Microsoft

Running Functional Tests with Azure Pipelines

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Introductions

What is your name?

What is your job role?

What would you like to learn about?

Agenda

Azure Pipelines

- Repos, Build/Release pipelines
- Microsoft/Self Hosted agents
- Selenium automated test Lab#1
- Release deployment control

Azure Artifacts

- Overview
- Create & Consume Your Own Packages

Discussion & Wrap-up

- Questions & Discussions
- Wrap-up

https://aka.ms/PipelinesArtifacts

Azure DevOps Overview

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.

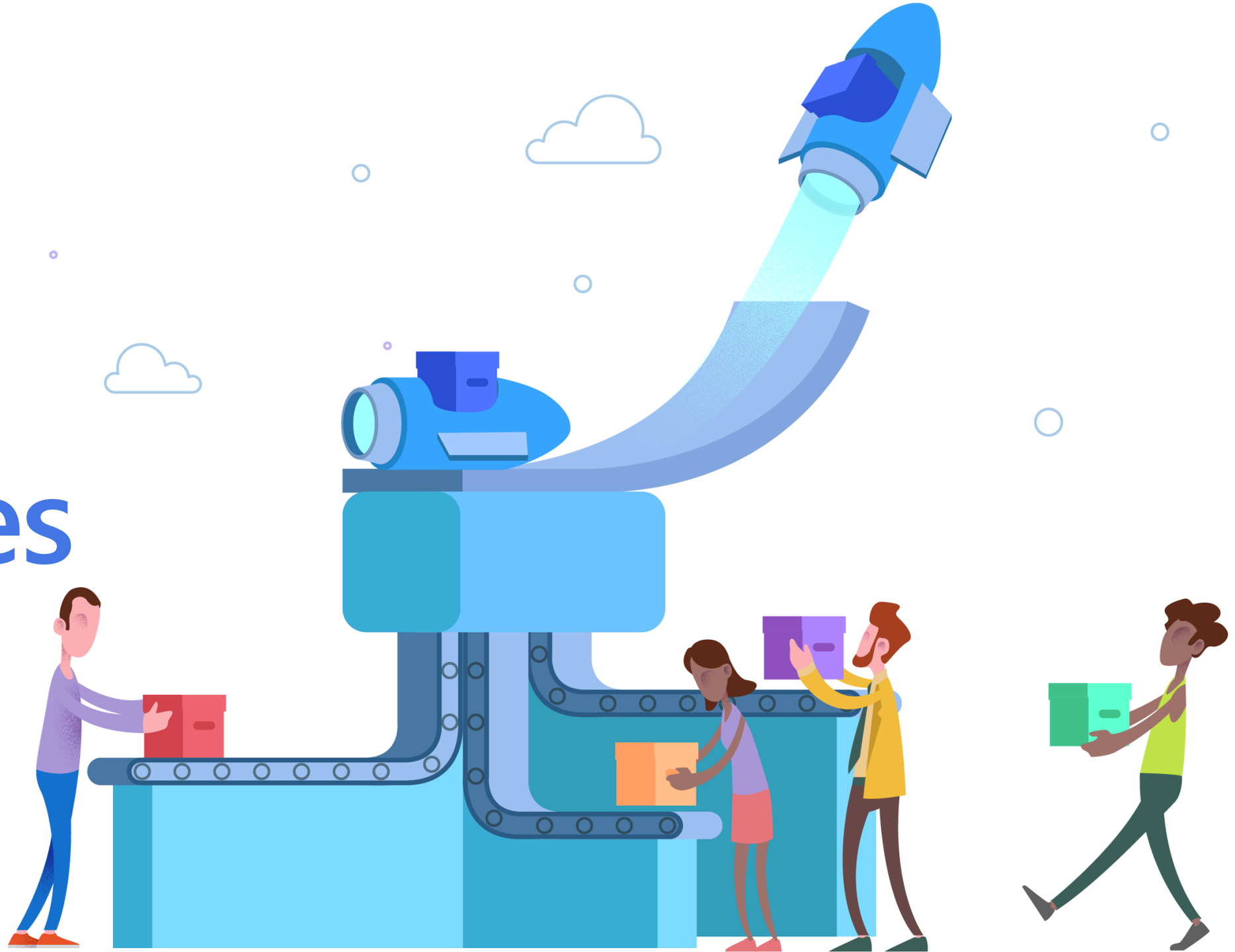
Azure Artifacts

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

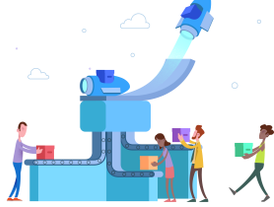
[Azure DevOps Roadmap]

[Azure DevOps Blog]

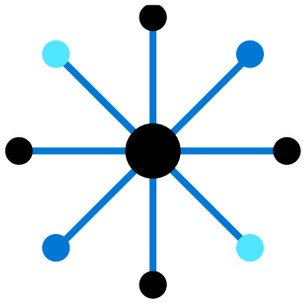
Azure Pipelines



Azure Pipeline Overview



Any language,
any platform

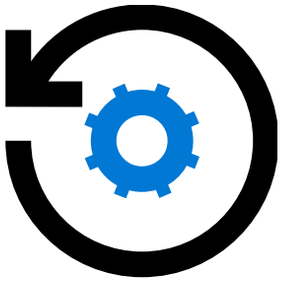


Extensible and Secure

Deploy anywhere

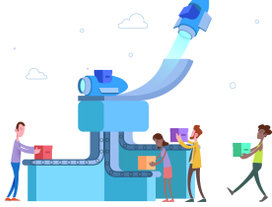
YAML is
Pipeline as code

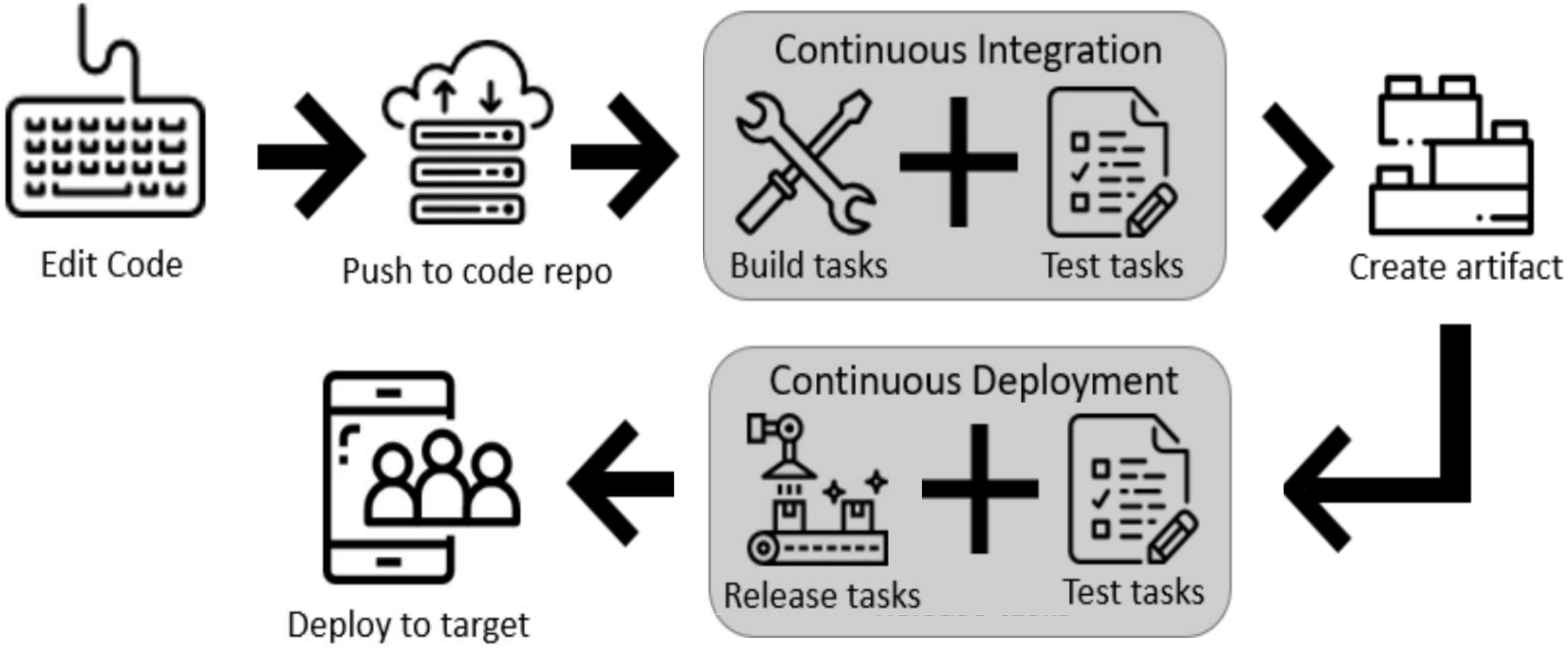
Build & releases
Approval gates



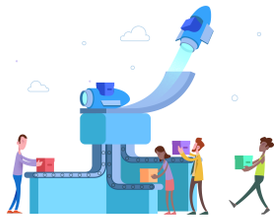
Orchestrate complex
workflows

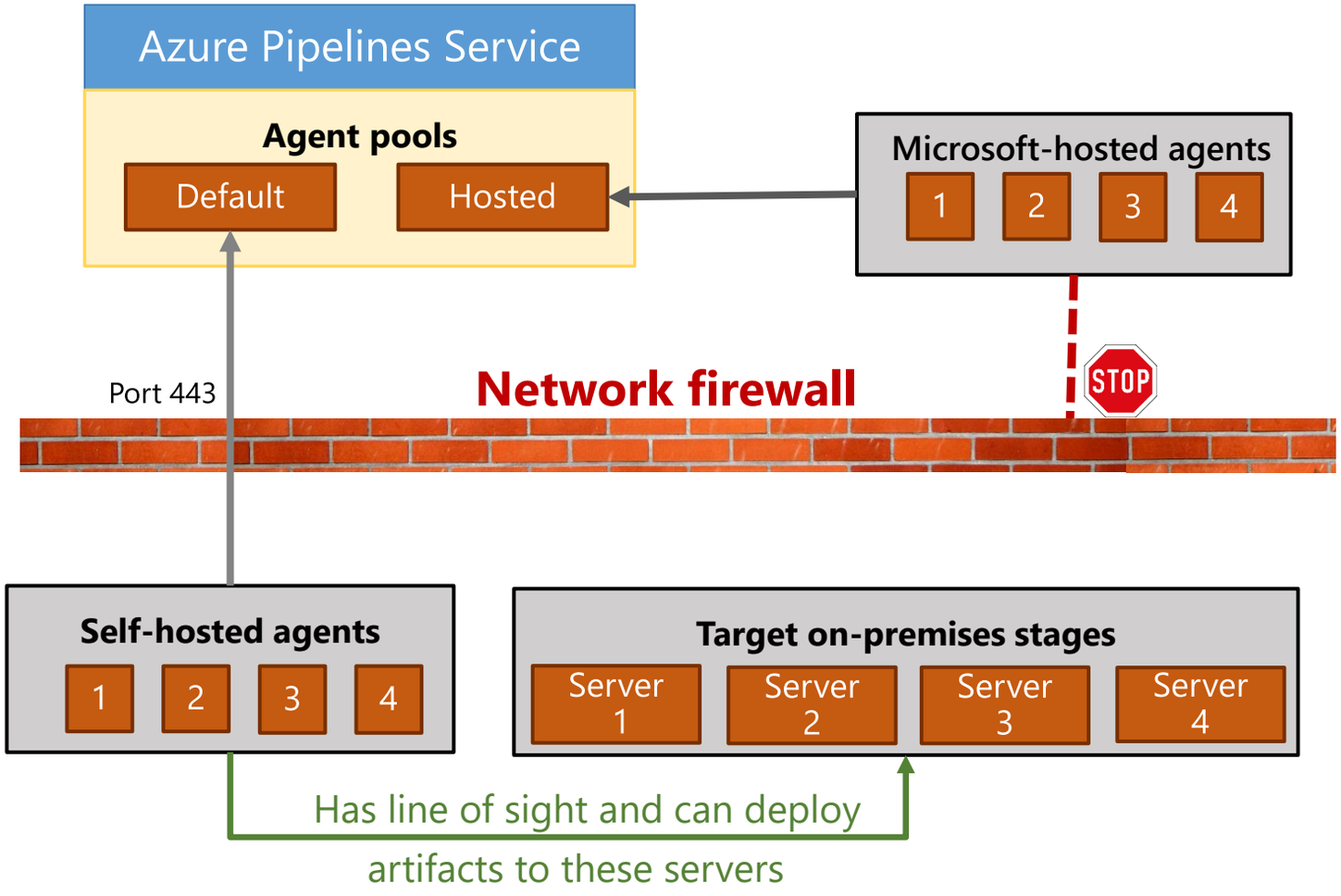
Continuous Everything

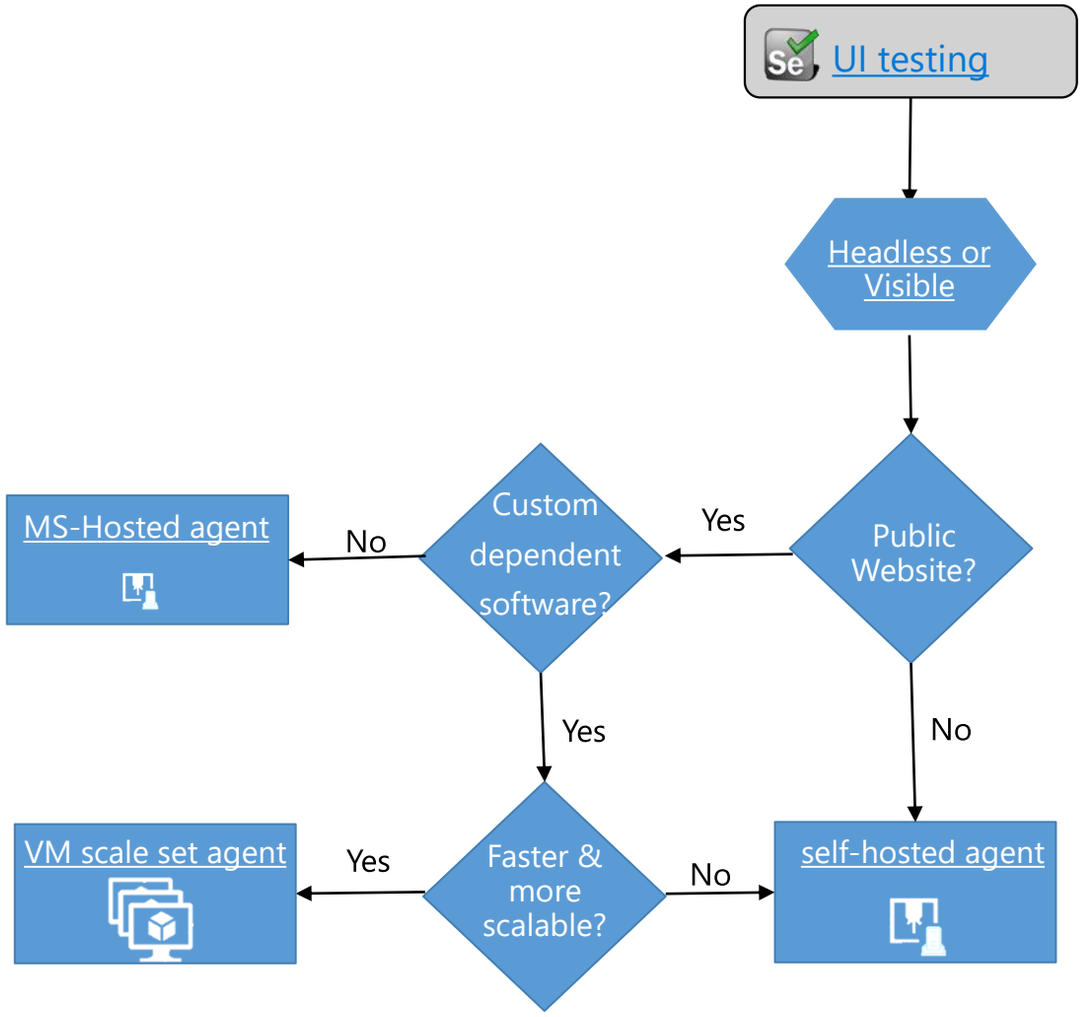




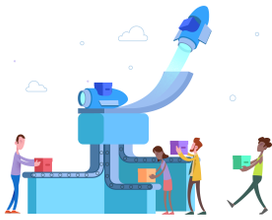
Run Functional UI Test on Microsoft/Self-Hosted agents







Manage Flaky Tests



Onboarding
Project setting

Configuration for each component
- Detection
- Reporting
- Resolution

Detection
- System via rerun
- Custom – Bring your own detection

Flakiness Storage
- Test and result flaky across pipelines

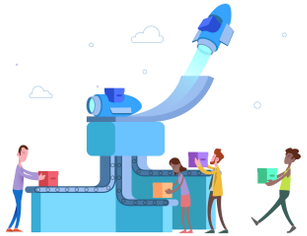
Reporting
- Flaky test tag
- Filtering
- Flaky test in Test summary based on configuration

Resolution
- Integration with manual bug filing
- Manual ability to tag / un-tag a test as flaky

Close the loop
- Reset flaky test based on bug / manual input

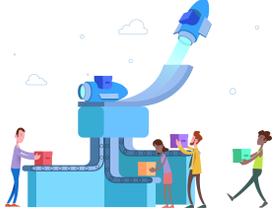
- Enable Flaky test management
- System/custom flaky test detection
- Manually mark/unmark flaky tests

Microsoft Azure



Break~ 10 minutes

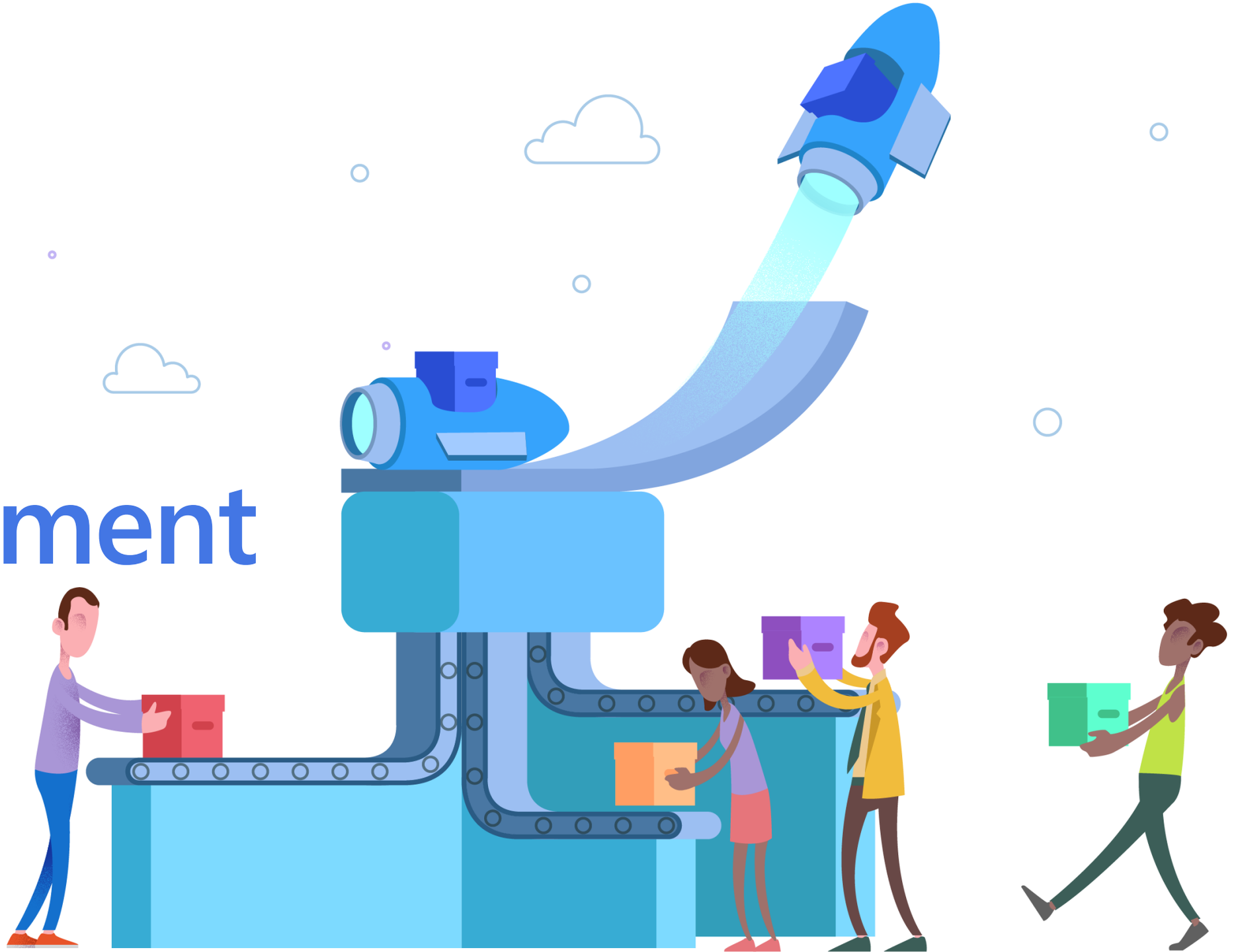
Microsoft Azure



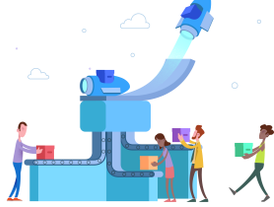
Run Functional Tests in Azure Pipelines Lab #1 with Selenium

https://aka.ms/PipelineFunctionalLab1

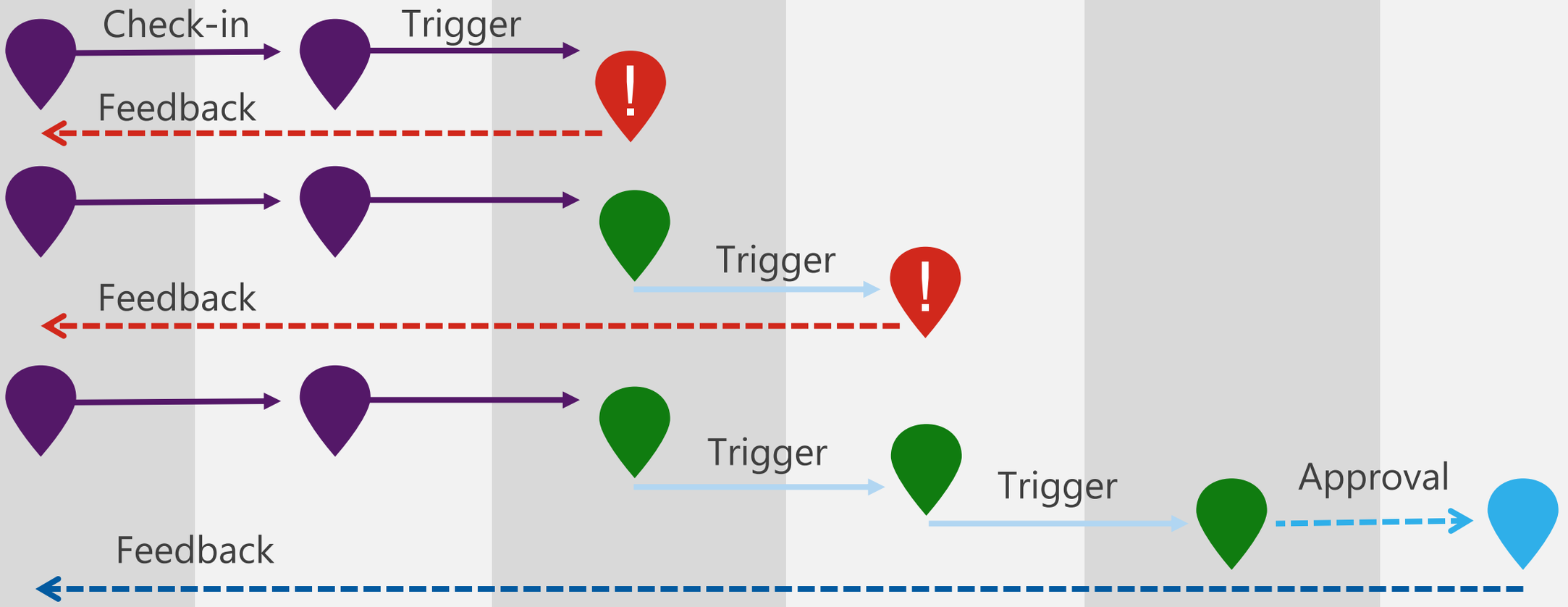
Release Management



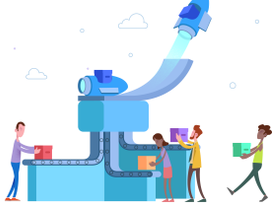
Release Quality Gates



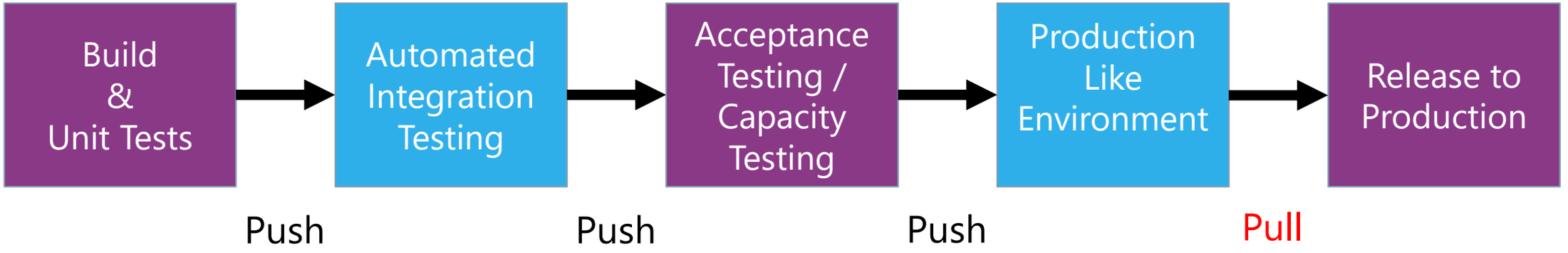
Delivery team	Version control	**Commit** Build & unit test	**Acceptance** Automated acceptance test	**Pre-Production** User acceptance tests	Production



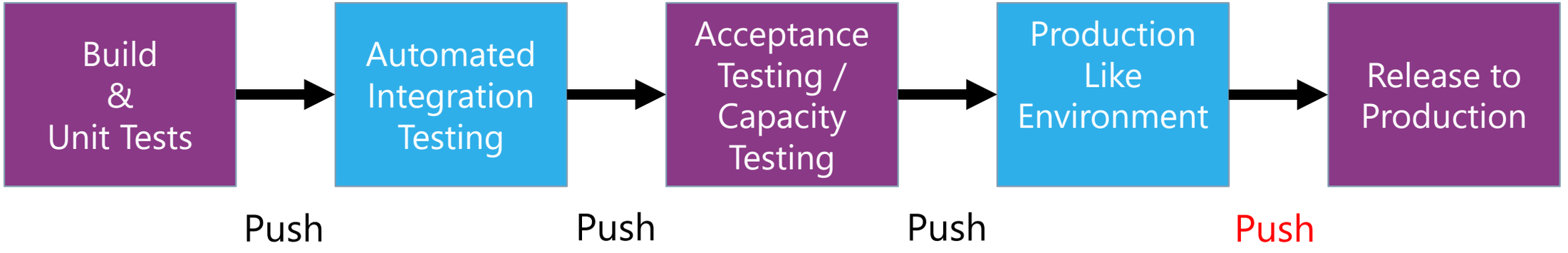
Continuous Delivery vs Deployment



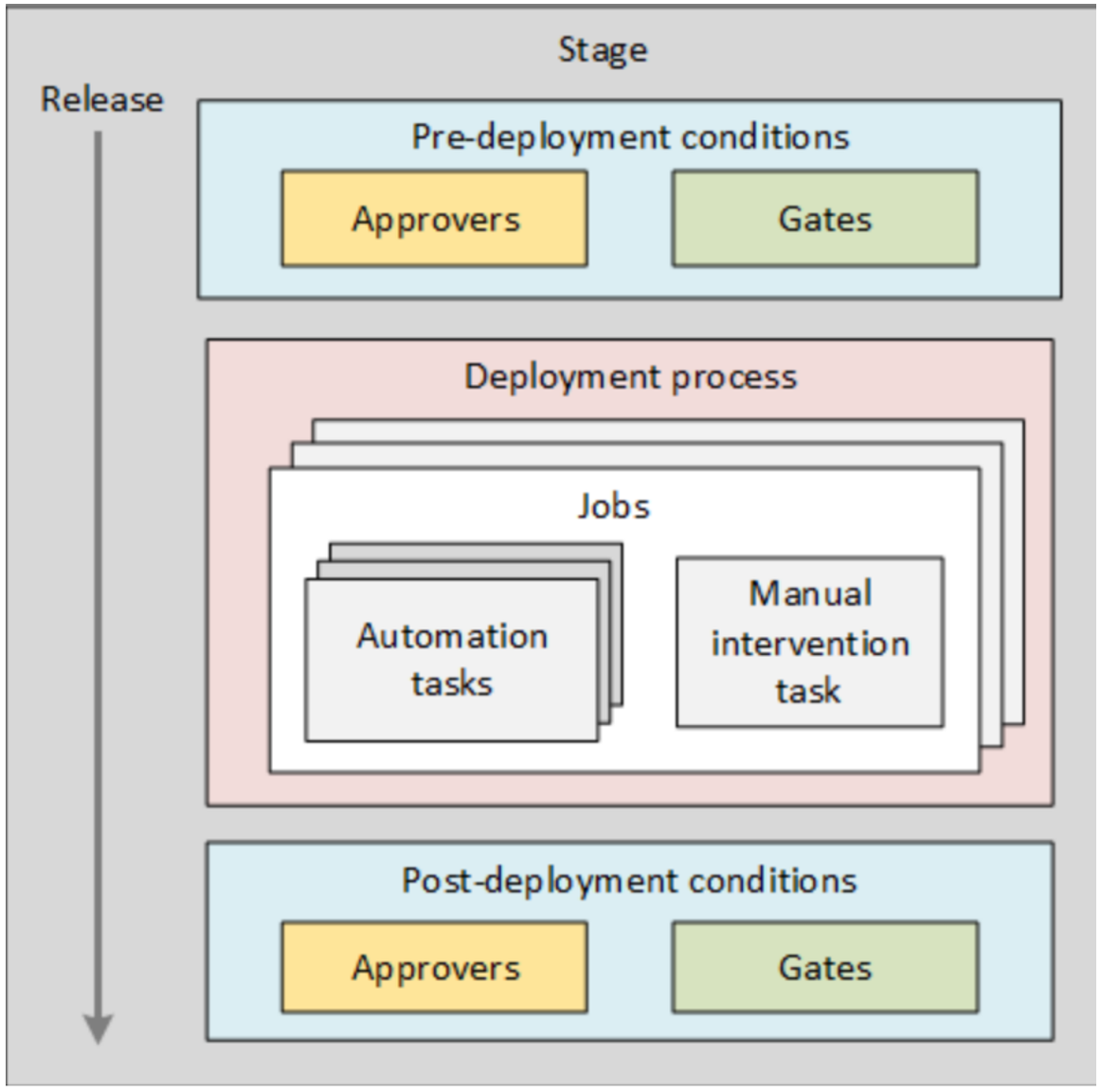
Continuous Delivery



Continuous Deployment

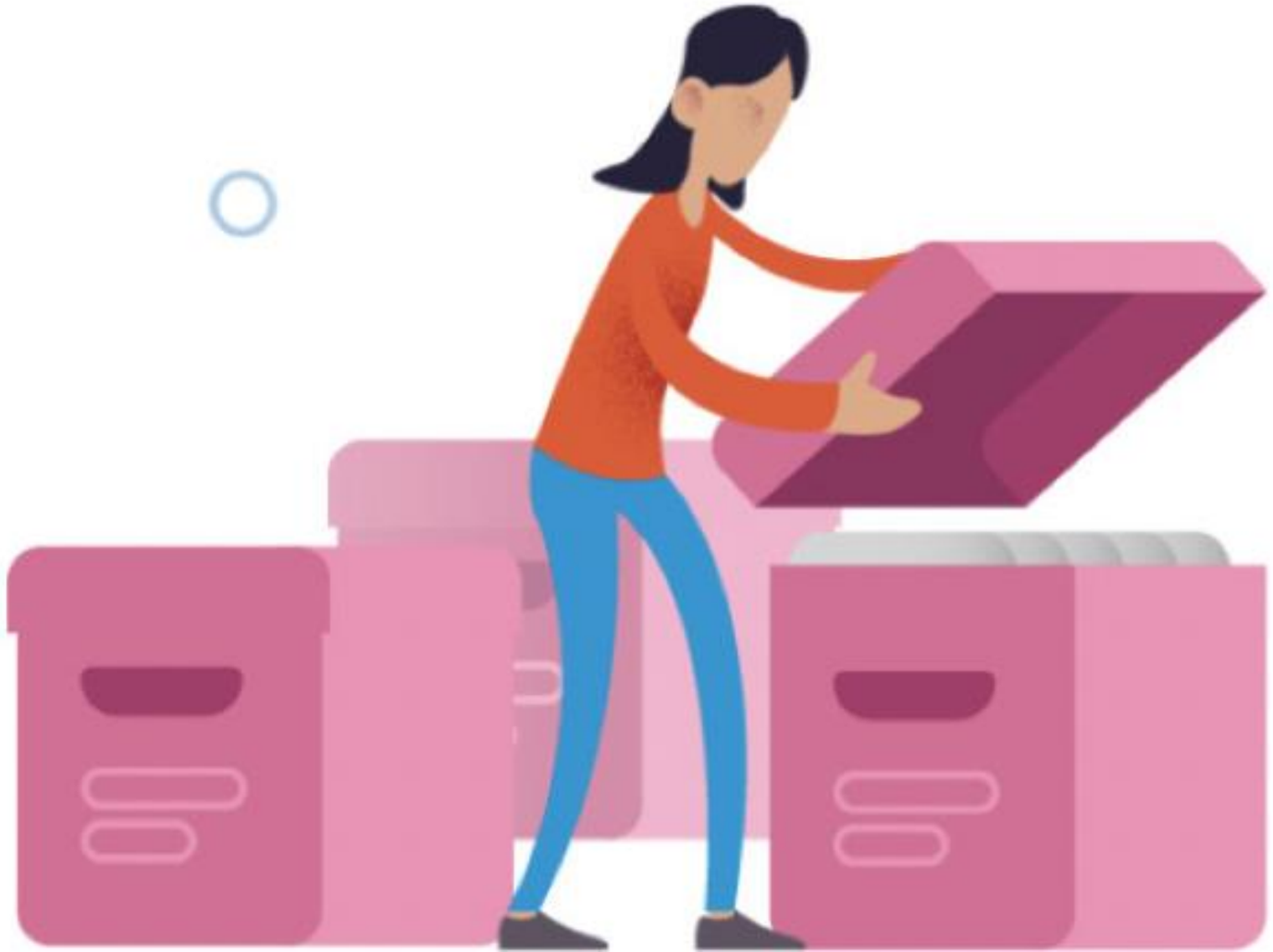


Approvals and Gates



- Query work items
- Query integrated risk management system
- Invoke Azure Functions / REST API
- Query Azure Monitor

Azure Artifacts



Azure Artifacts

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

Feeds

Azure Artifacts introduces the concept of multiple feeds that you can use to organize and control access to your packages.

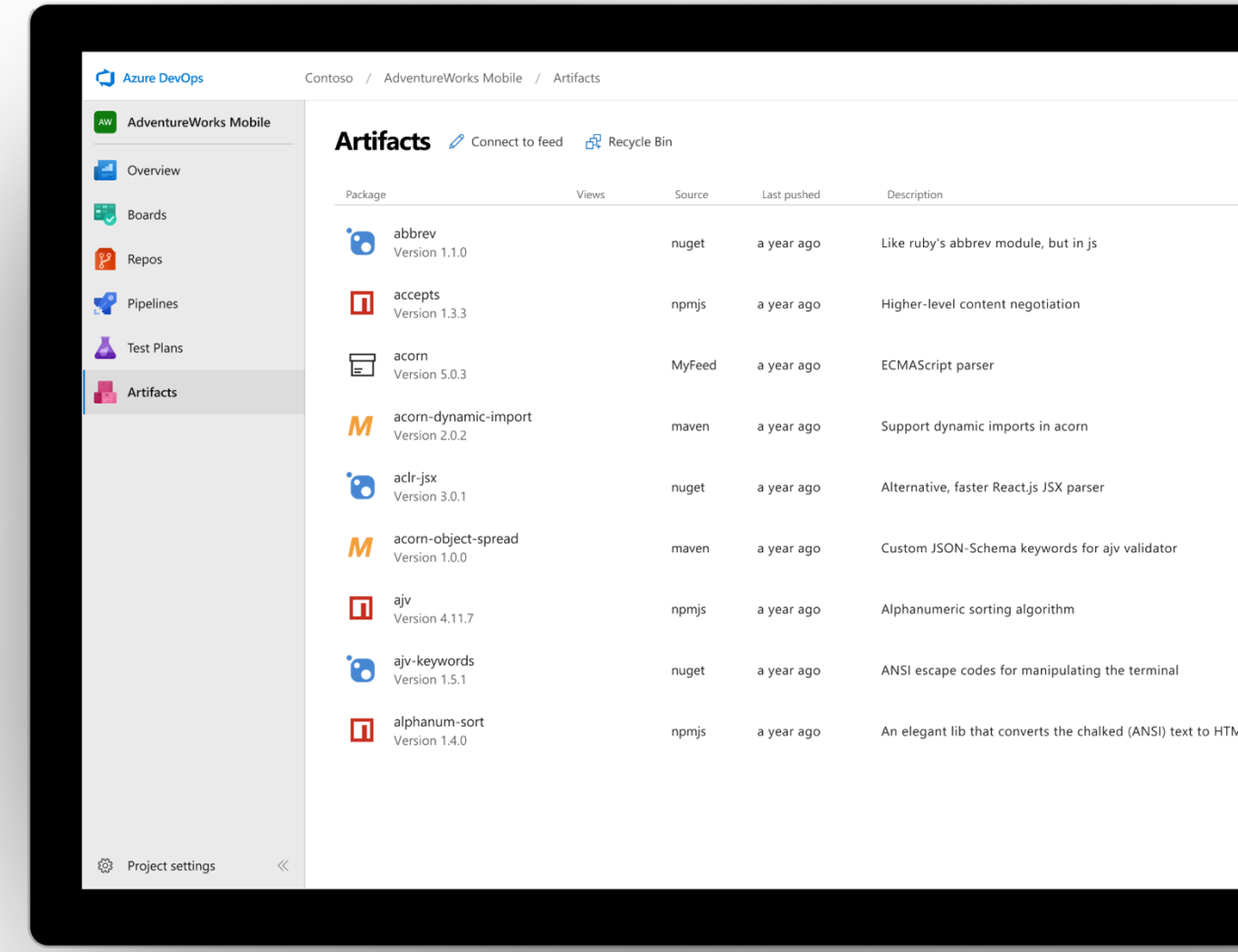
What is a feed?

If you're familiar with using packages from NuGet or npm, you can think of those places each as a single feed.

Terminology

You might also have heard feeds called package repositories or package sources, especially if you're a npm or Maven user.

https://azure.com/devops



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.

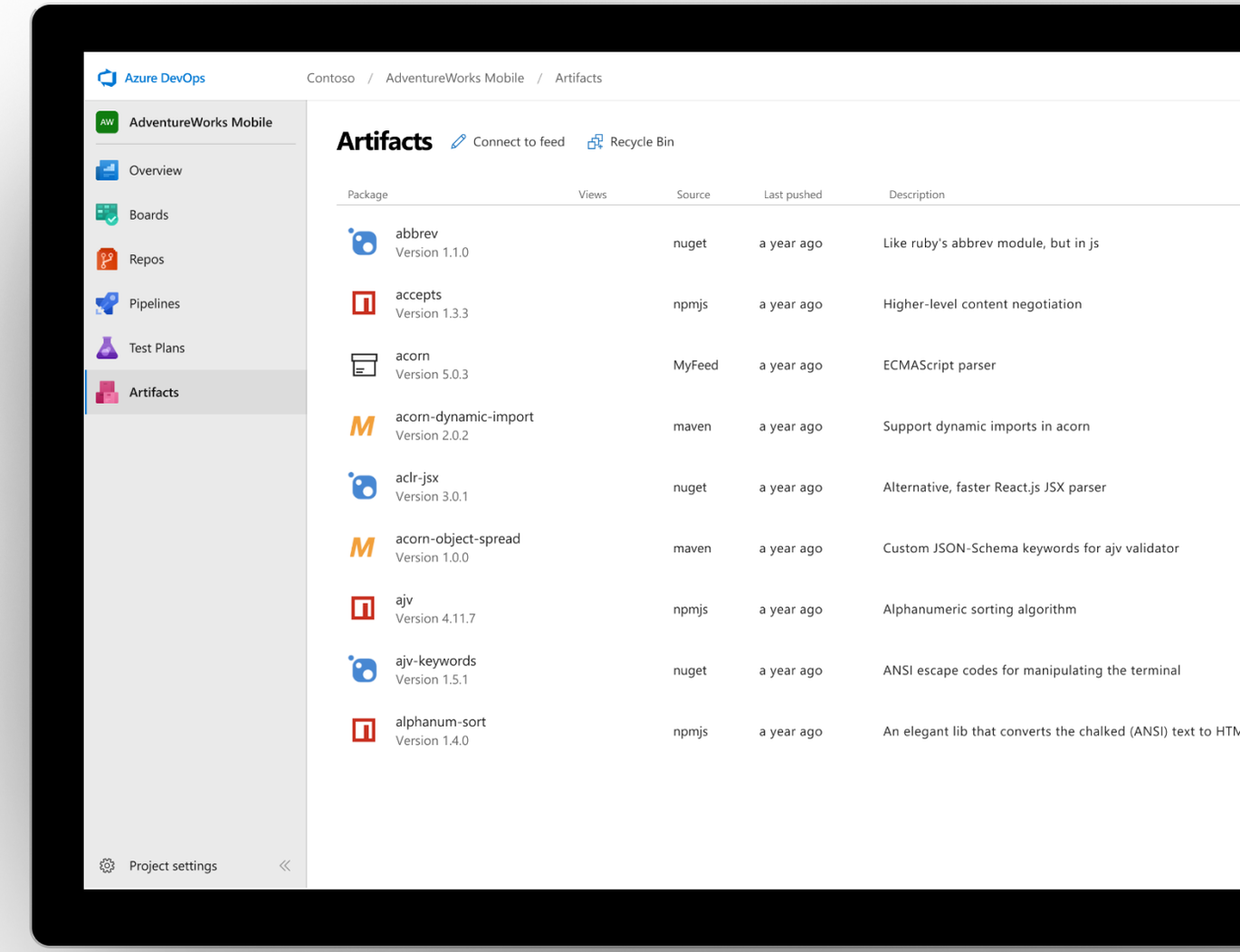
Add packages to any pipeline

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

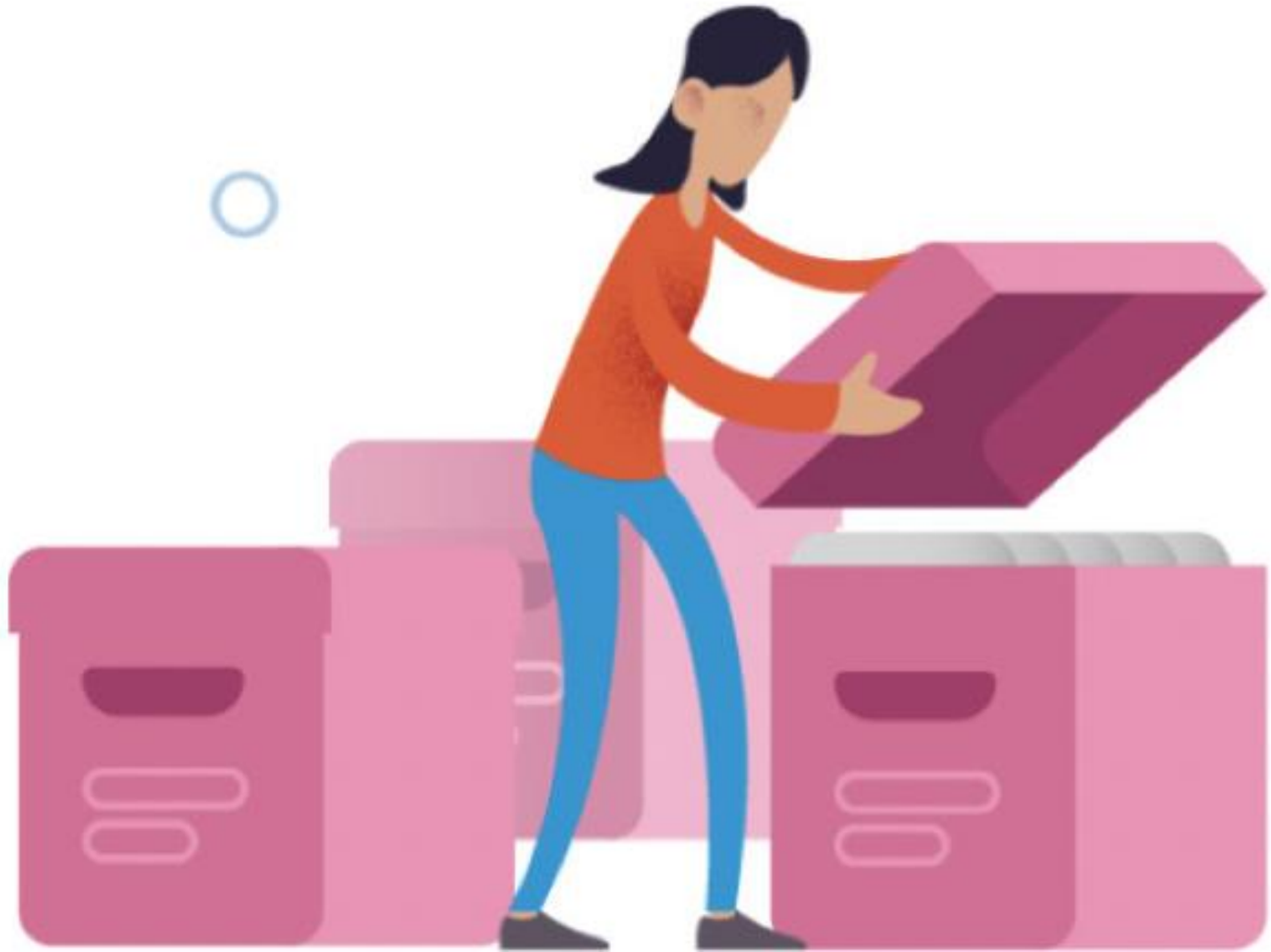
Share code efficiently

Easily share code across small teams and large enterprises.

https://azure.com/devops



Creating and Sharing Testing Library Packages




Q&A
You have
Questions
We have
Answers

Thank You

ευχαριστώ Salamat Po متشكرم شكراً Grazie

благодаря ありがとうございます Kiitos Teşekkürler 谢谢

ขอบคุณครับ Obrigado شكريه Terima Kasih Dziękuję

Hvala Köszönöm Tak Dank u wel дякую Tack

Mulţumesc спасибо Danke Cám ơn Gracias

多謝晒 Ďakujem תודה நன்றி Děkuji 감사합니다