



# RED HAT OPENSIFT

A FOUNDATION FOR SUCCESSFUL DIGITAL  
TRANSFORMATION

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# THE PATH TO DIGITAL LEADERSHIP

IT TAKES MORE THAN JUST TECHNOLOGY TO MOVE THE BUSINESS FORWARD



## CULTURE

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Collaborative  
Transparent  
Open



## PROCESS

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Agile  
Continuous  
Iterative



## TECHNOLOGY

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Open source  
Hybrid  
Connected

# PROCESS CHANGES & IMPROVEMENT

AS YOU CHANGE CULTURE, UPDATE THE WAYS YOUR TEAMS CONNECT

AGILE

CONTINUOUS

ITERATIVE

AUTOMATED

“The moral is that it is necessary to innovate, to predict the needs of the customer, give him more.”

W. EDWARDS DEMING

# DEUTSCHE BANK - Technology Transformation



*“Delivering Everything as a Service. From 20% adoption to 40% in 1yr; planning to move 85% of all applications to OpenShift platform. We won the hearts and minds of developers.” -- Pat Healy, CTO, Deutsche Bank*

- Macro trends are radically reshaping the banking industry
- Need to regain software expertise that was previously outsourced
- OpenShift replaced an internal, homegrown PaaS platform
- Over 300 internal projects moved to OpenShift
- 6x better efficiency of computing resources using containers and OpenShift. Driving overall utilization up via multi-tenancy.
- Leverage OpenShift across multiple public clouds.

**Ideas to Production, safely in a day.**

# DEVOPS WORKS BETTER WITH CONTAINERS

BRING TOGETHER CULTURE, DEVELOPMENT PROCESS, & MODERN TECHNOLOGY

## DEVOPS

- ✓ Culture centered on collaboration & openness
- ✓ Uses automation to deliver applications faster
- ✓ Requires a dynamic, programmable platform

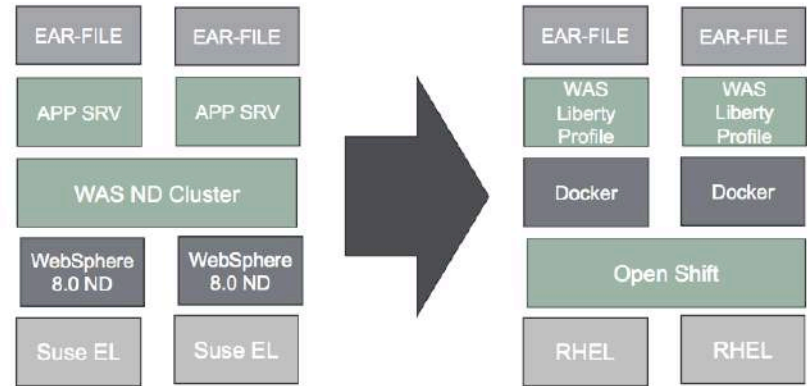
## CONTAINERS

- ✓ Technology to package & isolate apps with the files they need to run
- ✓ Reduces conflict by separating areas of responsibility
- ✓ Open source way to orchestrate app development & deployment

# Evolving Application Architecture at Volvo

- 785 apps across 560 app servers
- OpenShift provides build, distribution & runtime environment
- Platform for DevOps and Microservices
- Running OpenShift on Azure, automatically provisioned with Ansible

## OUR NEW ENVIRONMENT



# AUTOMATE PROCESSES & SERVICES

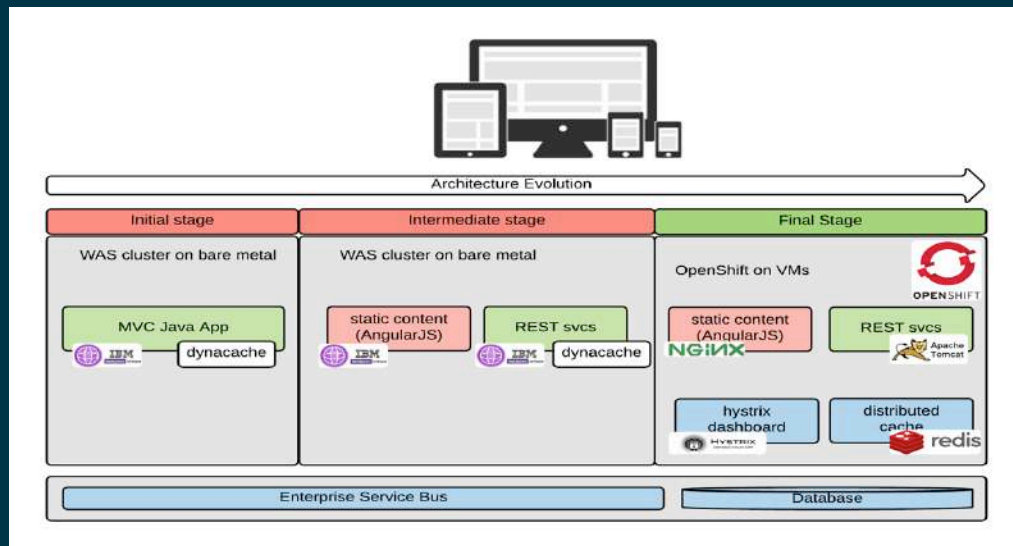
ACCELERATE SERVICE DELIVERY & IMPROVE USER EXPERIENCE



- Provisioning & configuration
- Orchestration
- Compliance reporting & mitigation
- Drift detection & management
- Container scanning & management

# APPLICATION ARCHITECTURE

- Shift from monolithic applications to microservices
- Independently deployable and updatable, limited dependencies
- Optimized for agility & accelerated time to market



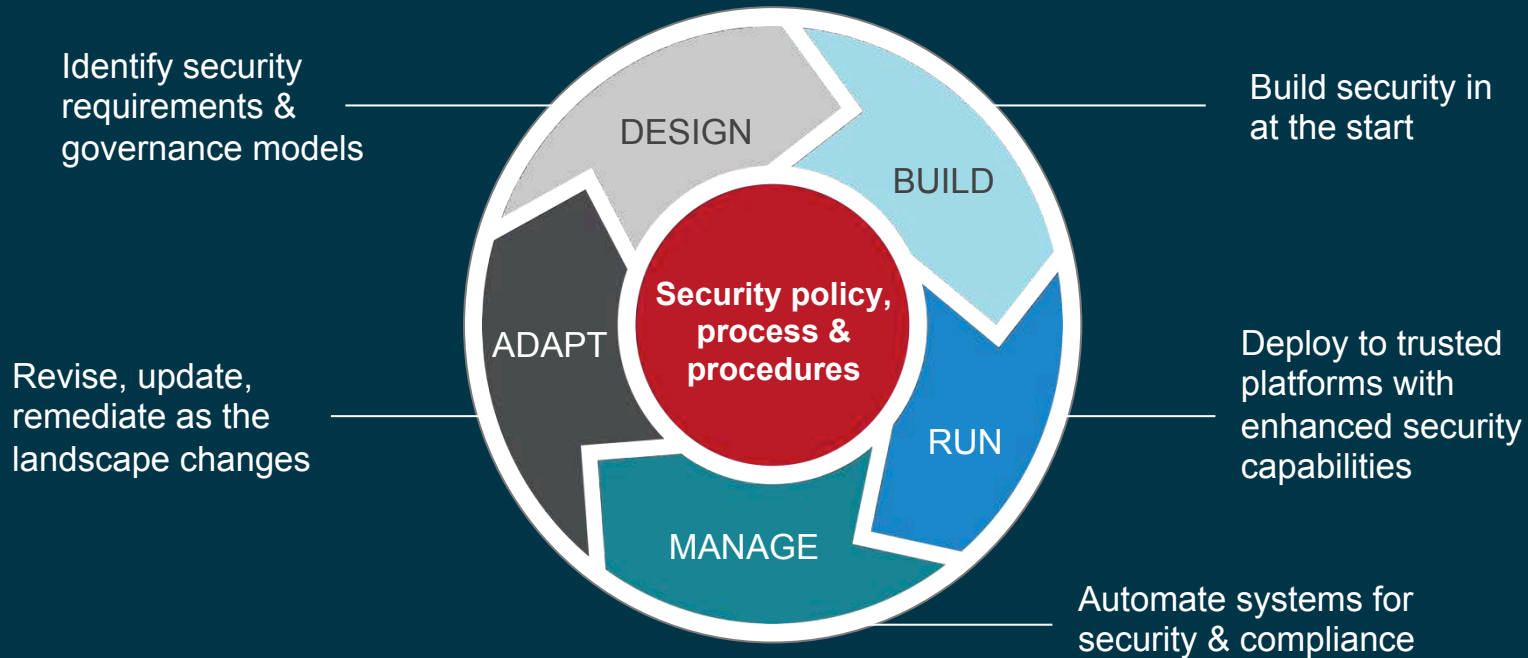




*On Day 1 of our acquisition of a new bank, 10 changes were put into production, with 0 defects, during the middle of the day. That is the power of OpenShift.” -- John Rzeszotarski, Dir. DevOps, Keybank*

# IMPROVE SECURITY PROCESSES

PUT SECURITY POLICY & PROCEDURES AT THE HEART OF YOUR BUSINESS



# OUR VISION: TECHNOLOGY

# OUR TECHNOLOGY VISION IS OPEN, HYBRID CLOUD

APPS & ENVIRONMENTS ARE INTEROPERABLE & FLEXIBLE

DEVELOPER TOOLING

APPLICATION PLATFORMS



BARE METAL



VIRTUALIZED

INFRASTRUCTURE PLATFORMS



PRIVATE CLOUD

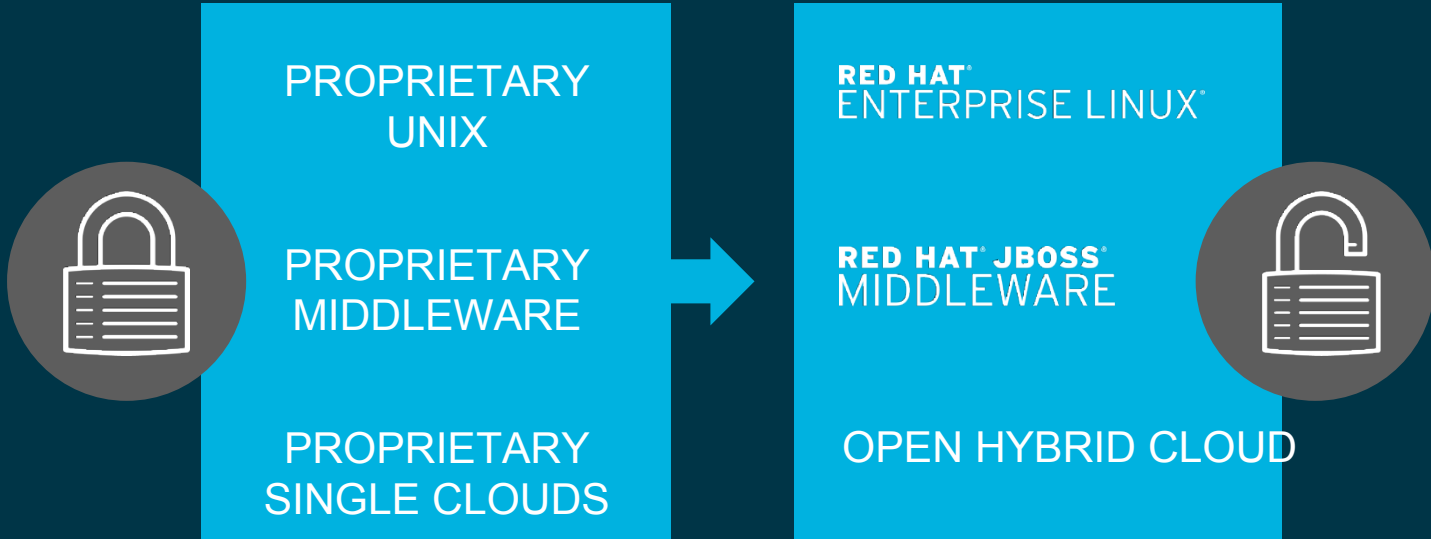


PUBLIC CLOUD

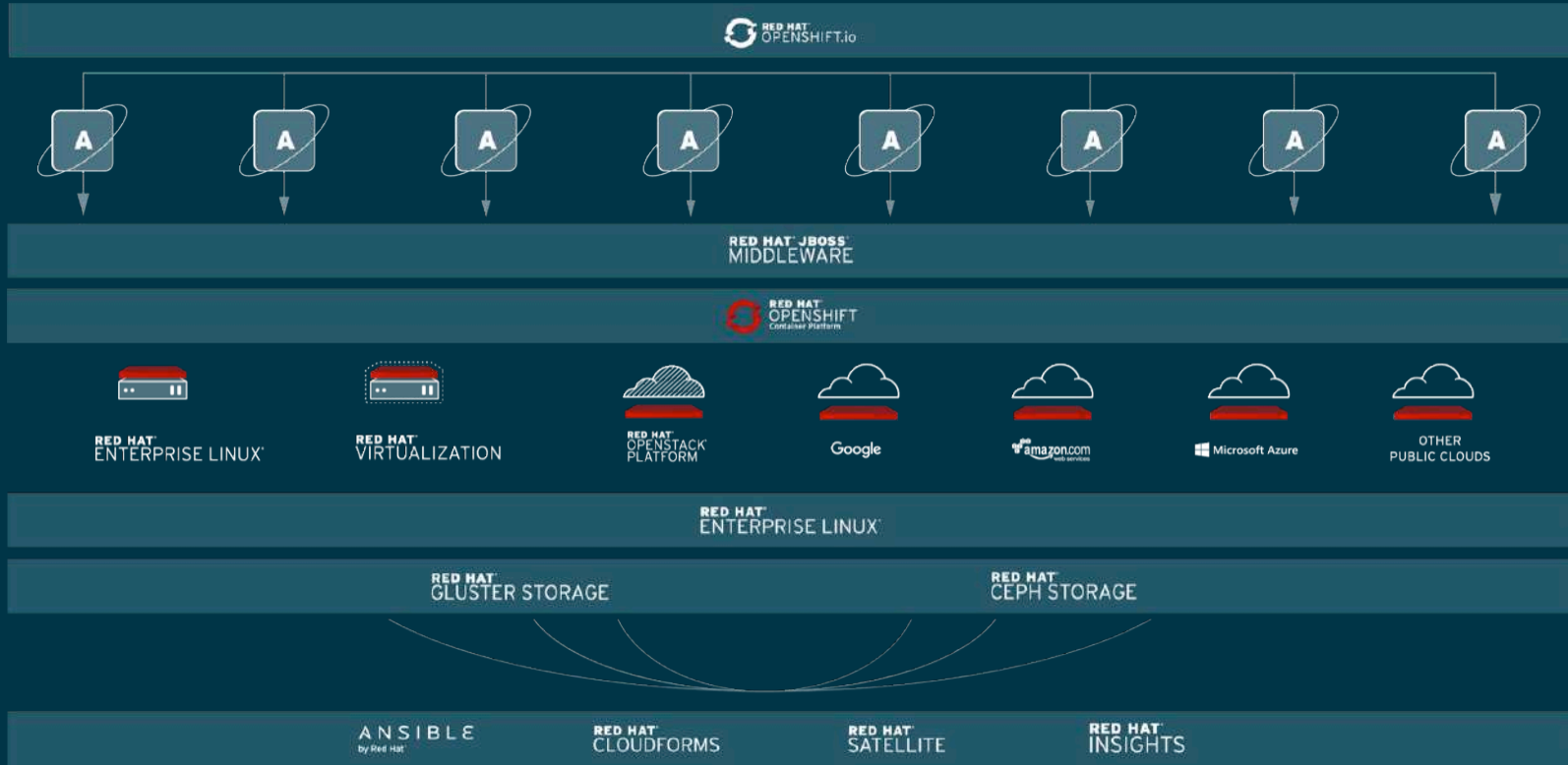
SOFTWARE DEFINED STORAGE

MANAGEMENT & AUTOMATION

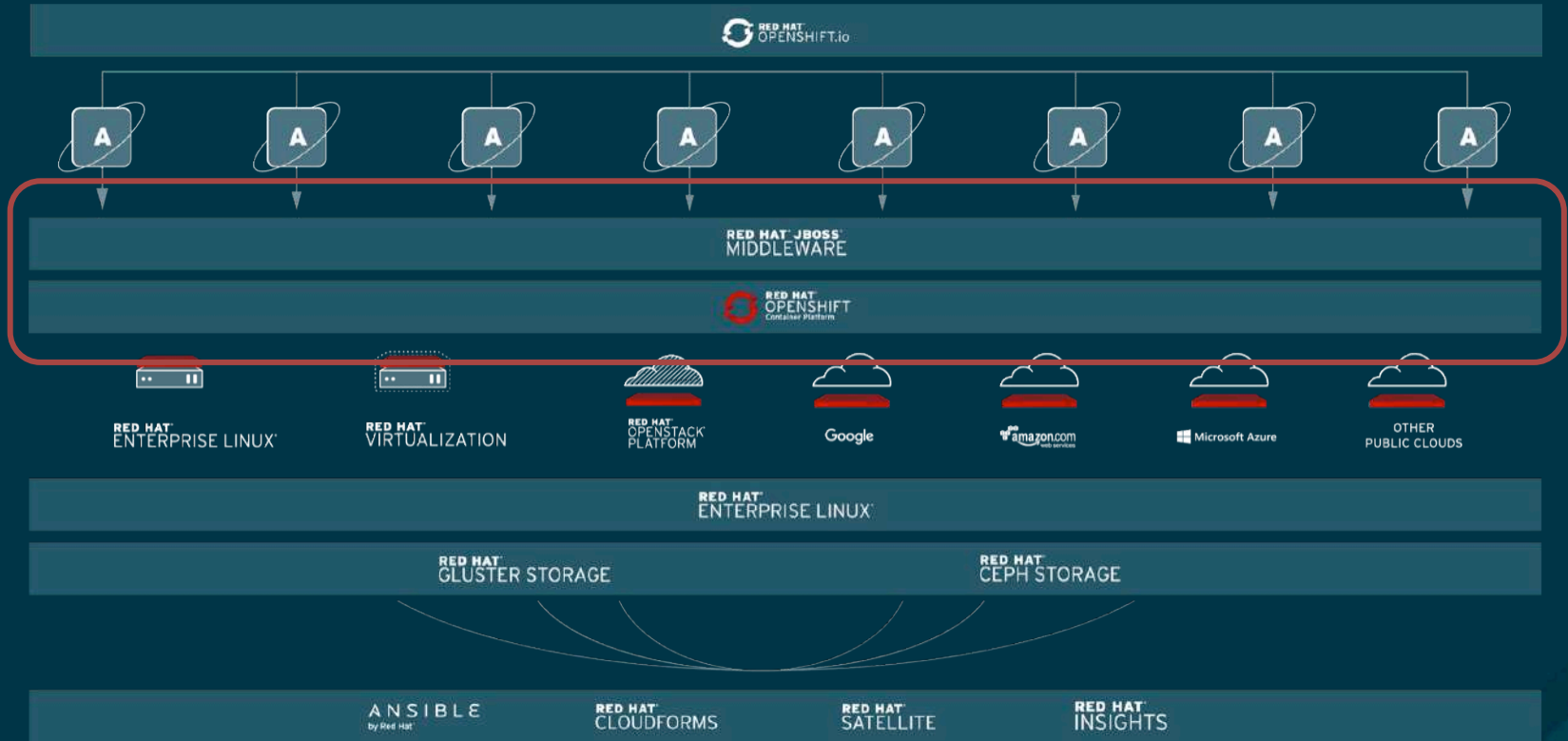
# WE'VE MADE THIS MOVE TO OPEN BEFORE



# THE RED HAT PORTFOLIO



# THE RED HAT PORTFOLIO



# SCHIPHOL AIRPORT - Rethinking Traveler Experience



*Red Hat OpenShift Container Platform, truly, has stolen my heart, because the platform is innovative, I can deploy quickly, and I am in control of the containers. - Michael Aalbers, Amsterdam Airport Schiphol*

- International Airport, 3rd busiest in Europe, 64M passengers per year.
- Goal to become the world's best digital airport by 2018.
- Needed to accelerate application development time through cloud-agnostic platform.
- Deployed OpenShift across **VMWare** Private Cloud, **AWS** and **Azure**.
- Leverage JBoss FUSE and 3Scale for API Management, delivering API-based services to passengers and partners.

Read the [press release](#)



# COMMON OPERATING PLATFORM



**RED HAT  
ENTERPRISE LINUX**

- A common foundation for Red Hat platforms
- The first step toward cloud-based infrastructure, platforms, and applications
- Part of traditional OS, virtualization, private cloud, and all public clouds

# CONTAINERS ARE LINUX



CONTAINERS

- Next-generation application platform for existing and new apps
- Portable across the hybrid cloud
- Container companies must be Linux companies

# COMMON APPLICATION PLATFORM ACROSS THE HYBRID CLOUD



OpenShift Container  
Platform

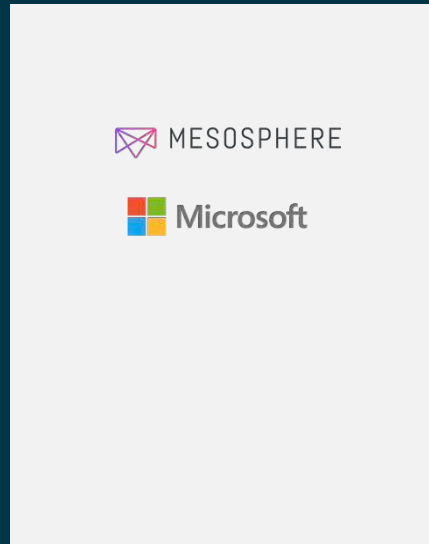
- Consistent Developer Experience
- Platform services for management, resiliency, tracing, elasticity, storage
- Support for CI/CD
- Multi-language, multi-framework
- Both stateful and stateless applications

# THE INDUSTRY IS CONVERGING

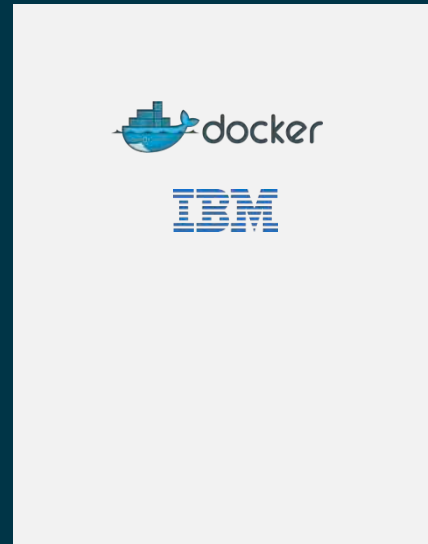
## Kubernetes



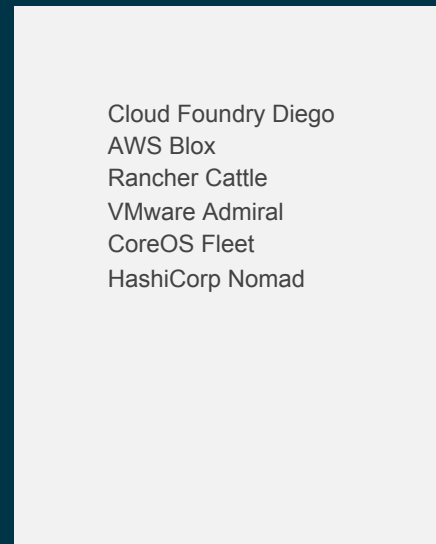
## Mesos



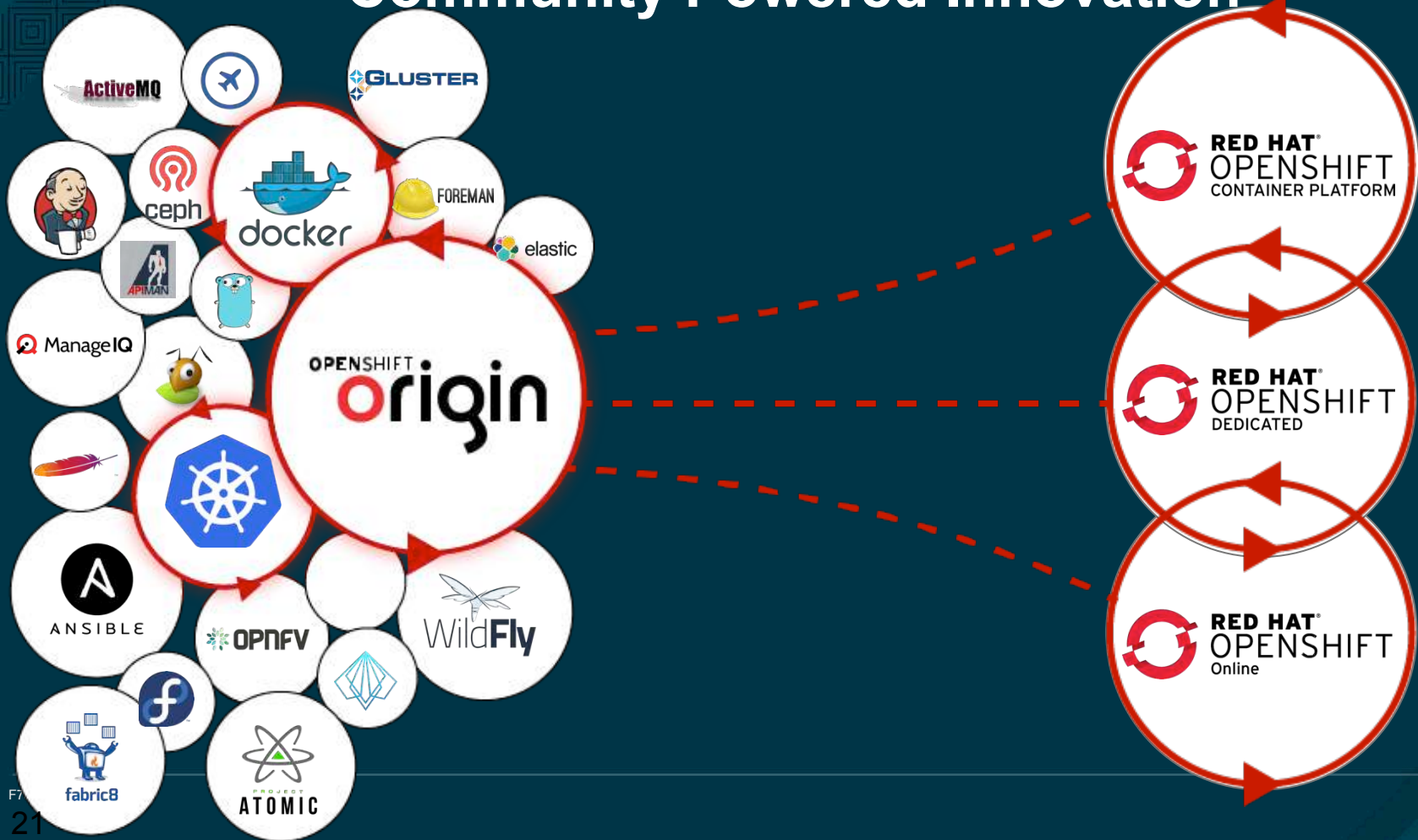
## Docker Swarm




## Others




# Community Powered Innovation




# OPENSIFT COMPONENTS



Self-Service	
Service Catalog (Language Runtimes, Middleware, Databases)	
Build Automation	Deployment Automation
OpenShift Application Lifecycle Management (CI/CD)	



Container Orchestration & Cluster Management (kubernetes)				
Networking	Storage	Registry	Logs & Metrics	Security
Infrastructure Automation & Cockpit				



<b>Enterprise Container Host</b>	
Container Runtime & Packaging	
Atomic Host	Red Hat Enterprise Linux

# CHALLENGES REMAIN THE SAME...

*SECURITY*

DEBUG

DISCOVERY

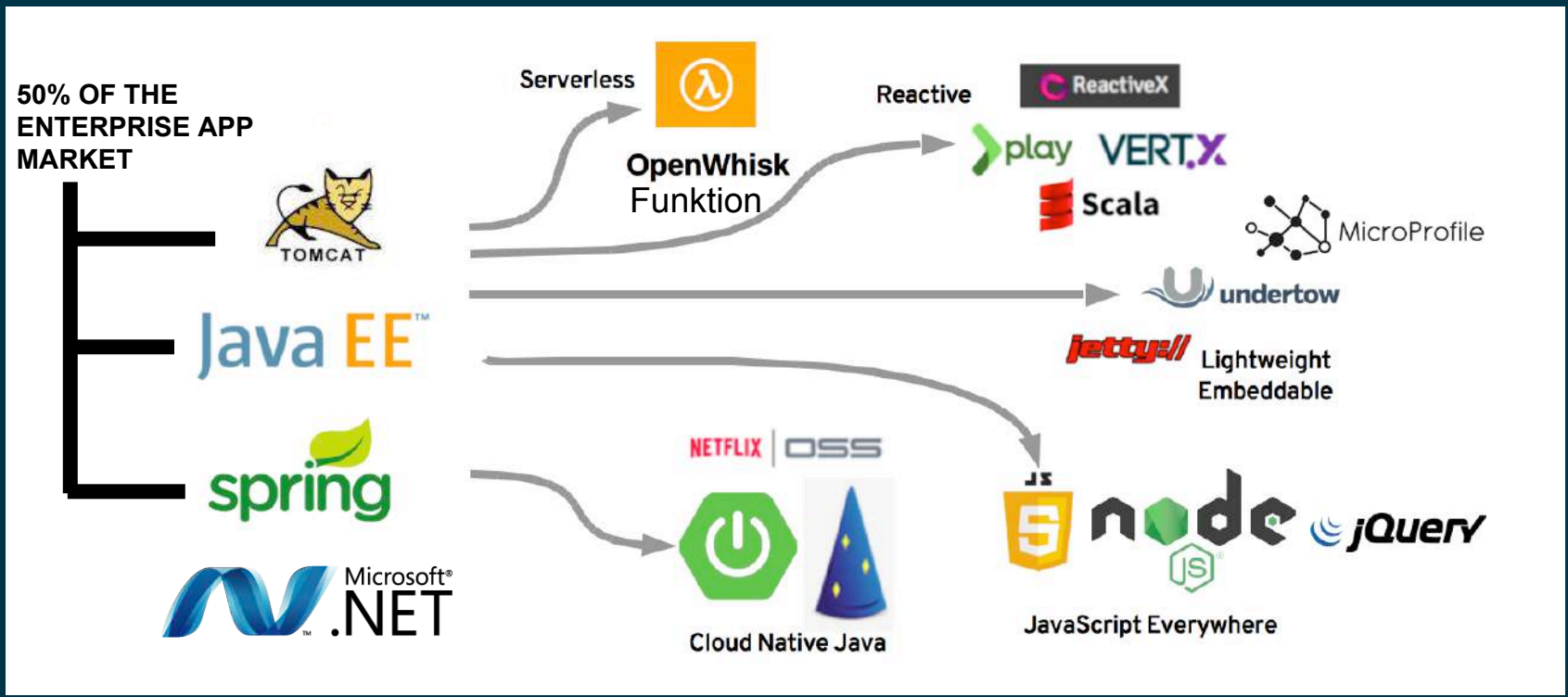
*CONFIGURATION*

LOAD BALANCING

LOGGING/METRICS

HIGH AVAILABILITY

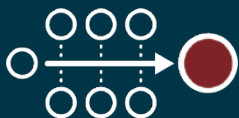
# ... AND DEVELOPERS HAVE (AND EXERCISE) MORE CHOICES THAN EVER BEFORE





# MIDDLEWARE

INTEGRATE, AUTOMATE, & ACCELERATE DATA, APPLICATIONS, & PROCESSES



## INTEGRATION

Red Hat JBoss Fuse  
Red Hat JBoss AMQ  
Red Hat 3scale  
API Management



## AUTOMATION

Red Hat JBoss BPM Suite  
Red Hat JBoss BRMS



## DATA MANAGEMENT

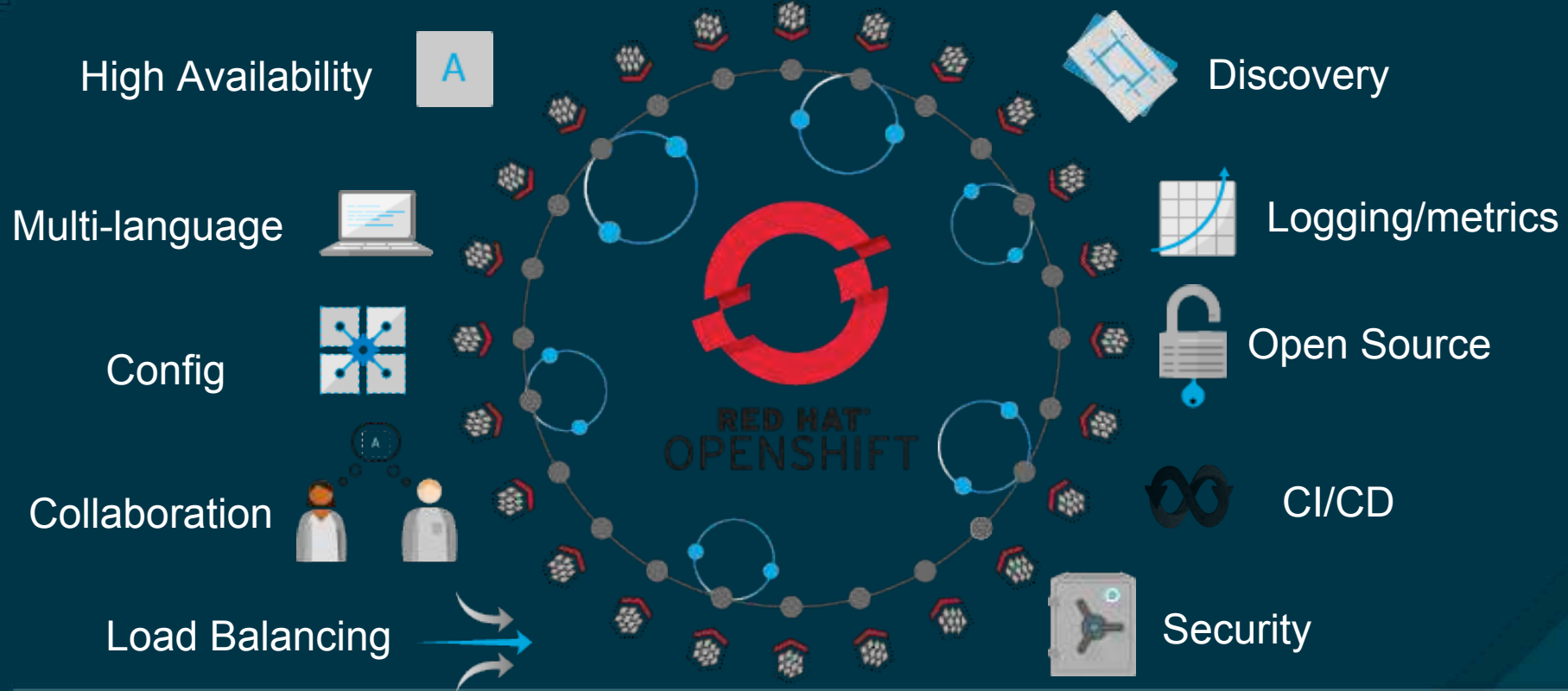
Red Hat JBoss Data Grid  
Red Hat JBoss  
Data Virtualization



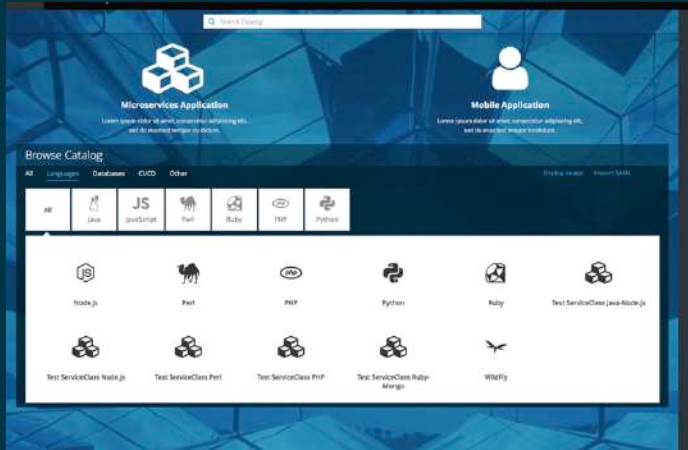
## APPLICATION SERVICES

Red Hat JBoss Enterprise  
Application Platform  
Red Hat JBoss  
Developer Studio  
Red Hat OpenShift  
Application Runtimes

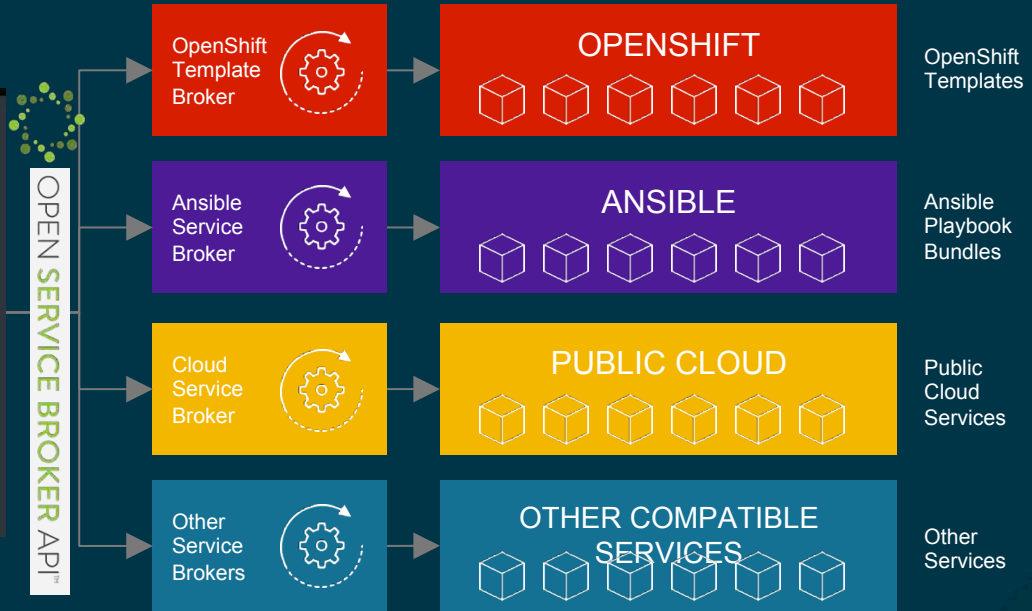
# CONTAINER PLATFORM BRINGS IT ALL TOGETHER



# OPENSHIFT SERVICE CATALOG



**OPENSHIFT SERVICE CATALOG**  
**(TECH PREVIEW)**



# OPEN INNOVATION LABS

A HANDS-ON ENVIRONMENT FOR RAPID INNOVATION & REAL BUSINESS RESULTS



## EXPERIMENT

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Rapidly build prototypes,  
do DevOps, & be agile



## IMMERSE YOUR TEAM

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Work side-by-side with experts  
in a residency-style engagement



## INNOVATE

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Bring modern application  
development back to your team

# START EXPLORING TODAY

- References:
  - [Red Hat Demo Central](#) (AppDev collection)
    - [Install OpenShift Container Platform in minutes](#)
  - [AppDev in the Cloud Workshop](#) (OpenShift Container Platform 3.6)
  - [Ten Layers of Container Security \(whitepaper\)](#)
  - [Hands-on Kubernetes Tutorial](#)
  - [Hands-on OpenShift Tutorial](#)

## Workshop Destinasia Travel Agency

Get hands-on in this workshop installing the OpenShift Container Platform, deploying six containerized services for Destinasia backend systems and testing the results.



# THANK YOU



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