

# Bimodal IT

Erfolgreich in zwei Welten unterwegs:  
Herausforderungen und Lösungsansätze

Sascha Meier – CTO EMC Switzerland



EMC<sup>2</sup>

Pivotal

RSA



vmware

June 29, 2007



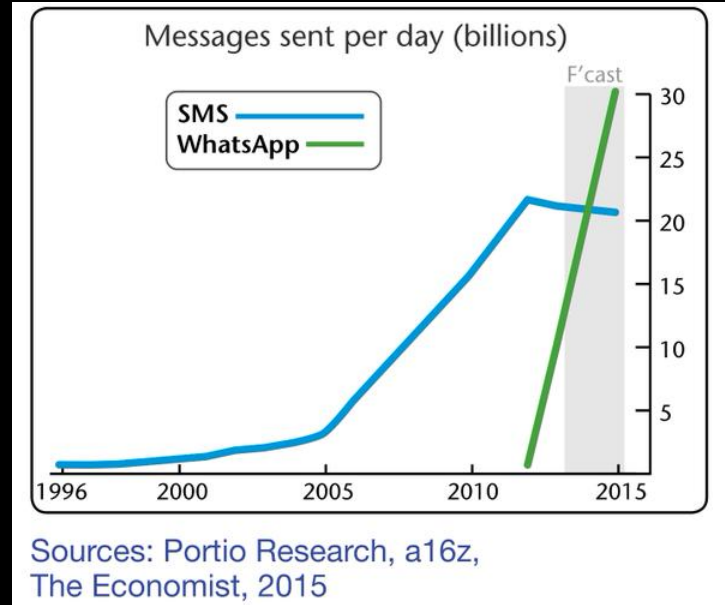
July 10, 2008



# THE DIGITAL BUSINESS STRATEGY



900 Million User





A  
ANALOGUE  
THE IT WORLD  
WORLD  
IS TRANSFORMING  
BECOMES  
DIGITAL

“

SINCE 2000, 52% OF THE  
NAMES ON THE FORTUNE  
500 LIST ARE GONE

”



BILLIONS OF USERS

## 3rd PLATFORM

Mobile Cloud Big Data Social  
**Mobile Devices**



MILLIONS OF APPS



HUNDREDS OF MILLIONS OF USERS

## 2nd PLATFORM

LAN/Internet Client/Server  
**PC**



TENS OF THOUSANDS OF APPS



MILLIONS OF USERS

## 1<sup>ST</sup> PLATFORM

Mainframe, Mini Computer  
**Terminals**



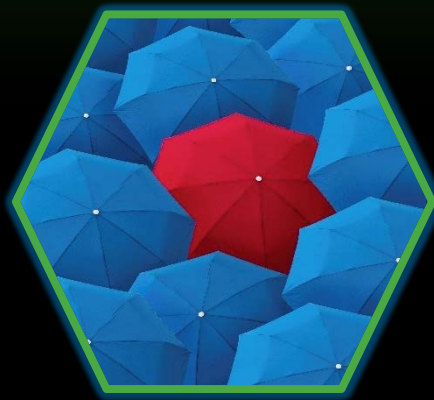
THOUSANDS OF APPS

# APPLICATION ATTRIBUTES OF THE 3RD PLATFORM

## 3rd PLATFORM



INNOVATE  
IN AN  
AGILE WAY



DELIVER  
PERSONAL  
EXPERIENCES



OPERATE IN  
REAL-TIME



Monolithic

2nd PLATFORM



Cloud Native

3rd PLATFORM



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RSA

VCE

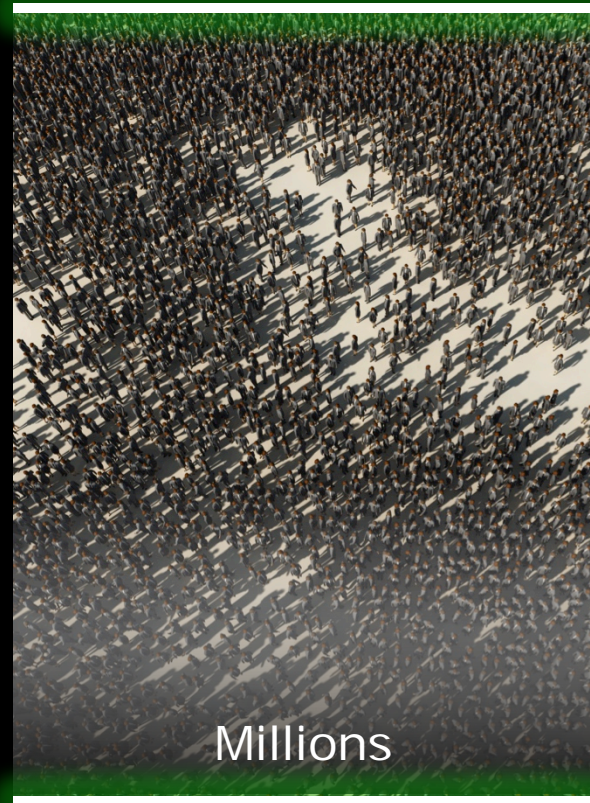
vmware





Thousands

2nd PLATFORM



Millions

3rd PLATFORM



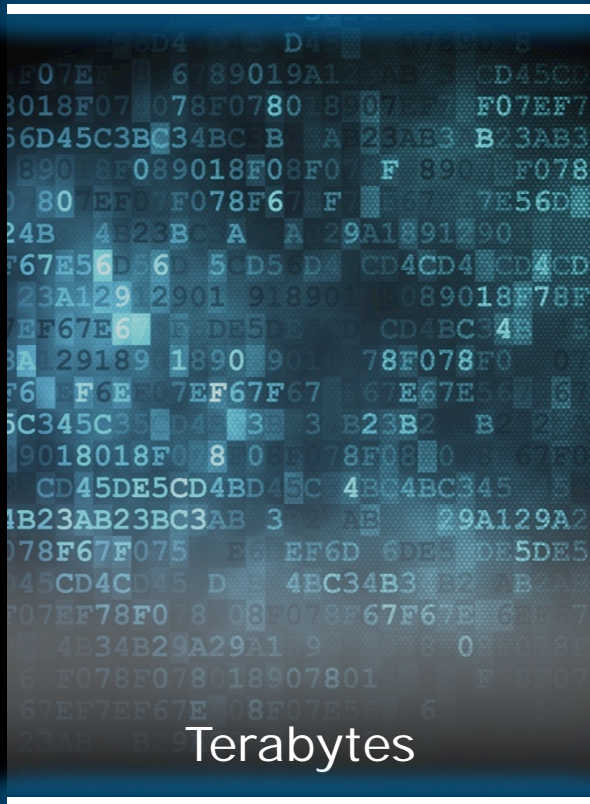
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Terabytes

2nd PLATFORM



Petabytes

3rd PLATFORM



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Proprietary

2nd PLATFORM



Open

3rd PLATFORM



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IT Operations

2nd PLATFORM



DevOps

3rd PLATFORM



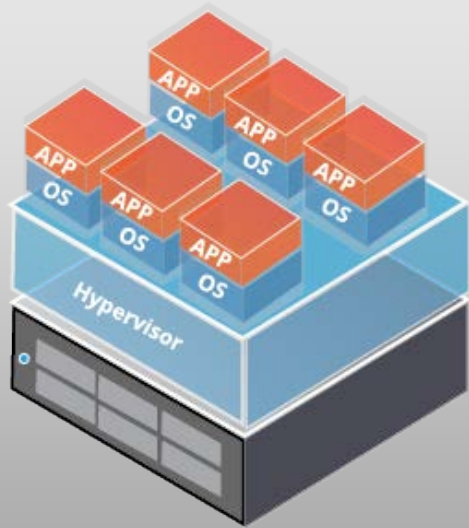
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RSA

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vmware

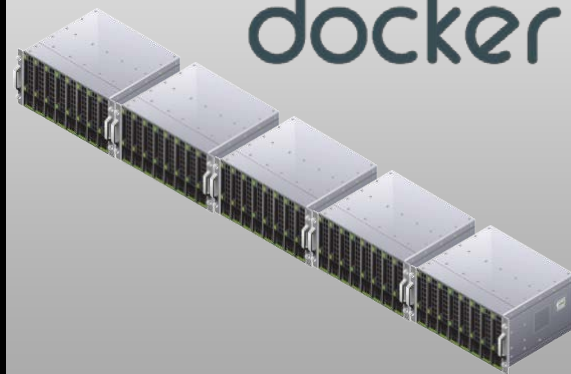


Virtual Machines

2nd PLATFORM



docker



Containers

3rd PLATFORM



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RSA

VCE

vmware

# APPLICATION CHARACTERISTICS

## PLATFORM 2 HARDWARE RESILIENT

- ✓ PC & Client Server
- ✓ Geo-Located
- ✓ Virtualized
- ✓ Transactional Processing
- ✓ GB to TB's Data
- ✓ Block & File Access

## PLATFORM 3 APPLICATION RESILIENT

- ✓ Mobile Devices
- ✓ Geo-Distributed
- ✓ Containerized
- ✓ Distributed Processing
- ✓ TB's to EB's Data
- ✓ Object & HDFS access

**Bimodal IT means —**  
having two modes of IT, each  
designed to address different  
information and technology goals:

**Mode 1  
is traditional**

**Mode 2  
is exploratory**

# Strategic Planning Assumption

By 2017, **75%** of IT organizations  
will have a bimodal capability  
**50%** will make a mess of IT.

Bimodal IT is **NOT** a "nice to have."



# AVOID TO STUCK IN THE MIDDLE

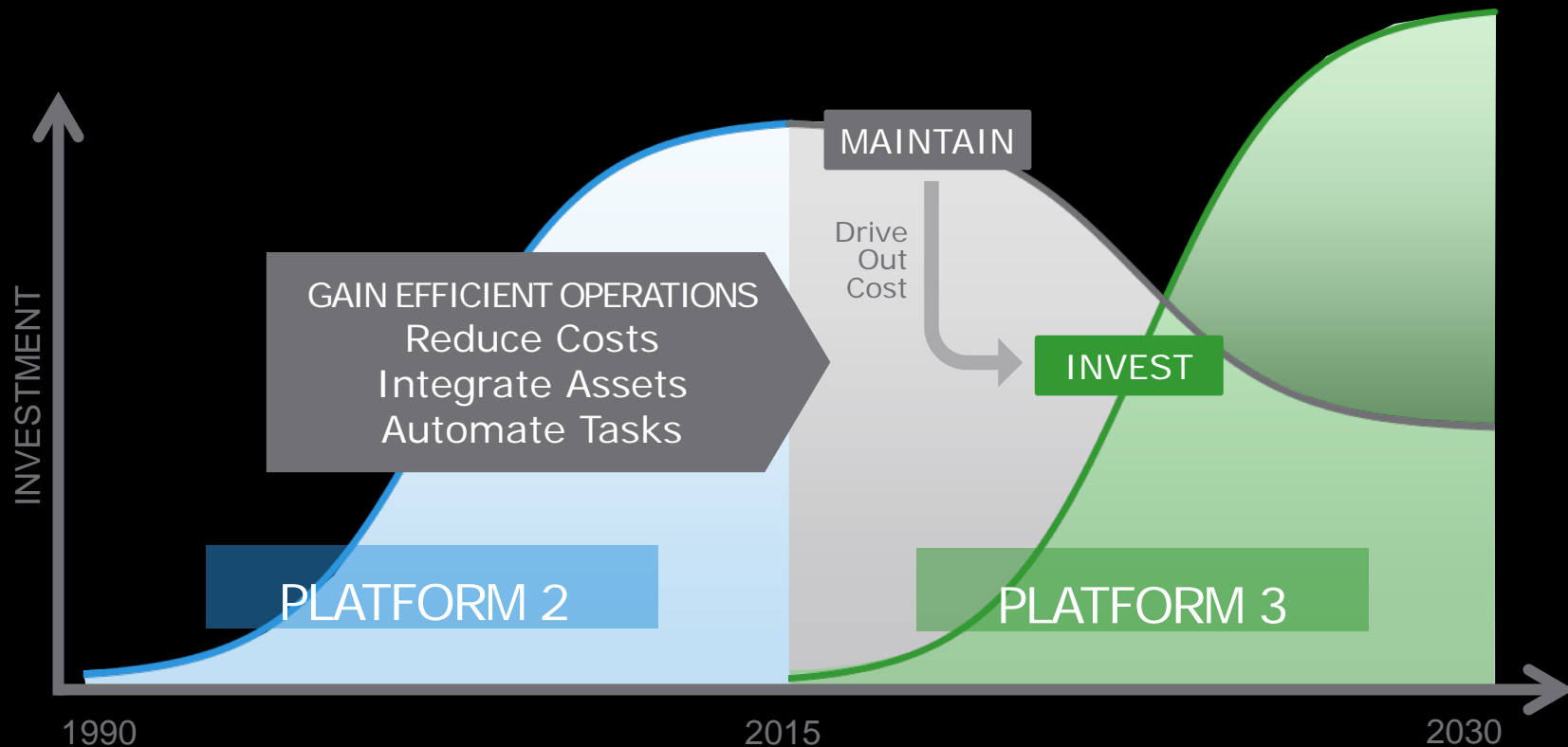
**"Fit for no one"**



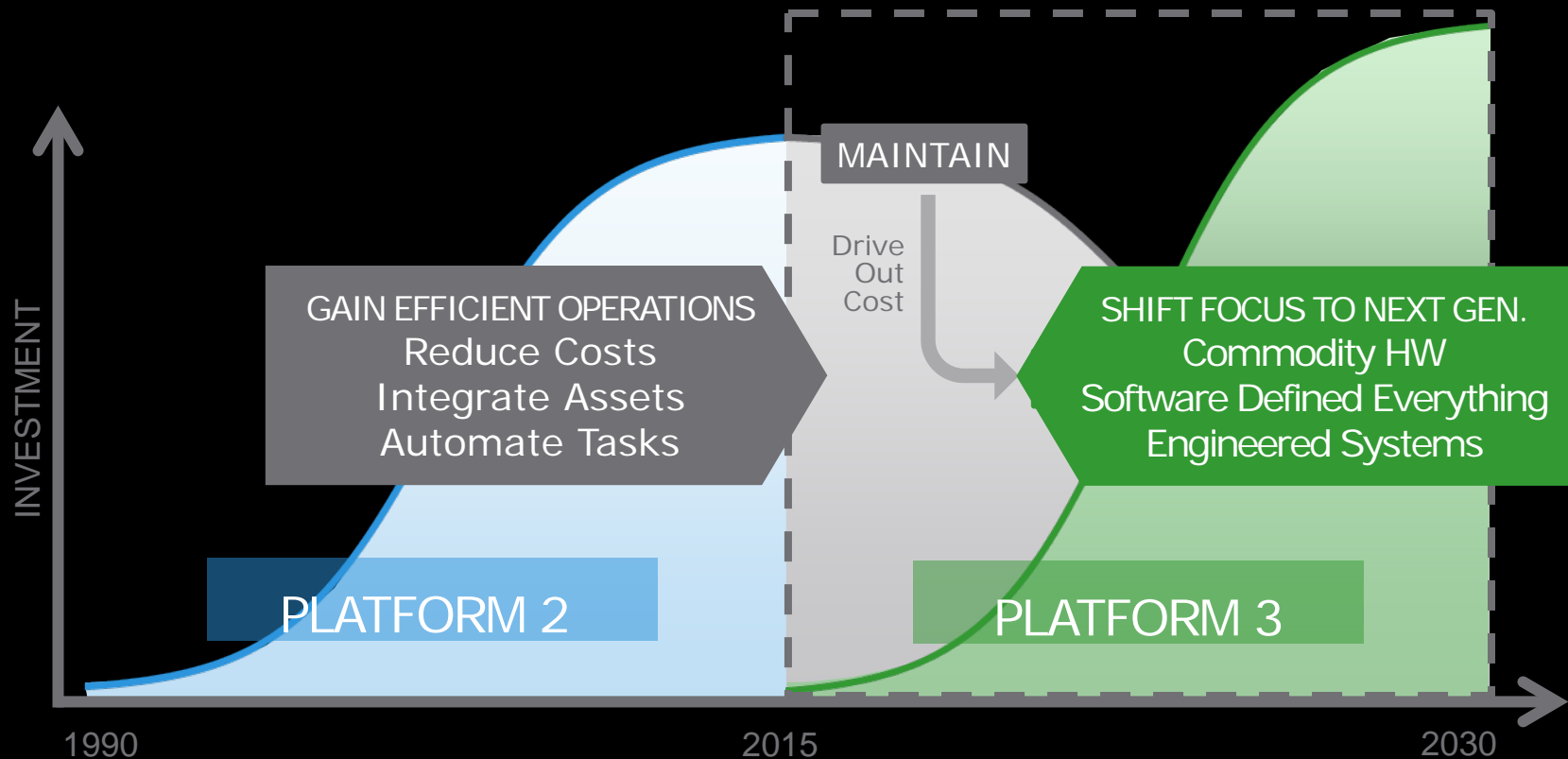
Mode 1 (aka P2)

Mode 2 (aka P3)

# SHIFTING INVESTMENT CYCLES

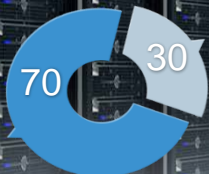


# SHIFTING I.T. INVESTMENT CYCLES





TRADITIONAL  
APPLICATIONS



REDUCE  
COST

TRADITIONAL  
ARCHITECTURE

CLOUD

NEW APPLICATIONS

INNOVATE

NEW  
ARCHITECTURE







TRADITIONAL  
APPLICATIONS



CLOUD

FOCUS ON  
BUSINESS  
OUTCOMES

NEW APPLICATIONS



ENTERPRISE HYBRID  
CLOUD

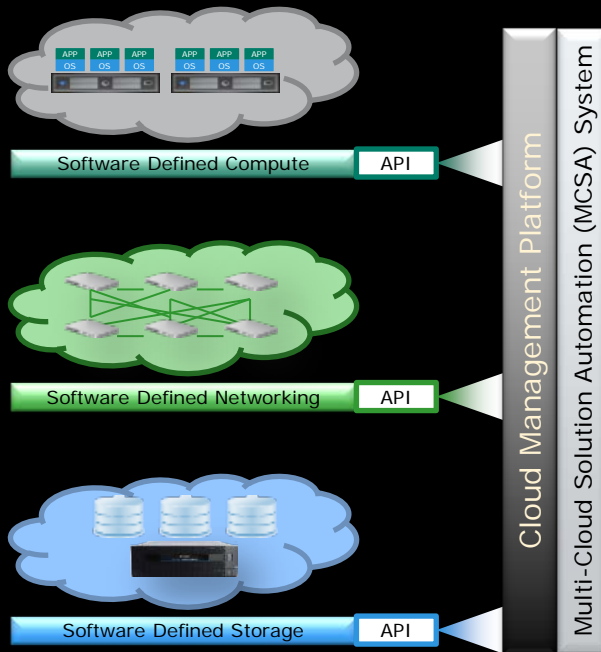
PIVOTAL CLOUD FOUNDRY  
DEVELOPER PLATFORM

# ENTERPRISE HYBRID CLOUD - EHC

Agility  
Self-Service Portal

Efficiency  
SDDC Architecture

Control  
Cost and Resource



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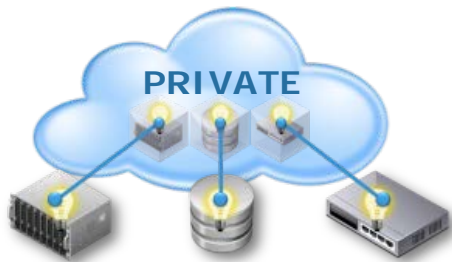
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# CHOICE HYBRID CLOUD



BROKERED  
AS WELL AS BUILT



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Pivotal.

RSA









vmware

## Service Catalog

On behalf of:

Nancy Allister 

Browse the catalog for services you need.

-  All Services
-  **Campaign Services** 
-  Corporate Applications 
-  Data Lake Services 
-  Developer Services 
-  EMC Storage Services 
-  End User Services 
-  Virtual Servers 

### Campaign Services (3)

Search 



#### Campaign Analytics

Provisioning-Dev Ops

Creates a Hadoop cluster.

NOTE: This catalog item ...

[Request](#)



#### Campaign Web Platform

Provisioning-Dev Ops

Complete Campaign

Management Platform. Call ...

[Request](#)



#### Mobile App - Public

Provisioning-Dev Ops

Deploy the Marketing Mobile

Application for new event ...

[Request](#)



## INTEGRATION POINTS



40,000  
HOURS OF  
ENGINEERING





TRADITIONAL  
APPLICATIONS



24%  
REDUCTION



ENTERPRISE HYBRID  
CLOUD

CLOUD

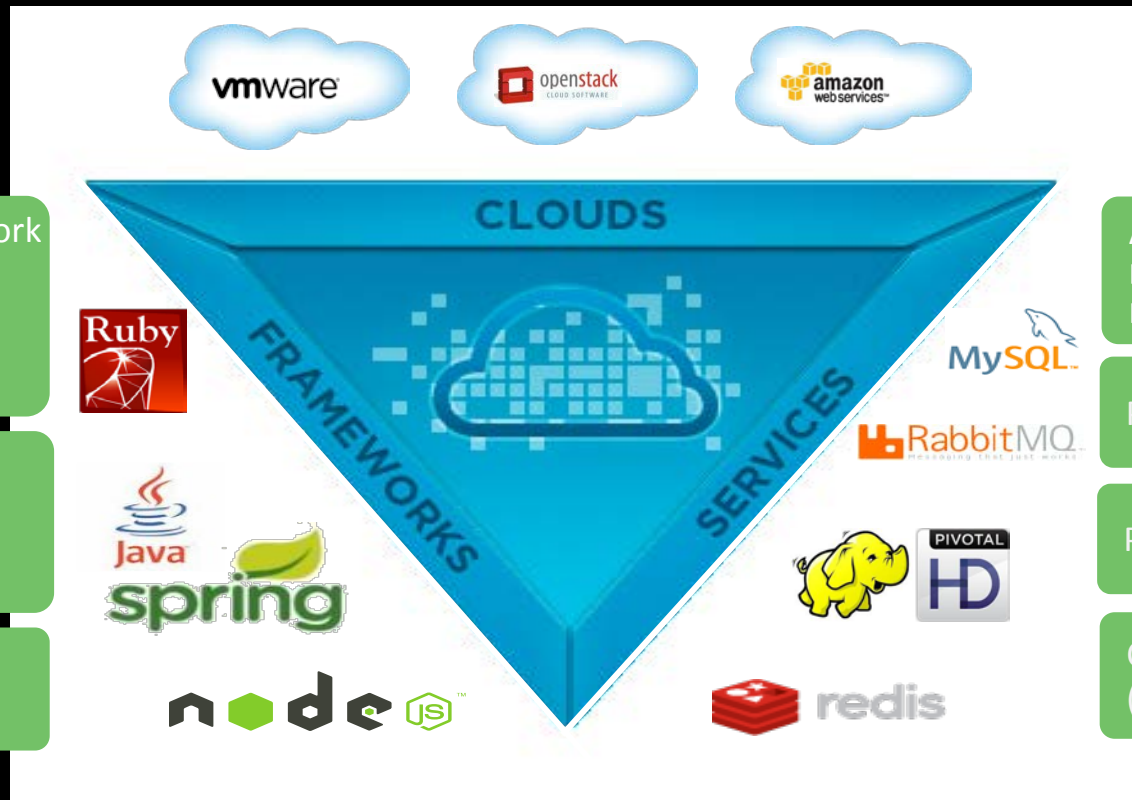
FOCUS ON  
BUSINESS  
OUTCOMES

NEW APPLICATIONS



PIVOTAL CLOUD FOUNDRY  
DEVELOPER PLATFORM

# OPEN PAAS DEVELOPER PLATFORM



## Development Framework

Java\_web  
Spring  
Ruby  
node

## Runtimes

Java  
Ruby  
node

## Customized Runtimes

## Application Services

DB: e.g. MySQL  
MS: e.g. RabbitMQ

## Pivotal HD - Hadoop

## Pivotal AX - Analytics

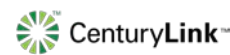
Customized Services  
(e.g. eGovernment)

# CLOUD FOUNDRY: INDUSTRY'S OPEN PAAS STANDARD

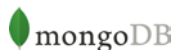
## PLATINUM



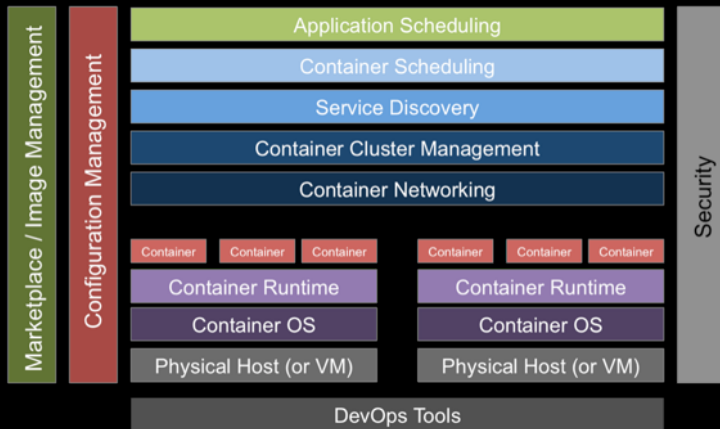
## GOLD



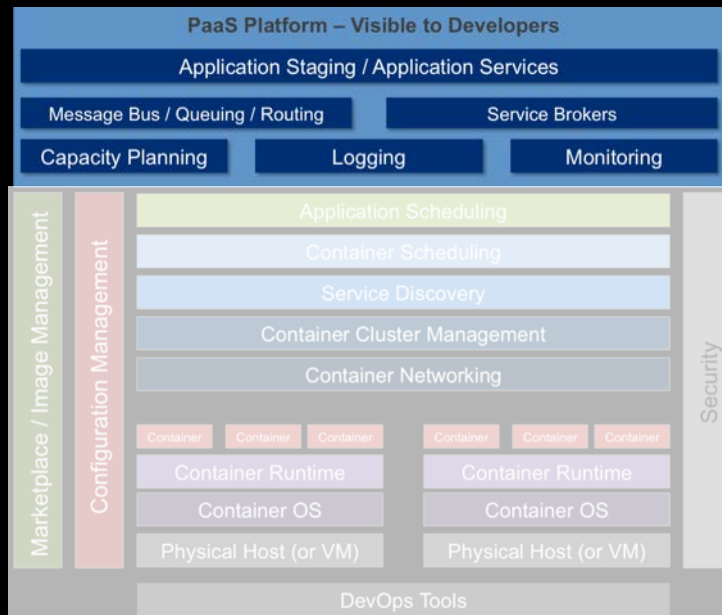
## SILVER



# TWO TYPES OF CLOUD NATIVE PLATFORMS



UNSTRUCTURED



STRUCTURED



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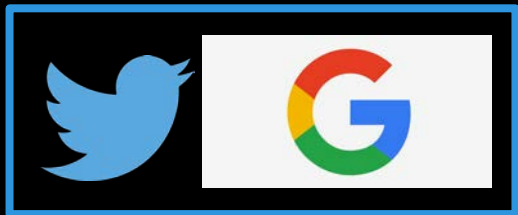
vmware



# WHICH PAAS IS RIGHT?

**UNSTRUCTURED**

**USERS**



**STRUCTURED**

**USERS**



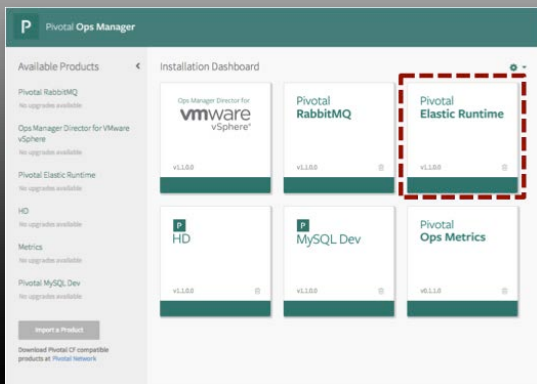
# FAST TIME TO VALUE



Pivotal Cloud Foundry®

## OPERATOR

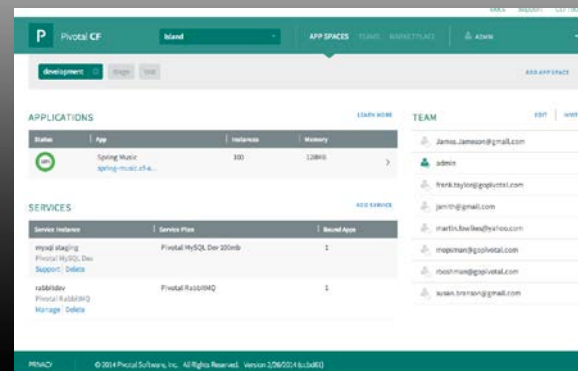
**Establish infrastructure**  
**Provision**  
**Add capacity**  
**Control Auth, Policies, HA**



**Cloud Deployment: 2-4 hours**

## DEVELOPER

**Auto-select runtimes**  
**Deploy app**  
**Select and bind middleware**  
**Scale app**



**App Deployment: 30-90 seconds**



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# BIMODAL IT – ERFOLGREICH IN 2 WELTEN



ENTERPRISE  
HYBRID CLOUD

FAST TIME TO VALUE  
AND FOCUS ON  
BUSINESS OUTCOME



PIVOTAL CLOUD FOUNDRY  
DEVELOPER PLATFORM

- The Application defines the Platform and Mode
- Bimodal IT is reality you have to:
  - Optimize and Automate Platform 2
  - Introduce Platform 3 capabilities
- Think about your strategy:
  - Build vs Buy vs As-a-Service



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# THANK YOU!

**YOU DON'T NEED AN IT STRATEGY – ALL YOU NEED IS A BUSINESS STRATEGY SMARTLY ENABLED BY TECHNOLOGY**

Sascha Meier – CTO EMC Switzerland



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RSA



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