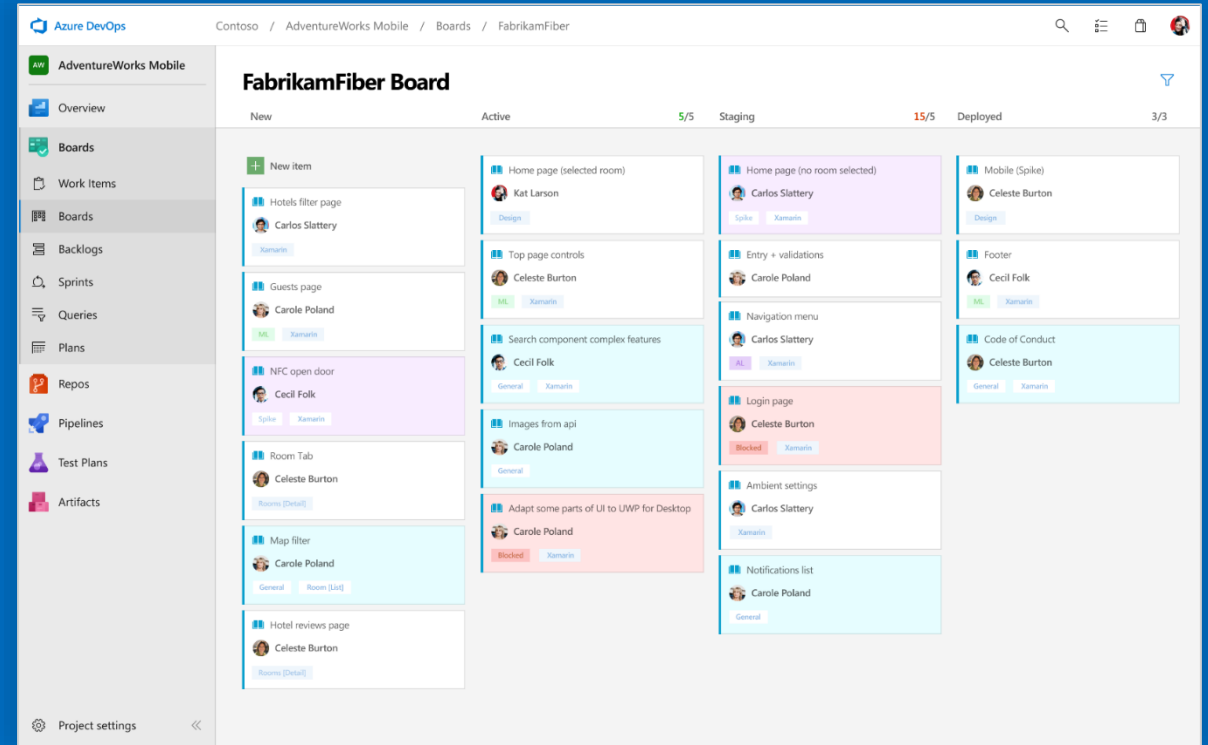
Azure Pipelines



Azure Artifacts



Azure Test Plans

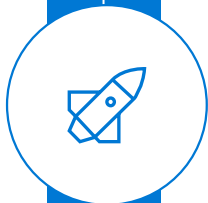


Connecting ideas to releases

Scrum ready to help your teams run sprints, stand-ups, and plan work

Integrated with GitHub commits and pull requests

Insights into project status and health



Deliver



Azure Boards



Azure Repos



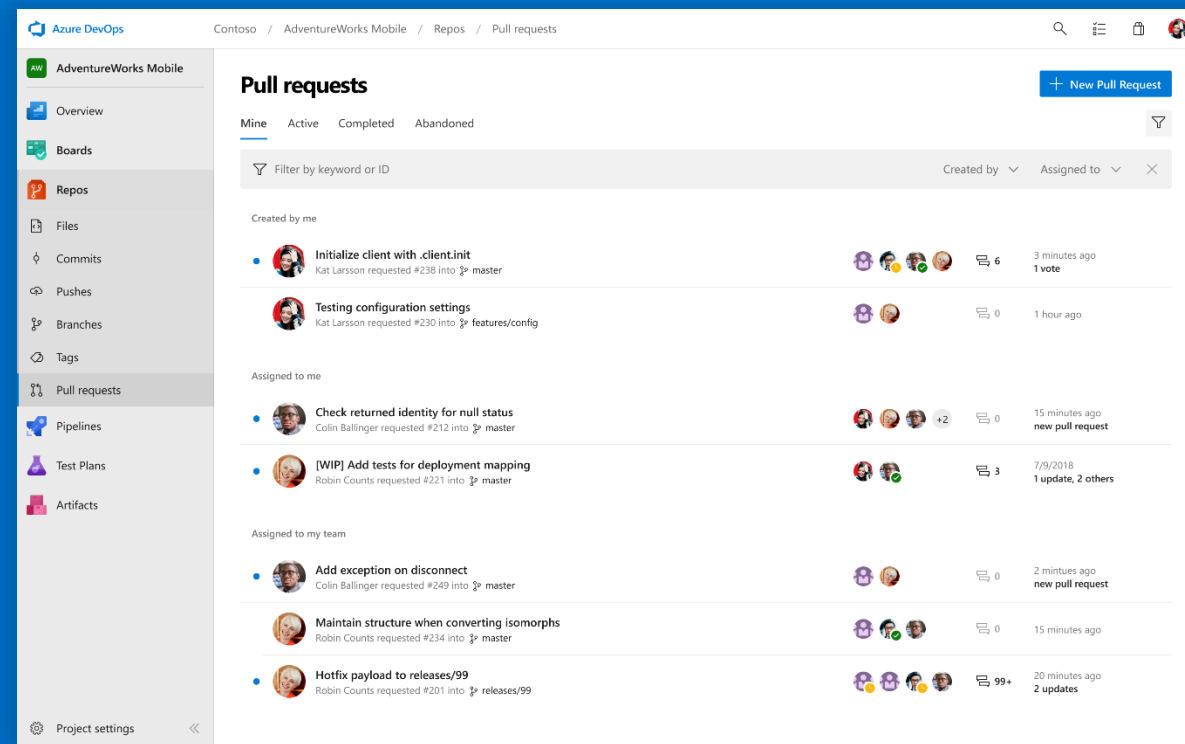
Azure Pipelines



Azure Artifacts



Azure Test Plans

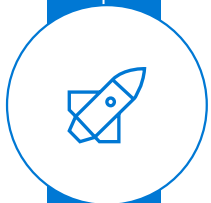


Private Git and TFVC repos for your teams

Code review via branch pull requests

Branch policies and build validation

Easy migration path to / from GitHub



Deliver



Azure Boards



Azure Repos



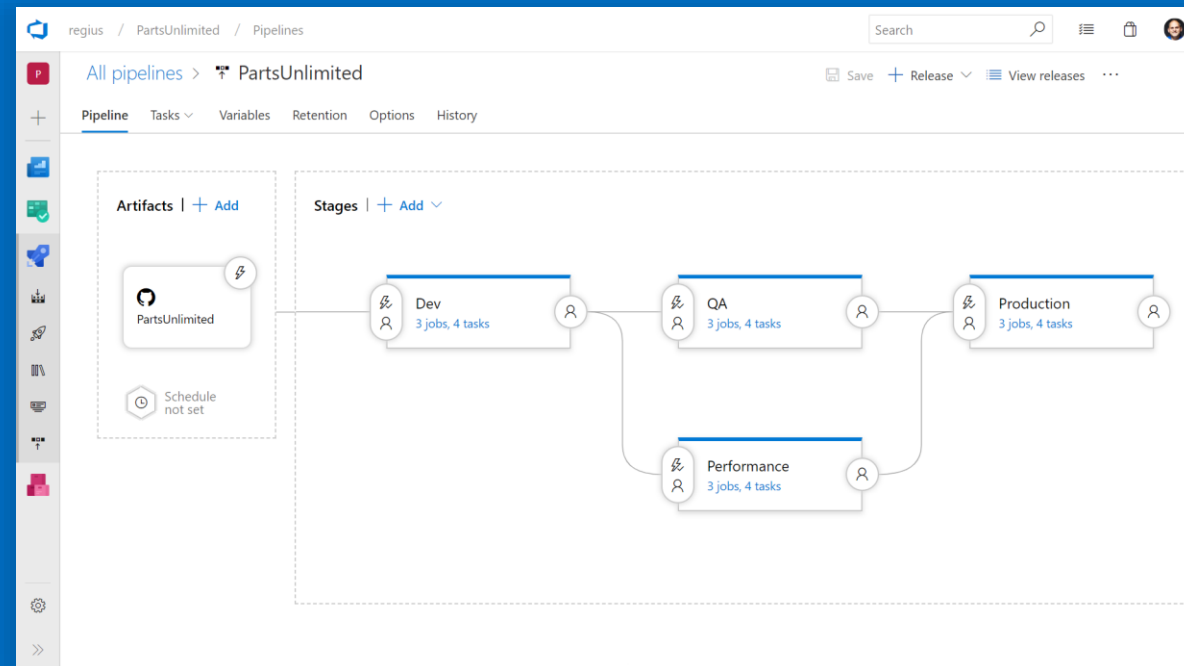
Azure Pipelines



Azure Artifacts



Azure Test Plans



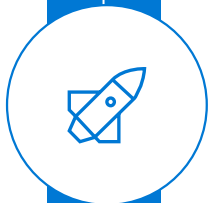
Deploy to on-premises, ANY cloud or hybrid from Linux, Mac and Windows

Staged environment releases

Deployment approvals including automated options

Native support for containers and Kubernetes





Deliver



Azure Boards



Azure Repos



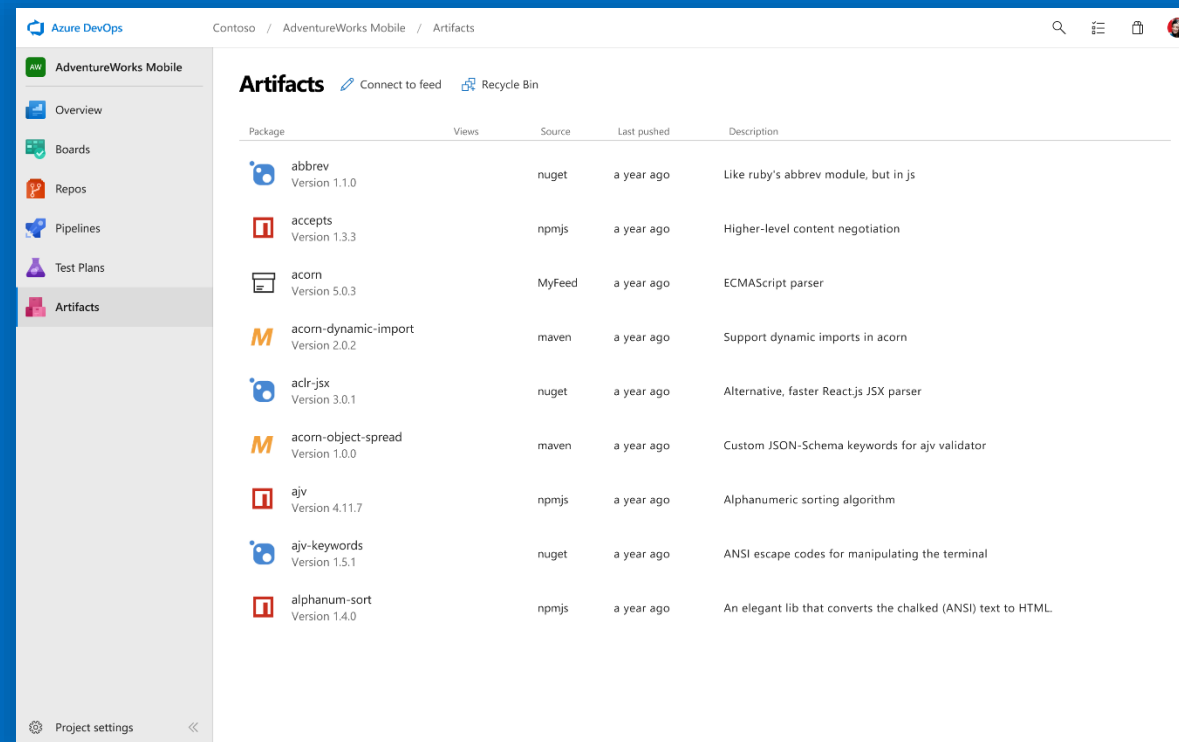
Azure Pipelines



Azure Artifacts



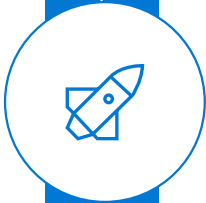
Azure Test Plans



Manage all package types

Add packages to any pipeline

Share code efficiently



Deliver



Azure Boards



Azure Repos



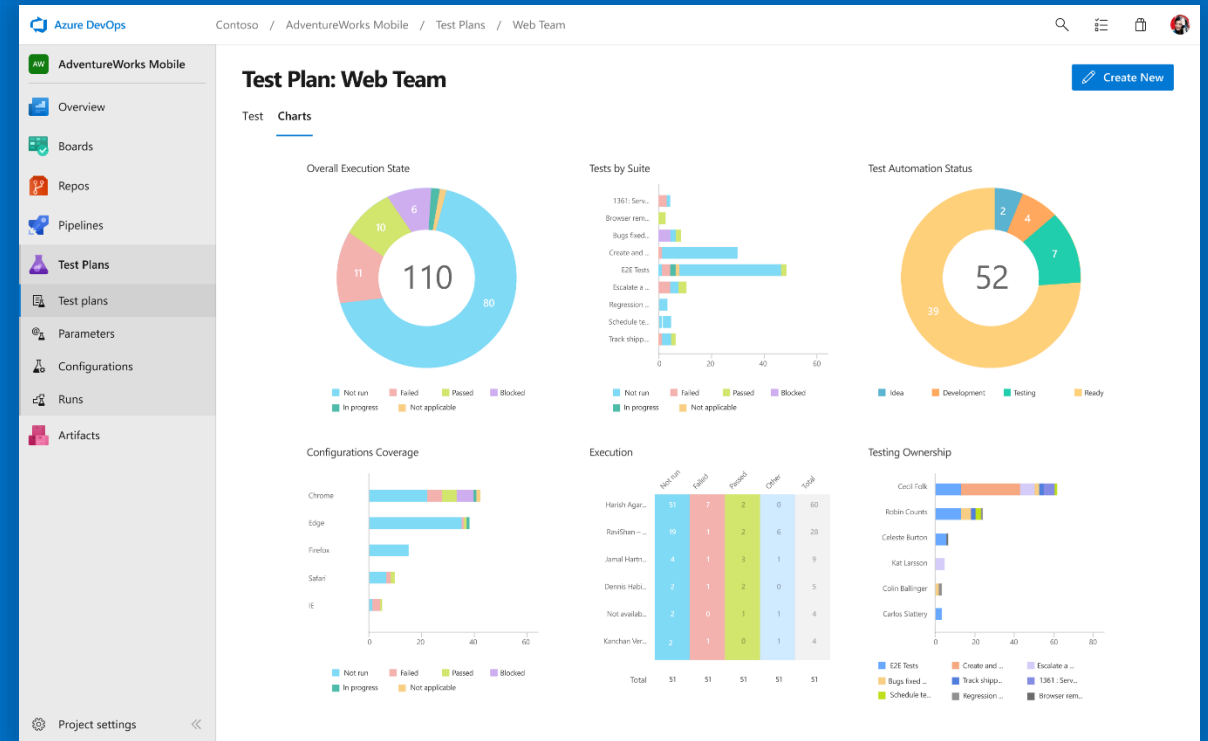
Azure Pipelines



Azure Artifacts



Azure Test Plans



Run tests and log defects from your browser

Track and asses quality throughout your lifecycle

Capture rich data for reproducibility

Create tests directly from exploratory sessions



Deliver with



Azure Boards



Azure Repos



Azure Pipelines



Azure Artifacts



Azure Test Plans

GitHub

GitHub brings the **premier** social coding workflows to your team, breaking down silos and enabling Inner Source through:

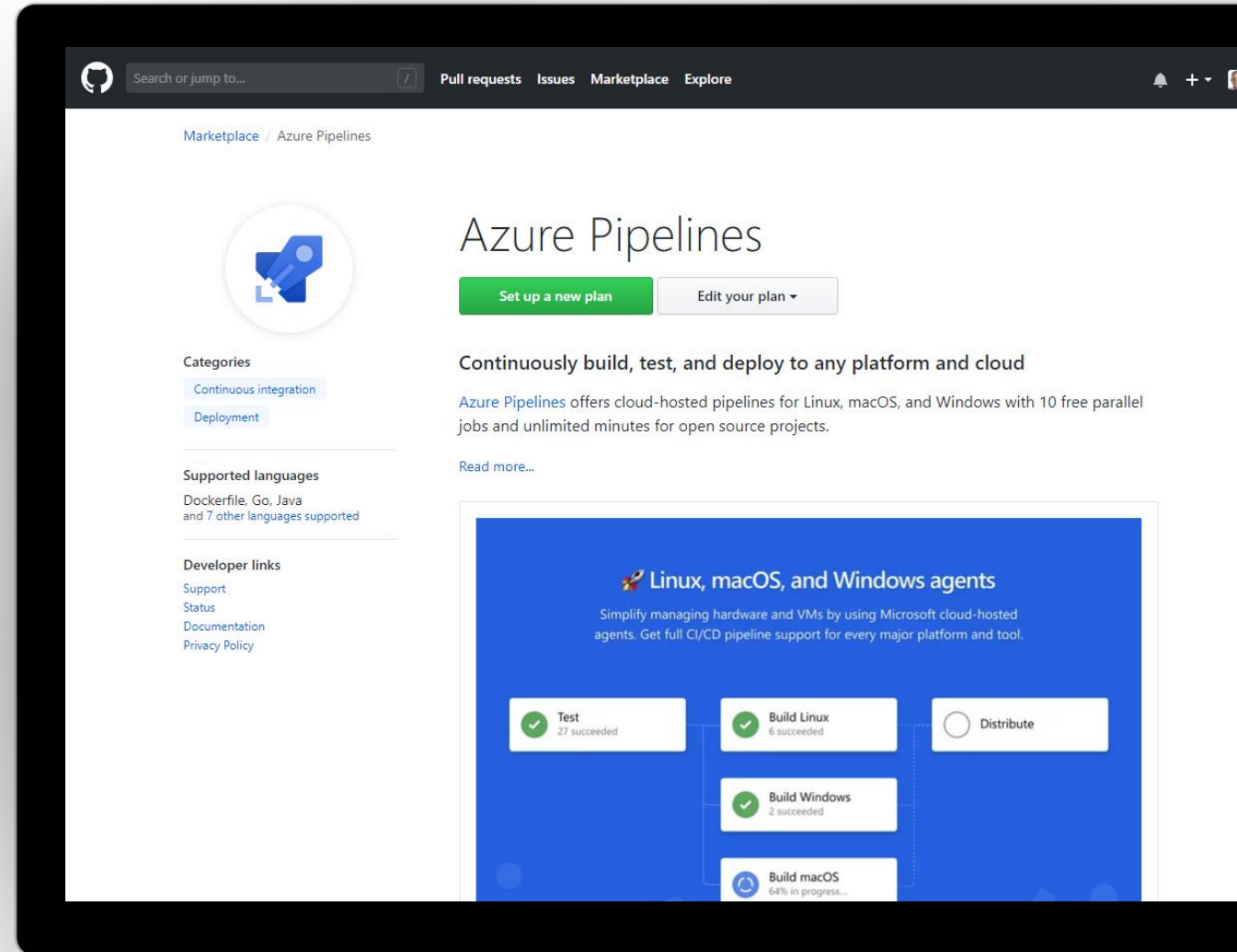
- Expertise sharing
- Cross-team collaboration
- Improved code reuse
- Increased velocity





Azure DevOps Integrated with GitHub via Extensions

Rich integration with Azure
Pipelines and Azure Boards



DevOps – sharing the load at TailWind Traders

Dev

Code

Unit Testing

GitHub Repo

CI/CD Automation

Ops

Azure DevOps Project

Web Servers

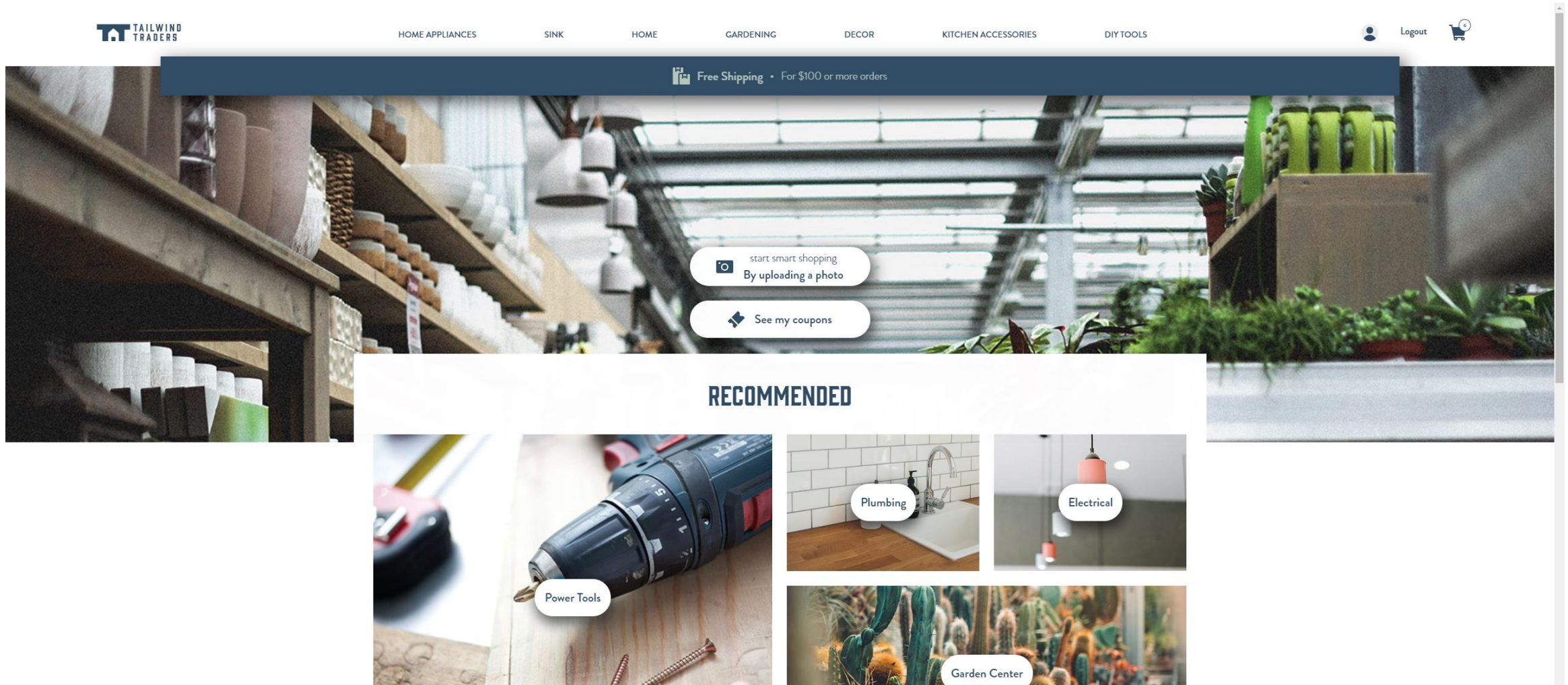
Scaling

CI/CD Automation

Monitoring

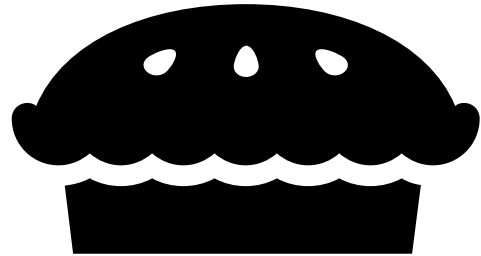
Security

Scenario: Feature request: Shipping cost experiment

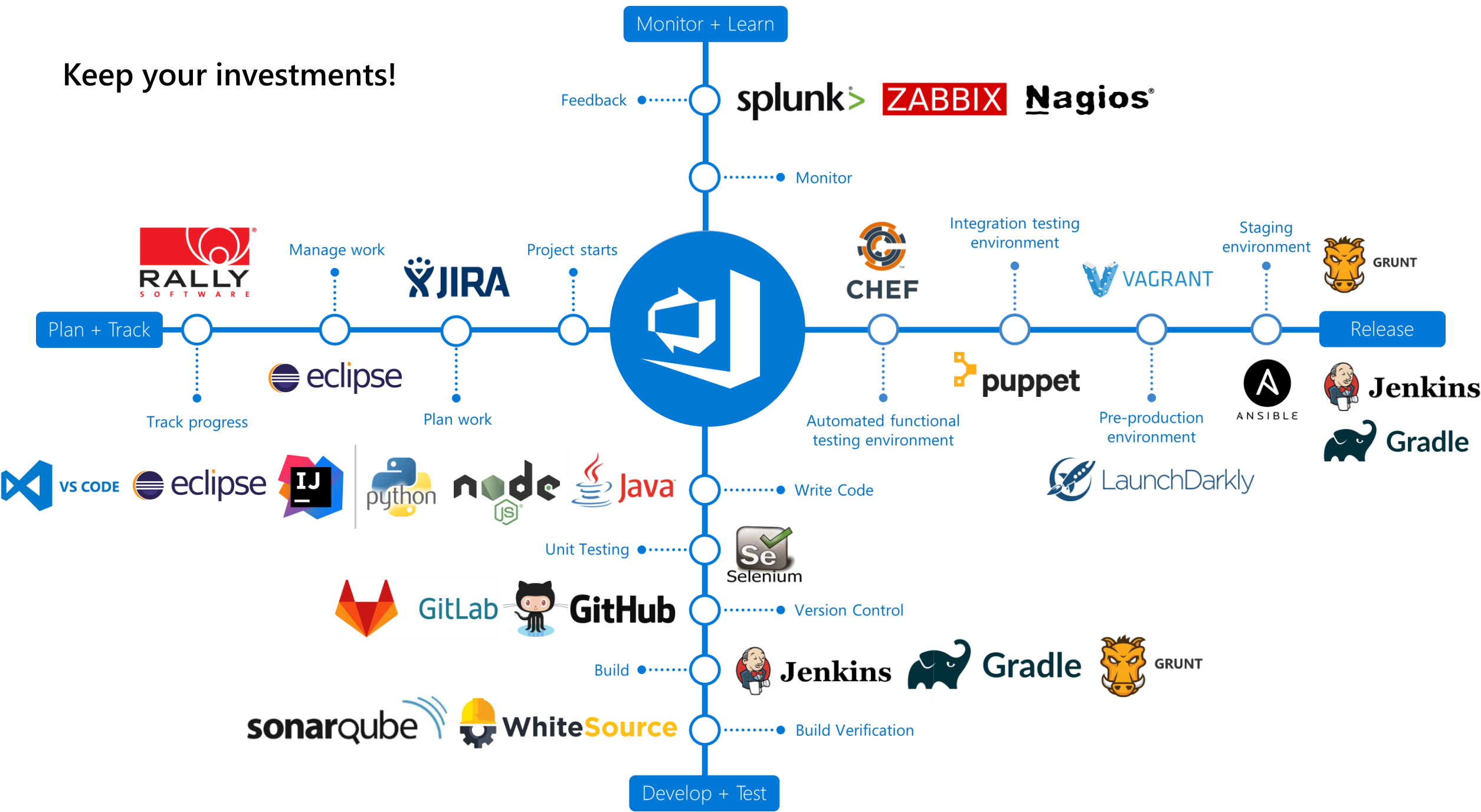


Demo: DevOps in Action

While that's cooking.....

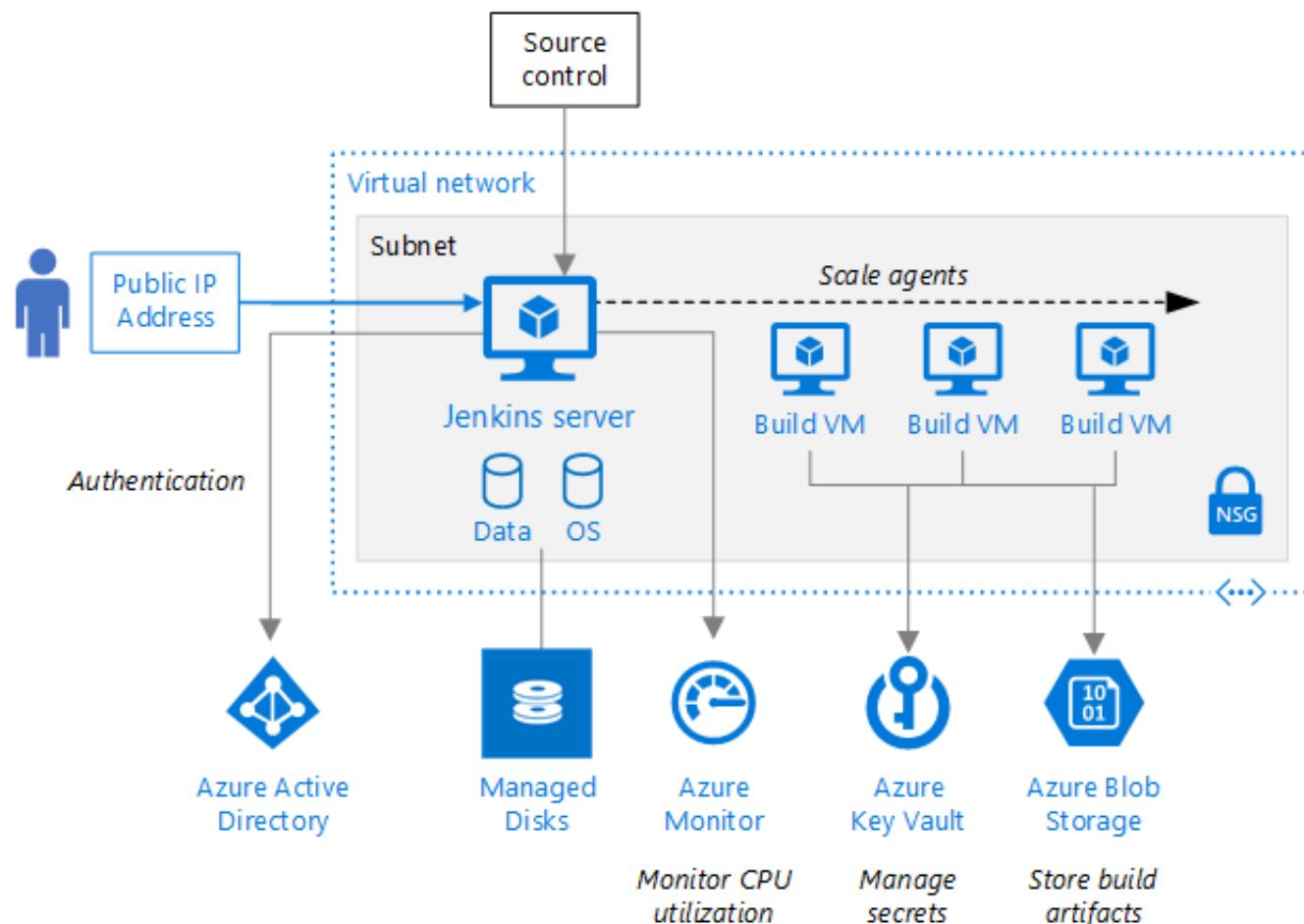


Keep your investments!



Jenkins on VMs

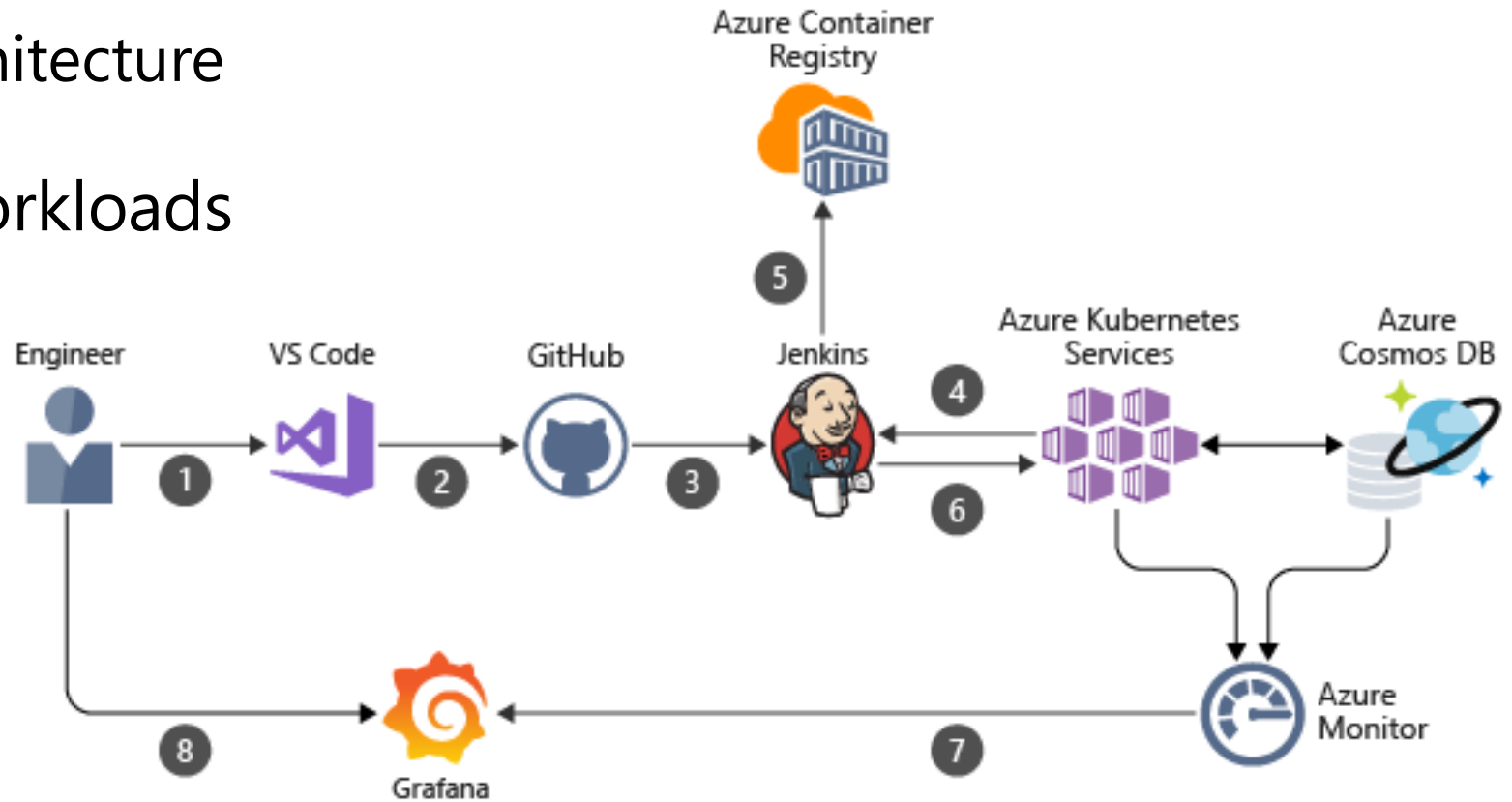
Azure Reference Architecture for Jenkins on Virtual Machines



aka.ms/jenkins-ref-architecture

Jenkins on Containers

- Azure Reference Architecture - CI/CD pipeline for container-based workloads



aka.ms/jenkins-containers

Jenkins Plugins on Azure

QuickStarts, tutorials, plugins on GitHub

aka.ms/azure-jenkins

azure-credentials-plugin

Jenkins Azure Credentials plugin

Java ★ 6 9 MIT Updated on Aug 1

azure-cli-plugin

A Jenkins plugin to use Azure CLI for managing Azure resources.

jenkins azure azure-cli jenkins-plugin

Java ★ 4 8 MIT 1 issue needs help Updated on Jun 28

azure-ad-plugin

Authentication and Authorization with Azure AD

Java ★ 3 10 MIT Updated 10 hours ago

azure-commons-plugin

Common APIs for Azure related Jenkins plugins

Java ★ 3 8 Updated on Aug 14

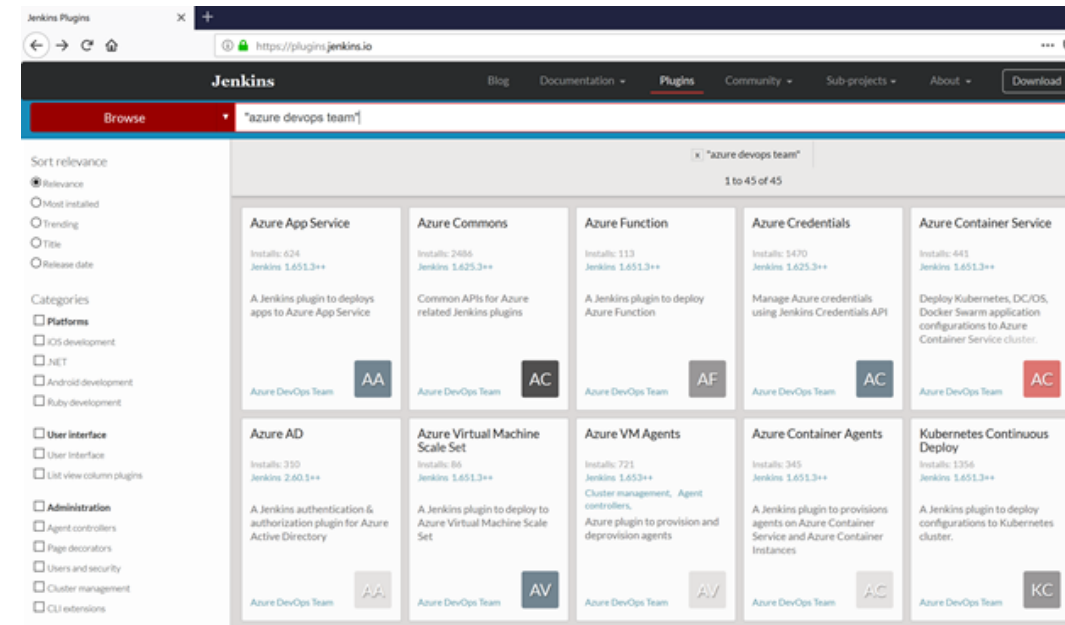
azure-container-agents-plugin

Azure Container Agents Plugin for Jenkins

Java ★ 9 4 MIT Updated on Apr 18

Azure plugins

- VM agent - <https://aka.ms/azjenkinsagents>
- VMSS - <https://aka.ms/azjenkinsvmss>
- Container agent - <https://aka.ms/azcontaineragent>
- AKS - <https://aka.ms/azjenkinsacs>
- Storage – <https://aka.ms/azjenkinsstore>



Review

1



What is DevOps?

2



People, Process and Products

3



Demo: DevOps in Action

4



Keep your investments!



@MelonyQ



<https://github.com/cloudmelon>

Thank you!



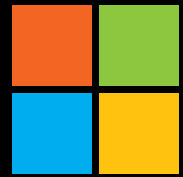
<https://cloud-melon.com/>

Demo code & scripts are here :

<https://aka.ms/ukazuretrainingday2020>

And more importantly hands-on is the king :

<https://openhack.microsoft.com/>



Microsoft Azure

Invent with purpose.