

# Pivotal Cloud Foundry

An Introduction to Platform as a Service

Additional Line 18 Point Arial



A platform for developing and  
running cloud applications

# The Cloud Foundry Foundation

Pivotal EMC<sup>2</sup> IBM SAP



Hewlett Packard Enterprise

vmware

Platinum members

accenture  
High performance. Delivered.



Capgemini  
CONSULTING. TECHNOLOGY. OUTSOURCING

BNY MELLON



CenturyLink



CISCO

ERICSSON



NTT



SAS



swisscom



TELSTRA

verizon

Gold members



apigee

APPDYNAMICS



Bloomberg



canopy  
THE OPEN CLOUD COMPANY

citi



cloudsoft



FUJITSU

grape up

HITACHI  
Inspire the Next

Iron.io

JPMORGAN CHASE & CO.

mendix

MIMACOM



redislabs



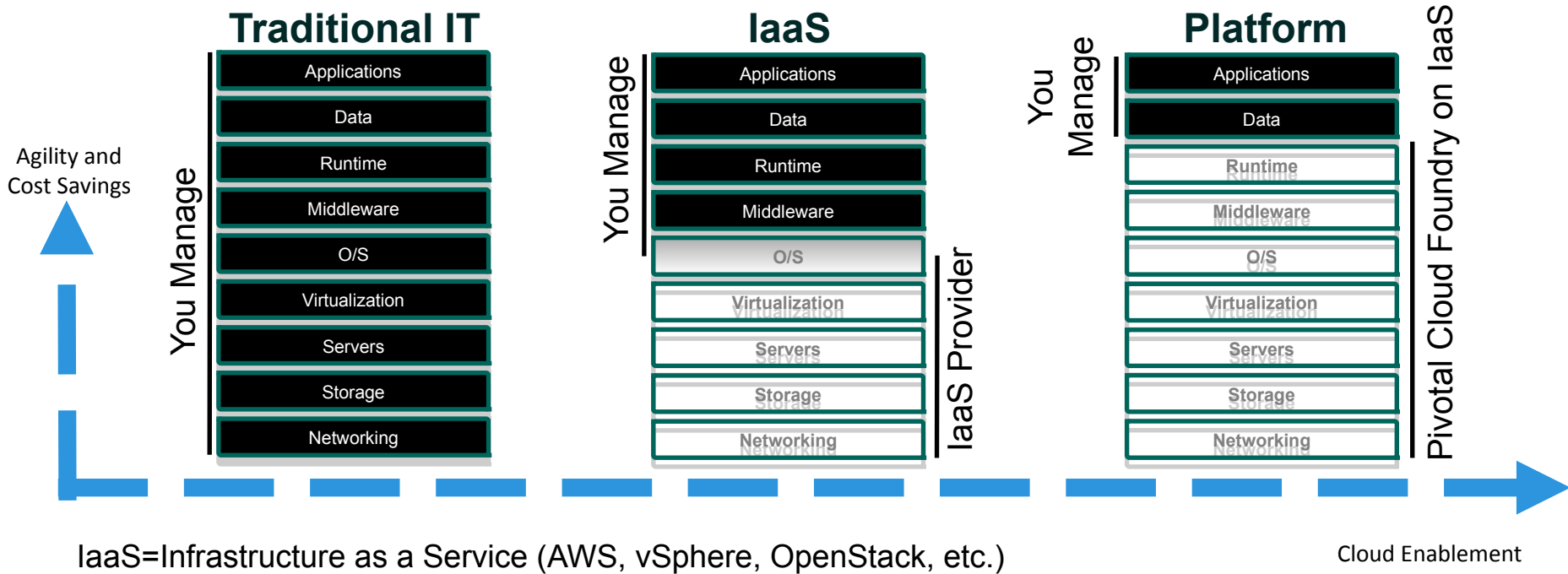
TOSHIBA

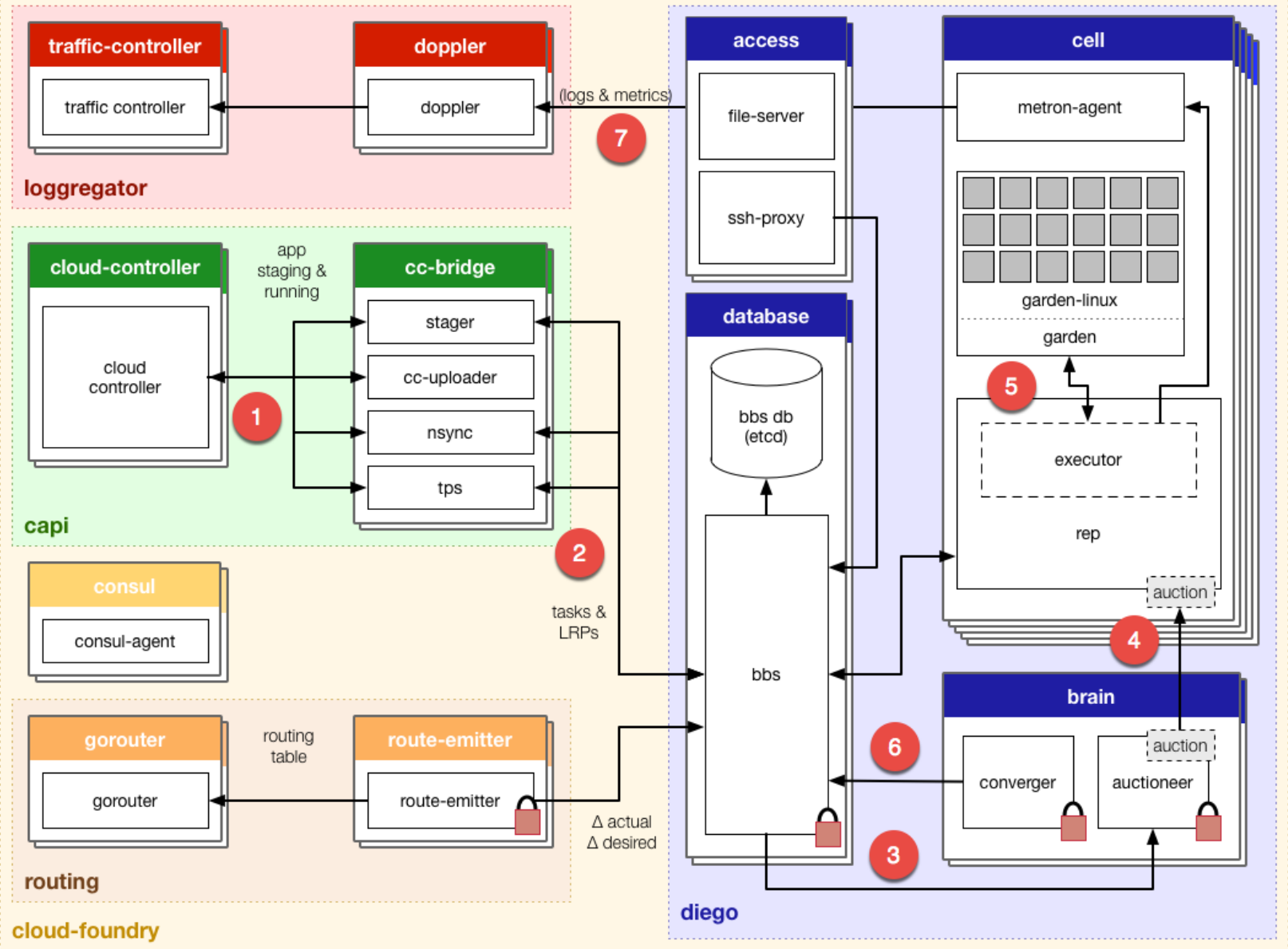


Silver members

The largest open source platform ecosystem

# The Power of a Platform





Inigo  
Integration Tests

Vizzini  
Diego Acceptance Tests

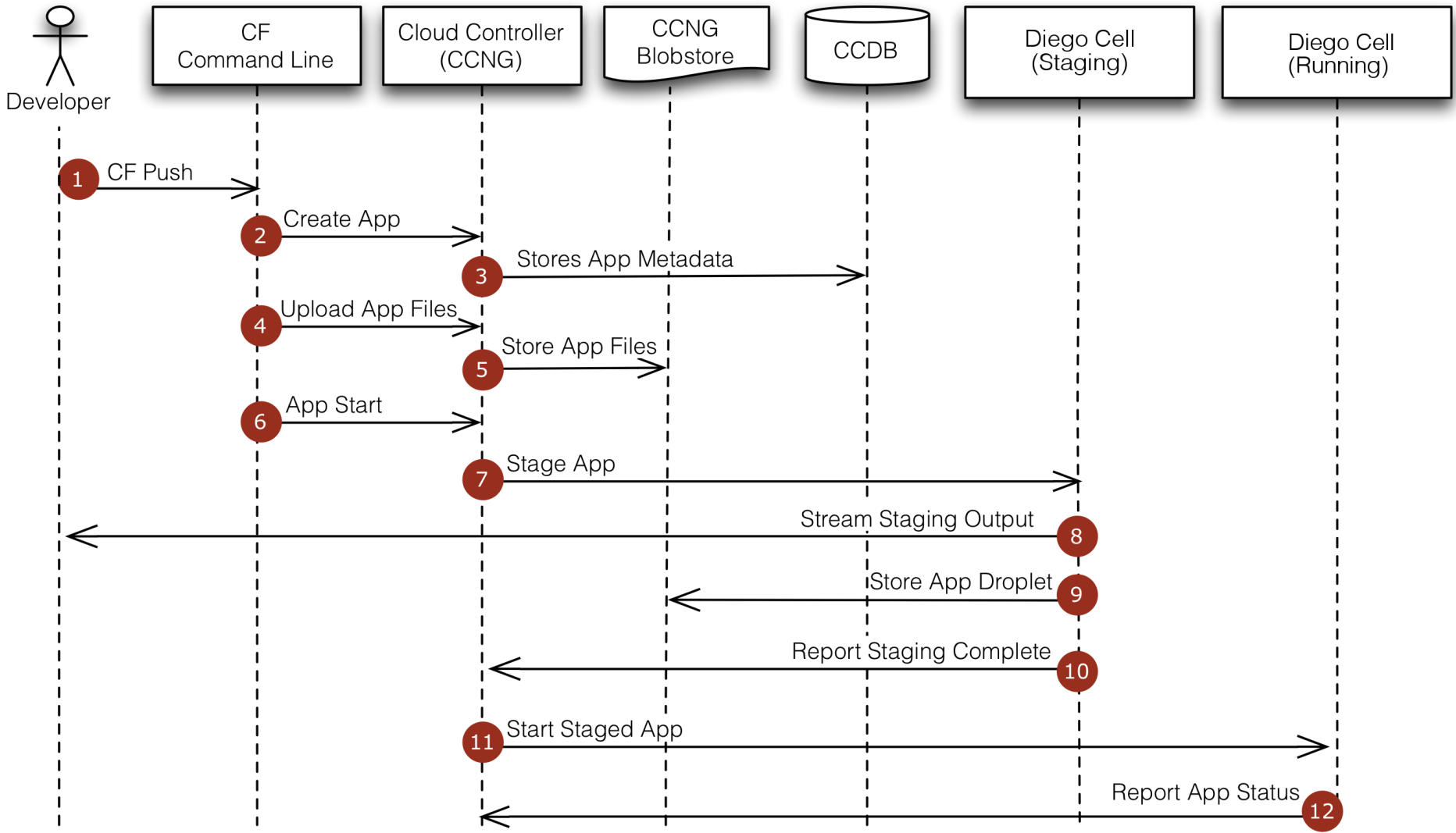
CATS  
CF Acceptance Tests

buildpack-app-lifecycle	
builder	launcher
health check	diego sshd

docker-app-lifecycle	
builder	launcher
health check	diego sshd

windows-app-lifecycle	
builder	launcher
health check	diego sshd





- ORG
- esuez-org ▾
- SPACES
- development
- Marketplace
- Docs
- Support
- Tools
- Blog
- Status

SPACE  
**development**  
● 2 Running  
● 0 Stopped  
● 0 Crashed

**Apps (2)**   Service (1)   Security   Settings

Apps				
NAME	INSTANCES	MEMORY	LAST PUSH	ROUTE
eitan-start ● Running	1	1024MB	19 days ago	<a href="http://eitan-start.cfapps.io">http://eitan-start.cfapps.io</a> ↗ >
my-app ● Running	1	512MB	3 days ago	<a href="http://my-app-alphabetic-beeswax.cfapps.io">http://my-app-alphabetic-beeswax.cfapps.io</a> ↗ >

```
> ~ cf version
cf version 6.21.0+dff2cf8-2016-07-27
> ~ cf api
API endpoint: https://api.system.esuez.edu.pcfdemo.com (API version: 2.54.0)
> ~ cf target

API endpoint: https://api.system.esuez.edu.pcfdemo.com (API version: 2.54.0)
User: admin
Org: eitan-org
Space: development
> ~ cf apps
Getting apps in org eitan-org / space development as admin...
OK

No apps found
> ~ █
```



# CF CLI QuickStart

# Logging In

```
cf api
```

```
cf help login
```

```
cf login -a <api_url>
```

# orgs, spaces and targets

`cf target`

`cf orgs`

`cf spaces`

`cf space development`

# Deploying an app

```
git clone <git_url>
```

```
gradle build
```

```
cf help push
```

```
cf push <app_name> -p build/libs/<artifact>.jar
```

# Commands for managing an app

```
cf apps
```

```
cf app <app_name>
```

```
cf stop <app_name>
```

```
cf start <app_name>
```

```
cf restart <app_name>
```

# Commands for managing backing services

```
cf marketplace
```

```
cf create-service <mkt_name>  
                 <plan_name>  
                 <service_name>
```

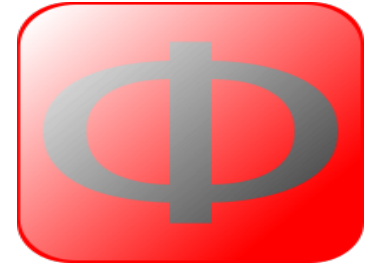
```
cf services
```

```
cf service <service_name>
```

```
cf bind-service <app_name> <service_name>
```

# Benefits

# Deploys made really easy



*Haiku*

*Here is my source code*

*Run it on the cloud for me*

*I do not care how*

```
cf push <app_name>
```



# High Availability / Self Healing

- Monitors your app and restarts it if it fails
- Monitors system components and restarts them
- Monitors VMs and restarts them
- Spreads app instances across availability zones

# Self-Service APIs: Routing

- Enables zero-downtime (blue-green) deployments

```
cf map-route
```

```
cf unmap-route
```

# Self-Service APIs: Managed Services

```
cf create-service
```

```
cf bind-service
```

# Clear contracts between dev and ops

- Example: logging
  - configure app to log to stdout / stderr

- Focus on developing app, not provisioning it
- Makes Continuous Delivery easier
- Dev - Prod environment parity
- A platform that supports the development of cloud-native applications

# Who Uses Cloud Foundry?

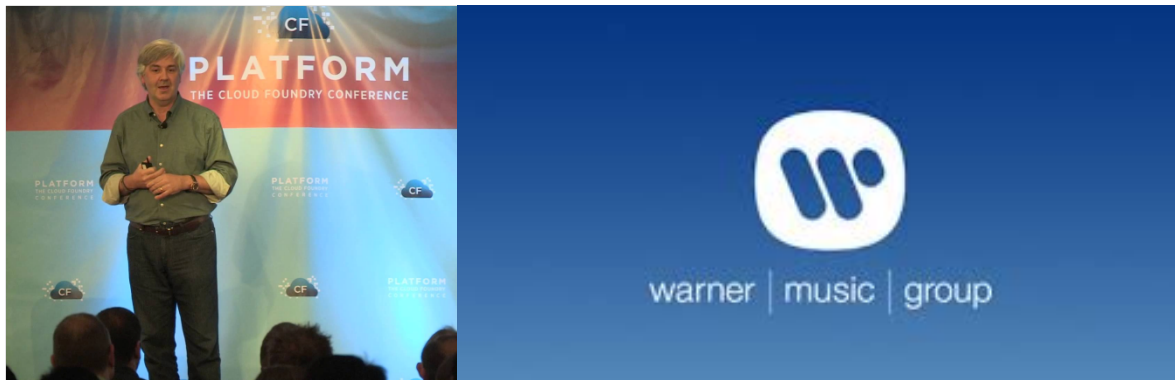


[新闻](#) [网页](#) [贴吧](#) [知道](#) [音乐](#) [图片](#) [视频](#) [地图](#)

百度一下

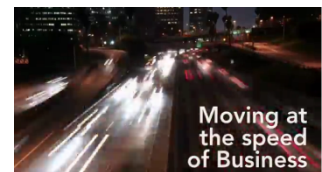
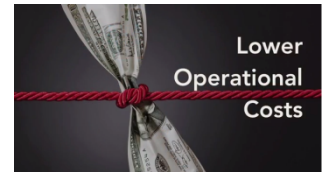
*1 billion* [百度](#) [文档](#) [16123](#) [更多](#) a day  
ads powered by Cloud Foundry!

# Who Else Uses Cloud Foundry?



Fail, Learn, Adapt, Repeat  
*6 Months to 6 Weeks*  
*\$1.1M Saving per App*

<https://www.youtube.com/watch?v=Llg7TO0CaKA>



# Summary

- What is Cloud Foundry?
  - What's the value of a PaaS?
- Pivotal Cloud Foundry
  - Easy to use
  - Multiple developer benefits
  - Supports Microservices development and deployment

