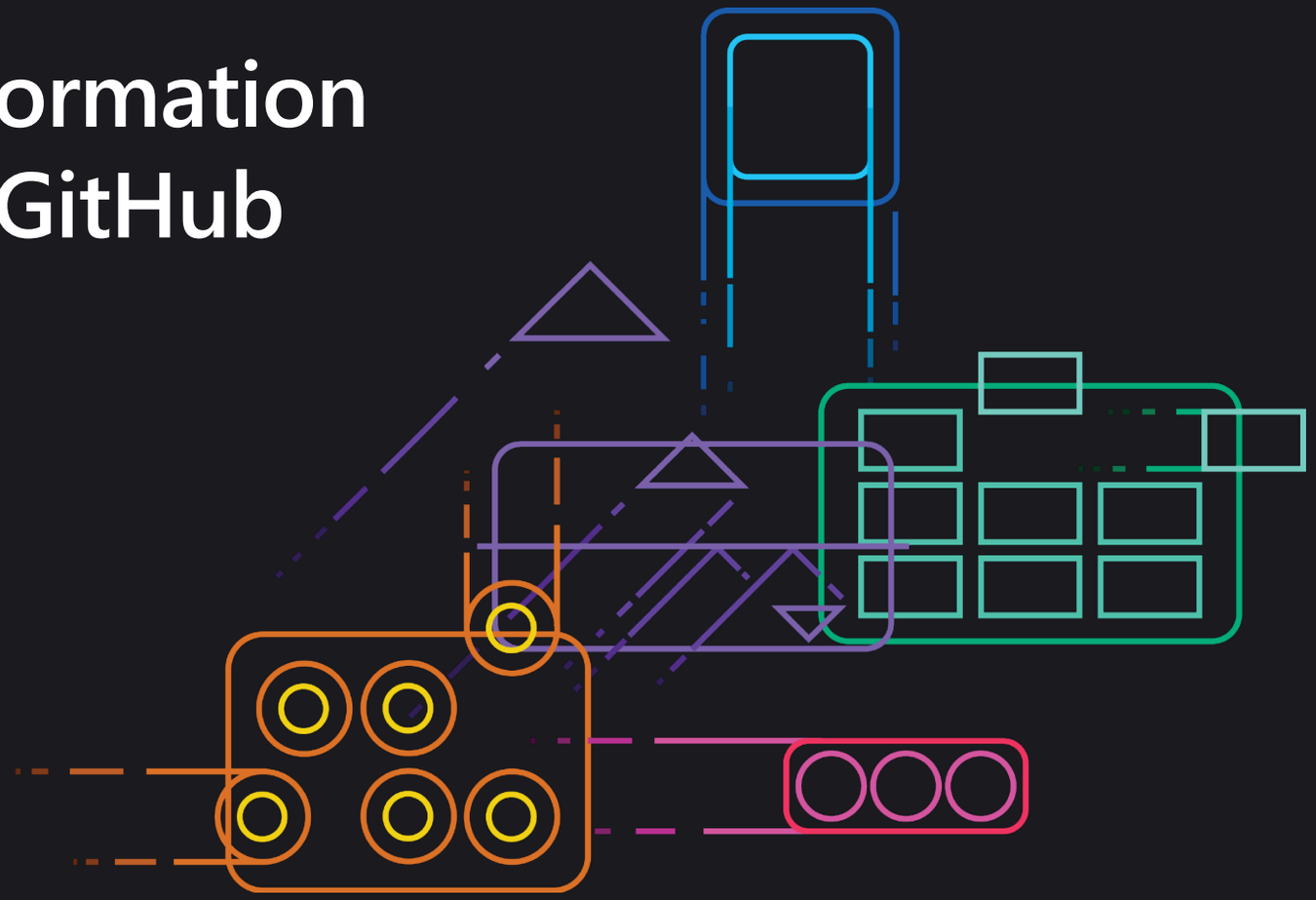
Microsoft

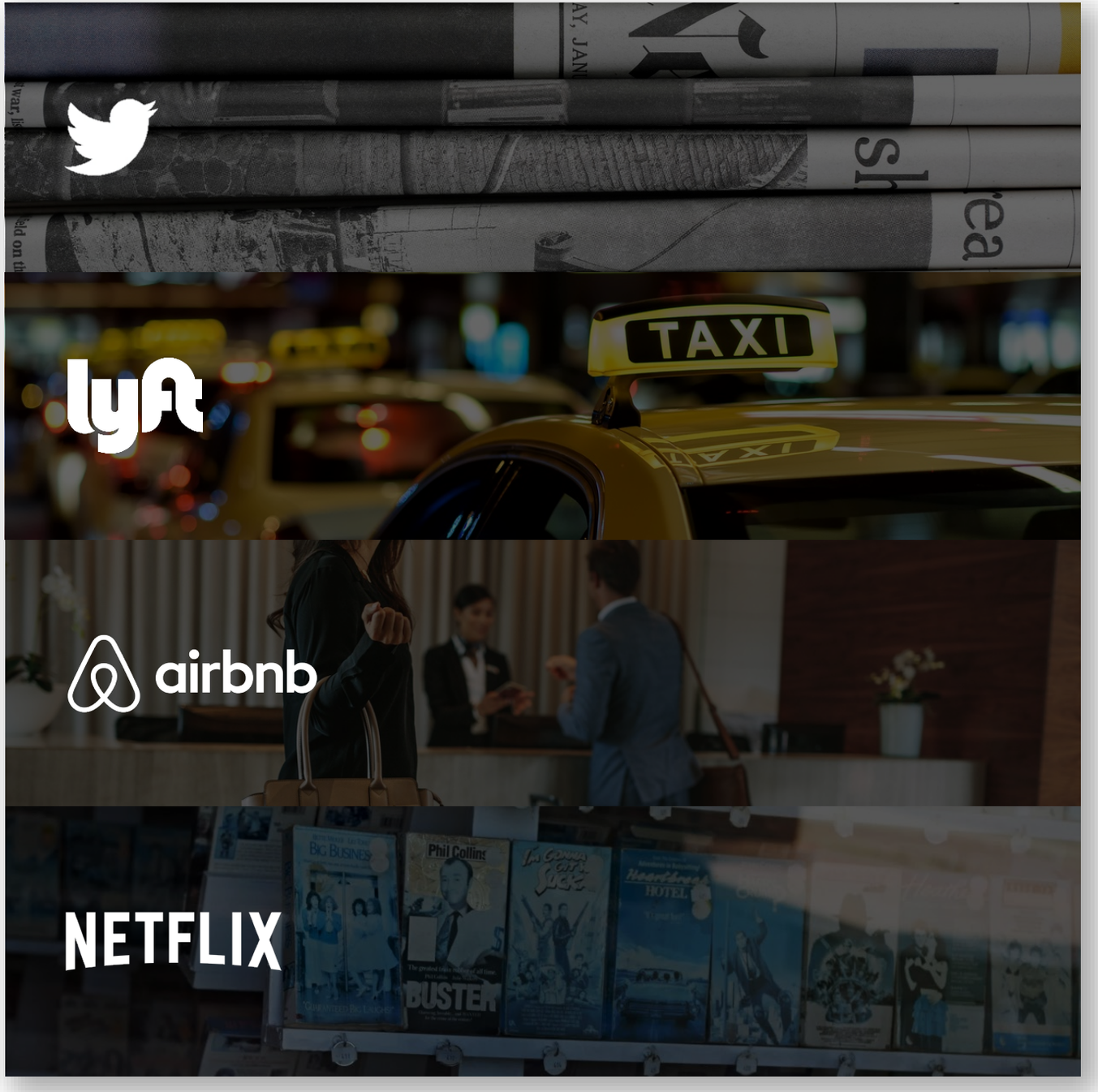
Accelerate Digital Transformation with Azure DevOps and GitHub



The Challenge

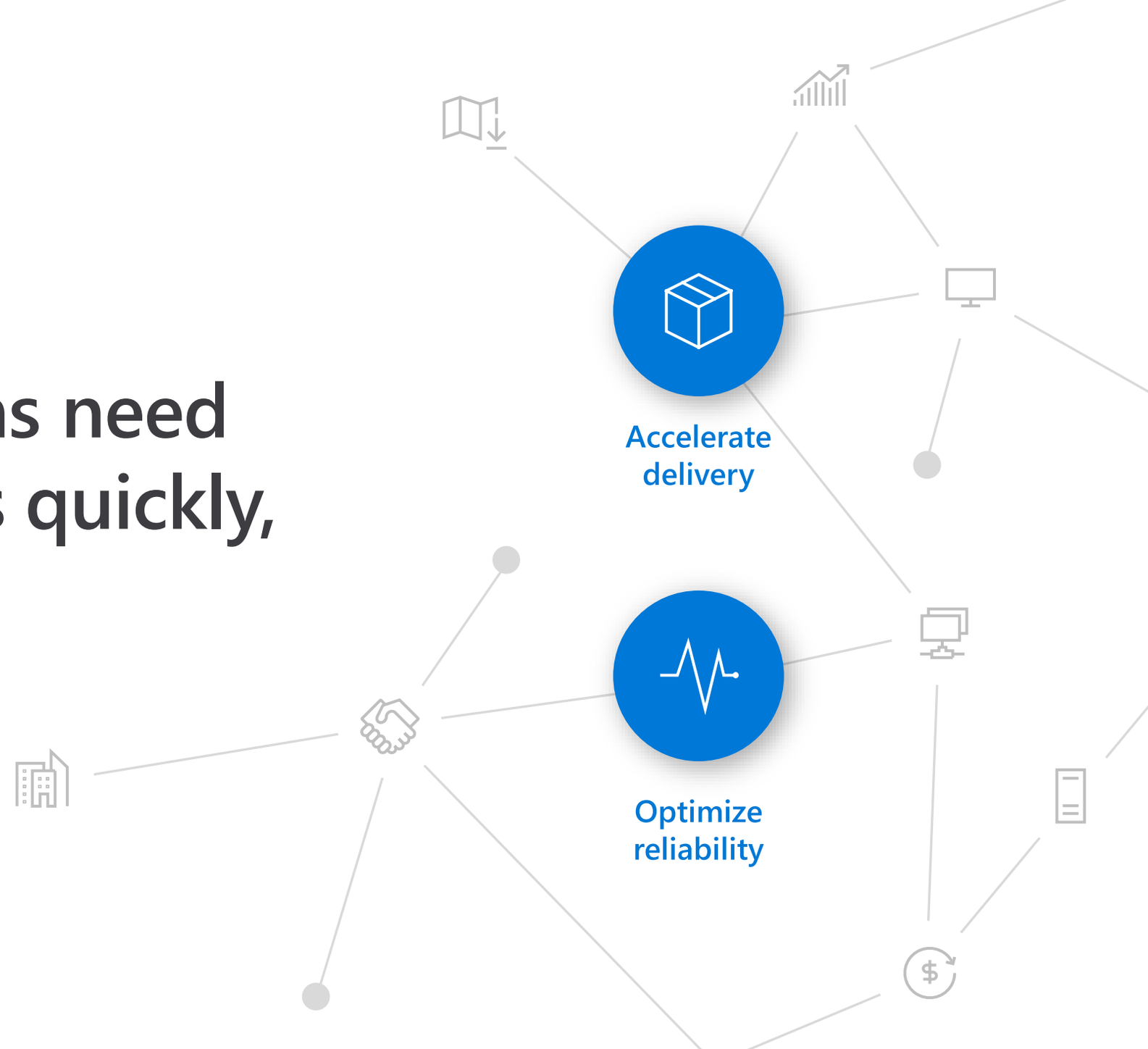
50% of Fortune 500 in 2000 now **replaced** by organizations that **use technology** to deliver customer value **faster, better, and cheaper**

The Fortune 500 of today face the same challenge tomorrow



Innosight
Corporate Longevity: Turbulence Ahead for Large Organizations

Product innovations need to reach customers quickly, and stay available



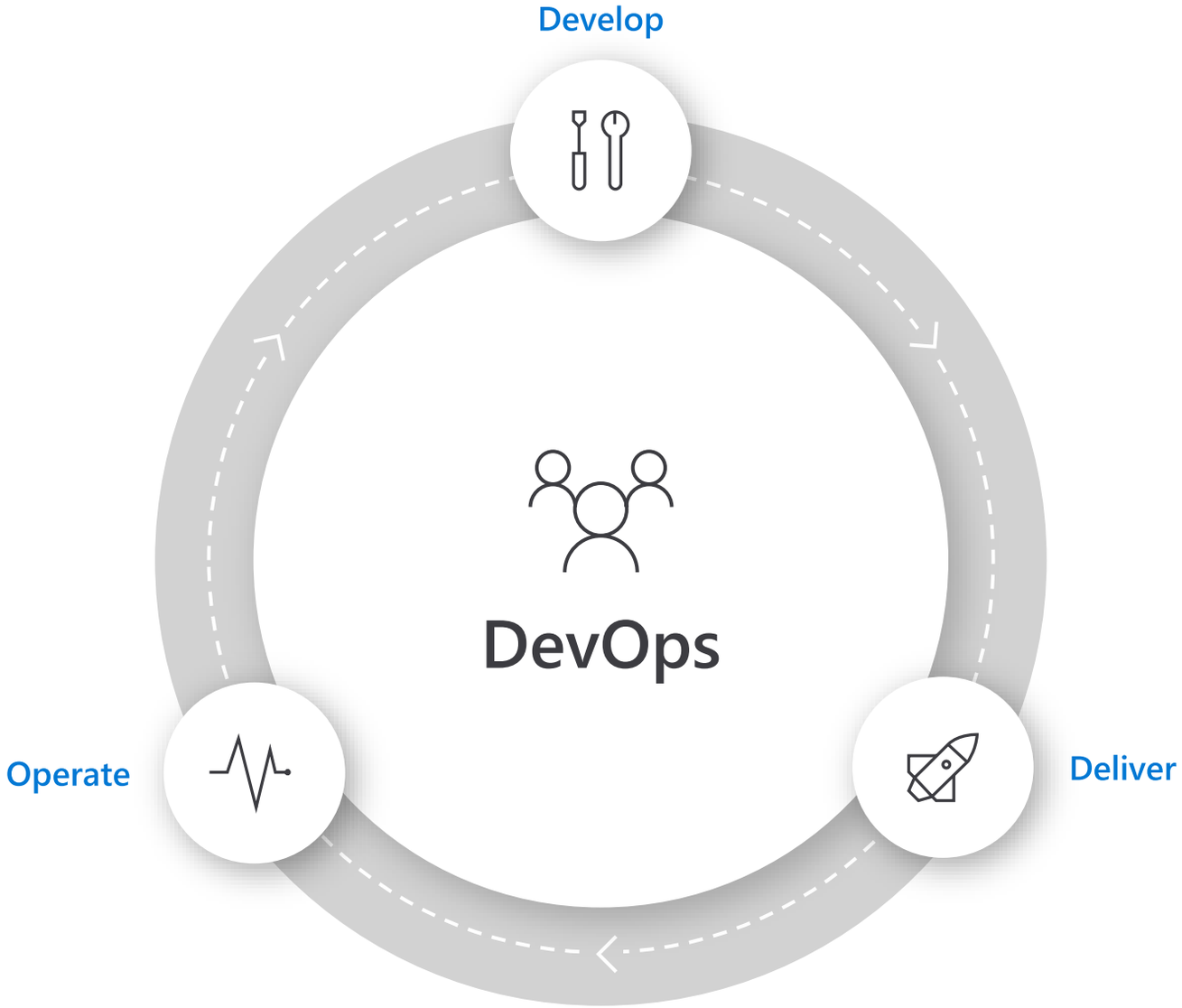
Software delivery paradox

Speed vs. control impedes innovation

Developers are at the heart of your company's innovation

Accelerating Delivery with DevOps

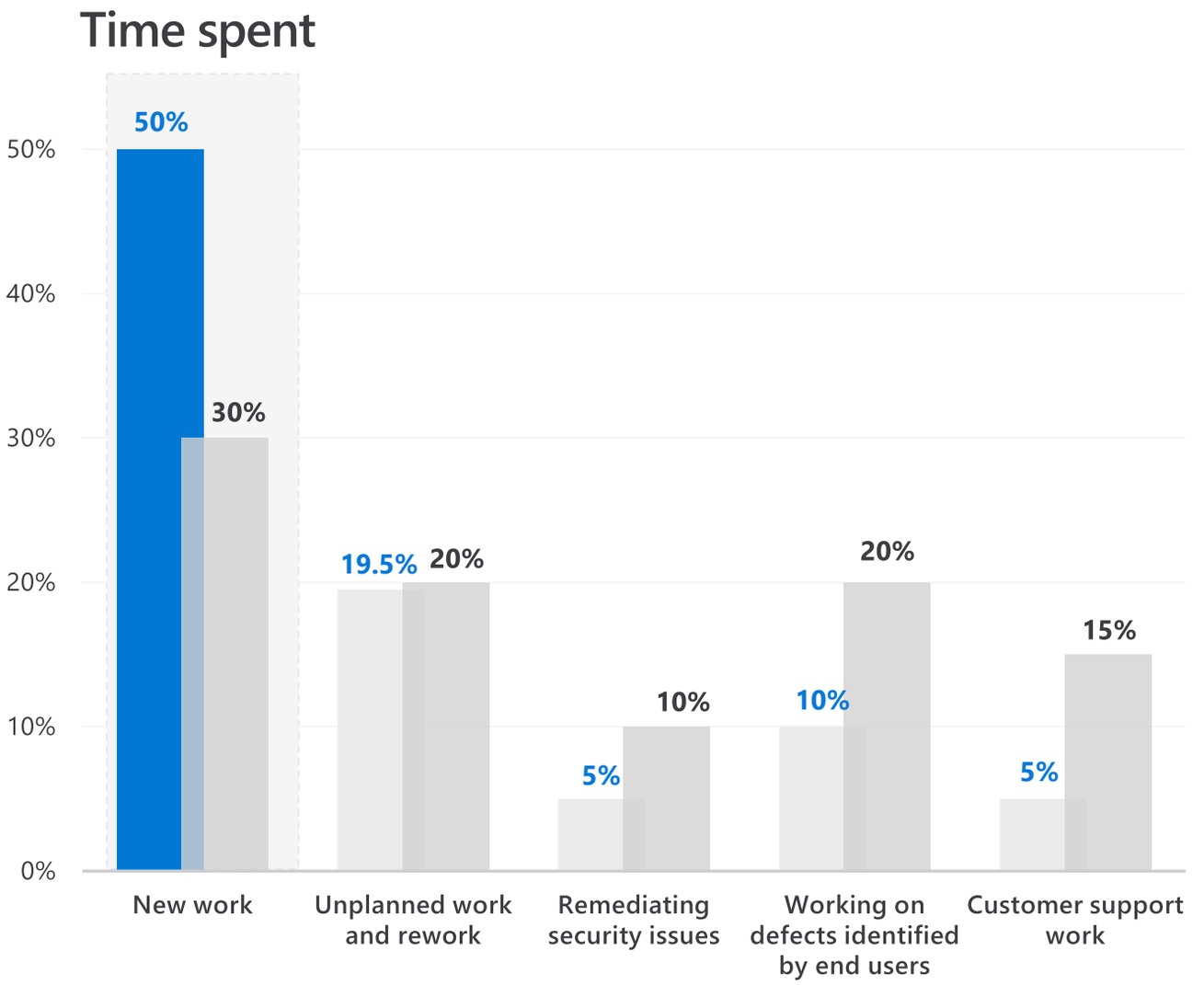
> DevOps is the union of people, process, and products to enable continuous delivery of value to your end users.



Innovation with oversight

Top performing DevOps companies spend more time innovating and less time “keeping the lights on”.

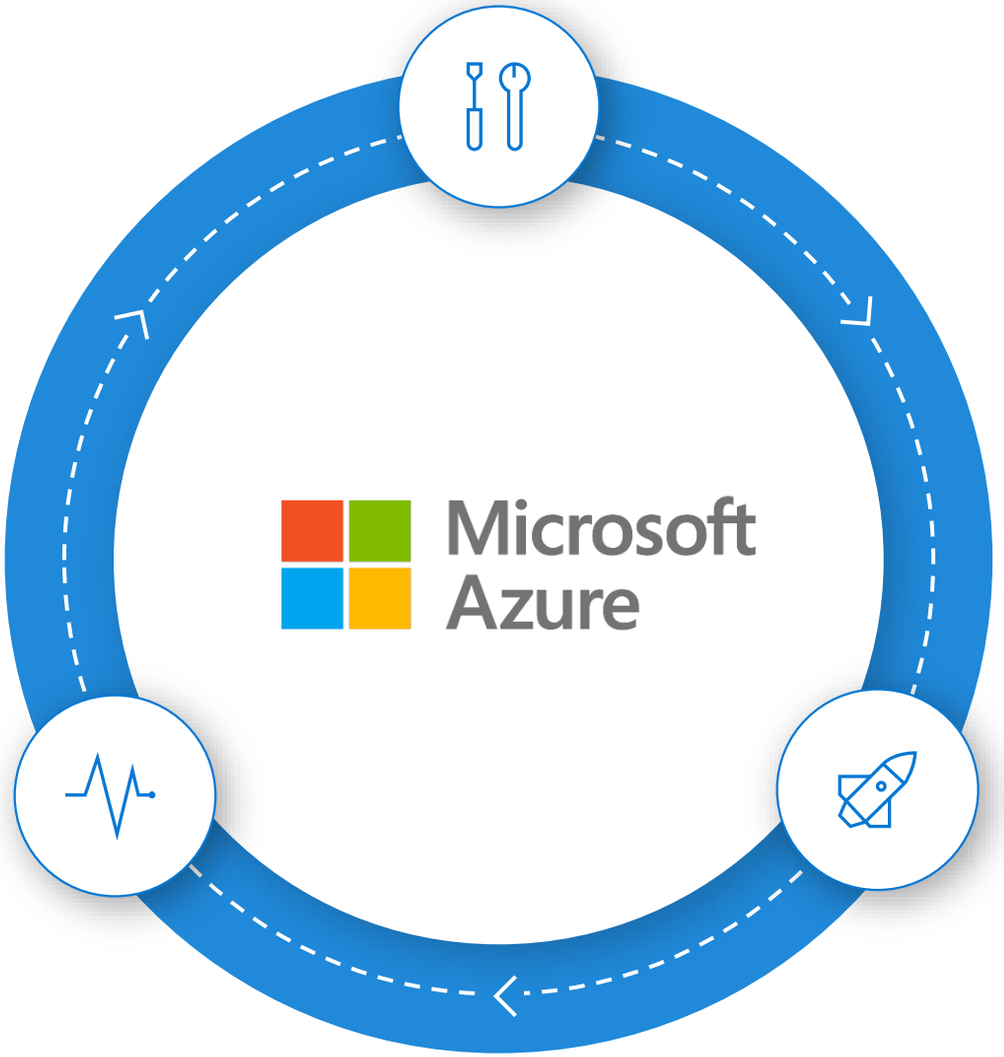
The result: better products, delivered faster, to happier customers by more engaged teams



Our Solution

Innovate at scale.
Deliver with confidence.

Microsoft Azure is the cloud
with DevOps tooling built in



Deliver with Azure DevOps

Azure Boards

Azure Repos

Azure Pipelines

Azure Artifacts

Azure Test Plans

Deliver

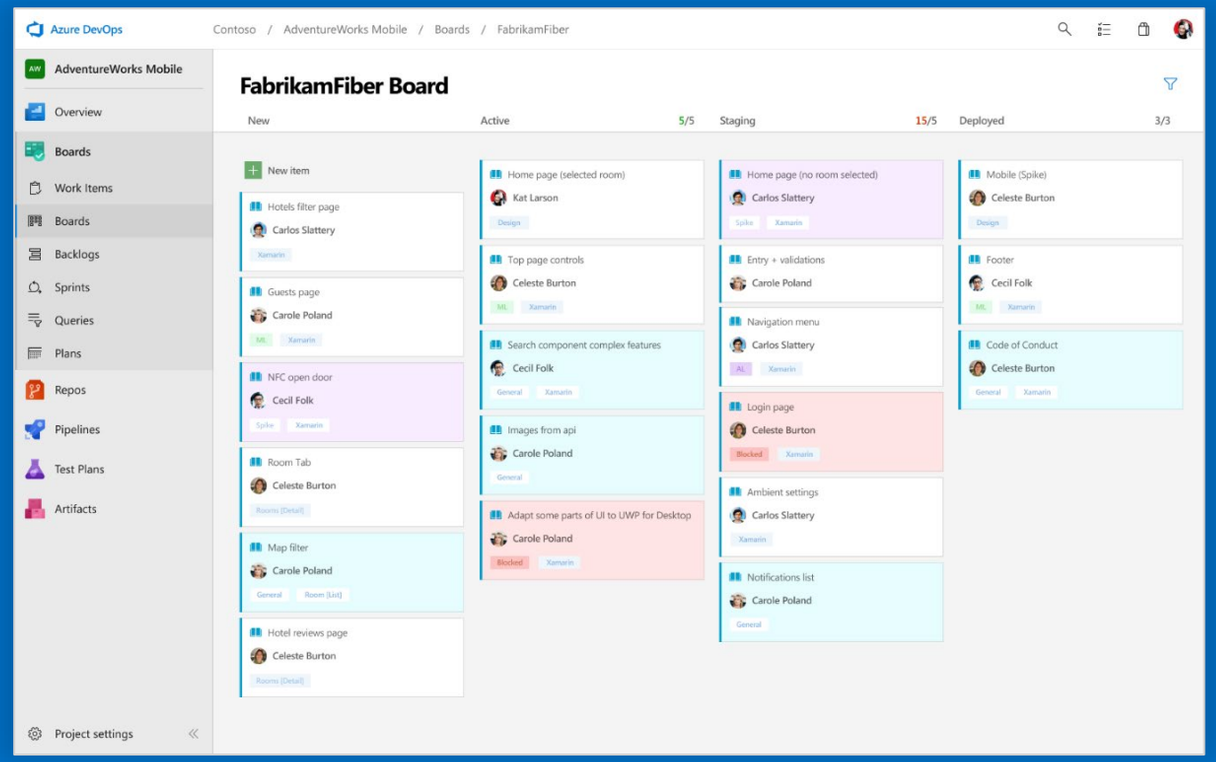
Azure Boards

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

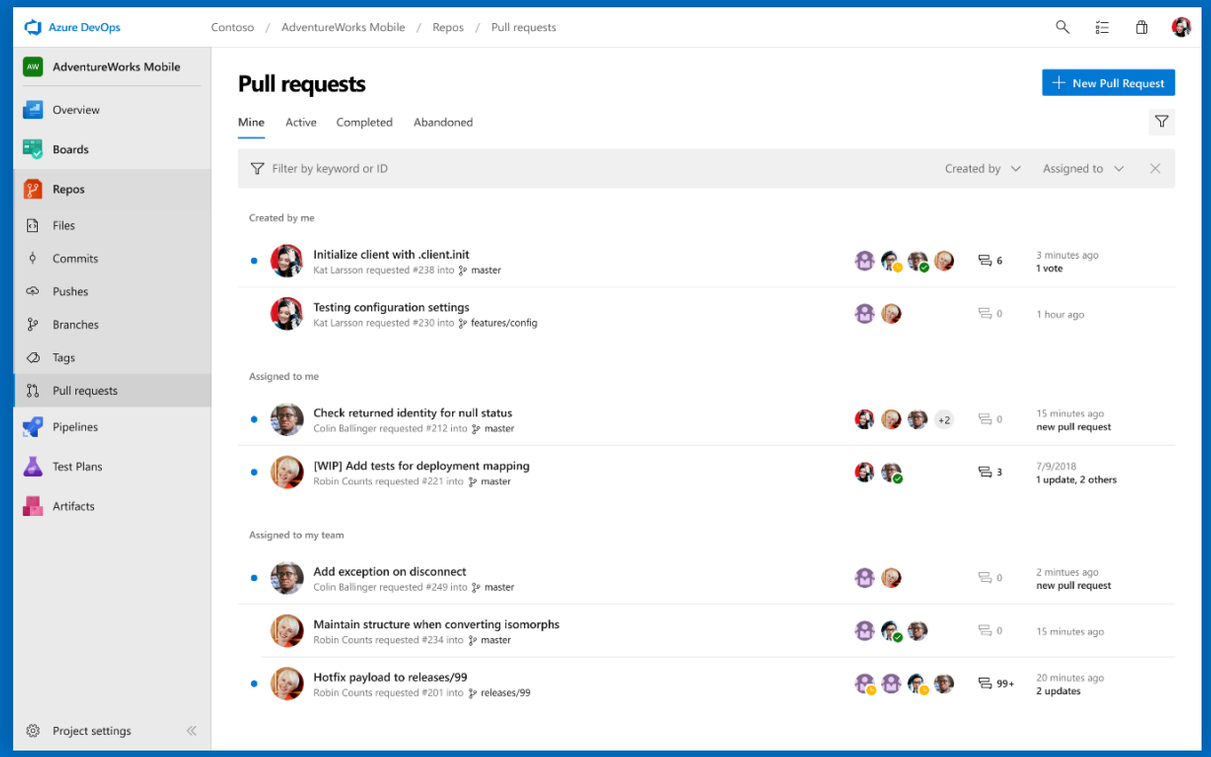
Azure Boards

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

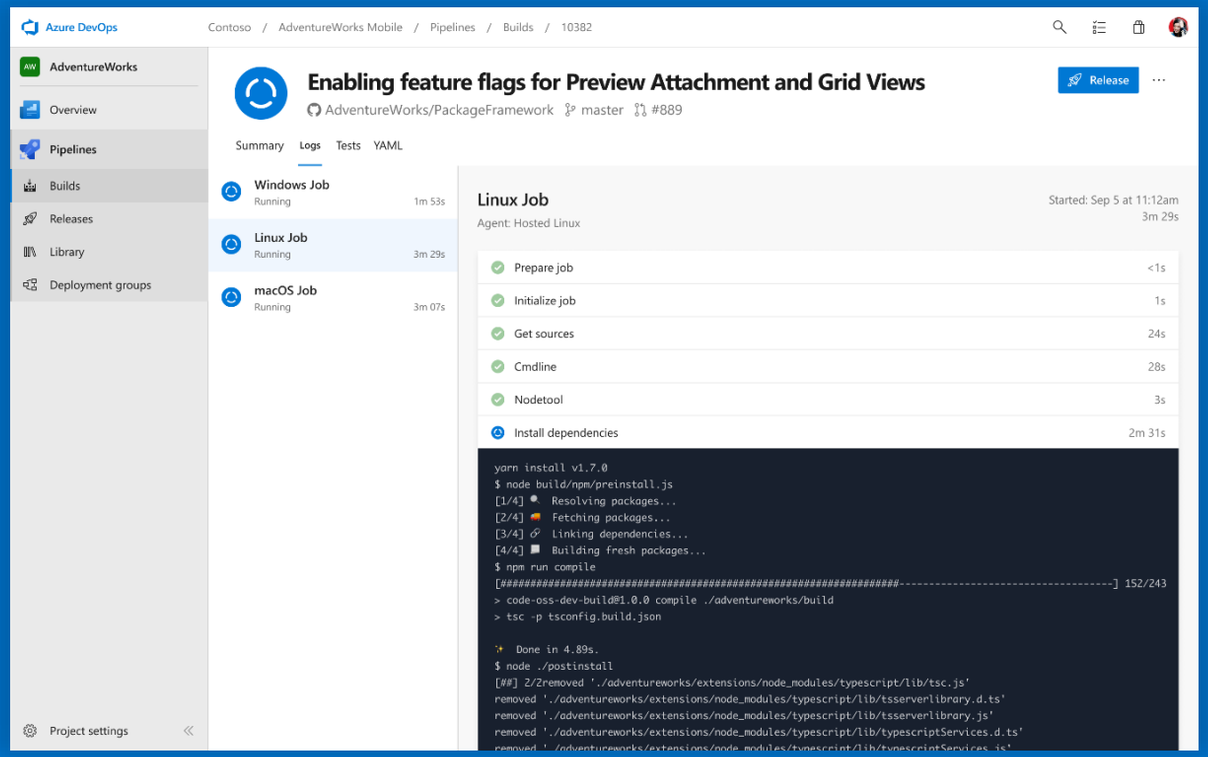
Azure Boards

Azure Repos

Azure Pipelines

Azure Artifacts

Azure Test Plans



Cloud-hosted pipelines for Linux, macOS and Windows

Any language, any platform, any cloud

Native support for containers and Kubernetes

Best-in-class for open source

Deliver

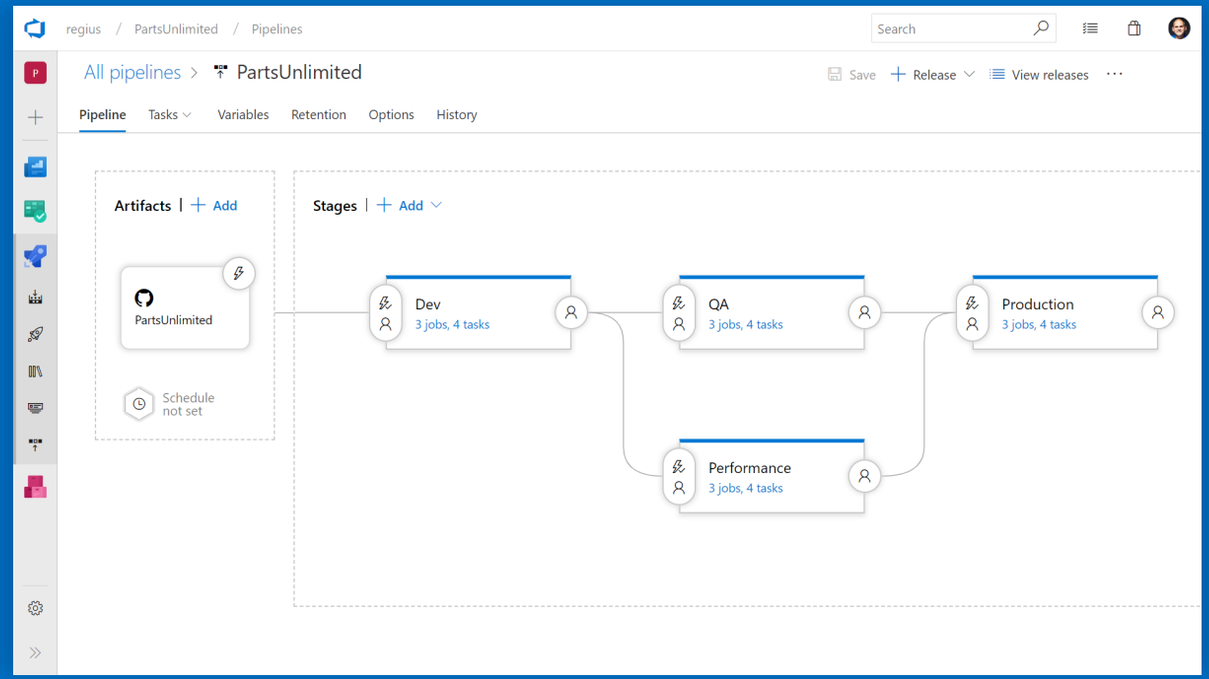
Azure Boards

Azure Repos

Azure Pipelines

Azure Artifacts

Azure Test Plans



Deploy to on-premises, ANY cloud or a hybrid of cloud and on-prem

Staged environment releases

Pre and post deployment approvals with gates to automate approval based on conditions

Deliver

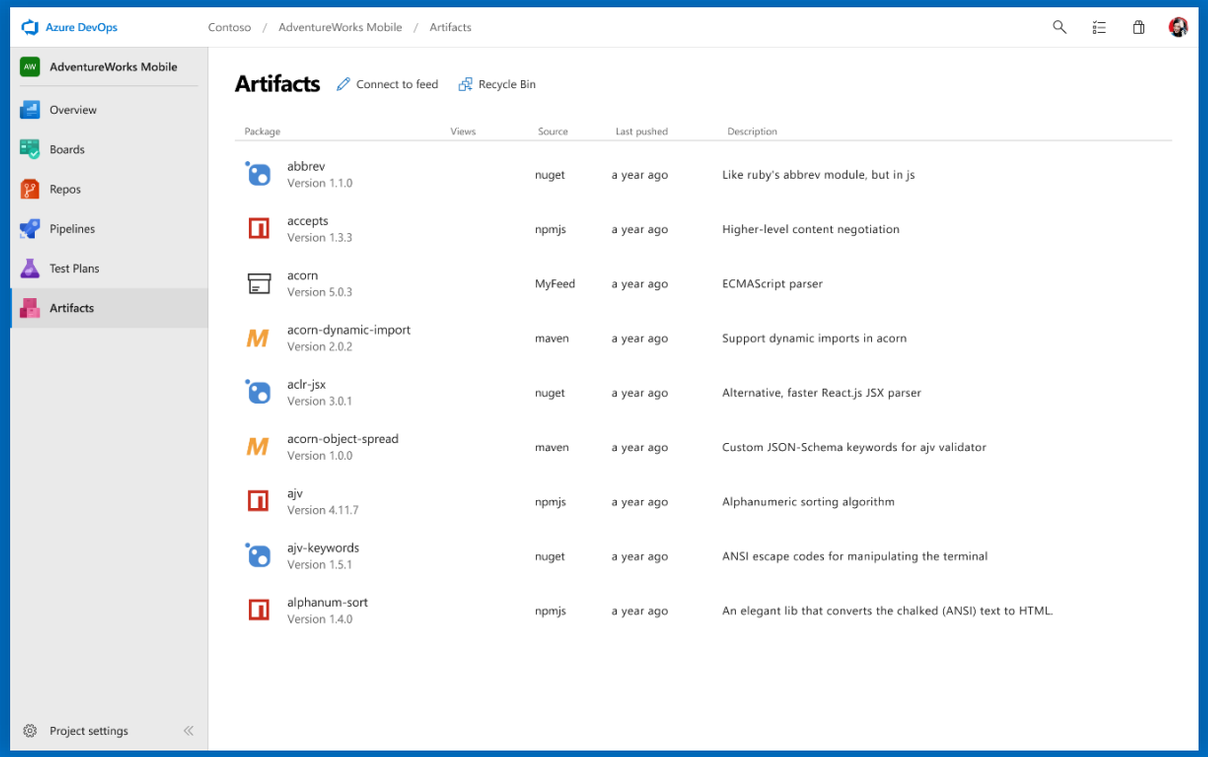
Azure Boards

Azure Repos

Azure Pipelines

Azure Artifacts

Azure Test Plans



Share code efficiently

Keep your Maven, npm, NuGet and Python packages and more in the same place

Aggregate from public registries and internal teams

Publish and track from any pipeline

Deliver

Azure Boards

Azure Repos

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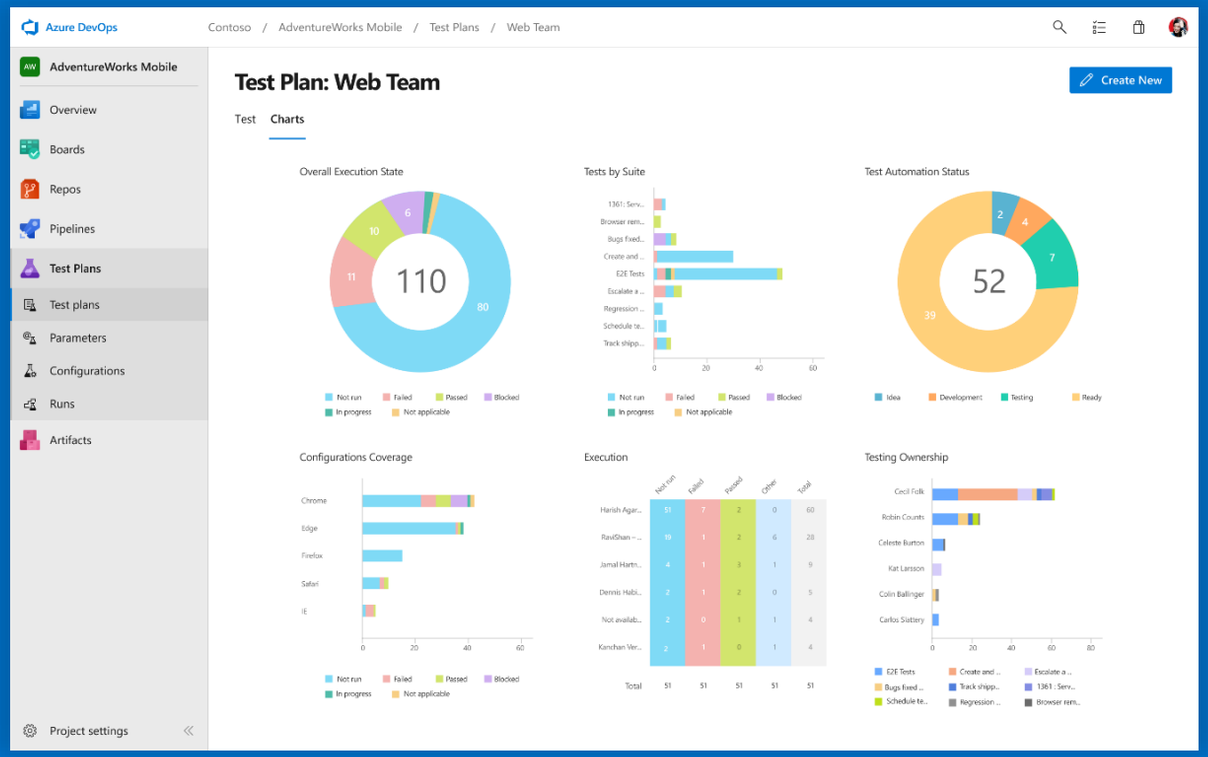
Azure Test Plans



Run tests and log defects from your browser

Track and assess 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

The #1 developer community on the planet

Most contributions **1.1B in 2018**

Most developers **33M**

Most Repos **100M**

Most secure **5M vulnerability alerts in 2018**

Home to the most important and popular open source projects on the planet

Winning the war for talent

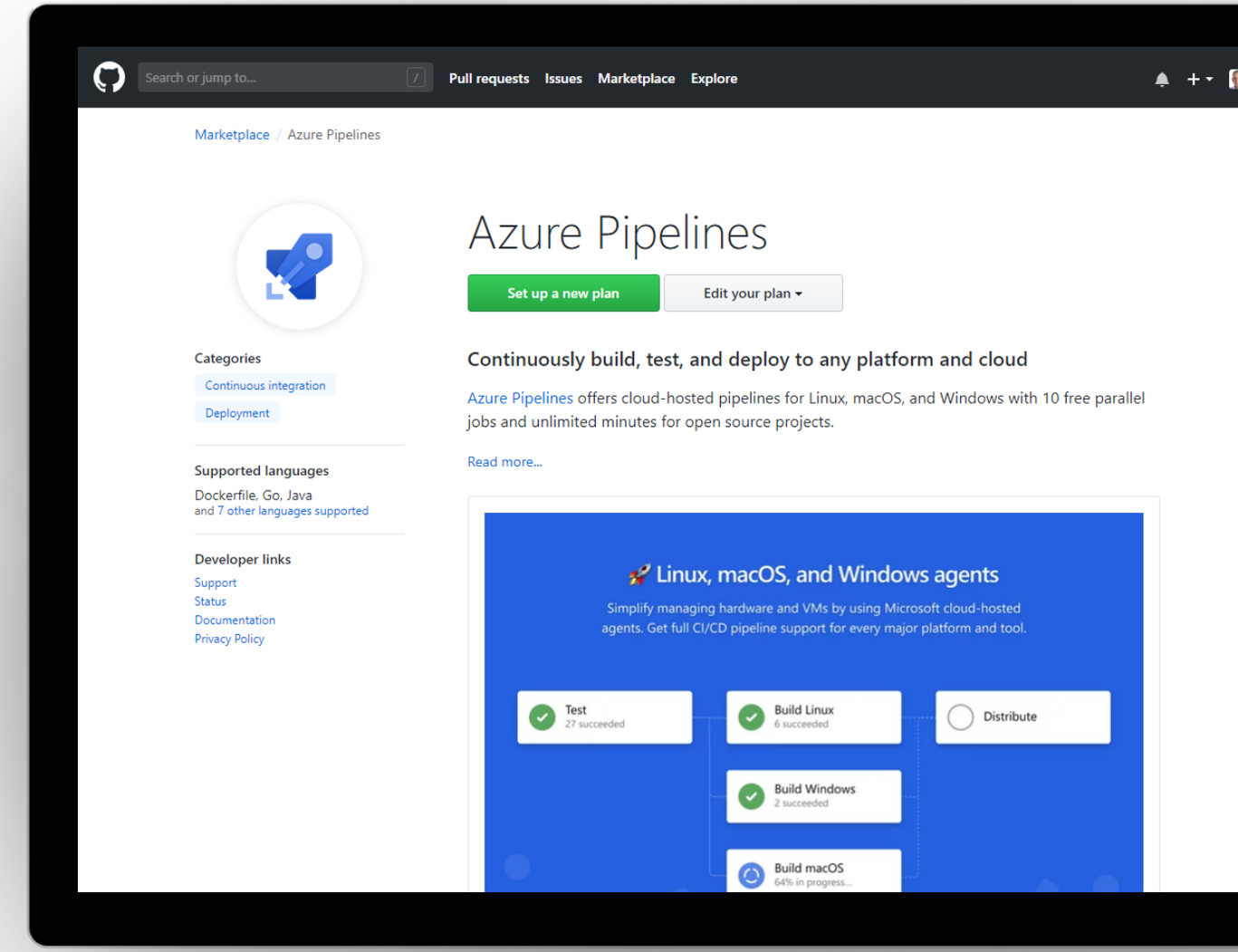
The world's leading companies use and contribute to open source software. It is also how they attract and retain talent

Developers want to:

- Solve interesting problems
- Collaborate with other developers
- Grow their skills
- Use tools they love

Azure DevOps Integrated with GitHub

Rich integration with Azure Pipelines and Azure Boards



Azure Pipelines

Free **unlimited** build minutes for public projects

Up to 10 free parallel jobs across Windows, Linux and macOS

https://azure.com/pipelines

Microsoft ❤ Open Source

Reactive operations

DEVELOP

DELIVER

OPERATE

- Governance
- Security
- Monitoring
- Automation
- Resiliency

Moving to proactive operations with Azure

"Shifting left"

- Resiliency
- Monitoring
- Security
- Governance
- Automation

Deploy continuously and compliantly

Enterprise-grade security, monitoring, and management services built-in

Governance

Proactively apply policies and enable compliant releases

Azure
Policy & Blueprints

Security

Industry leading Security with Advanced Threat Protection

Azure
Security Center

Resiliency

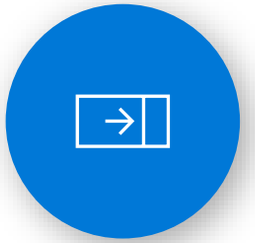
High availability and protection for VMs, apps and data

Azure
Backup & Site Recovery

Monitoring

Deep operational insights with rich intelligence

Azure
Monitor



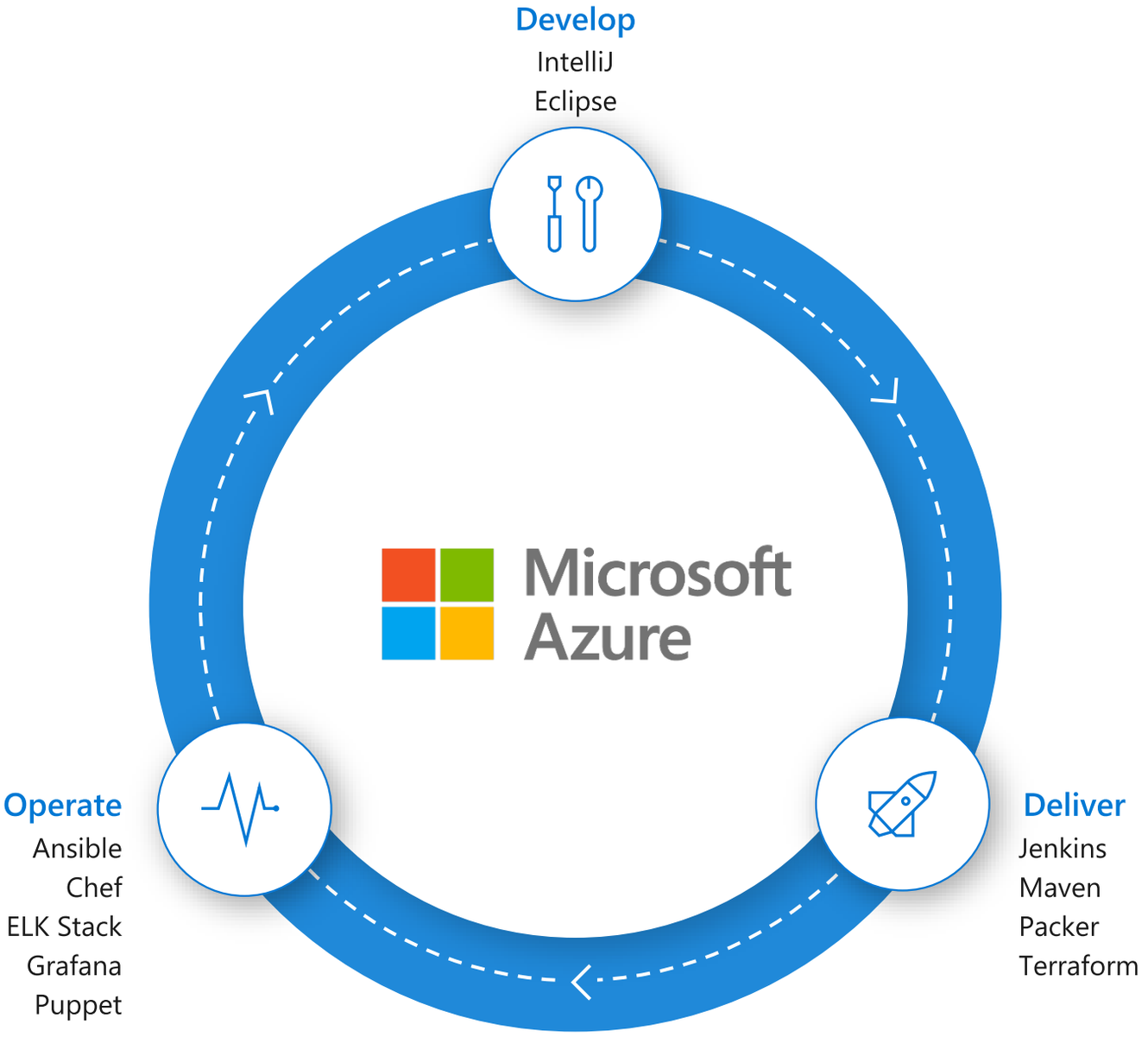
Automate

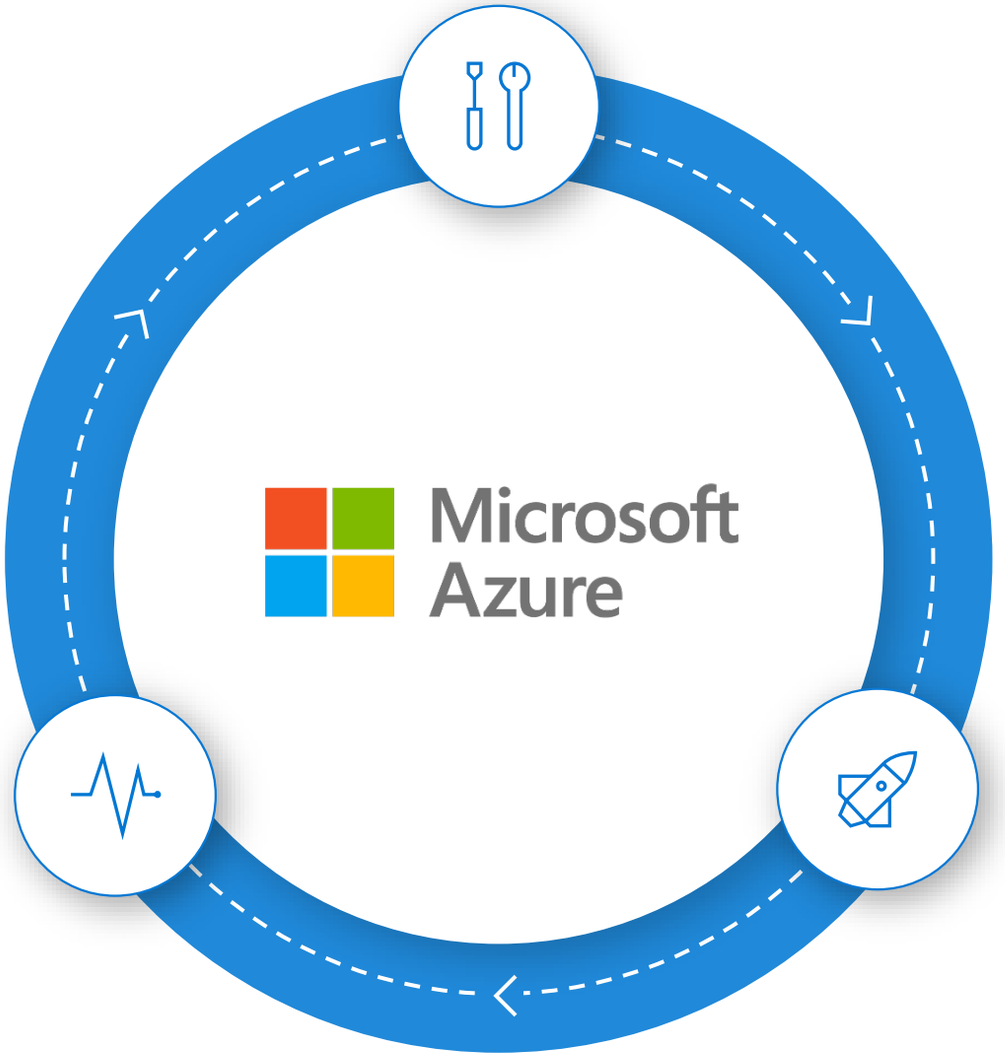
Powerful scripting, configuration and update management

Azure
Automation

Use the tools you know and love

Azure and GitHub are fully integrated with your existing tools and workflow





Core Infrastructure

Compute

Security

Storage

Management

Networking

Advanced Workloads

Web + Mobile

Internet of Things

Microservices

Containers

Serverless

Identity

Data + Analytics

Artificial Intelligence

Cognitive Services

High Performance Computing

Azure Stack + Hybrid

The cloud with DevOps tools built in

Azure DevOps

- Continued heavy investment in Azure DevOps
- Best in class CI/CD solution across the industry
- Best & most loved solution for managing development teams
- Tight integrations with GitHub
- Provide enterprise scalable package management

https://azure.com/devops

Azure DevOps supports small teams and the largest enterprises

> “Instead of telling people to wait for 6 months for a new feature, we can give it to them in a few weeks…Our 2800 worldwide developers can use the same backlog, user stories and tests whether they’re on Windows or Linux… building for iOS or Android.”

accenture

> “Speed is gained in moving to the PaaS offering of Azure DevOps. PaaS provides regularly released features and a future-proof capability, eliminating the need for Accenture to maintain infrastructure and go through upgrade cycles.”

Columbia

> “Microsoft made it really easy to break outside the silos… and tie the DevOps process into the fulfilment of business process. Without the tools that we have today, we would not be successful.”

> “Branches sync 500 percent faster. Builds are 400 percent faster, with the typically six-hour process reduced to 90 minutes. We (now have) a highly streamlined process that operates with a few button clicks—and one-button deployment.”

DevOps at Microsoft

Azure DevOps is the toolchain of choice for Microsoft engineering with over 100,000 internal users

https://aka.ms/DevOpsAtMicrosoft

442k
Pull Requests per month

4.6m
Builds per month

28k
Work items created per day

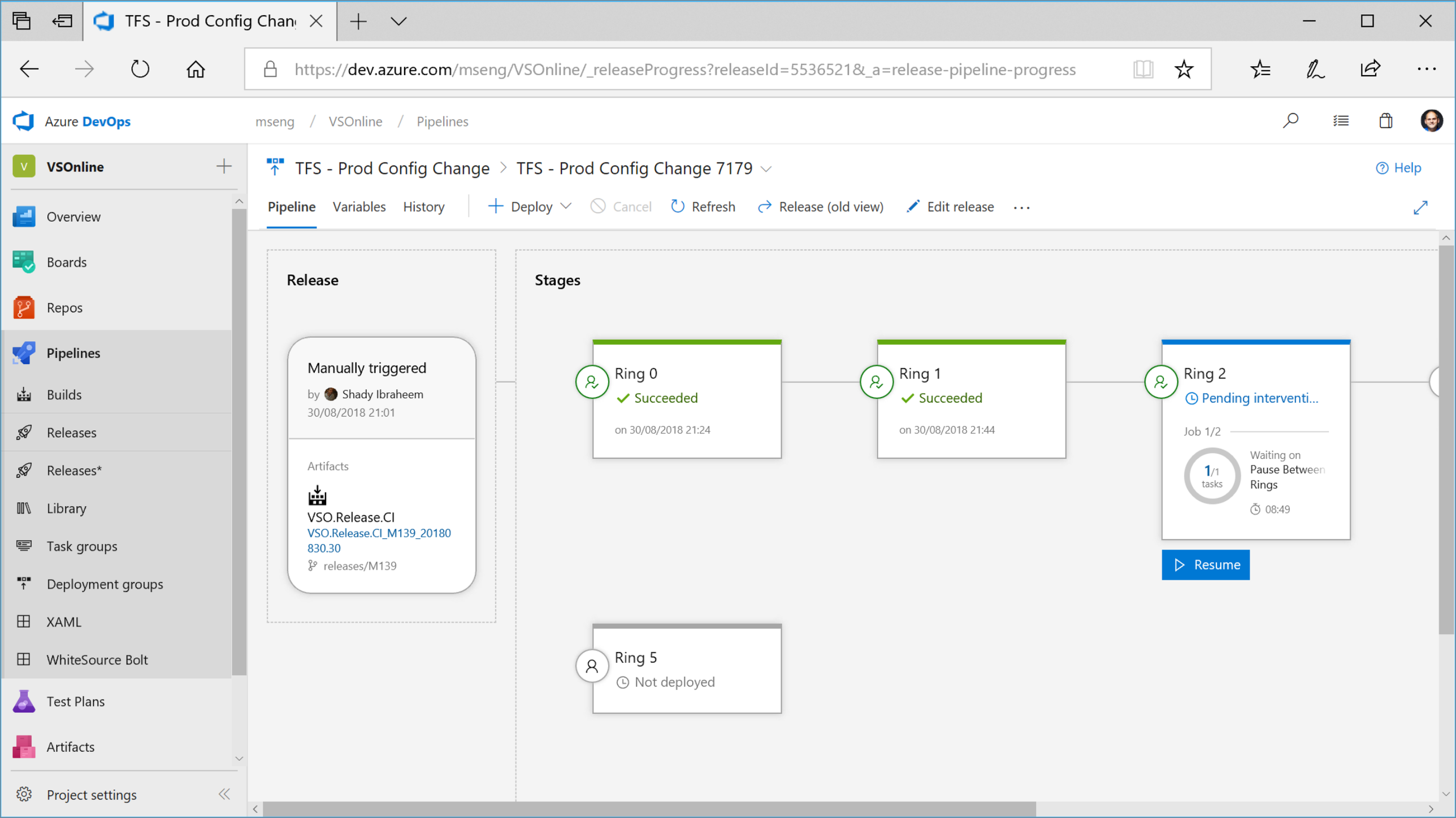
82,000
Deployments per day

2.4m
Private Git commits per month

3.5k
Open Source repos

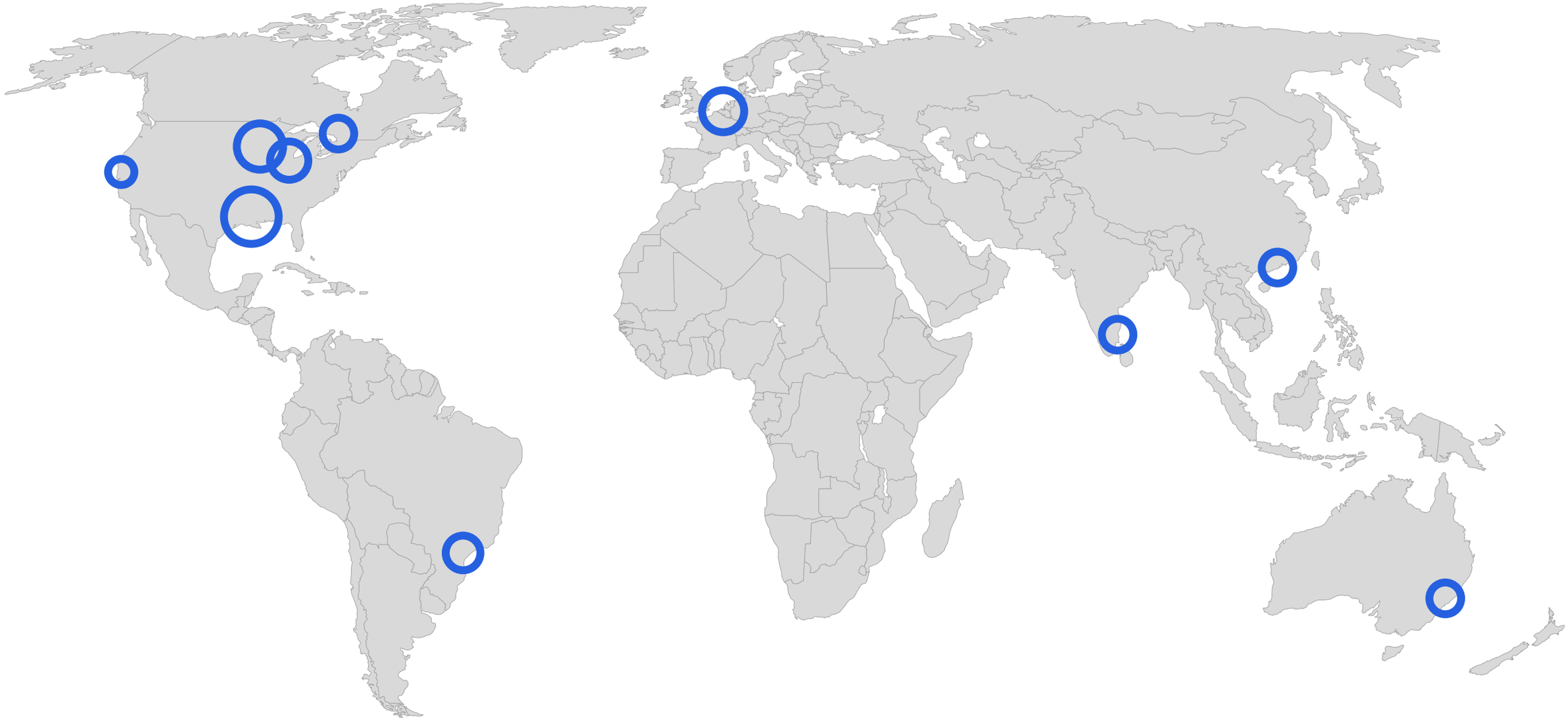
12k
Employees contributing to open source

Data: Internal Microsoft engineering system activity, March 2019


TFS - Prod Config Chan
https://dev.azure.com/mseng/VSOnline/_releaseProgress?releaseId=5536521&_a=release-pipeline-progress
Azure DevOps
mseng / VSOnline / Pipelines
VSOnline
Overview
Boards
Repos
Pipelines
Builds
Releases
Releases*
Library
Task groups
Deployment groups
XAML
WhiteSource Bolt
Test Plans
Artifacts
Project settings
TFS - Prod Config Change
TFS - Prod Config Change 7179
Help
Pipeline
Variables
History
Deploy
Cancel
Refresh
Release (old view)
Edit release
Release
Manually triggered
by Shady Ibraheem
30/08/2018 21:01
Artifacts
VSO.Release.CI
VSO.Release.CI_M139_20180830.30
releases/M139
Stages
Ring 0
Succeeded
on 30/08/2018 21:24
Ring 1
Succeeded
on 30/08/2018 21:44
Ring 2
Pending interventi...
Job 1/2
1/1 tasks
Waiting on Pause Between Rings
08:49
Resume
Ring 5
Not deployed

Global Reach

Azure DevOps has more global regions than any other cloud provider



Migrating from On-Prem to the Cloud

Move from Team Foundation Server to Azure DevOps and bring your data along

Benefits of Cloud Hosted Azure DevOps Services

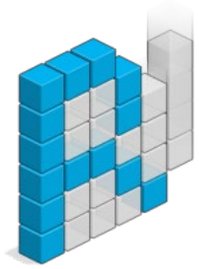
- Global availability
- Hosted and maintained by Microsoft with 99.9% uptime guarantee and 24x7 support
- Immediate access to latest features
- Simplified deployment to Azure

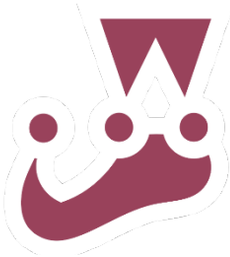
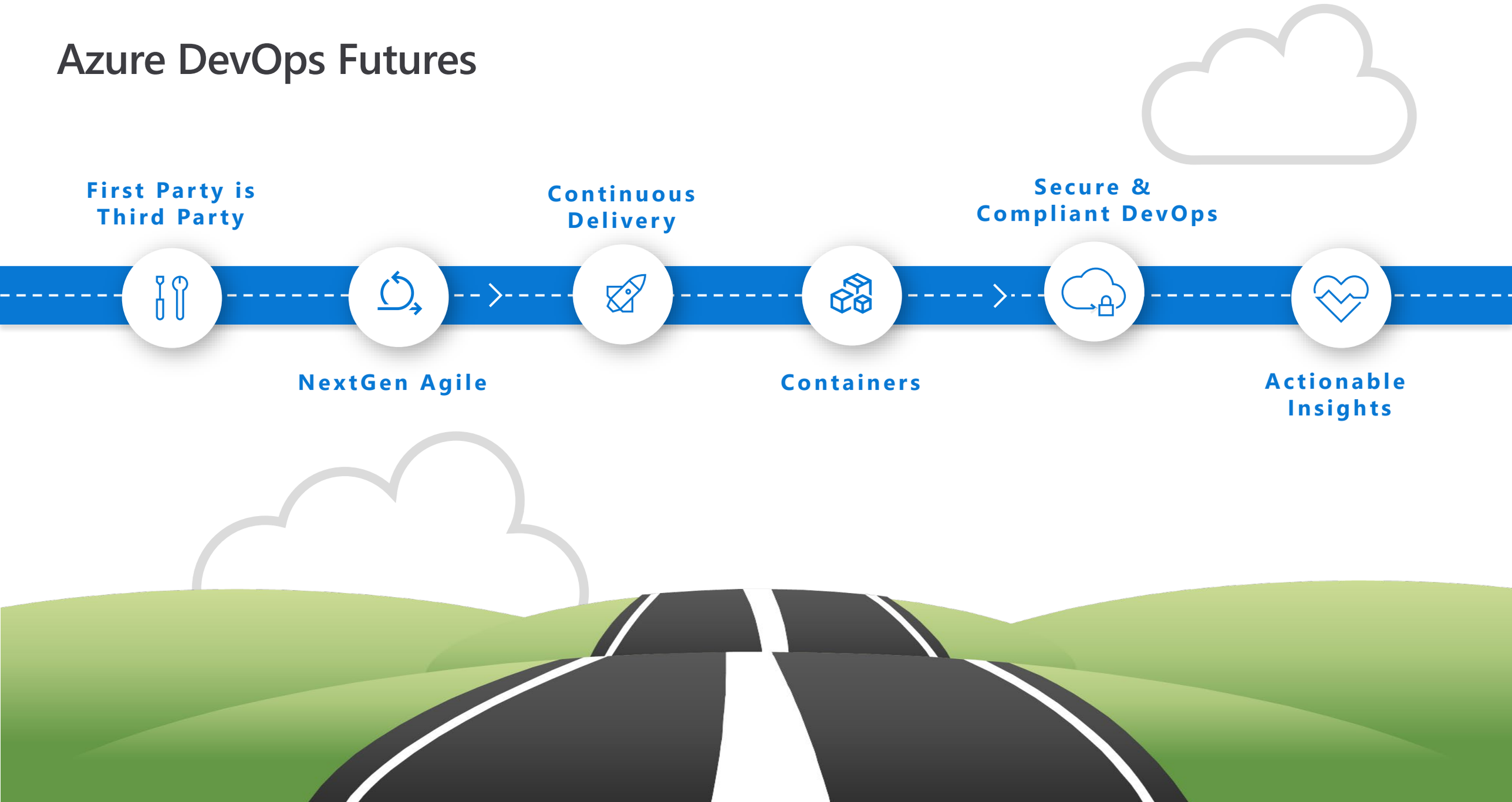
Azure DevOps Import Service

- Fully supported high fidelity migration path
- Trusted by many large enterprises
- Now faster and easier to use

https://aka.ms/tfsimport

Open Source Adoption





Azure DevOps Futures