



Bring CI to Your Laptops with Drone Desktop, a Docker Extension

Slides



<https://bit.ly/drone-desktop-extension>



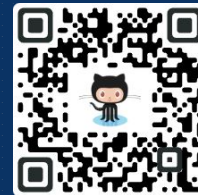


 @kamesh_sampath

Director of Developer Advocacy @  **harness**

Open Source Contributor for more than a decade

- Drone
- Tektoncd
- Minikube
- Eclipse Che
- Camel-K
- Knative
- (Google/ko)



It all starts with ...

MyApp.war has been tested with the following

- On my Windows 7 desktop
- JDK 1.8.43
- Wildfly 9

Configuration:

- Datasource: MySQLDS
- Tested with:
mysql-connector-java-5.1.31-bin.jar

Production Environment

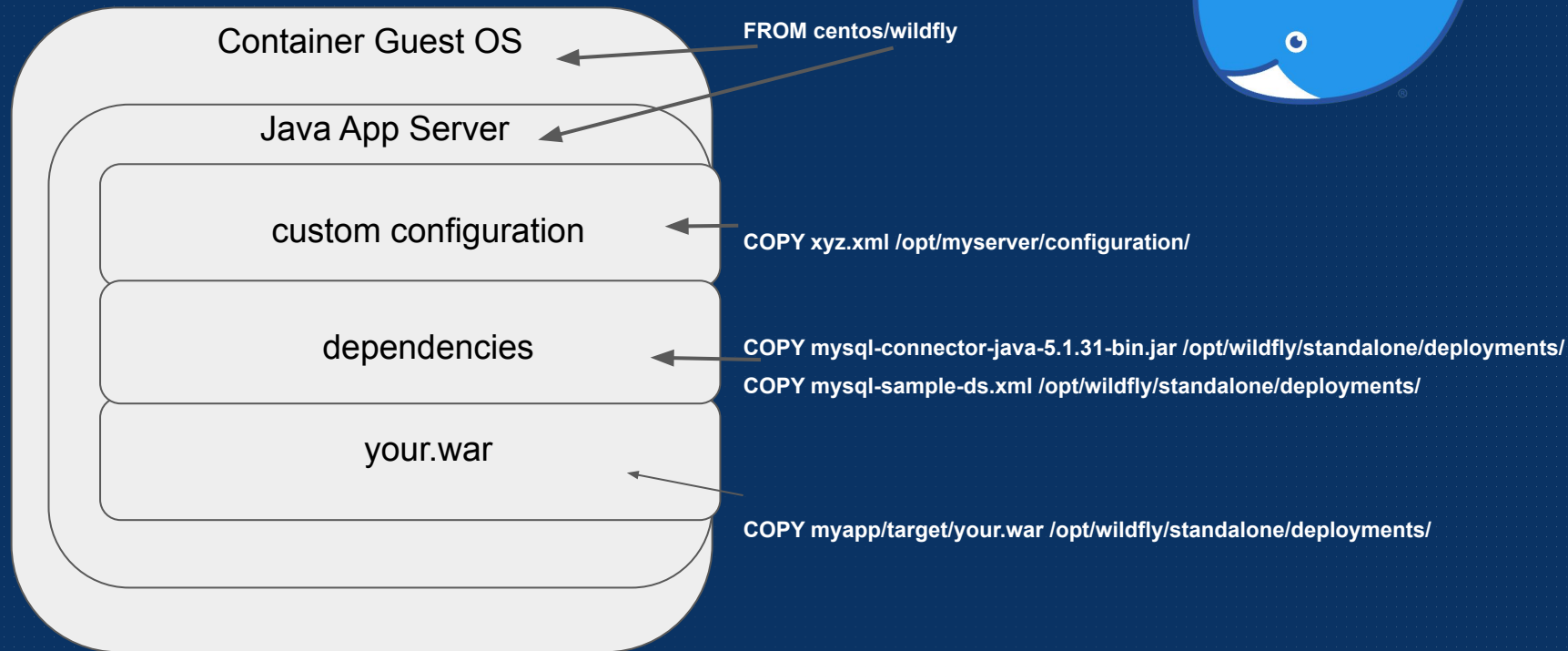
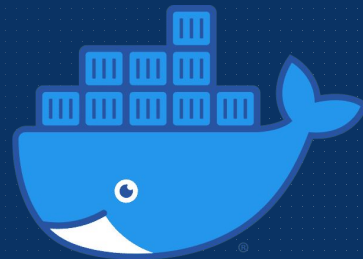
Red Hat Enterprise Linux 7

JDK 1.8

WebSphere 9

Oracle Database 12

Process Improvement and Standardization with Dockerfile





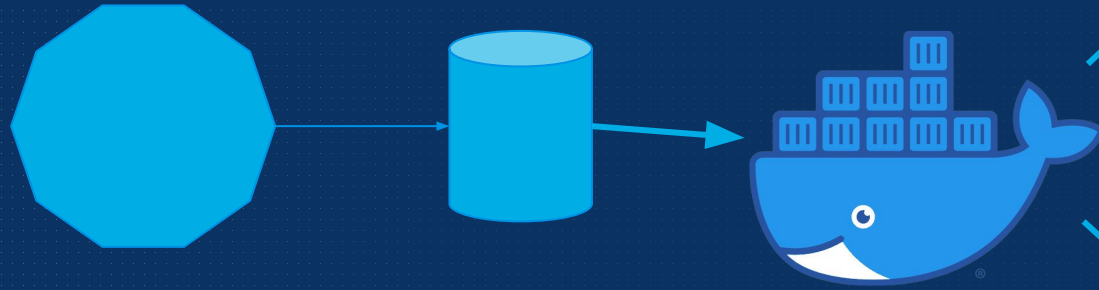
Container Native



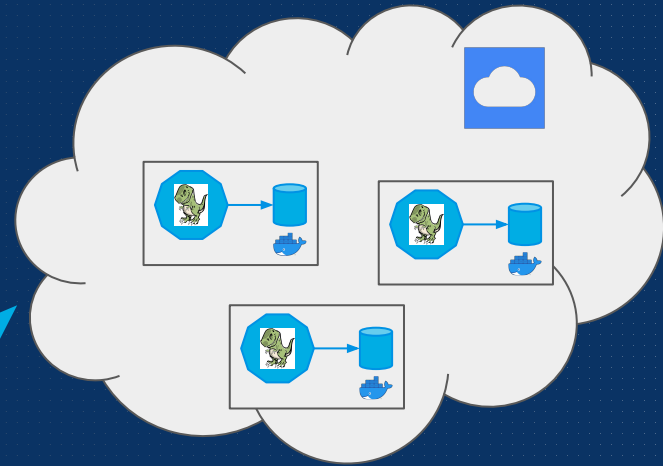
- Software that treats the container as the first-class unit of infrastructure
- Software that does not just “happen to work” in, on or around containers, but rather is purposefully designed for containers

– **Salil Deshpande**

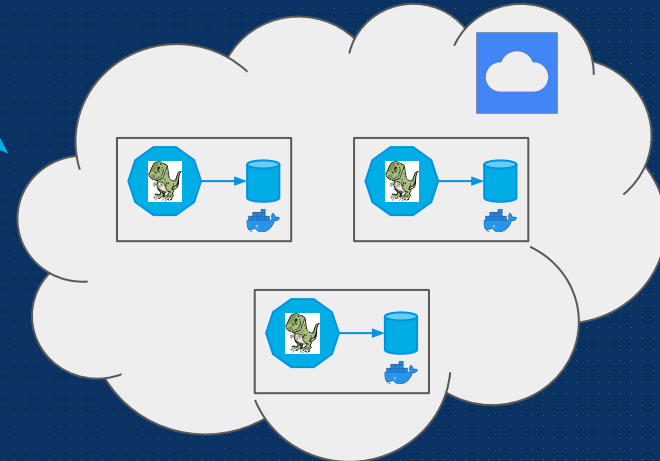
Cloud Era



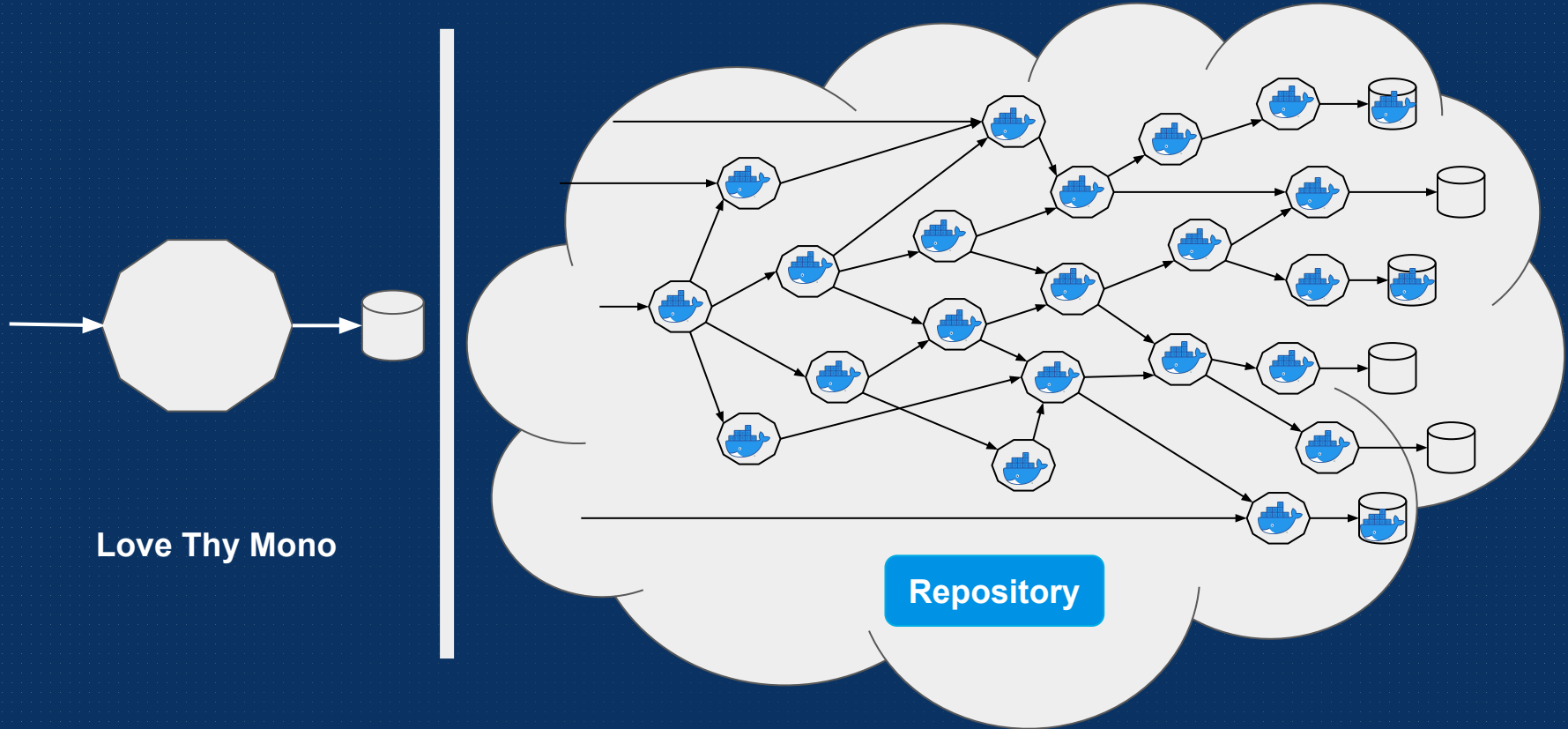
Love Thy Mono



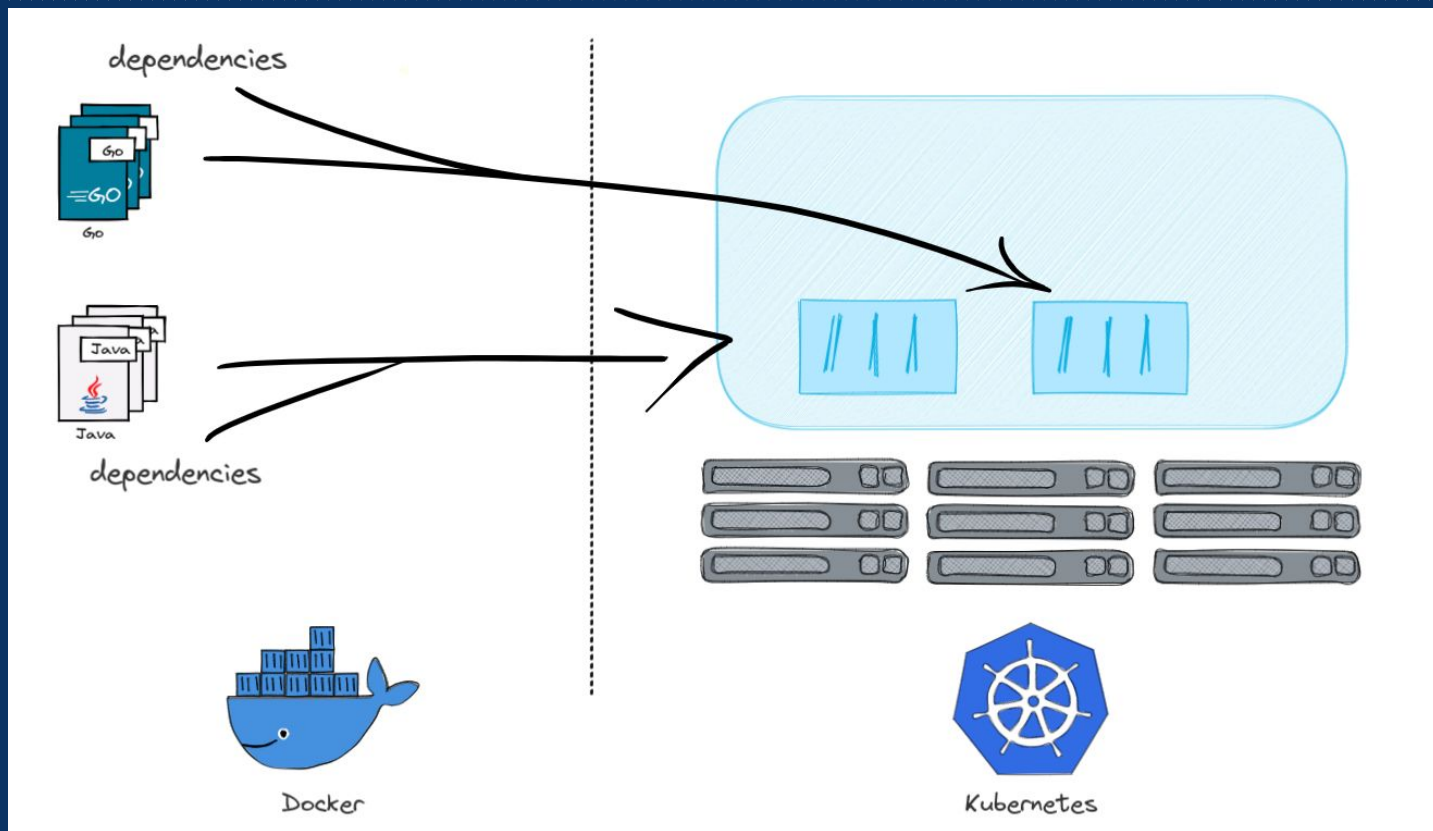
Lift and Shift



Monolith to Microservices



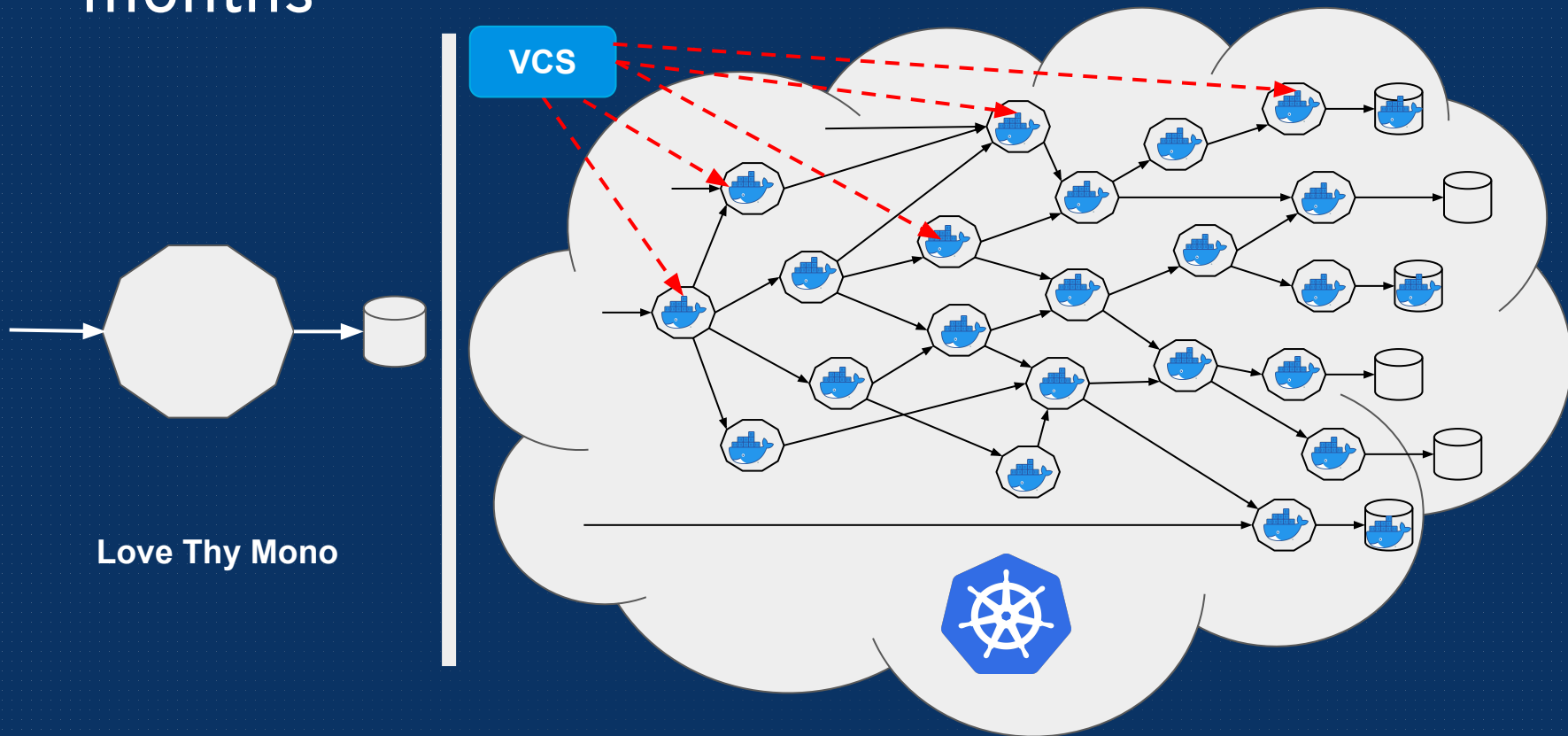
Operational Complexity (Partially) Solved!



Continuous Integration

Every 4
months

—————→ Every week/day/hour



drone.io

Drone.io Joins the Harness Family. [Read the Announcement](#)



DRONE
by harness

CLOUD

ENTERPRISE

MARKETPLACE

DOCUMENTATION

BLOG

LOGIN

Automate Software Build and Testing

Drone is a self-service Continuous Integration platform for busy development teams.

GET STARTEDDOCUMENTATION



Container Native Pipeline

CISCO

GANNETT

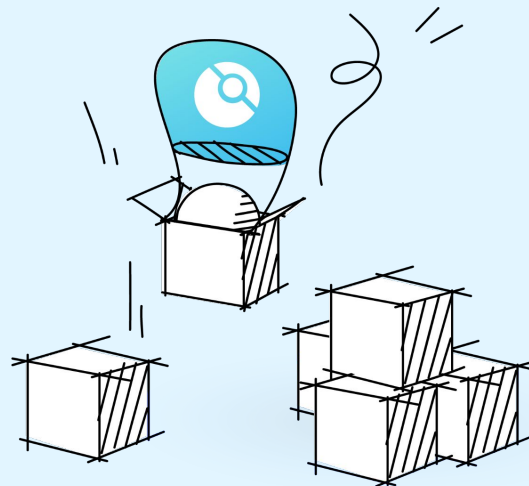
ebay

vmware



Drone was Launched in 2012

- Written in Go
- Built on Docker
- Multi-OS (Linux, Mac, Windows)
- Multi-Arch (amd64, arm64, ...)
- Multi-SCM (GitHub, GitLab, BitBucket, Gitea, ...)
- Self-hosted
- Small footprint
- Acquired by Harness in August 2020



Drone CI

Container Native Pipeline

(a.k.a. your `.drone.yml` file)



.drone.yml

```
kind: pipeline
type: docker
name: default
```

Kind and type attributes define that this is a docker pipeline.

steps:

- name: test
image: golang:1.18

```
commands:
- go build
- go test
```

Steps defines a series of shell commands executed inside the container as the entrypoint.

If any command returns a non-zero exit code, the pipeline fails.



```
kind: pipeline
type: docker
name: default
```

docker volume create "workspace"

steps:

- name: test

```
image: golang:1.18
```

```
commands:
```

```
- go build
- go test
```

```
docker run \
  --rm \
  -e DRONE_COMMIT_SHA=<shasum> \
  -e DRONE_COMMIT_BRANCH=main \
  -e DRONE_REMOTE_URL=<repo> drone/git
```

```
docker run \
  --rm \
  --volume workspace:/drone/src \
  --workdir /drone/src \
  golang:1.18 sh -c "go build; go test"
```





[Photo by Mimi Thian](#) on Unsplash



```
kind: pipeline
type: docker
name: default
```

```
services:
```

- name: postgres
image: postgres:13.7



```
steps:
```

- name: s3 copy
image: amazon/aws-cli:2.7.9
commands:
 - aws s3 cp ...



- name: build
image: golang:1.18.2
commands:
 - go build
 - go test



- name: selenium
image: selenium/standalone-firefox:4.3.0
commands:
 - ...



```
kind: pipeline
type: docker
name: default
```

```
services:
- name: postgres
  image: postgres:13.7
```

```
steps:
- name: s3 copy
  image: amazon/aws-cli:2.7.9
  commands:
  - aws s3 cp ...

- name: build
  image: golang:1.18.2
  commands:
  - go build
  - go test
```

```
- name: selenium
  image: selenium/standalone-firefox:4.3.0
  commands:
  - ...
```

```
kind: pipeline
type: docker
name: default
```

```
services:
- name: postgres
  image: postgres:13.7
```

```
steps:
- name: s3 copy and build
  image: registry.company.io/ourteam/go-aws:0.1
  commands:
  - aws s3 cp ...
  - go build
  - go test
```

```
- name: selenium
  image: selenium/standalone-firefox:4.3.0
  commands:
  - ...
```



Drone CI Plugins



Drone CI Plugins

Drone CI Plugins are **Docker containers** that perform pre-defined tasks and are configured as steps in your pipeline

Plugins can be used to deploy code, publish artifacts, send notifications, and more



```
kind: pipeline
type: docker
name: default
```

```
- name: publish
```

```
  image: plugins/docker
```

official Drone Docker plugin

```
  settings:
```

```
    username: kevinbacon
```

```
    password:
```

```
      from_secret: docker_password
```

```
    repo: foo/bar
```

```
    tags:
```

```
      - 1.0.0
```

```
      - 1.0
```

```
- name: notify
```

```
  image: plugins/slack
```

official Drone Slack plugin

```
  settings:
```

```
    channel: developers
```

```
    username: drone
```





Add a plugin

Plugins

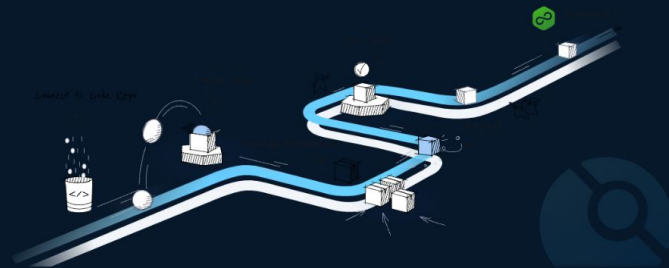
Documentation

Support

Plugins Marketplace

Browse our registry of community plugins to customize your continuous integration pipeline.

Search for the plugins that you want...



All >

Deploy

Publish

AWS

Cloudformation



AWS CloudFormation

DEPLOY AMAZON AWS

CLOUDFORMATION



AWS ECR

PUBLISH AMAZON AWS ECR

DOCKER



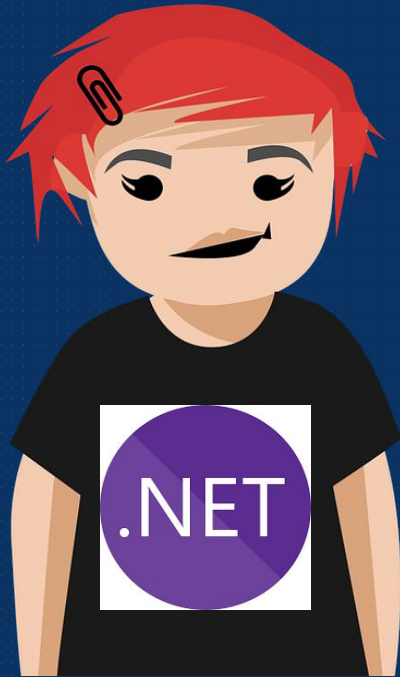
AWS ECS



AWS ECS Deploy



Developer Onboarding





For a developer it is always a **boon** to have integrations to platforms via plugins, extensions with one's every day tools like Docker for Desktop , Visual Studio Code etc.,

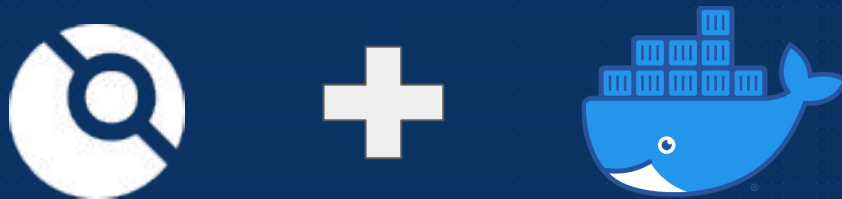


What are Docker Extensions?

- A way to add new **functionality** into **Docker Desktop**
- A way to **discover** new tools to solve existing problems
- No limit to the number of extensions you can install
- A way to **integrate** your **workflows** and **create automation**
- A way for the **community** and **partners** to **contribute** to Docker Desktop

Drone Desktop

A Docker Desktop Extension for Drone



Demo

Sources and Documentation

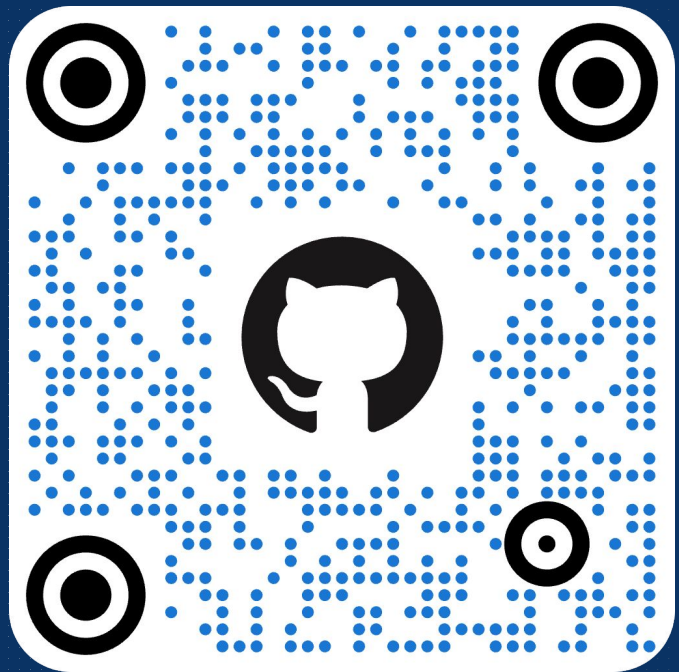
- <https://docs.drone.io/>
- <https://github.com/harness/drone-desktop-docker-extension>
- <http://docs.docker.com/desktop/extensions/>

Community

- <https://harnesscommunity.slack.com>
- <https://community.harness.io>
<https://www.meetup.com/harness/>
- <https://app.harness.io/auth/#/signup>



thank you!



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@droneio

#ci

Appendix



Long ago, there lived a clever jackal in a dense forest. One day, he came across a dead elephant. He wanted to eat its flesh and keep the whole of it for himself, but couldn't cut through its tough hide. While he was waiting for help, a lion arrived. The jackal told him, "Your Majesty, I have been guarding it for you, please have a taste." "I eat only fresh animals," replied the lion and went on his way. The jackal was happy. Next came a tiger. He said to the tiger, "A hunter has killed the elephant with a poisoned arrow. Whoever eats its flesh would die. I'm guarding it to save others lives." The tiger got scared and soon disappeared into the forest. Then came two vultures. The jackal told them, "I've sold its skin to hunters. If they ever see you eating it, they'll kill both of you." The vultures quickly flew away. But the jackal still looked for someone who would make it easy for him to eat the carcass. At last, there came a leopard, which had sharp teeth. He said to him, "Why don't you take a bite? It has been killed by a lion, who has gone home to bring his family. When I see him coming, I'll alert you and you can run away. The leopard started cutting open the elephant's hide. As soon as it was about to eat its flesh, he shouted, "There comes the lion." The leopard vanished into the forest. The jackal happily enjoyed the flesh of the elephant.

MORAL: The merits of being clever are undeniable. A smart worker is more likely to become successful at work. They come with quick and easy problem-solving skills that help them rise fast through the ranks.

Drone Desktop



Source:

Indian Express dated
14/03/2021

