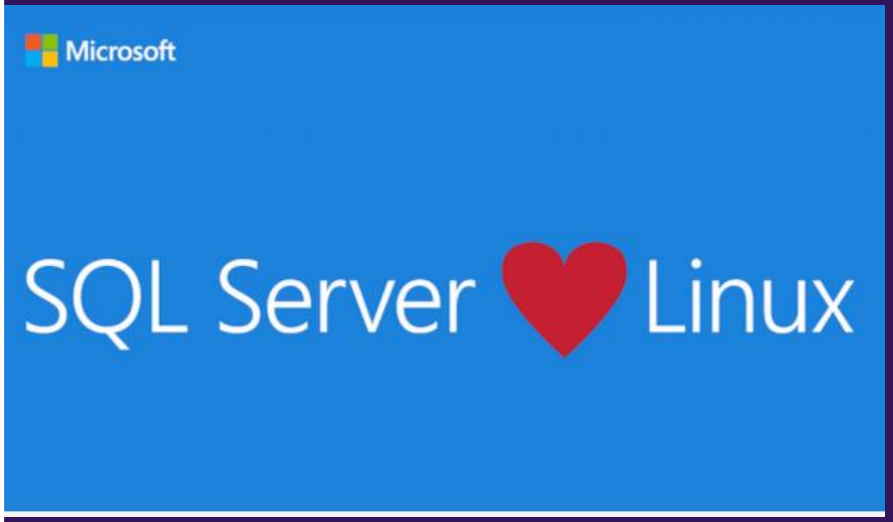
The Register®
Biting the hand that feeds IT

DATA CENTRE SOFTWARE NETWORKS SECURITY INFRASTRUCTURE DEVOPS BUSINESS HARDWARE

Data Centre ▸ Cloud

Red Hat Enterprise Linux lands on Microsoft Azure cloud – no, we're not pulling your leg

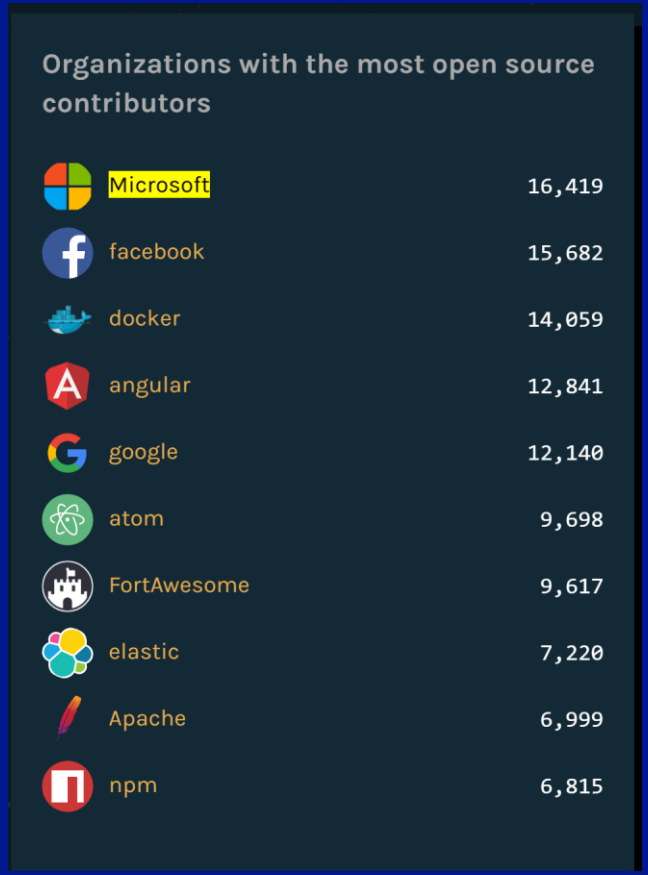
Distro to be reference operating system for .NET Core



Fact #1 – The love is real

- In 2016 GitHub released which companies have the most people contributing code to their open source projects.
- Microsoft weighs in at #1, with 16,419 contributors

https://octoverse.github.com/

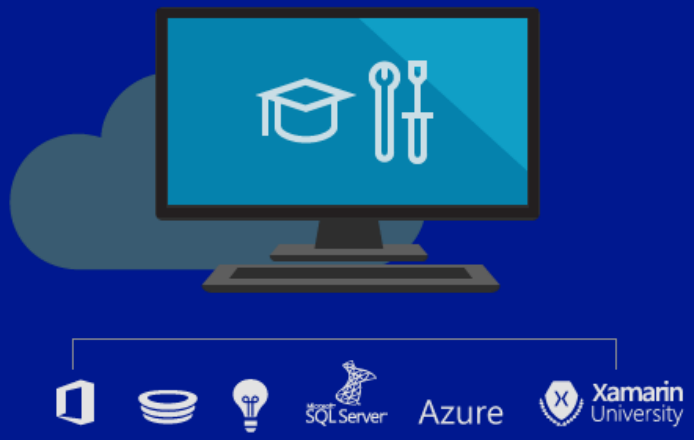


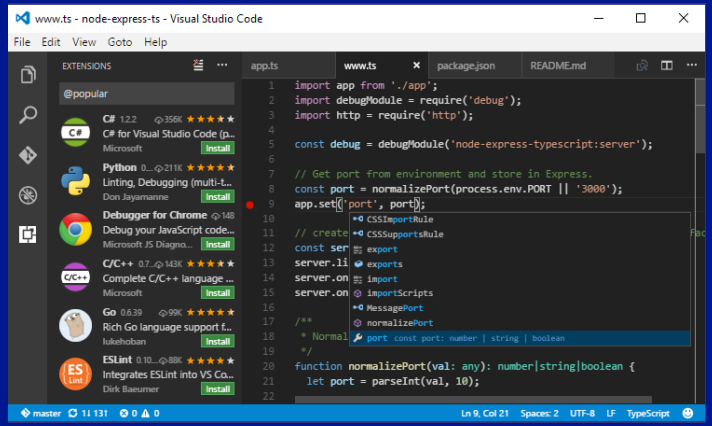
Fact #2 – OSS for the OSS

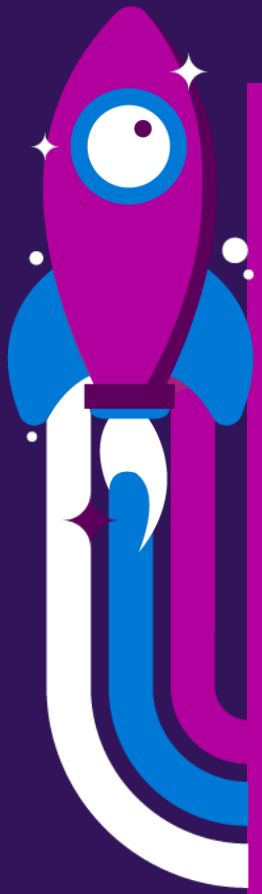
Visual Studio Community, which is aimed at students, open-source contributors, small companies, startups, and individual developers, has passed 7M downloads.

Visual Studio Code, has passed 1M downloads.

http://venturebeat.com/2015/11/18/microsoft-open-sources-visual-studio-code-launches-free-visual-studio-dev-essentials-program/







Microsoft

DEV OLYMPICS 2017
VS17 OSS & DEVOPS

Shmulik Segal
Head of DevOps and Automation | SELA
Baruch Waknine
Sr. Consulting Architect | Microsoft Israel

AGENDA

Microsoft

- ✓ Microsoft love OSS
- ✓ Containers
- ✓ Microsoft DevOps Solution
- ✓ Demo!
- ✓ Q&A

Jenkins

https://jenkins.io/blog/2016/05/18/announcing-azure-partnership/

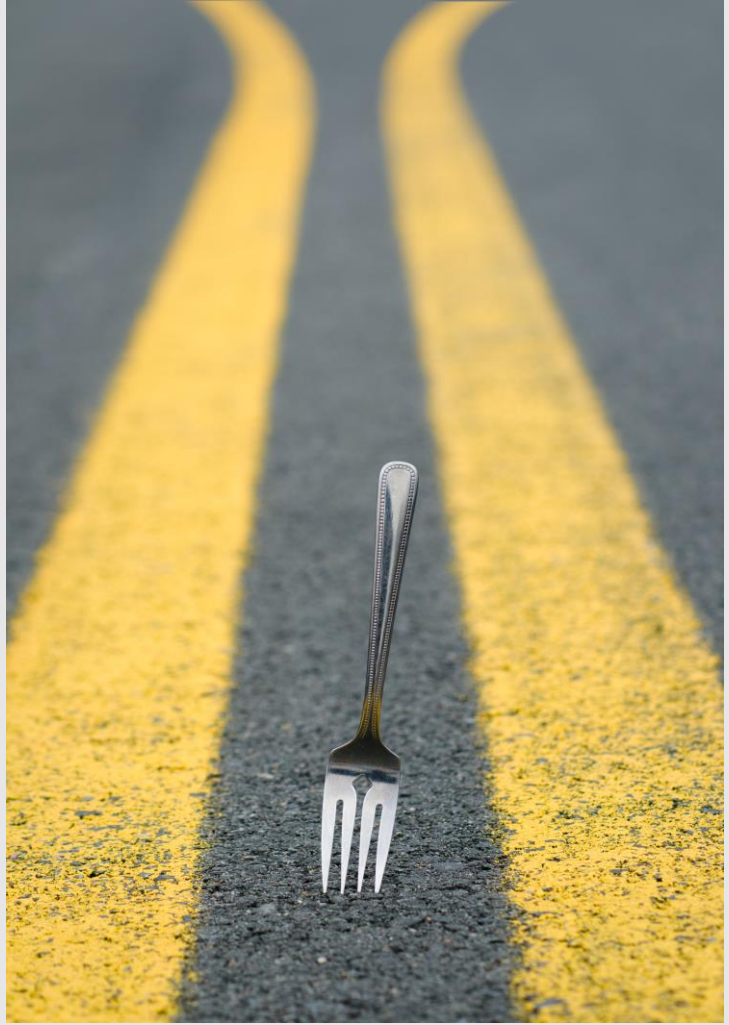
redhat.

redhat | Microsoft

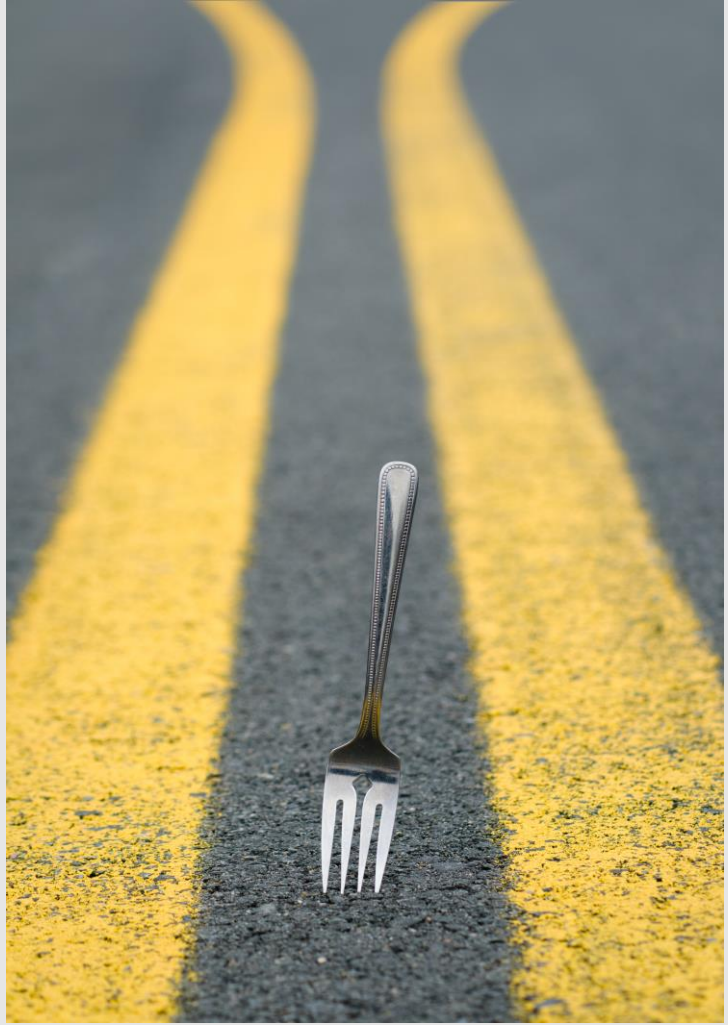
Partnership

https://www.redhat.com/en/partners/strategic-alliance/microsoft


OSS++
VS2017



Fully OSS
Cloud agnostic
Containers
Microservices
Hybrid
Modern
Proven
Open Ecosystem



kubernetes

docker

VAGRANT

TERRAFORM

PACKER

Build, Ship, Run, Any App Anywhere

FROM DEV TO OPS

ANY OS

LINUX

WINDOWS

ANYWHERE

PHYSICAL

VIRTUAL

AZURE CLOUD

ANY APP

TRADITIONAL

MICRO SERVICES

ANY LANGUAGE

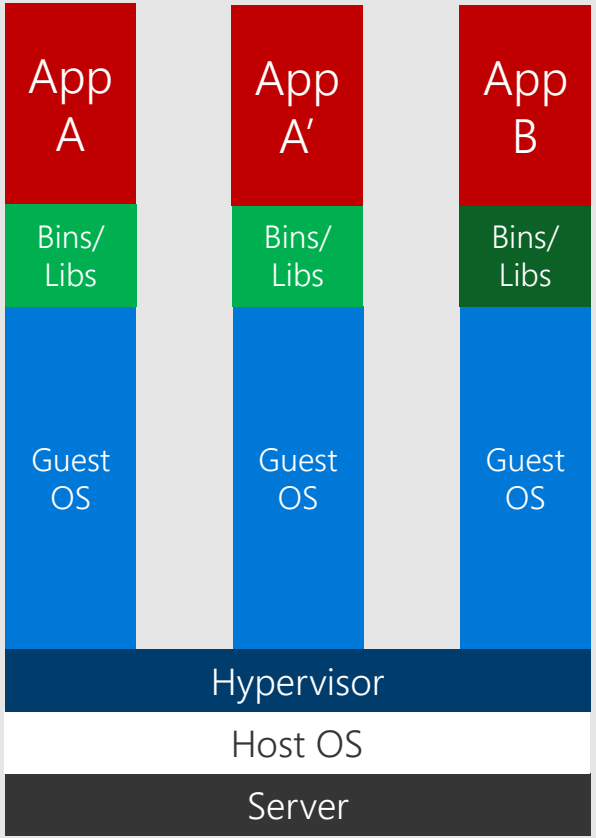
MORE

Microsoft

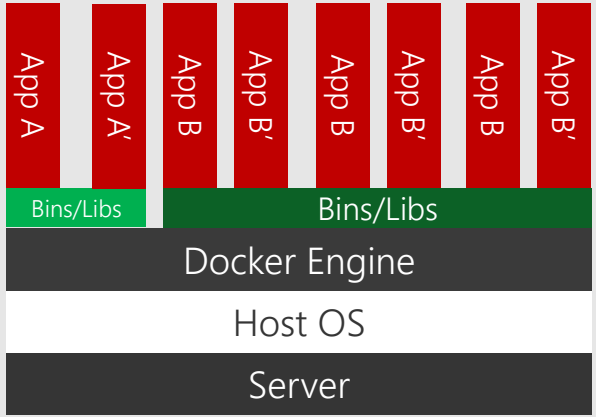
What Are Containers ?

- Containers are the next evolution in virtualization.
- Containers are an isolated, resource controlled, and portable operating environment.
- Basically, a container is an isolated place where an application can run without affecting the rest of the system and without the system affecting the application.
- If you were inside a container, it would look very much like you were inside a freshly installed physical computer or a virtual machine.

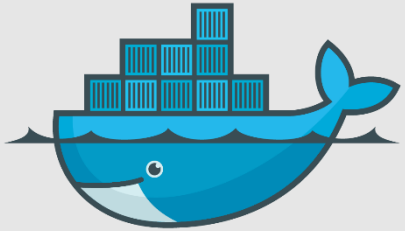
VMs vs Containers



Containers are isolated but share OS and, where appropriate, bins/libraries



Docker



What is It?

Open-Source Engine used to
Create and Manage Containers

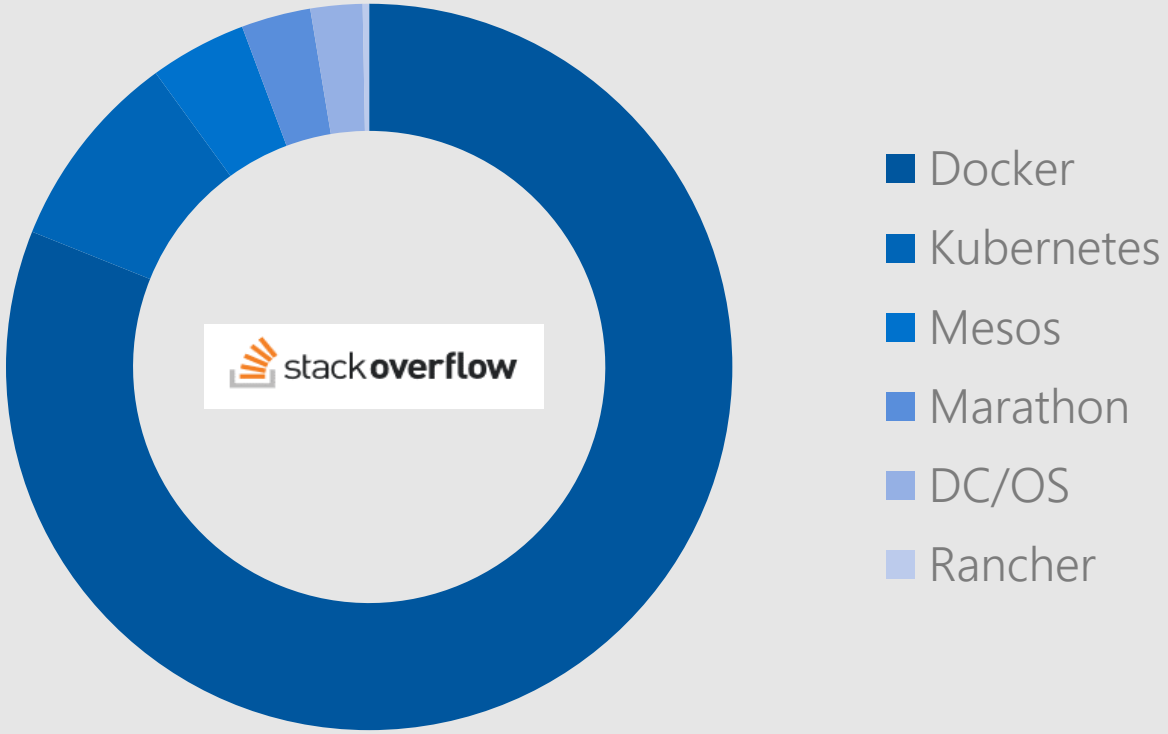
Advantage: Consistent Deployment and Packaging

Runs on Linux and Windows

Technical Preview of Docker for Windows Server

There is more to Containers that Docker

Docker


stackoverflow
Docker
Kubernetes
Mesos
Marathon
DC/OS
Rancher

Docker Runs Anywhere..

- Linux
  - Docker runs natively on Linux
- Windows
  - Docker For Windows
  - Native Windows Containers
  - HyperV Containers
- OSX
  - Docker For Mac
- Clouds
  - Azure
  - Amazon
  - Google

Container Fundamentals

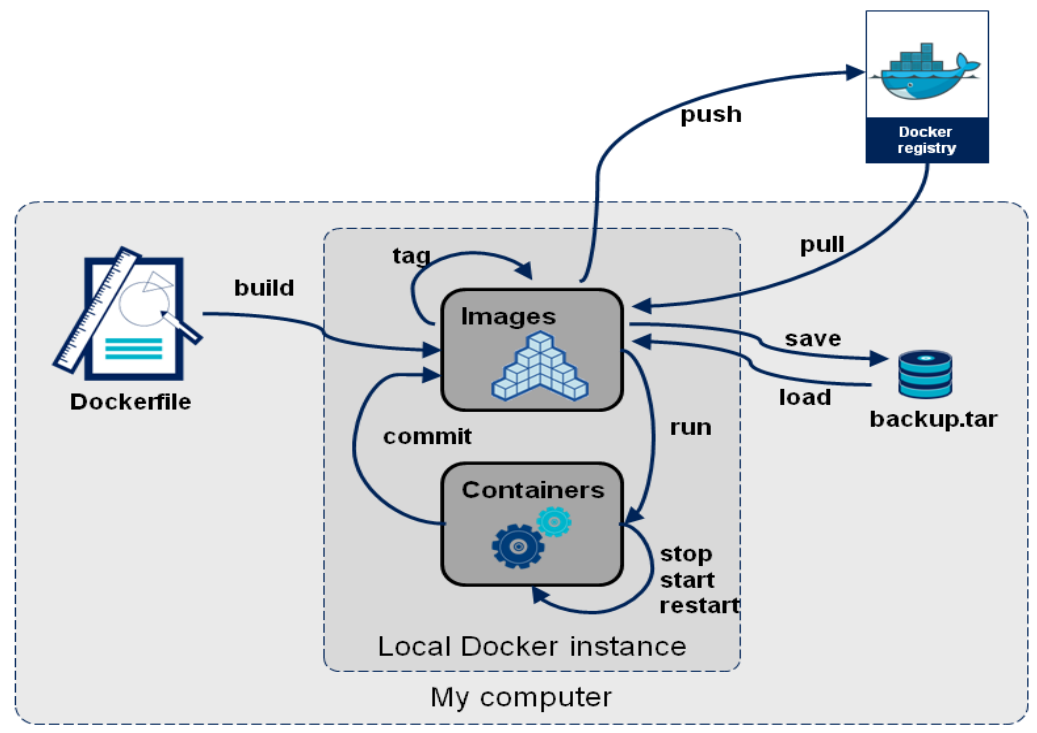
Container Host: - Physical or Virtual computer system configured with the Windows Container feature.

Container OS Image: - Containers are deployed from images. The container OS image is the first layer in potentially many image layers that make up a container. This image provides the operating system environment.

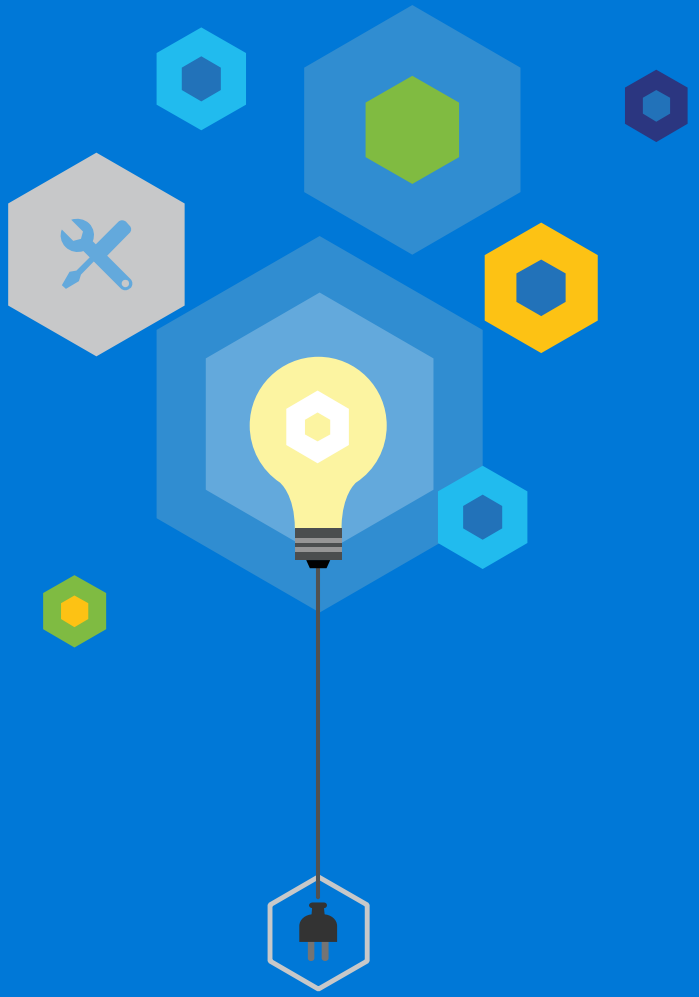
Container Image: - A container image contains the base operating system, application, and all application dependencies needed to quickly deploy a container.
Container Registry: - Container images are stored in a container registry, and can be downloaded on demand.

Dockerfile: - Dockerfiles are used to automate the creation of container images.

Docker workflow



Docker on Windows



Microsoft

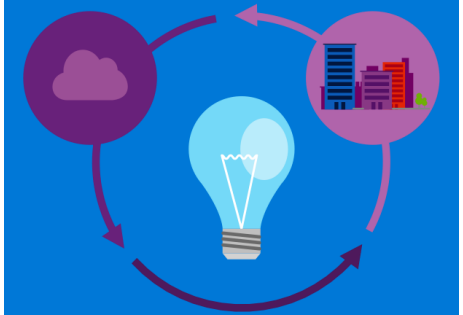
"DO IT FASTER, BETTER AND WITH MORE RELIABILITY!"

Microsoft  **DevOps**

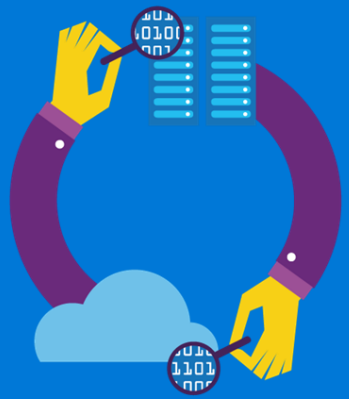
The Microsoft DevOps solution

An integrated, end-to-end solution for teams of any size to design, build and manage enterprise solutions and cross-platform mobile business apps.

Shorten cycle times and deliver value faster



Improve quality and availability of applications and services

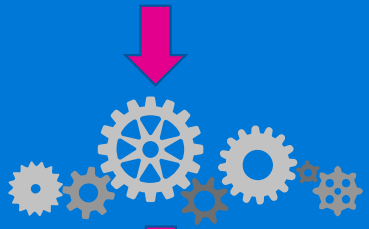


Optimize IT resources and eliminate waste

Deliver mobile apps with digital-era velocity

Full End2Ens DevOps Pipeline

Visual Studio 2017



Push to GitHub

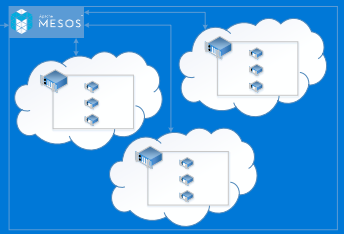
Trigger via webhook

Jenkins

Publish in Docker Hub

Updates app in Azure

Azure Container Service



SOURCE CONTROL

Microsoft

- Distributed Version Control Systems
- Open source
- Unlimited/Free Public Repos

CONTINUOUS INTEGRATION

Microsoft

Jenkins

- Open-Source CI/CD Server
- Industry lead
- Pipeline

CONTAINERS

Microsoft

- Not a new topic
- Linux kernel. c-groups, namespaces
- Eg - Docker, LXC, Rocket

docker

Microsoft

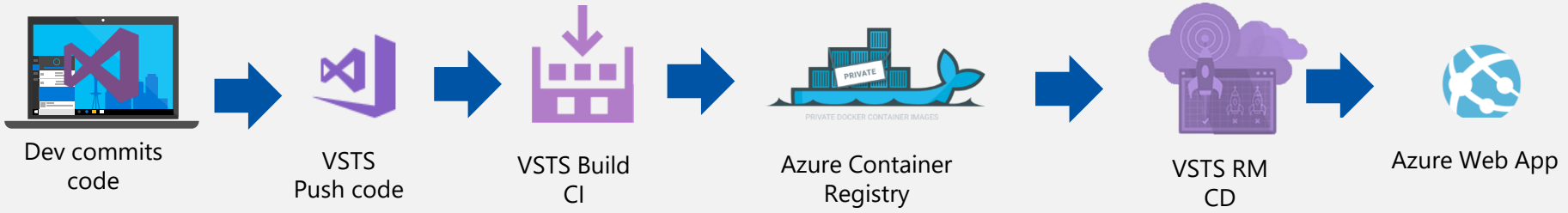
DEMO TIME!

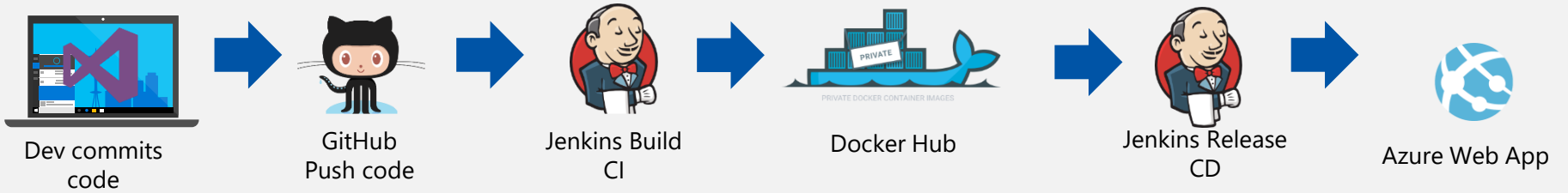
Visual Studio

Jenkins

Microsoft Azure

end-to-end pipelines





Microsoft

SIMPLE
EASY
FAST

Next steps

Questions

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Microsoft

Thank you.