

# VOLVO CARS – APPLICATION SERVER PLATFORM



Robert Forsström

# HELLO

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Robert Forsström  
Application Server Platform Architect



# WHAT WE DELIVERED

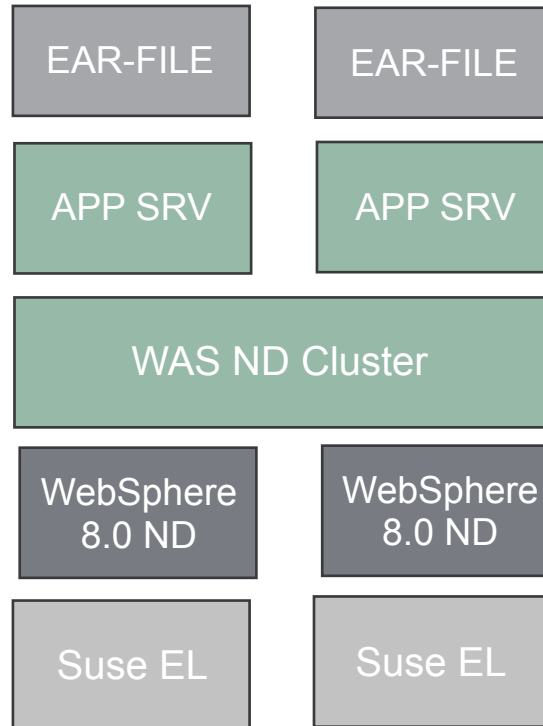
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Provides Java EE to our internal customers.

- 785 Applications
- 560 Application Servers
- 80 Physical Hosts

Stable Environments

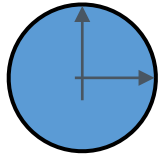


# ISSUES WITH THE OLD PLATFORM



WAS 6.1  
Java SE 1.5 / EE 1.4

Panic WAS 8.0  
Java SE 6 / EE 6



Test



QA



Prod





# DESIGNING THE NEW PLATFORM

- Always offer the latest versions of Java / Java EE
- Multiple Locations World Wide / Cloud
- Modern, fast and adoptive.
- Isolation
- Immutable
- Idempotent



# HOW WE WORK



Our platform is stable and our customers trust us and the platform

We approach everything in a scientific way.

Fail fast – Failure is also a result!

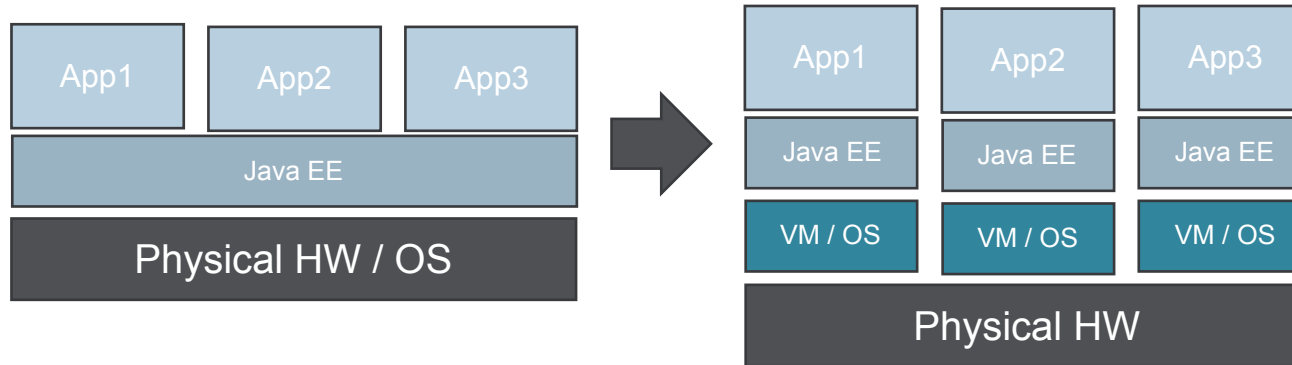
We are transparent with what we do, what we deliver and how.

Everything is Code! Even infrastructure.

We communicate through API:s



# OUR FIRST DRAFT - VIRTUAL MACHINES



- Can automate everything.
- Isolated environments - can run different versions of Java
- 80 physical servers becomes 850 virtual servers.
- The configuration is only known directly after provisioning.

# LOOKING AHEAD

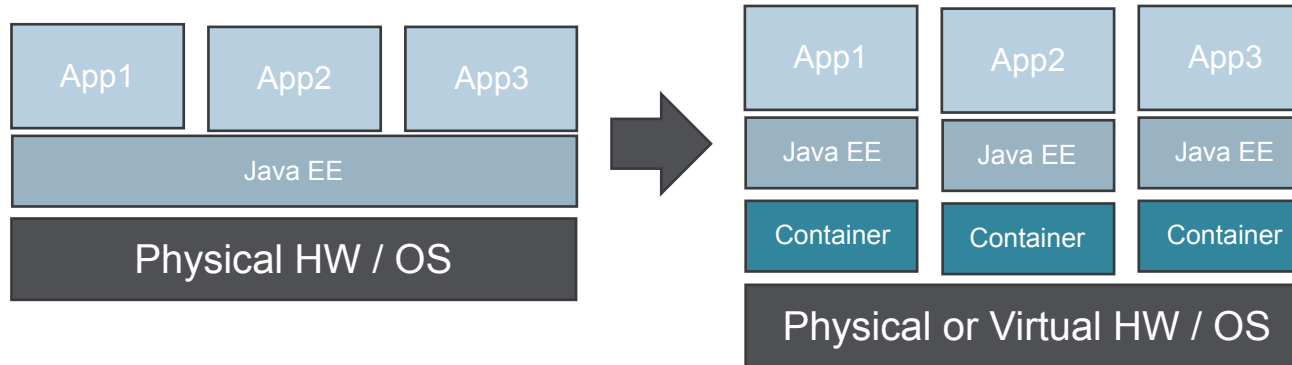


- DevOps
- Microservices





# OUR SECOND DRAFT- CONTAINERS



- Possibility to automate everything.
- Isolated environments - can run different versions of Java.
- Less usage of hardware.
- The configuration is known at all times.

# OPEN SHIFT

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- Provides the build, distribution and runtime environment.
- Distribution to the cloud.
- Designed with the developer in mind.
- Nice API:s that we can use to create self-service.
- Potential to start using microservices.

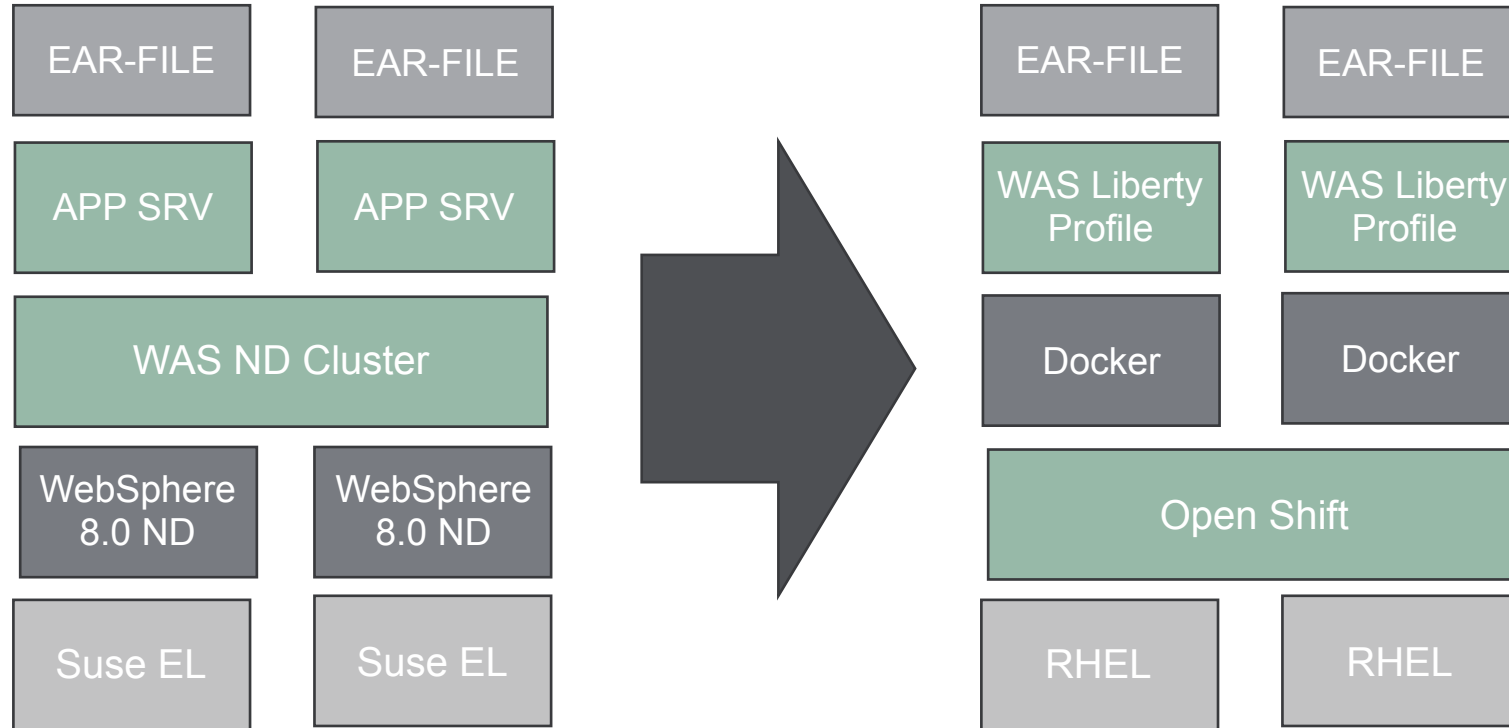
# ANSIBLE TOWER

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- Automate everything
- Idempotent
- Nice API:s that we can use to create self service
- Create and manage components outside Openshift.
- Manage Open Shift.

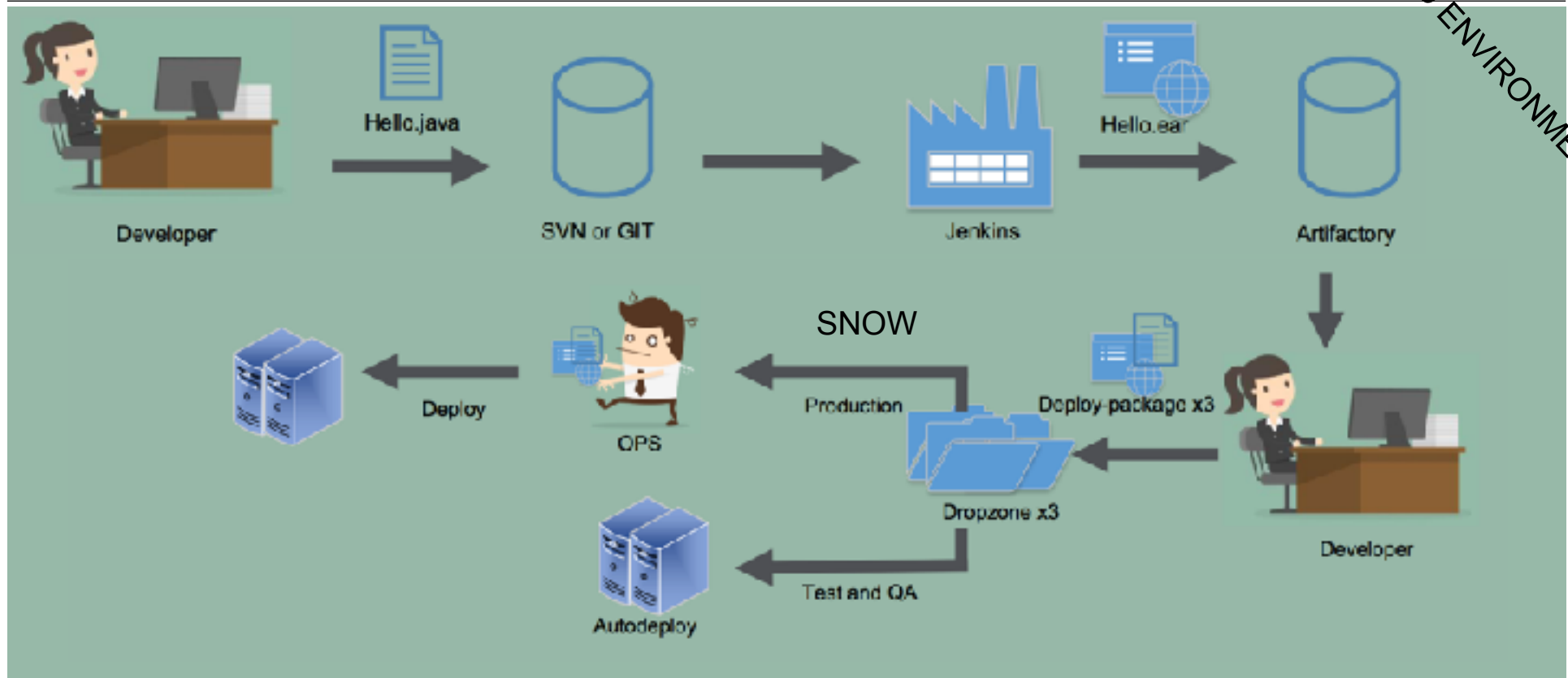
# OUR NEW ENVIRONMENT



# DESIGNING FOR OUR END USERS. DEV & OPS



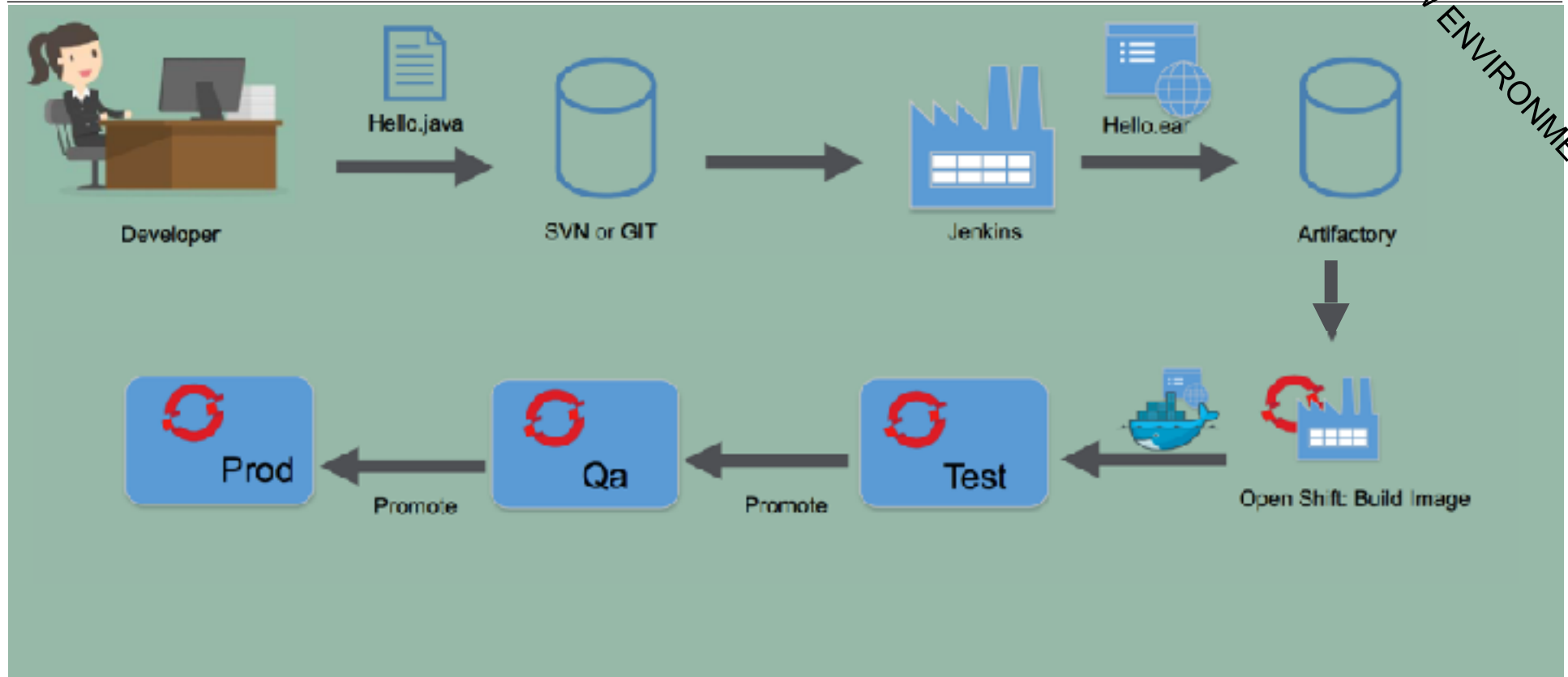
OLD ENVIRONMENT



# DESIGNING FOR OUR END USERS. DEV & OPS



NEW ENVIRONMENT




# MASP

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## MODERNIZED APPLICATION SERVER PLATFORM


v1.0.2

Solution MSU - Image (msu)

OVERVIEW BUILD PROMOTE DEPLOY

MSU

Solution

Images

Environments

Docs

Admin

Logout  
Barth Vajtv

Environment  
msu-test

#81 Running

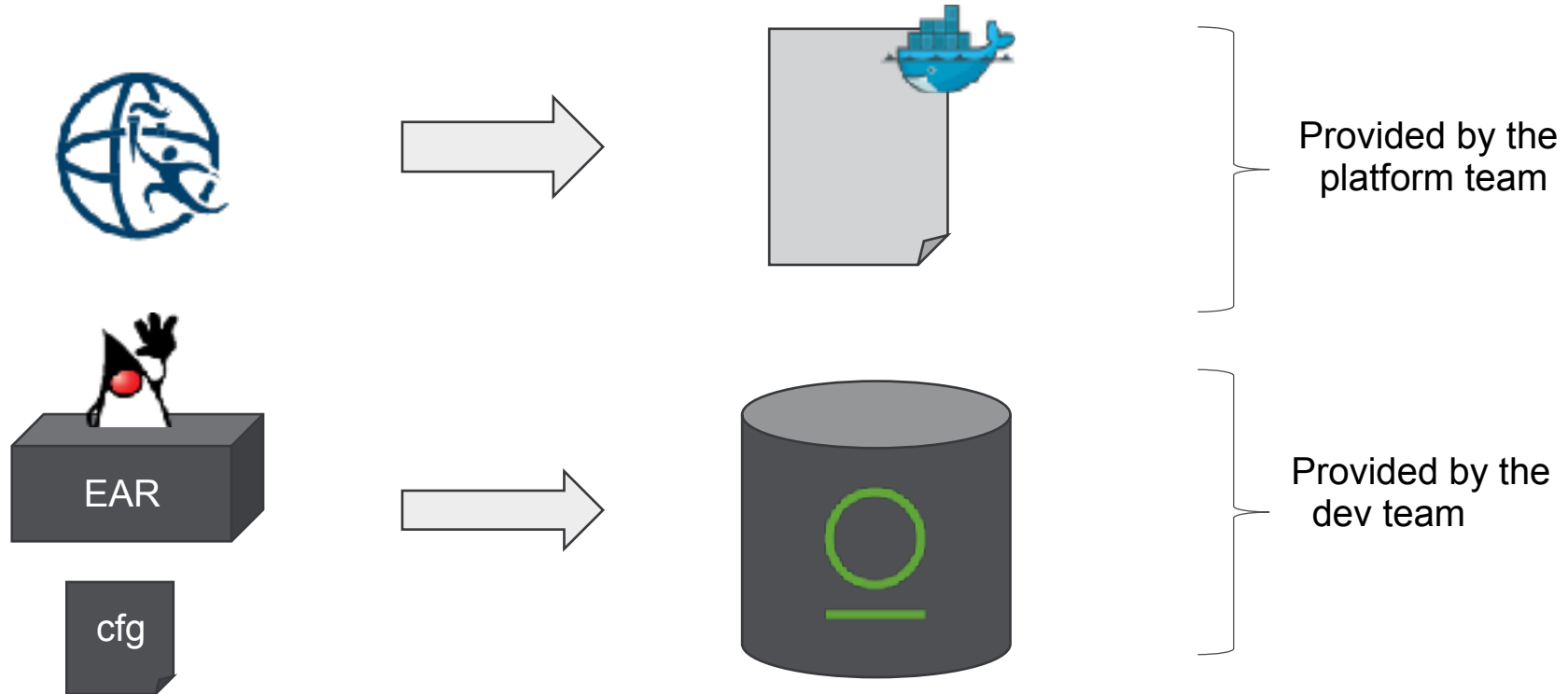
Since 9 hours ago

[msu-test](#)
[msu-test](#)
[msu-test](#)

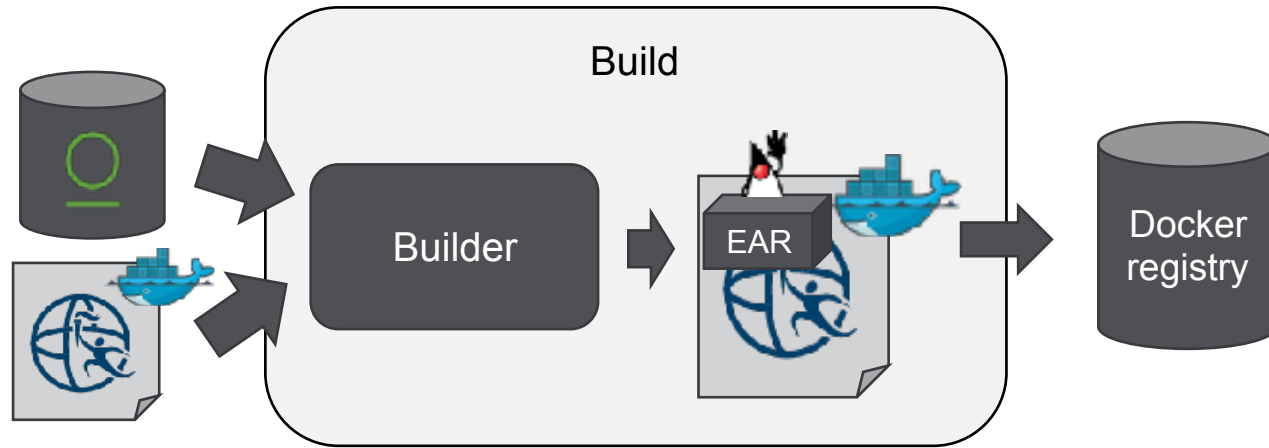
Revision	Version	Created	Deployment Phase
#80	msu-test	2017-06-07 09:04 (9 hours ago)	Deployed
#80	msu-test	2017-06-07 09:20 (9 hours ago)	Complete
#82	msu-test	2017-06-02 05:06 (18 hours ago)	Complete
#81	msu-test	2017-04-25 09:17 (67 days ago)	Complete



# BUILD PROCESS



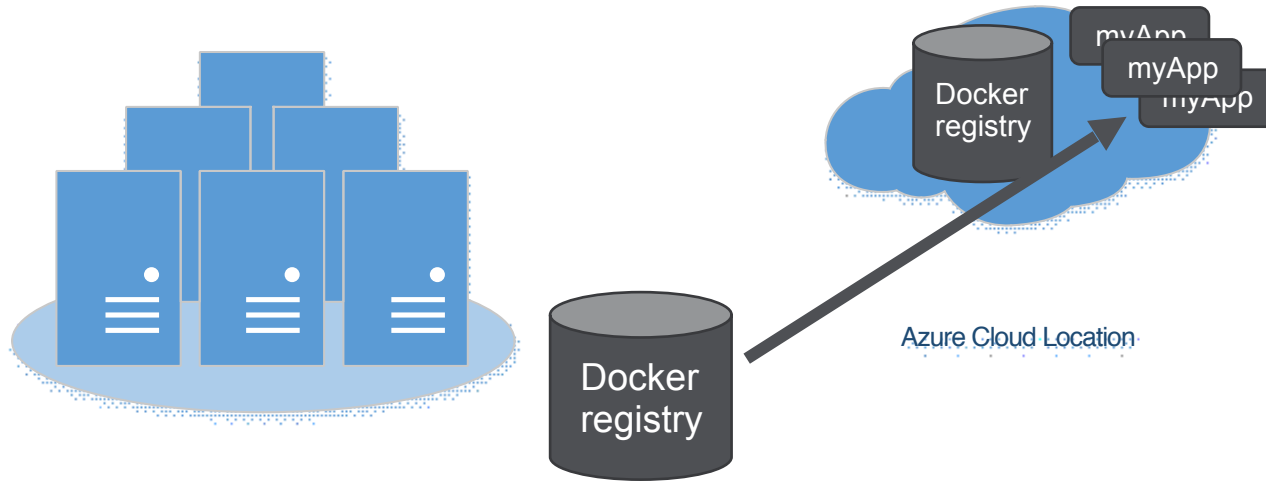
# CONTAINER BUILD PROCESS



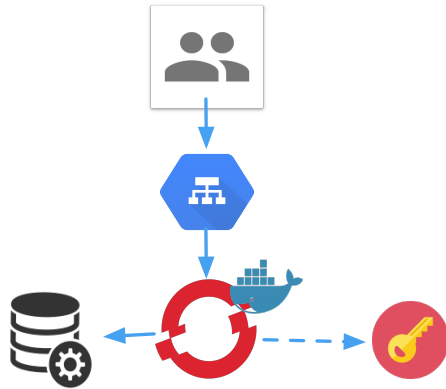
# CLOUD DEPLOYMENT



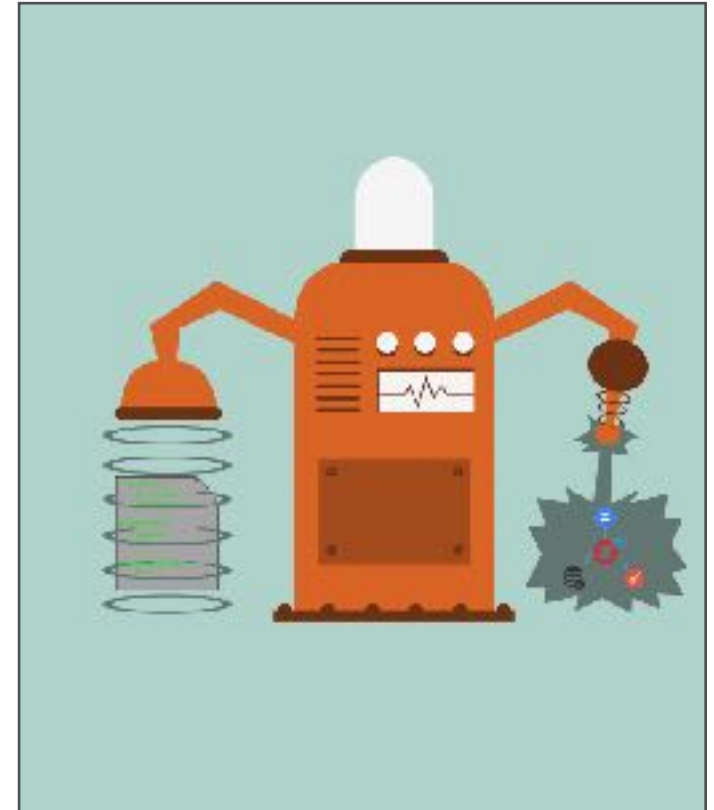
- Microsoft Azure
- Automated provisioning of environments using Ansible scripts.



# HOLISTIC AUTOMATISATION



```
- masp_service:  
  namespace: parrot  
  name:      test  
  sites:  
  - eriksberg  
  - charleston  
  routes_external:  
  - stuff.volvocars.biz  
  routes_internal:  
  - internal  
  instances: 2  
  image: "abc/robot:latest"
```



# SUMMARY



# THANK YOU



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