

# CloudBees Jenkins CI/CD as an Azure cloud application

## Application description

The aim of this application is to provide instant, integrated and supported tooling setup for execution of CI/CD processes, based on popular open source products and hosted by Microsoft Azure cloud offerings/services. Provided tooling will support usual build – release – run strategy and common integration tasks like compiling, testing, packaging and others.

The application will also include multiple sample applications and pipeline implementations, where the pipeline will start with triggering change in source code repository, performing all stages and finally deploying the application into a simulated production environment with blue/green deployment strategy.

## Features

The tooling configuration will contain these open source components:

- Jenkins v2 – application lifecycle DevOps orchestrator (Cloud Bees)
- Jenkins agent + Maven2 distributed build template
- Nexus – binary artifact repository, dependency proxy, container image repository (Sonatype)
- Sonarqube – code inspection and static analysis (SonarSource)
- Gogs – lightweight git compatible SCM server (or GitHub integration)
- Gatling – declarative performance testing
- Selenium (optional) – UI testing automation

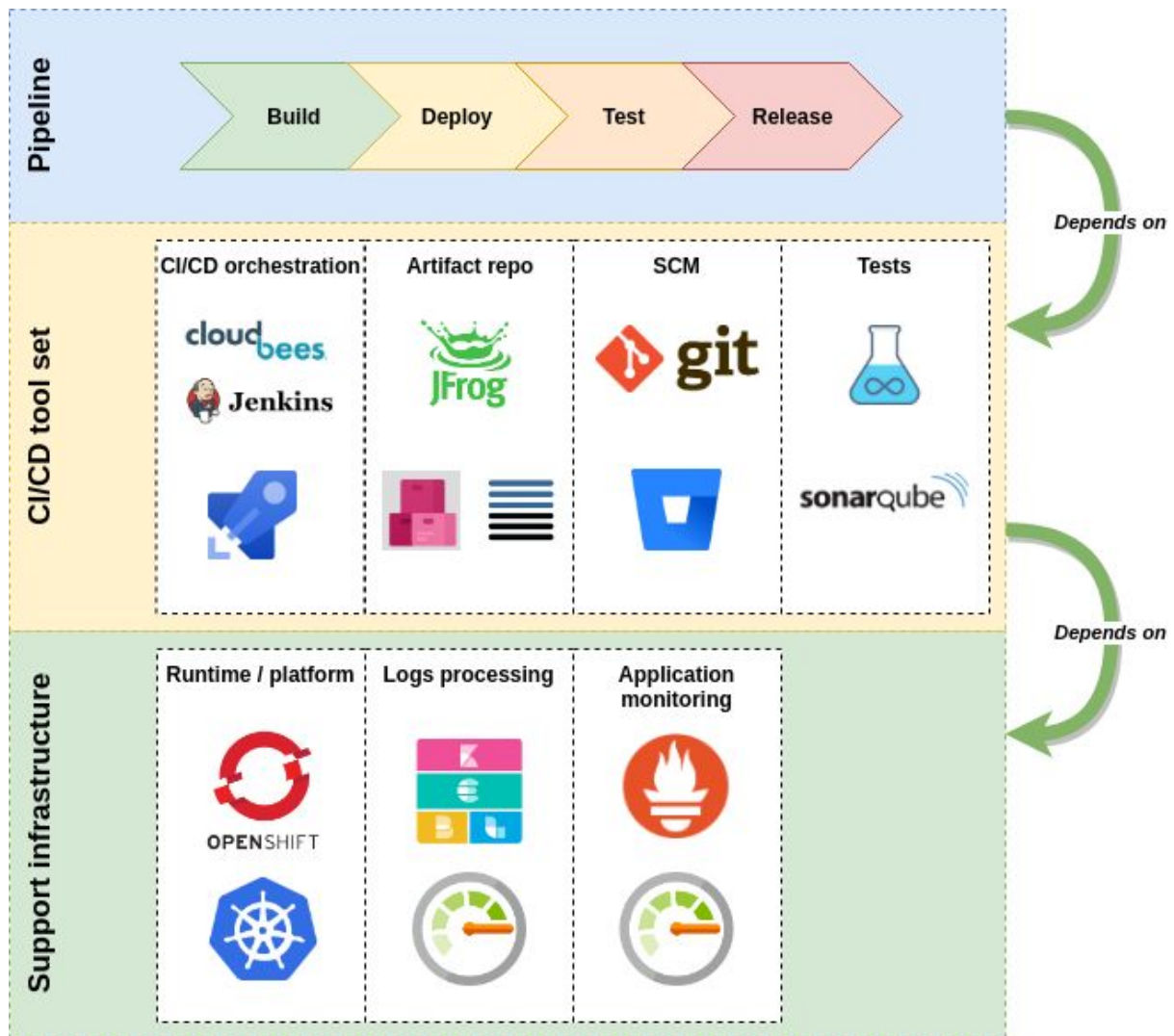
## Benefits

- Quick bootstrapping of development and testing environment
- Baseline for common CI/CD processes utilizing best practices for application development lifecycle
- Ability to modify development setup according to the team needs

- Simplified provisioning and scalability for selected tools
- Public/hybrid scenarios possible, i.e. final product release into private production infrastructure

## Deployment model

The application will be based on Azure Kubernetes Service (AKS) (and Red Hat Openshift later) to ensure a common runtime environment for all included components and to enable hybrid cloud scenarios. The application will be introduced and promoted as an Azure Marketplace offering.



## Intended audience

In general this Azure application can serve as a CI/CD baseline for anyone exploring or even adopting DevOps and Agile approaches. Examples of such roles involved include:

- Software Architects and Engineers
- Infrastructure Operators
- DevOps and Automation Engineers
- Technical managers/SW Development managers
- QA teams and QA managers
- Product owners
- Shared services teams and managers
- Technically interested stakeholders