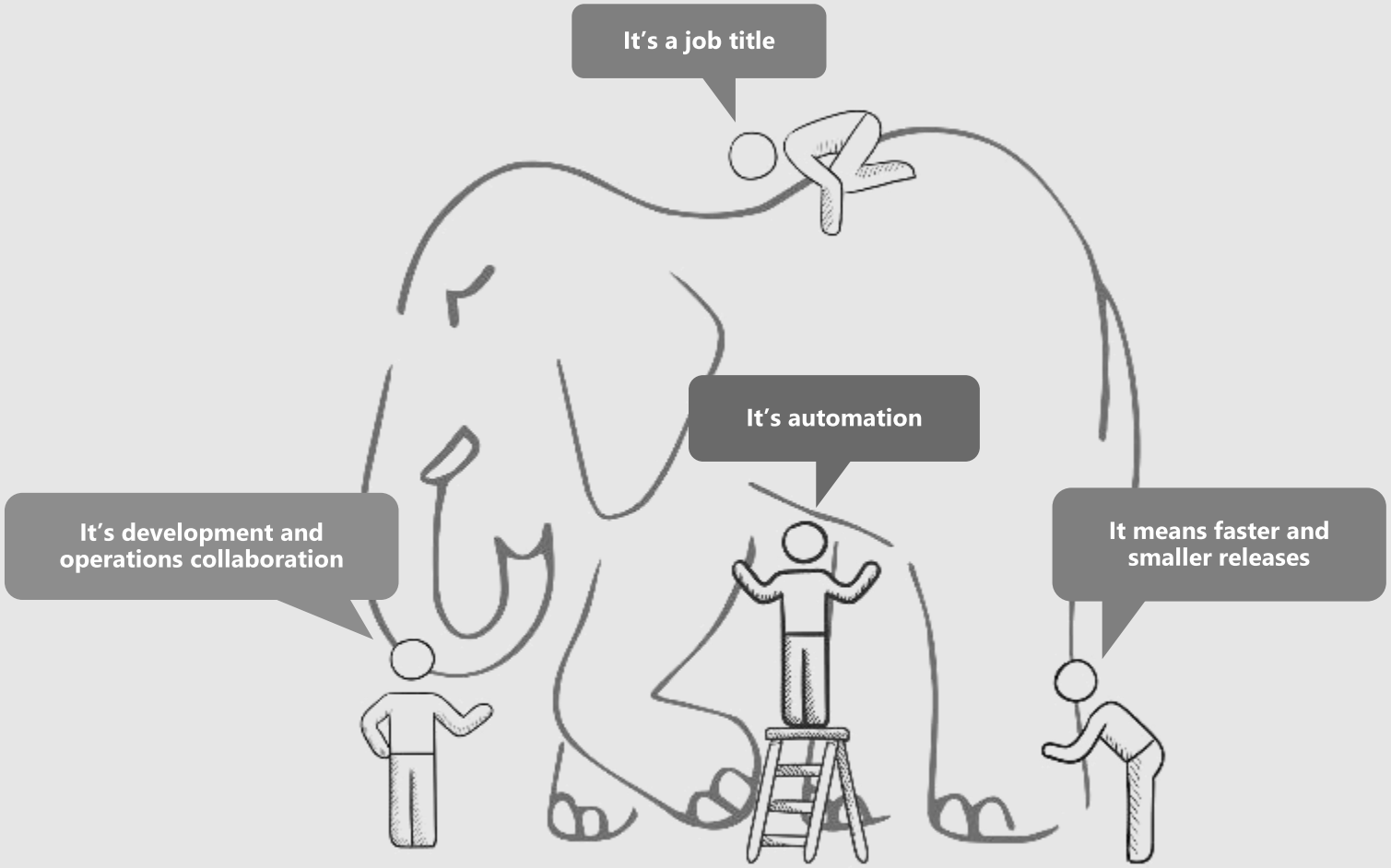

Azure
Your vision. Our cloud.
Azure DevOps
Vlad Tomsa – Azure Architect
Microsoft

# What is DevOps?



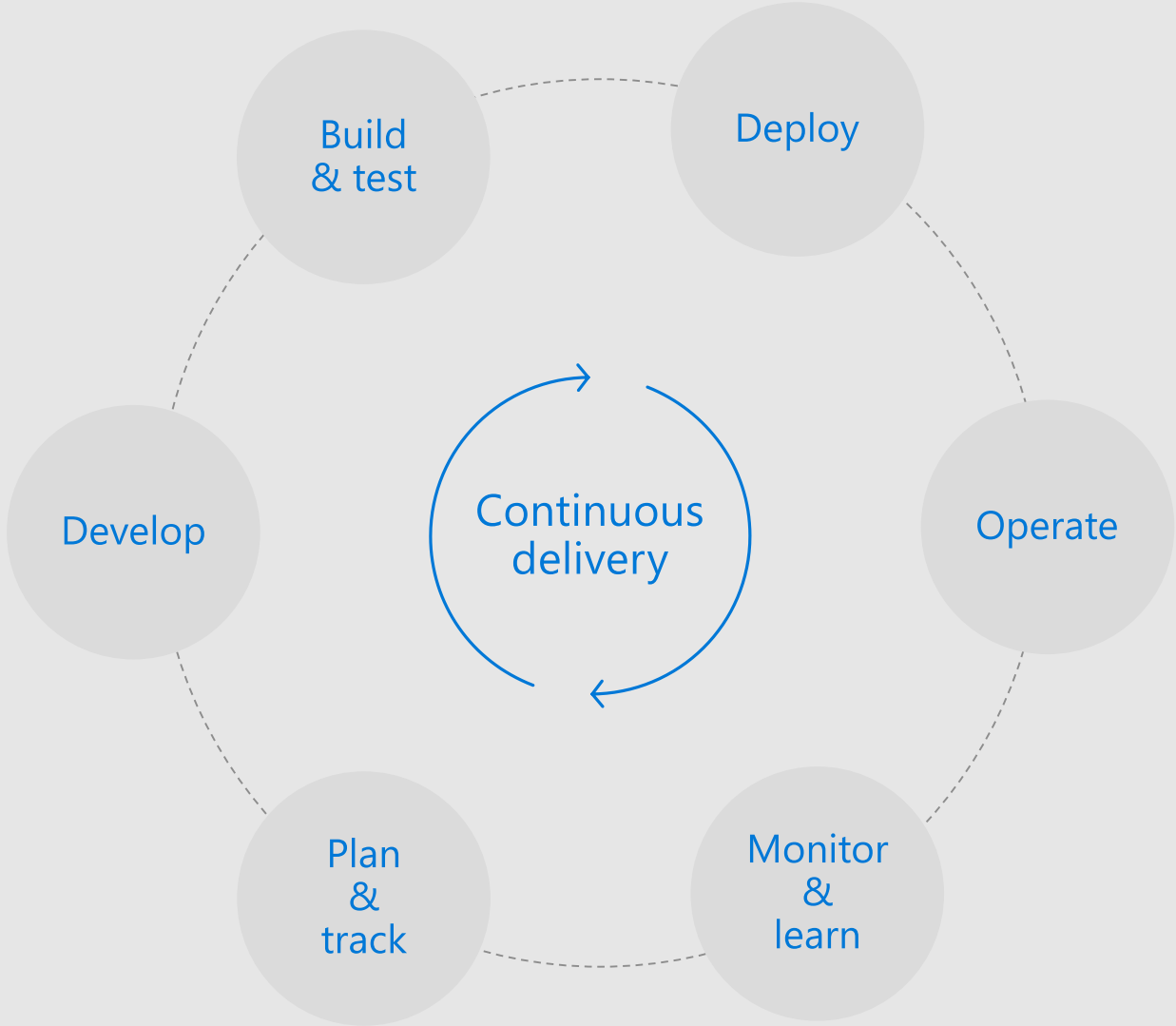
# What is DevOps?

People | Process | Products

"

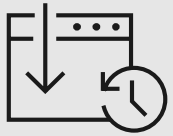
DevOps is the union of **people**, **process**, and **products** to enable continuous delivery of value to your end users.

"



# What technologies do I need to support DevOps?

DevOps brings together people, processes, and products, automating software delivery to provide continuous value to your users. Using Azure DevOps, you can deliver software faster and more reliably—no matter how big your IT department or what tools you're using



### Continuous Integration (CI)

- Improve software development quality and speed
- When you use Azure Pipeliens or Jenkins to build apps in the cloud and deploy to Azure, each time you commit code, it's automatically built and tested and bugs are detected faster

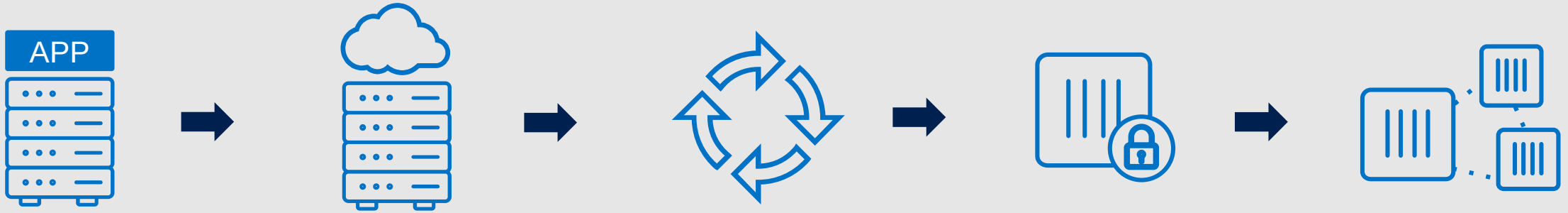

### Continuous Deployment (CD)

- By combining continuous integration and infrastructure as code (IaC), you'll achieve identical deployments and the confidence to deploy to production at any time
- With continuous deployment, you can automate the entire process from code commit to production if your CI/CD tests are successful

### Continuous learning & monitoring

- With Azure Application Insights you can identify how your applications are performing and test if the recent deployment made things better or worse
- Using CI/CD practices, paired with monitoring tools, you'll be able to safely deliver features to your customers as soon as they're ready

# From traditional app to modern app




**Existing Application**

**Modern Infrastructure**

Move to the cloud as VMs or Containers or refresh HW.

**Modern Methodologies**

Implement CI/CD and automation.

**Containerize Applications**

Re-architect apps for scale with containers.

**Modern Microservices**

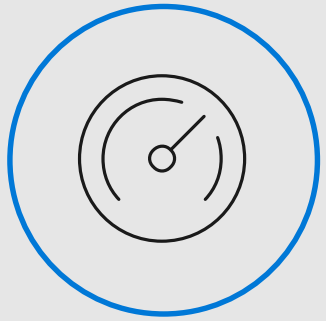
Add new services or start peeling off services from monolithic code.

# How Microsoft can help

Microsoft Azure is a powerful and flexible foundation for past, present, and future apps—easily build, manage, and deploy any application and any stack on a massive, global network using your favorite tools and frameworks

## Flexible

- Choice of IaaS, PaaS, public cloud or hybrid
- Mirror or modernize app infrastructure with VMs, containers, microservices or serverless
- Supports all stages of the app modernization journey—from lift-and-shift to Cloud-Native



## Powerful

- Instantly improve the performance, scalability and resiliency of your apps by moving them to the cloud
- Increase business agility with Cloud-Native capabilities and built-in DevOps for continuous innovation

## Open

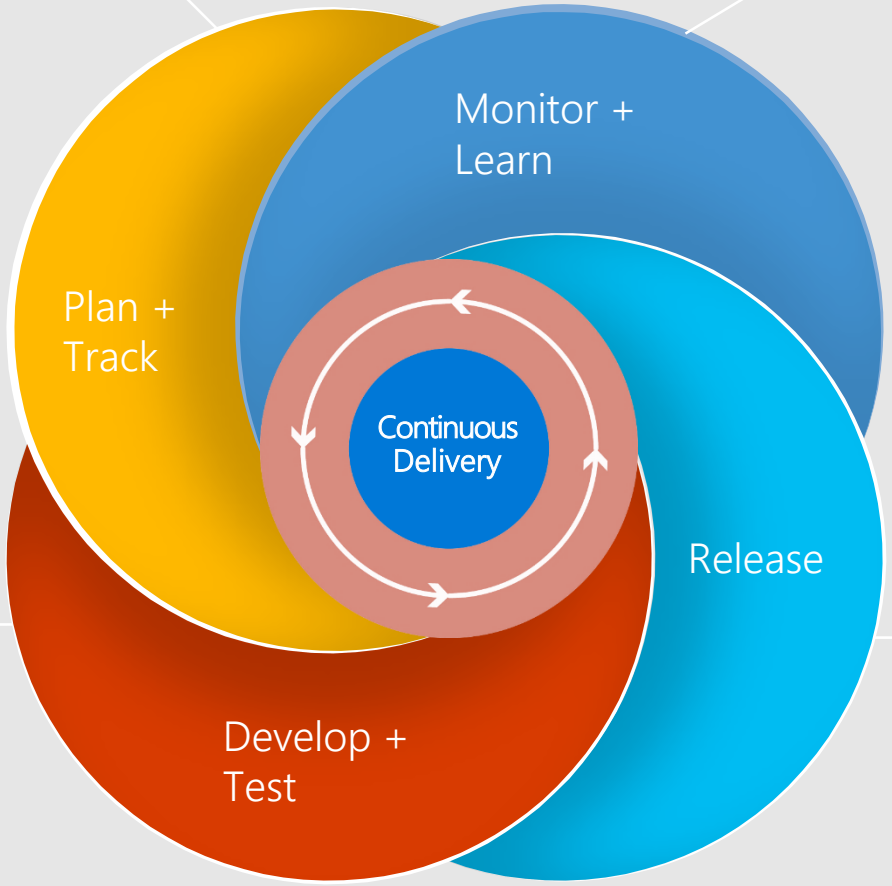
- Bring your stack, we bring a cloud that runs any app, on any platform, and any language
- Build applications using the language and tools of your choice—Azure supports what you already use and love so you can get up and running fast—just bring code

# Azure DevOps

## Continuous Delivery for Every Team, Every App, Every Platform

### Agile Planning
Dashboards
Kanban Boards
Taskboards

### Monitoring
Telemetry
Diagnostics
Analysis




### Build and Test
Git Source Control
Modern Code Workflow
Continuous Integration
Continuous Testing
Package Management
Open Source Compliance

### Delivery
Deployment of app and infrastructure
PaaS, IaaS and Containers

# Introducing Azure DevOps

## Azure boards

Deliver value to your users faster using proven agile tools to plan, track, and discuss work across your teams

## Azure pipelines

Build, test, and deploy with CI/CD that works with any language, platform, and cloud. Connect to GitHub or any other Git provider and deploy continuously

## Azure repos

Get unlimited, cloud-hosted private Git repos and collaborate to build better code with pull requests and advanced file management

## Azure test plans

Test and ship with confidence using manual and exploratory testing tools

## Azure artifacts

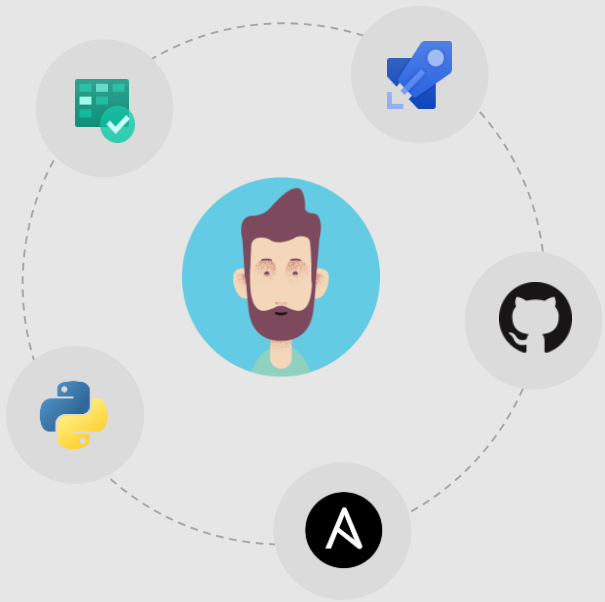
Create, host, and share packages with your team, and add artifacts to your CI/CD pipelines with a single click

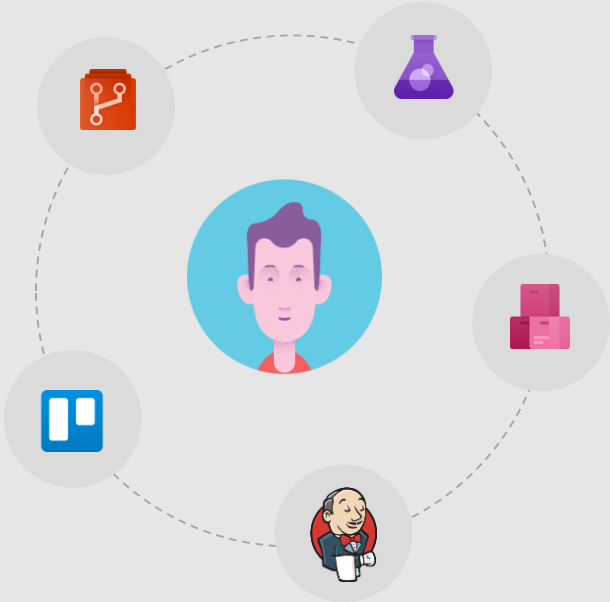
**https://azure.com/devops**

# Azure DevOps: Choose what you love

Any language, any platform

Azure DevOps lets developers choose the tools and languages that are right for them

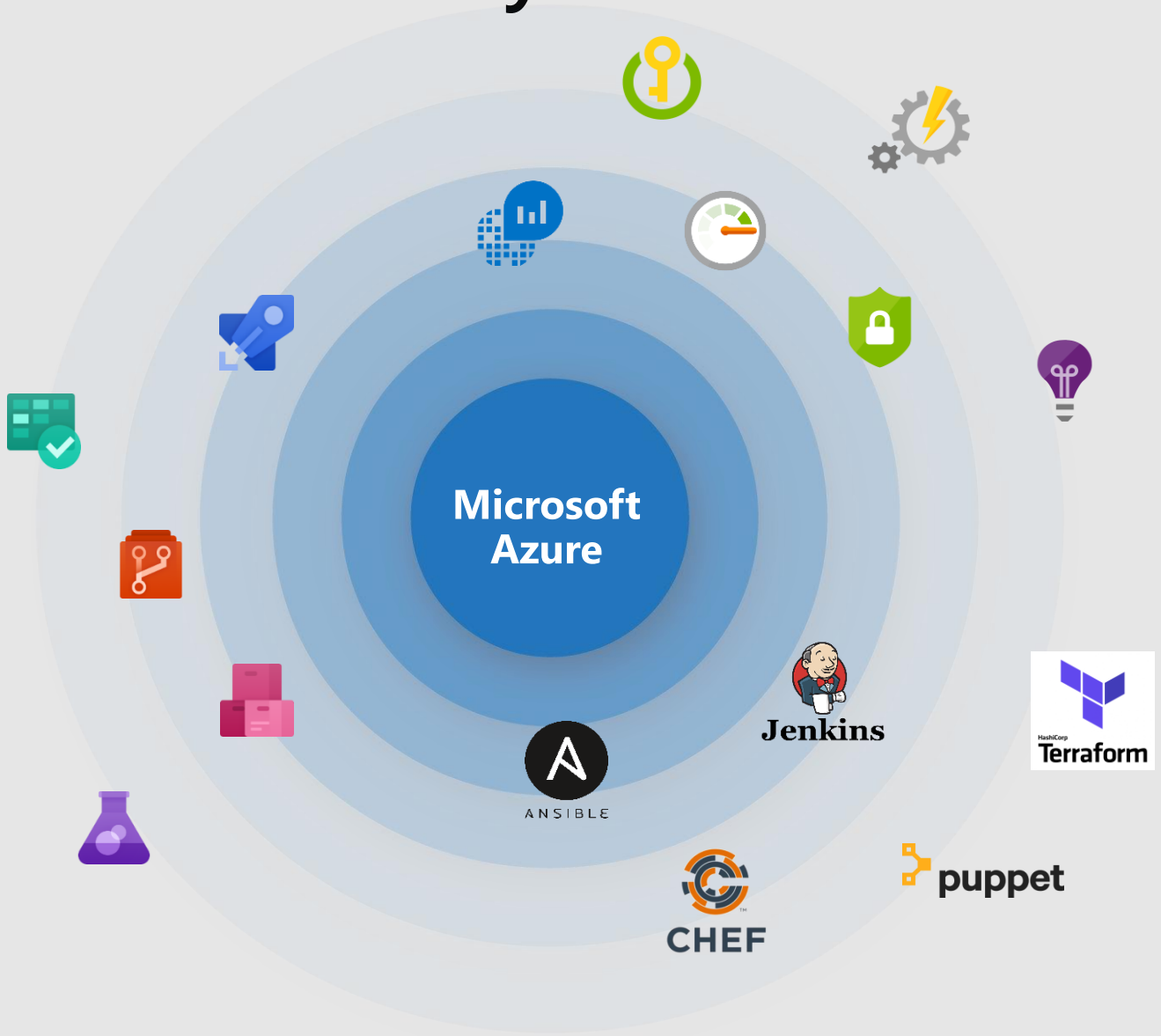




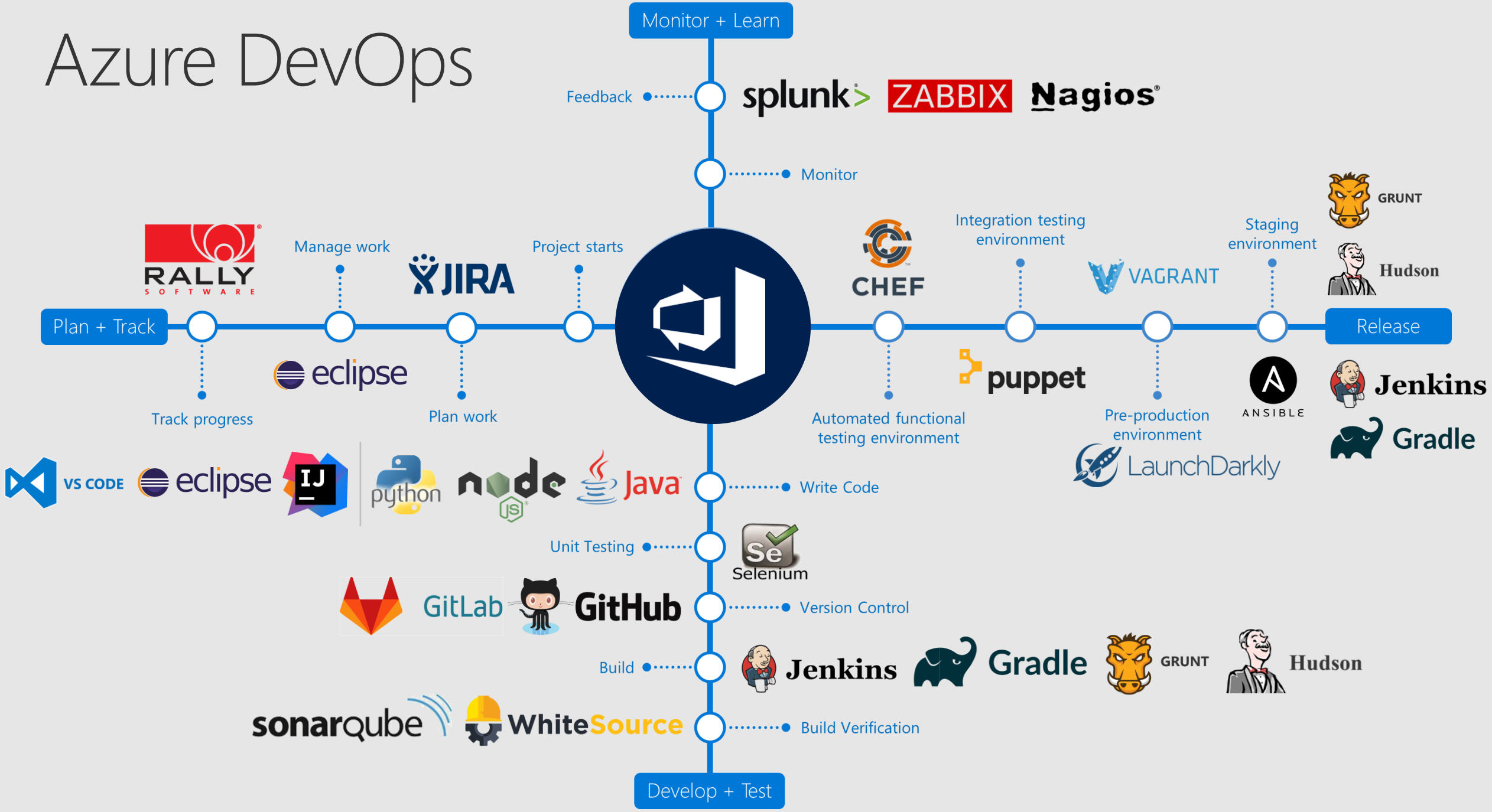
Mix and match to create workflows with tools from Microsoft, open source or your favorite 3rd party tools

Target any cloud, on-prem or both and deploy to the servers you need

# Broadening the Azure ecosystem



# Azure DevOps



# Azure boards

Track work with Kanban boards, backlogs, team dashboards, and custom reporting

## Connected from idea to release

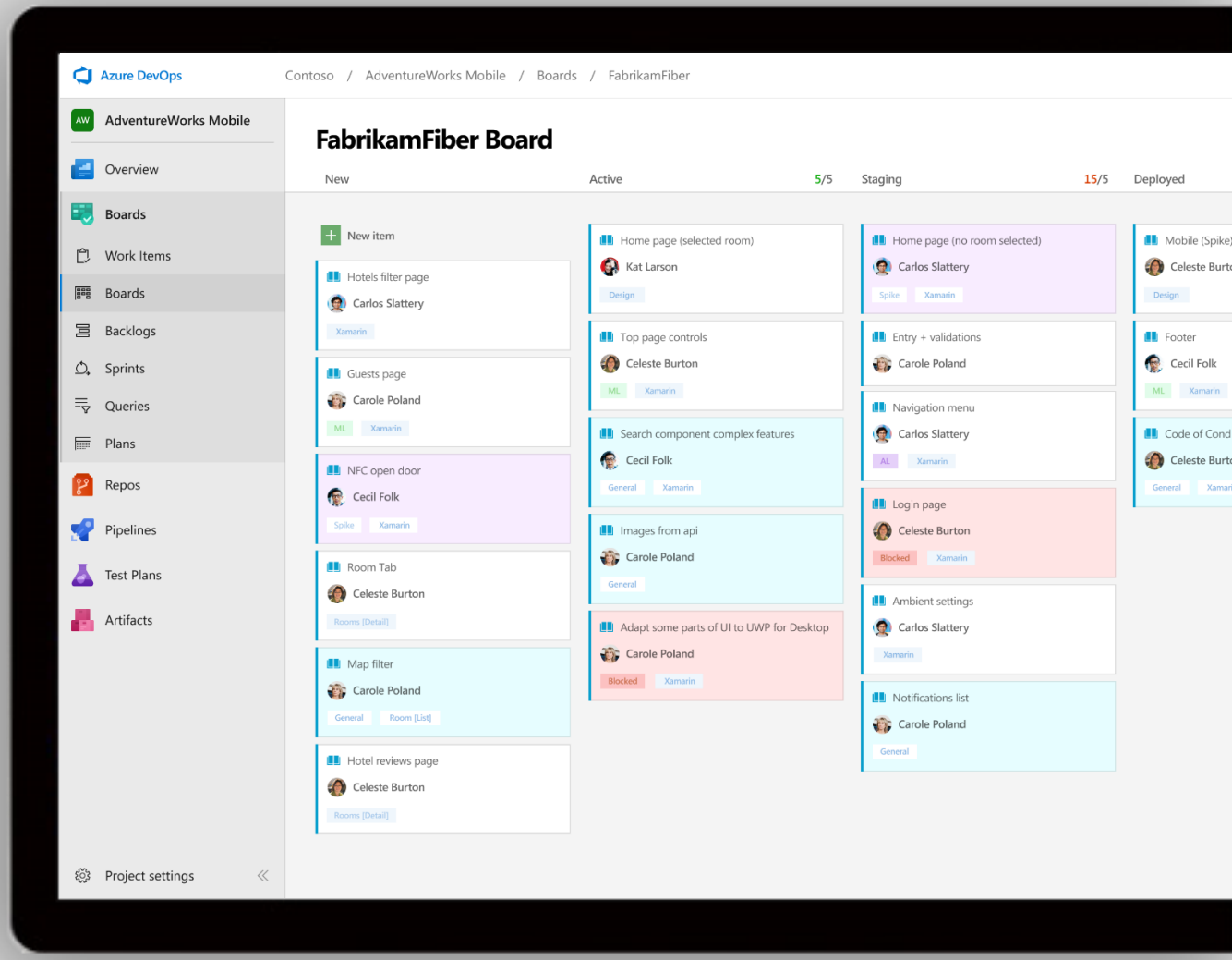
Track all your ideas at every development stage and keep your team aligned with all code changes linked directly to work items

## Scrum ready

Use built-in scrum boards and planning tools to help your teams run sprints, stand-ups, and planning meetings

## Project insights

Gain new insights into the health and status of your project with powerful analytics tools and dashboard widgets

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# Azure pipelines

Cloud-hosted pipelines for Linux, Windows and MacOS

## Any language, any platform, any cloud

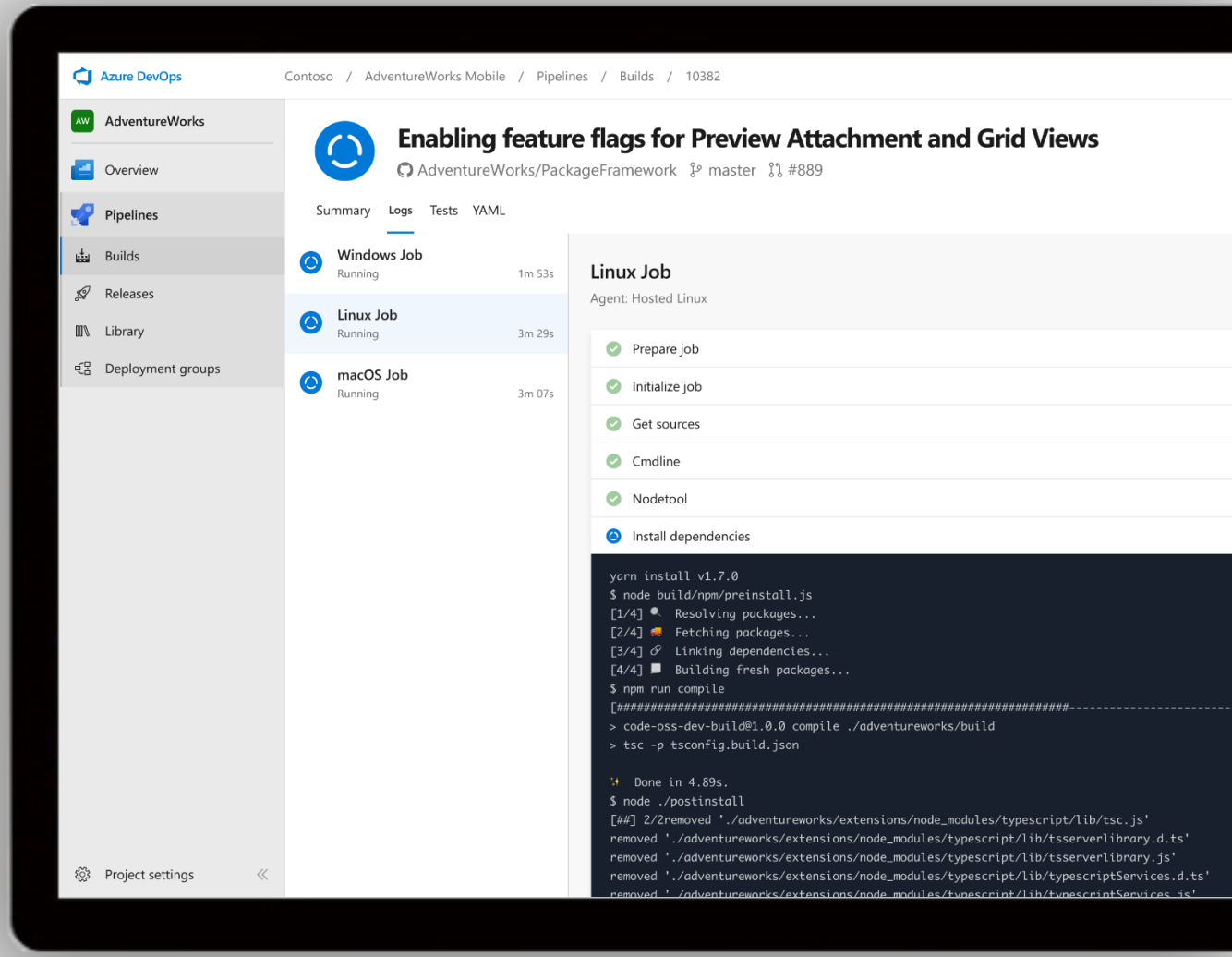
Build, test, and deploy Node.js, Python, Java, PHP, Ruby, C/C++, .NET, Android, and iOS apps. Run in parallel on Linux, macOS, and Windows. Deploy to Azure, AWS, GCP or on-premises

## Extensible

Explore and implement a wide range of community-built build, test, and deployment tasks, along with hundreds of extensions from Slack to SonarCloud. Support for YAML, reporting and more

## Containers and Kubernetes

Easily build and push images to container registries like Docker Hub and Azure container registry. Deploy containers to individual hosts or Kubernetes




https://azure.com/pipelines

# Azure pipelines

Cloud-hosted pipelines for Linux, Windows and MacOS, with unlimited minutes for open source

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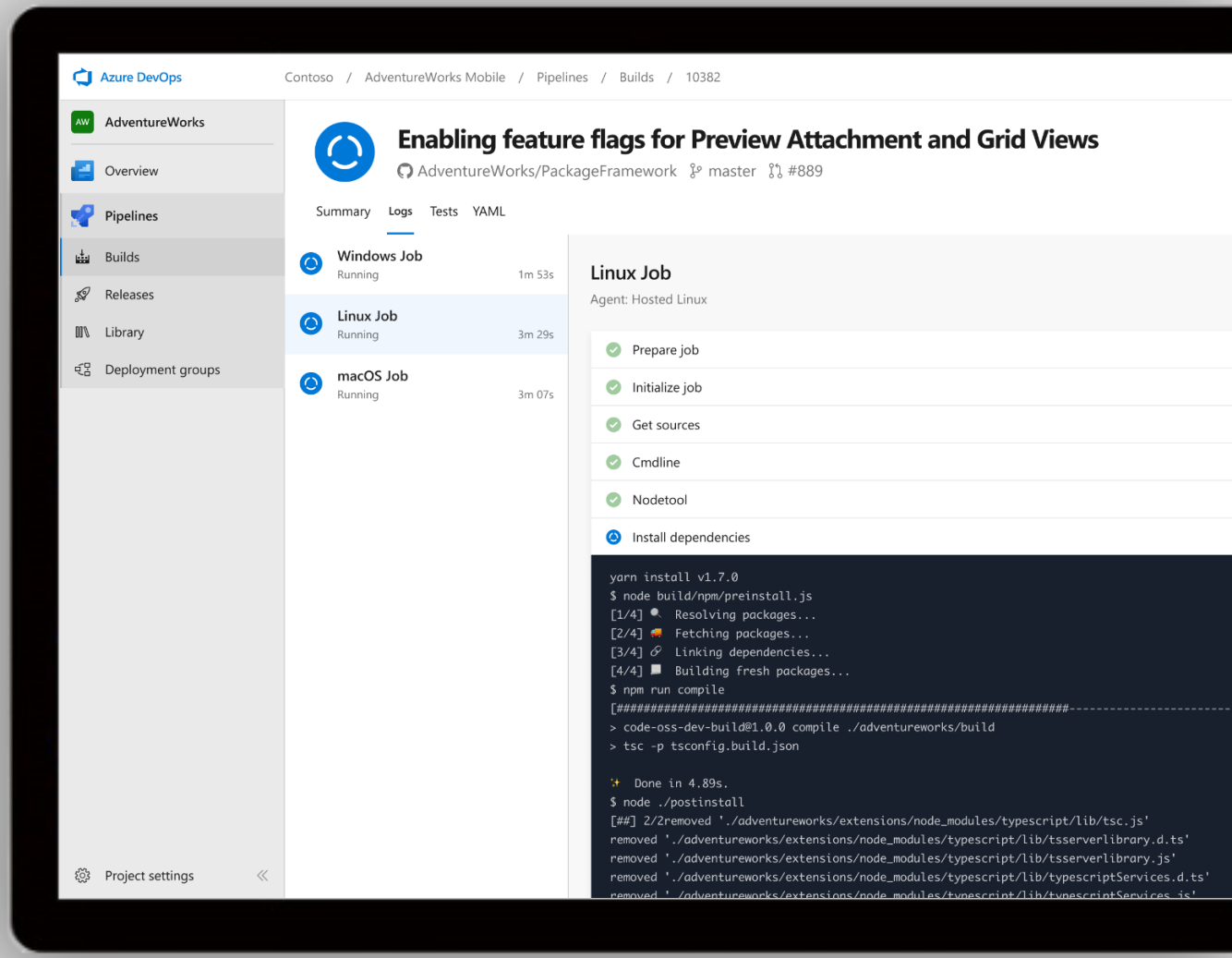
## Best-in-class for open source

Ensure fast continuous integration/continuous delivery (CI/CD) pipelines for every open source project. Get unlimited build minutes for all open source projects with up to 10 free parallel jobs across Linux, macOS and Windows

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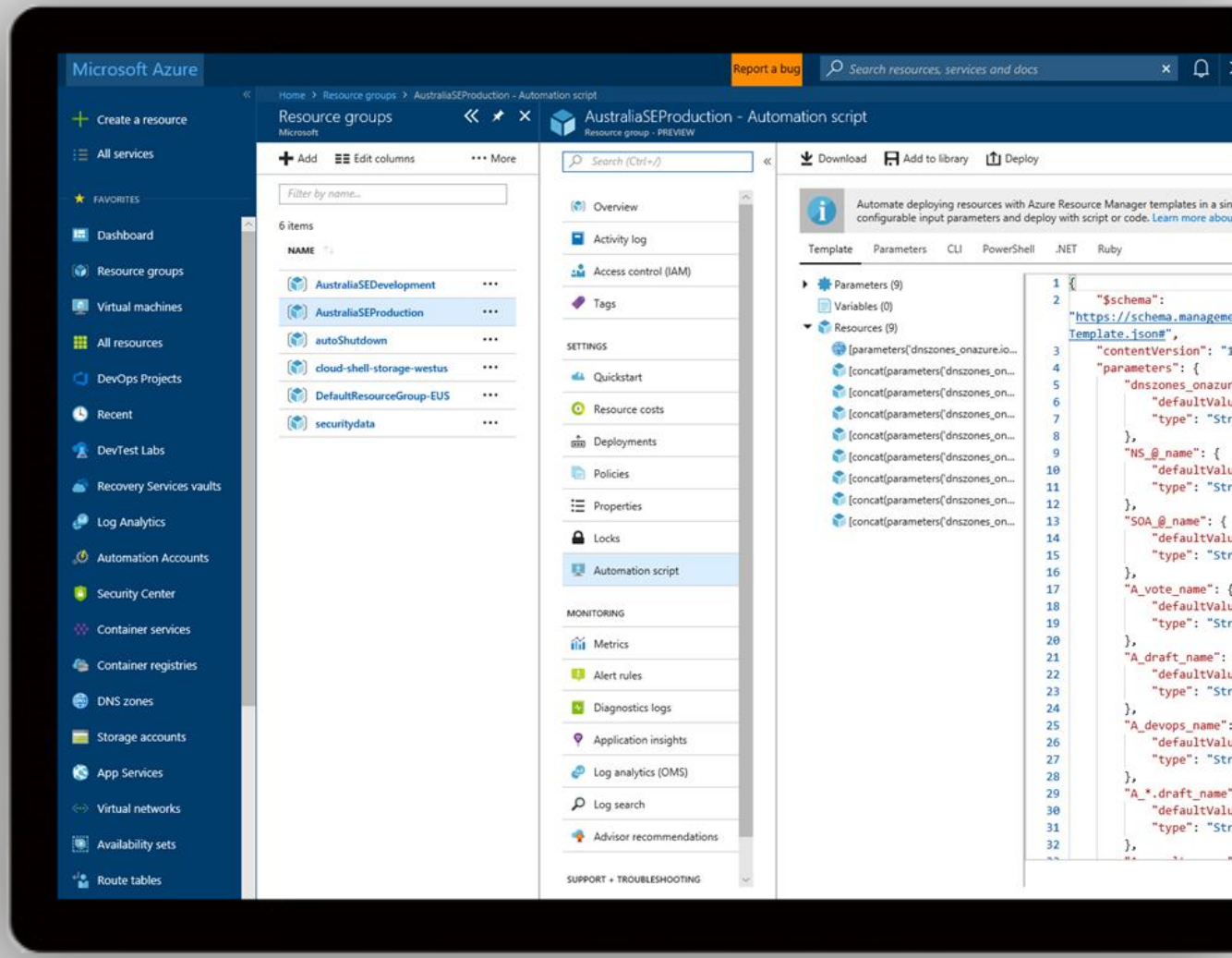
# Deploy repeatedly & reliably

Azure resource manager &
DevOps tool integrations

Infrastructure as code, built-in with Azure resource manager

Use Azure automation & config to automate repetitive tasks

Support for DevOps tool integrations and OSS tooling such as Terraform, Ansible & Chef






# Azure repos

Unlimited private Git repo hosting and support for TFVC that scales from a hobby project to the world's largest Git repositories

## Works with your Git client

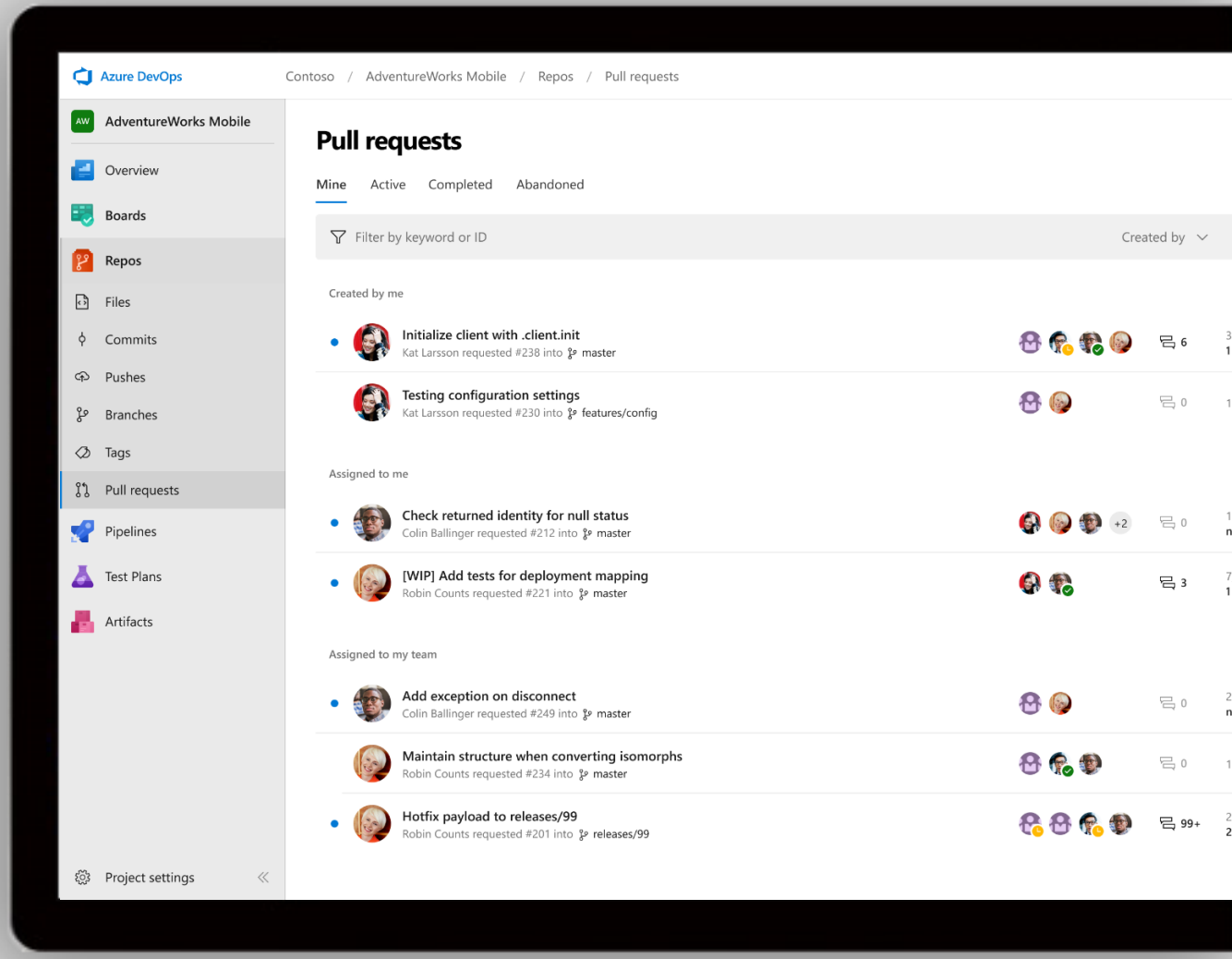
Securely connect with and push code into your Git repos from any IDE, editor, or Git client

## Web hooks and API integration

Add validations and extensions from the marketplace or build your own using web hooks and REST APIs

## Semantic code search

Quickly find what you're looking for with code-aware search that understands classes and variables

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# Azure test plans

Get end-to-end traceability. Run tests and log defects from your browser. Track and assess quality throughout your testing lifecycle

## Capture rich data

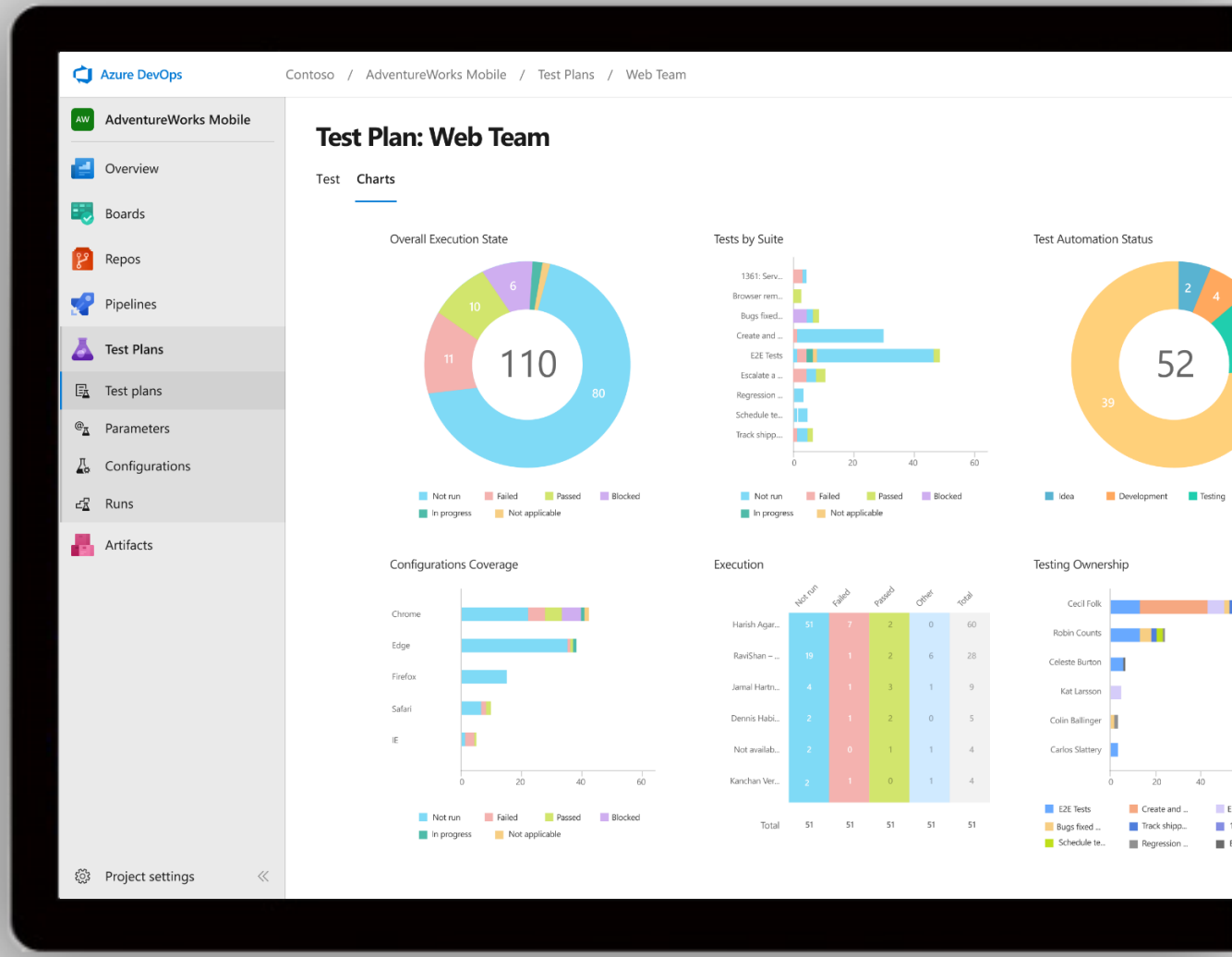
Capture rich scenario data as you execute tests to make discovered defects actionable. Explore user stories without test cases or test steps. You can create test cases directly from your exploratory test sessions

## Test across web and desktop

Test your application where it lives. Complete scripted tests across desktop or web scenarios. Test on-premises application from the cloud and vice-versa

## Get end-to-end traceability

Leverage the same test tools across your engineers and user acceptance testing stakeholders. Pay for the tools only when you need them

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# Azure artifacts

Create and share Maven, NPM, and NuGet package feeds from public and private sources —fully integrated into CI/CD pipelines

## Manage all package types

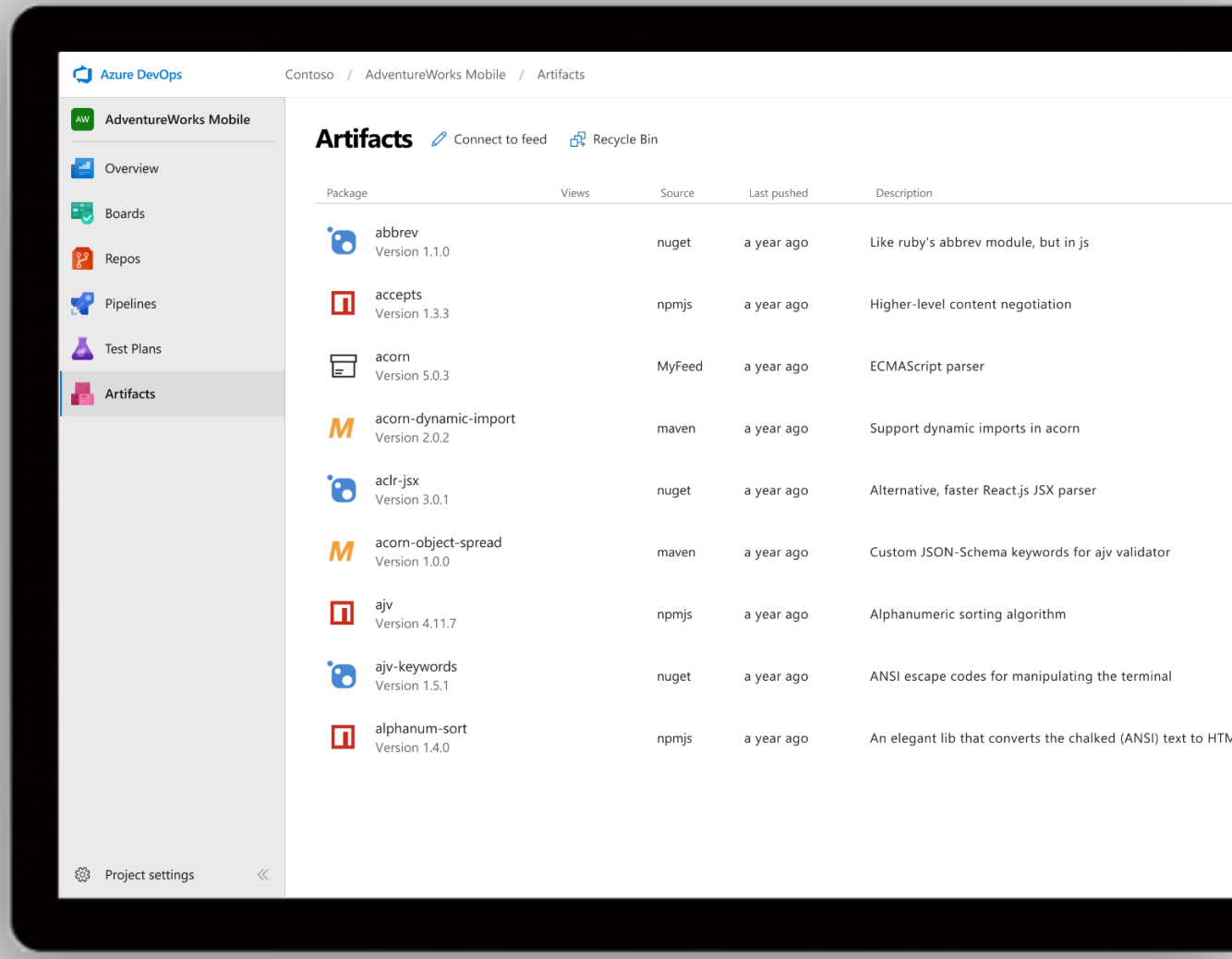
Get universal artifact management for Maven, NPM, and NuGet

## Add packages to any pipeline

Share packages, and use built-in CI/CD, versioning, and testing

## Share code efficiently

Easily share code across small teams and large enterprises

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# Demo

Azure DevOps

# Azure DevOps

Azure boards

Azure repos

Azure pipelines

Azure test plans

Azure artifacts

Plan smarter, collaborate better, and ship faster with a set of modern dev services

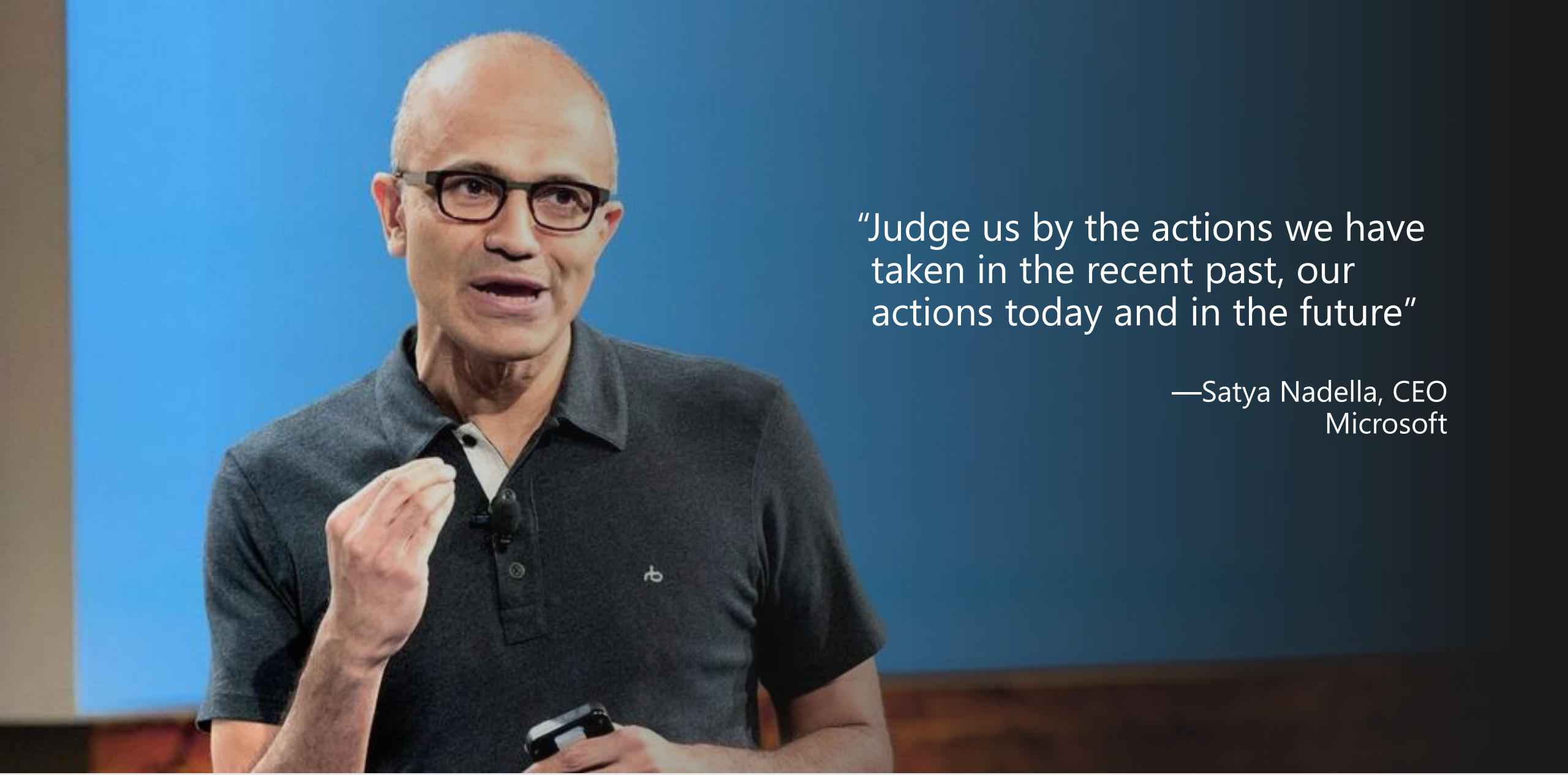
Any developer, any platform, any cloud. Full support for hybrid cloud, on-premises & containers

Use all the Azure DevOps services or choose just what you need to complement your existing workflows

Best in class builds for open source. Free unlimited build minutes for public projects and up to 10 free concurrent pipelines across Windows, Linux and macOS

Get started for free for small teams, scales to support the largest enterprises

**https://azure.com/devops**


“Judge us by the actions we have taken in the recent past, our actions today and in the future”
—Satya Nadella, CEO
Microsoft

2018

# Who are we?

League of extraordinary cloud DevOps advocates

Cloud developer advocates

#LoECDA


@DonovanBrown

# Resources

## Channel 9

Azure friday

Visual studio toolbox

DevOps interviews

The DevOps lab

## Twitter

@DonovanBrown

#LoECDA

## Web

Welcome to DevOps (aka.ms/whatisdevops)


**Azure Friday**

Azure Container Registry Geo-replication


**Visual Studio Toolbox**

VSTS Work Item Rules


**DevOps Interviews**

Interview with Munil Shah (Safe Deployment)


**The DevOps Lab**

The DevOps Lab Kickoff Show #1 – Connect(); 2017 Recap

# Q&A


Microsoft Azure

Microsoft

# CTA's

- ✓ Use this space to add customer Go Do's , Aka URL's
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# Thank you