

MICROSERVICES, CONTAINERS AND KUBERNETES

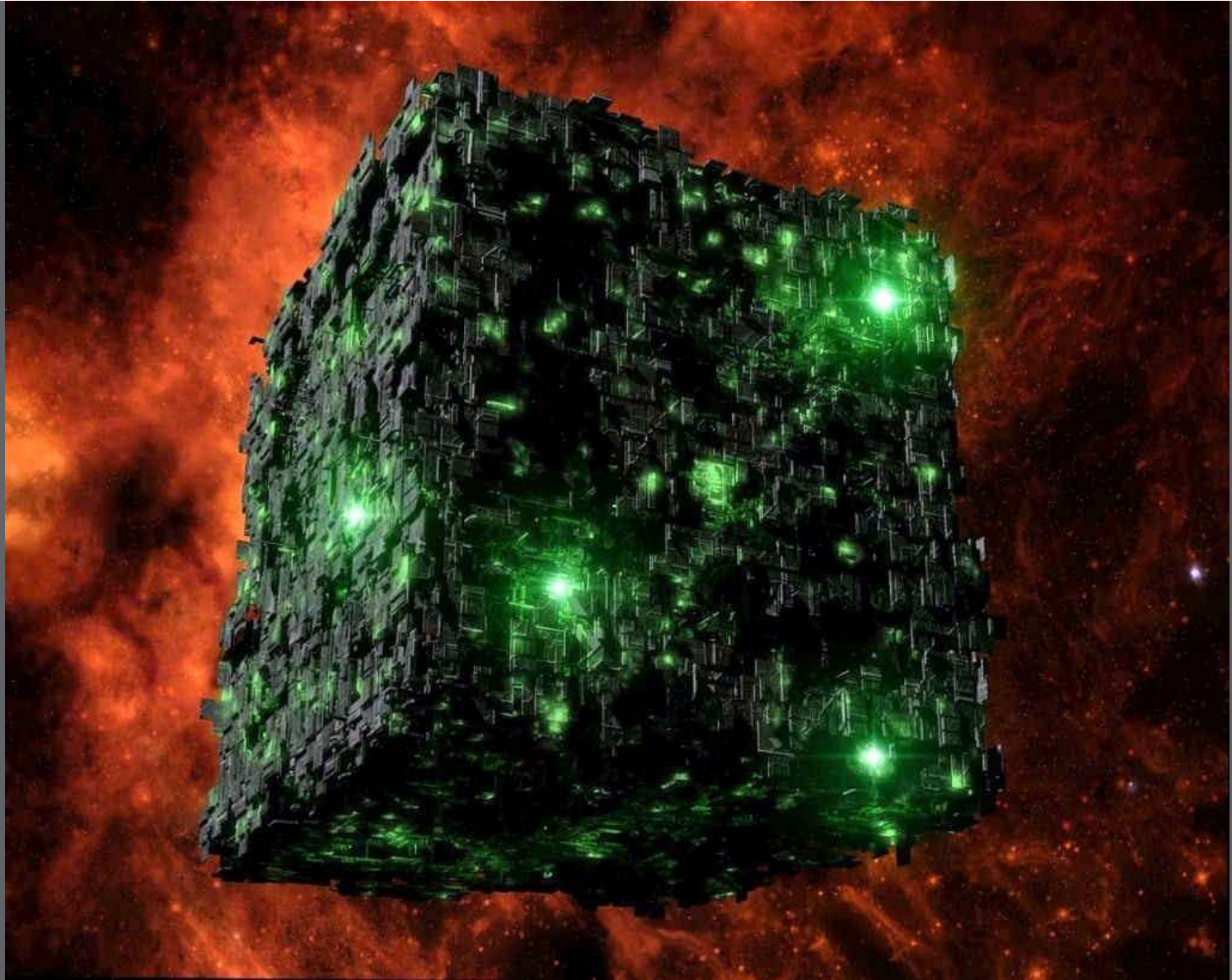
Sebastián Gómez

 @sebagomez

#GX28

The
power
of
doing.





WHAT IS MICROSERVICES?

The power of doing.

Monolithic



Microservices



The power of doing.

Conway's Law

Monolithic



Microservices



The team

Autonomous

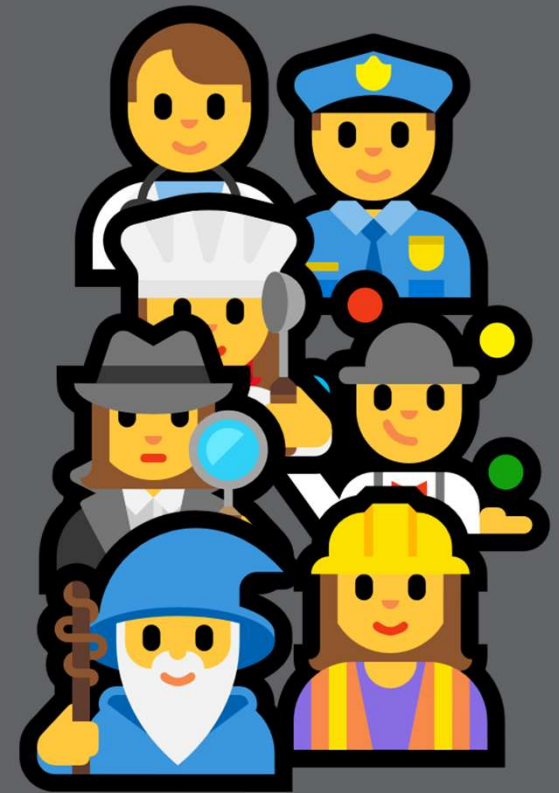
Size: 2 pizzas

Pick tech stack (including DBMS)

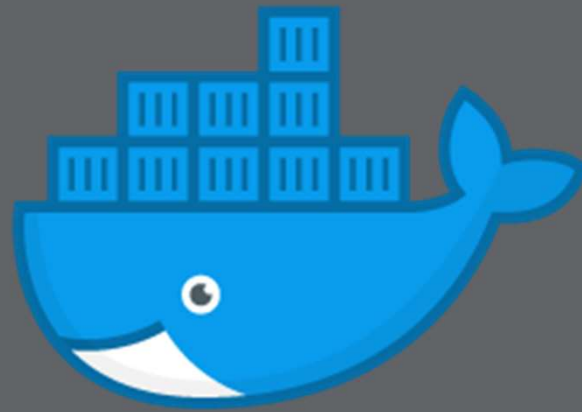
Continuous delivery

“You build it, you run it”

Prepare for chaos

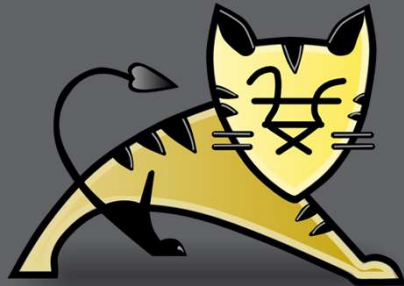


The power of doing.



docker.

The power of doing.



```
vivek@nas01:~$ printenv
TERM=atama-256color
SHELL=/bin/bash
XDG_SESSION_COOKIE=9ee90112ba2cb349f07bfe2f00002e46-1381581541.324726-906214463
SSH_CLIENT=192.168.1.6 60190 22
SSH_TTY=/dev/pts/1
USER=vivek
MAIL=/var/mail/vivek
PATH=/usr/local/bin:/usr/bin:/bin:/usr/local/games:/usr/games
PWD=/home/vivek
LANG=en_US
SHLVL=1
HOME=/home/vivek
LANGUAGE=en_IN:en
LOGNAME=vivek
SSH_CONNECTION=192.168.1.6 60190 192.168.1.10 22
~/usr/bin/printenv
vivek@nas01:~$
```



The power of doing.

actually... no

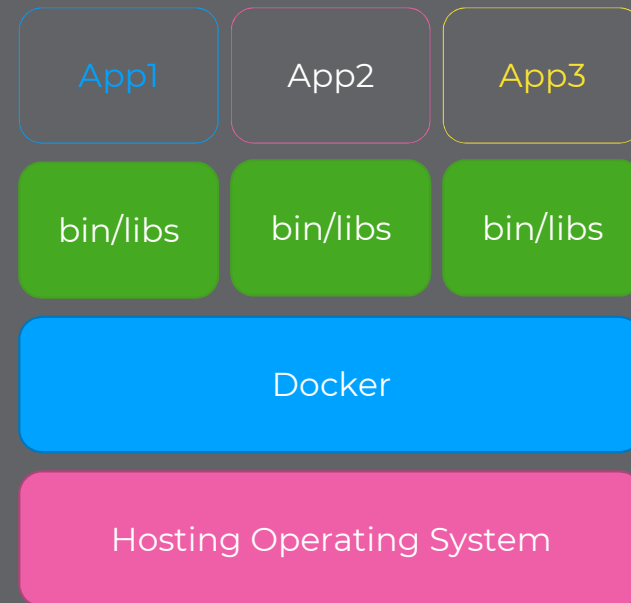
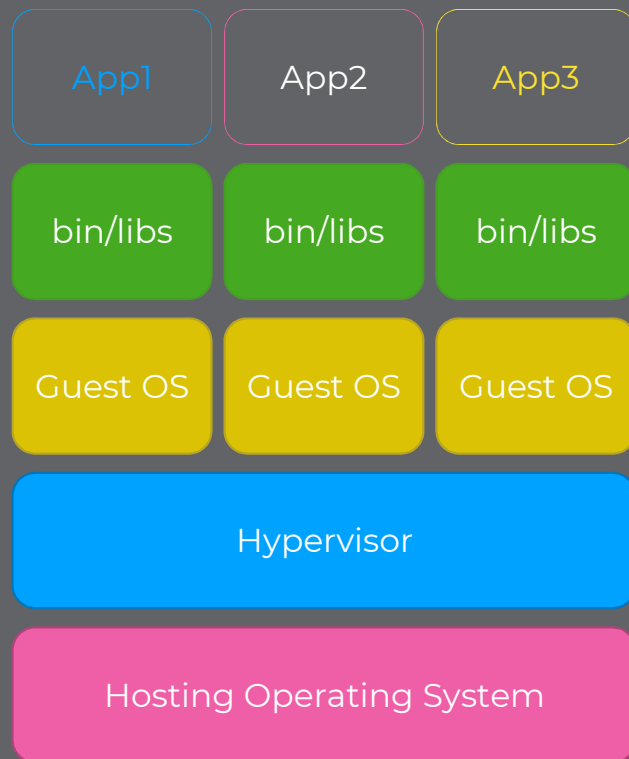


The power of doing.

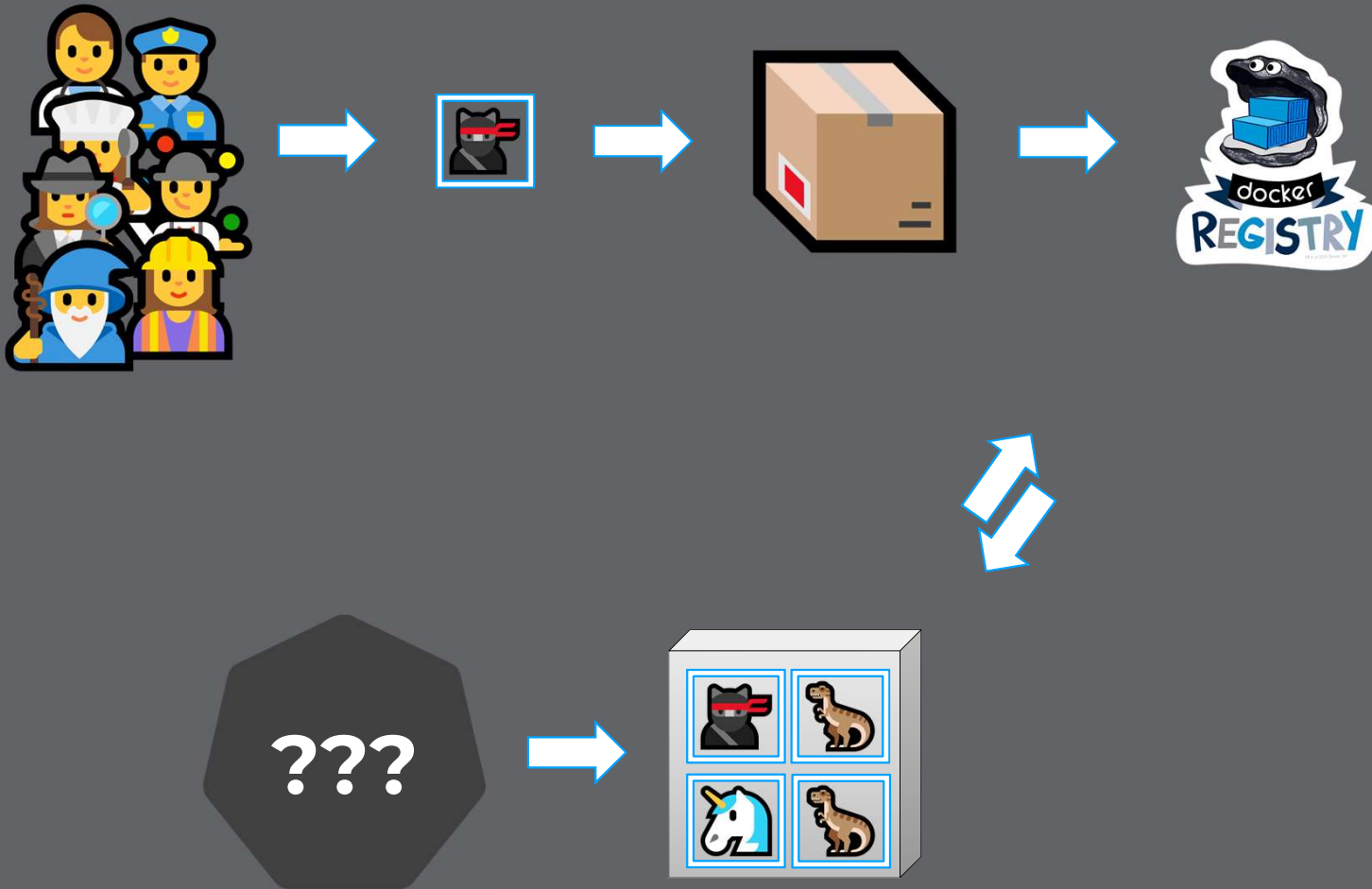
```
# Dockerfile generated by GeneXus (.NET Core)
FROM microsoft/dotnet:2.1.1-aspnetcore-runtime
LABEL maintainer="seba gomez <sgomez@genexus.com>"
ENV GXAPPVERSION=v1
WORKDIR /app
COPY ["GX28/20180923122144", "/app"]
ENTRYPOINT ["dotnet", "bin/GxNetCoreStartup.dll"]
```

The power of doing.

VMs vs Containers



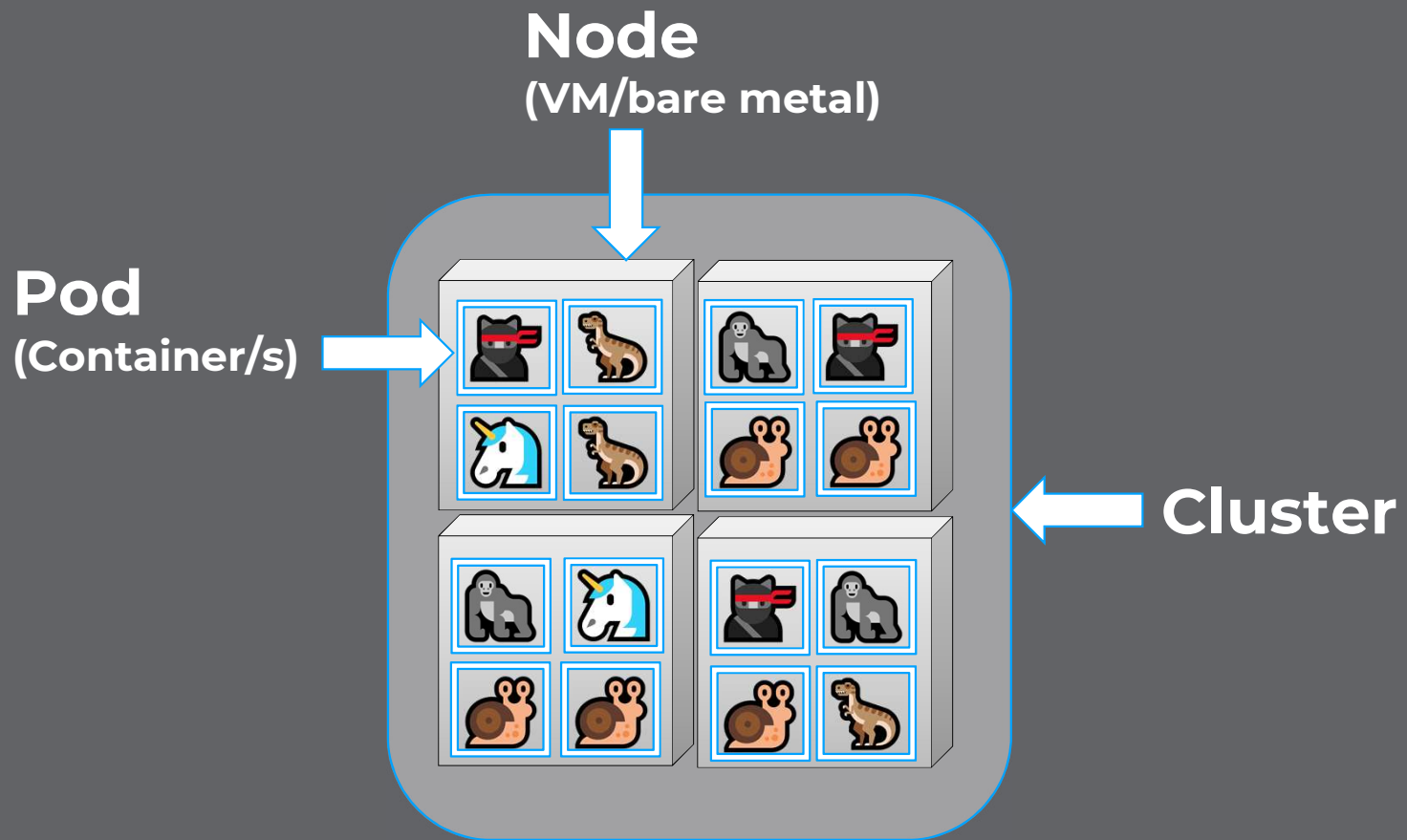
The power of doing.



The power of doing.



The power of doing.



The power of doing.

**YOU DESCRIBE A *DESIRED*
STATE IN A DEPLOYMENT
OBJECT**

The power of doing.

```
apiVersion: extensions/v1beta1
```

```
kind: Deployment
```

```
metadata:
```

```
  name: gx28k8sdemo
```

```
  labels:
```

```
    gx: "28"
```

```
spec:
```

```
  replicas: 5
```

```
  selector:
```

```
    matchLabels:
```

```
      gx: "28"
```

```
  template:
```

```
    metadata:
```

```
      labels:
```

```
        gx: "28"
```

```
    spec:
```

```
      containers:
```

```
        - name: gx28k8sdemo
```

```
          image: sebagomez/gx28k8sdemo:v1
```

```
          ports:
```

```
            - containerPort: 80
```

```
apiVersion: v1
```

```
kind: Service
```

```
metadata:
```

```
  name: gx28k8sdemo-service
```

```
  labels:
```

```
    gx: "28"
```

```
spec:
```

```
  selector:
```

```
    gx: "28"
```

```
  type: NodePort
```

```
  ports:
```

```
    - protocol: TCP
```

```
      port: 80
```

```
      targetPort: 80
```

DEMO!

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<http://bit.ly/gx28k8s>

Thank you
 @sebagomez



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