



# GroupWork

## “Build a Use Case for OCP”

As part of OpenShift Introduction Workshop

# Call to Action



## **TEAM LEADER please**

- Choose 4 team members
- Create a high level presentation for a given scenario
- Define a role play for your team
- Be prepared to present tomorrow with a notebook
- Send me your presentation - [abach@redhat.com](mailto:abach@redhat.com)

## Scenario one

### A wealth management company

Your Customer is a highly specialized wealth management company with 3500 clients and 160 finance consultants.

Right now they run a Oracle DB and Apps on WebLogic on premise on Solaris servers

Your customer runs homegrown apps and have a dev team in place

Your customer asked for:

- a container strategy
- a way to migrate the existing stuff
- a perspective to grow exponentially and offer a user self-service



## Scenario two

A small car manufacturer



Your customer built cars, they build cars on request via a car configurator. Right now they are running a WebSphere App on a Suse HA Cluster

- your customer want to see your capabilities to migrate
- Which benefits a containerised solution would earned
- How much effort would it take and where are the risks

## Scenario three

### Health care @ home

Your customer is a local public health care provider, to optimize cost they want to extend the home care system.

Nurses should have a computer aided app to provide health services to patients, they should use mobile devices to plan, care and document their work.

In addition the provider plans to give patients smart devices to collect vital data and optimize the care.

They have to access patient existing information, databases, ... but have no existing infrastructure right now.



## Scenario four

### Education / governmental public education service



The challenge is to create a online learning and standardized exam system to unify and speed up the education for new technologies.

The teachers can create learning paths and the Students should register to their classes and may take online and classroom trainings.

The Customer want to reuse a much as materials from different vendors, as possible and want to streamline the process including the exams to provide a state of the art system.

They have to access multiple sources but have no infrastructure.



## Scenario five

### Food retailer / Farmers Market Online



Your customer came out of the retail business and has a new business idea:

End-customers can order online biological food, your customer has contracts with local farmers and delivery vendors and send the order to a local farmer, this farmer fulfills the order and the delivery company picks it up and brings it to the customer. The Customer pays per Credit-Card online and your customer did the clearing and pays the vendors. The revenue is a small fee.

## Scenario six

### Travel agency

Your customer is a local travel agency specialized in selling local services to foreign tourists.

The tourist can buy special packages to visit cultural or other events including tickets, transportation, food .... As well as local action packages e.g helicopter rides, city tours, ....

Your customer plans to offer a platform every contractor can use to offer different services.

The agency is responsible for booking and offers an App for the tourist to find the locations and for an extra fee they offer a help and insurance package.





# What your customer expect



## A CxO Presentation

a presentation where you show an architecture for an single datacenter and how you connect to the existing systems for a migration period. .



## Minimal PoC layout

a minimal hardware layout for an POC of your solution



## The prerequisites

a set of prerequisites for a POC and a estimation for doing this

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Let's start with an Example together

# Financial Consultancy

Scenario 1

# Current Customer Position

Provide a next generation of financial services for existing and new customers

A need to provide significant scale

Current use of Oracle WebLogic licensed platform

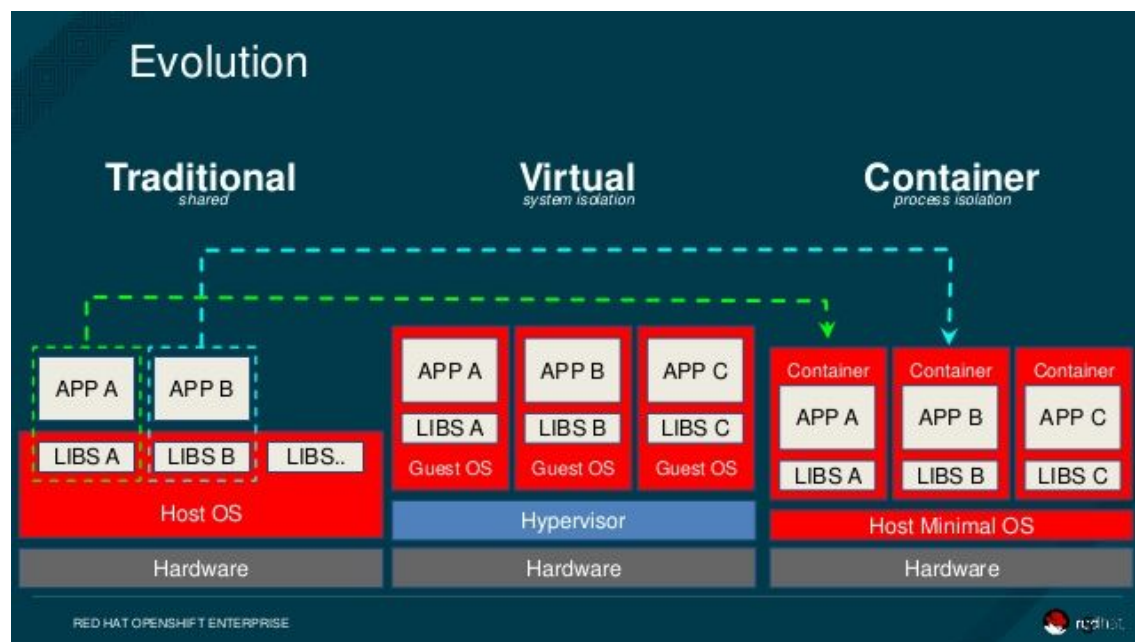
Avoid disruption to service for existing customers

Ensure solution provides optimised licensing at scale

Provide a platform for a complete migration within 16 months

Enable the move from monolithic client/server application to micro-services

# Proposed Solution



- OpenShift Container Platform along current infrastructure
- Container platform runs as virtual machines
- POC is based on a single master and a minimum of three nodes
- The production OpenShift platform is highly available at any level
- Container images are provided by the private registry

# Benefits (Stage 1 Weblogic)

- Scalable
  - Openshift allows automatic scaling of pods, this reduces operation costs and you only consume the resources needed
- Always On
  - Allows updates to legacy with minimal if any downtime as weblogic management pods availability
- Environment Familiarity
  - Running the existing application in openshift builds the skills and expertise in your organisation for stage two (microservices)
- Avoid lock-in
  - Container adoption brings the opportunity to move out of proprietary hardware like Solaris-based systems



# Benefits (Stage 2 Microservices )

- Next-Generation Apps (Cloud Native Apps)
  - OpenShift is the platform which enables you to develop the next generation of applications
- Independently deployable
  - This can increase the velocity for delivery allowing new business to scale
- Loosely Coupled
  - Promotes agility so that new business can quickly respond to change
- Allows for continuous integration/delivery
  - Pipelines allow jenkins to be run on the platform and together with web hood it is possible to automate the process

# Alternatives - Pros-Cons

Alternative	Pros	Cons
Remain with Weblogic	<ul style="list-style-type: none"><li>• Simple cost optimisation</li><li>• Reduced risk to current services</li><li>• Reduced time to transition</li></ul>	<ul style="list-style-type: none"><li>• Sub-optimisation of cost</li><li>• Limitation to scale</li><li>• Failed Micro-Services Strategy</li></ul>
Micro-Services and Containers on Solaris	<ul style="list-style-type: none"><li>• Reduced operational change</li><li>• Possible shared infrastructure and operations</li></ul>	<ul style="list-style-type: none"><li>• Reduced infrastructure options</li><li>• High cost of operation</li></ul>
Migrate as Re-Architect	<ul style="list-style-type: none"><li>• Remove WebLogic dependency</li><li>• Cleaner migration architecture</li></ul>	<ul style="list-style-type: none"><li>• Slower migration</li><li>• Multiple operational changes</li></ul>
Full Re-Design and Cutover	<ul style="list-style-type: none"><li>• No need for systems integration</li><li>• Reduce potential for impact to existing customers</li></ul>	<ul style="list-style-type: none"><li>• Risk to 16 month transition</li><li>• Limit benefits of micro-services architecture</li></ul>
Re-Host to Public Cloud	<ul style="list-style-type: none"><li>• Opportunity to optimise infrastructure costs</li><li>• Increase infrastructure agility and scale</li></ul>	<ul style="list-style-type: none"><li>• Possible higher cost of migration (data interchange with old system)</li><li>• Increased operational risk of full re-architecture</li><li>• May regulations apply</li></ul>

# Pre-Requisites

- Database from the existing application will be used as is
- Existing application is architected to support distributed horizontal scaling
- Openshift trial licence is available
- On-premise VMware instances are available for PoC consumption

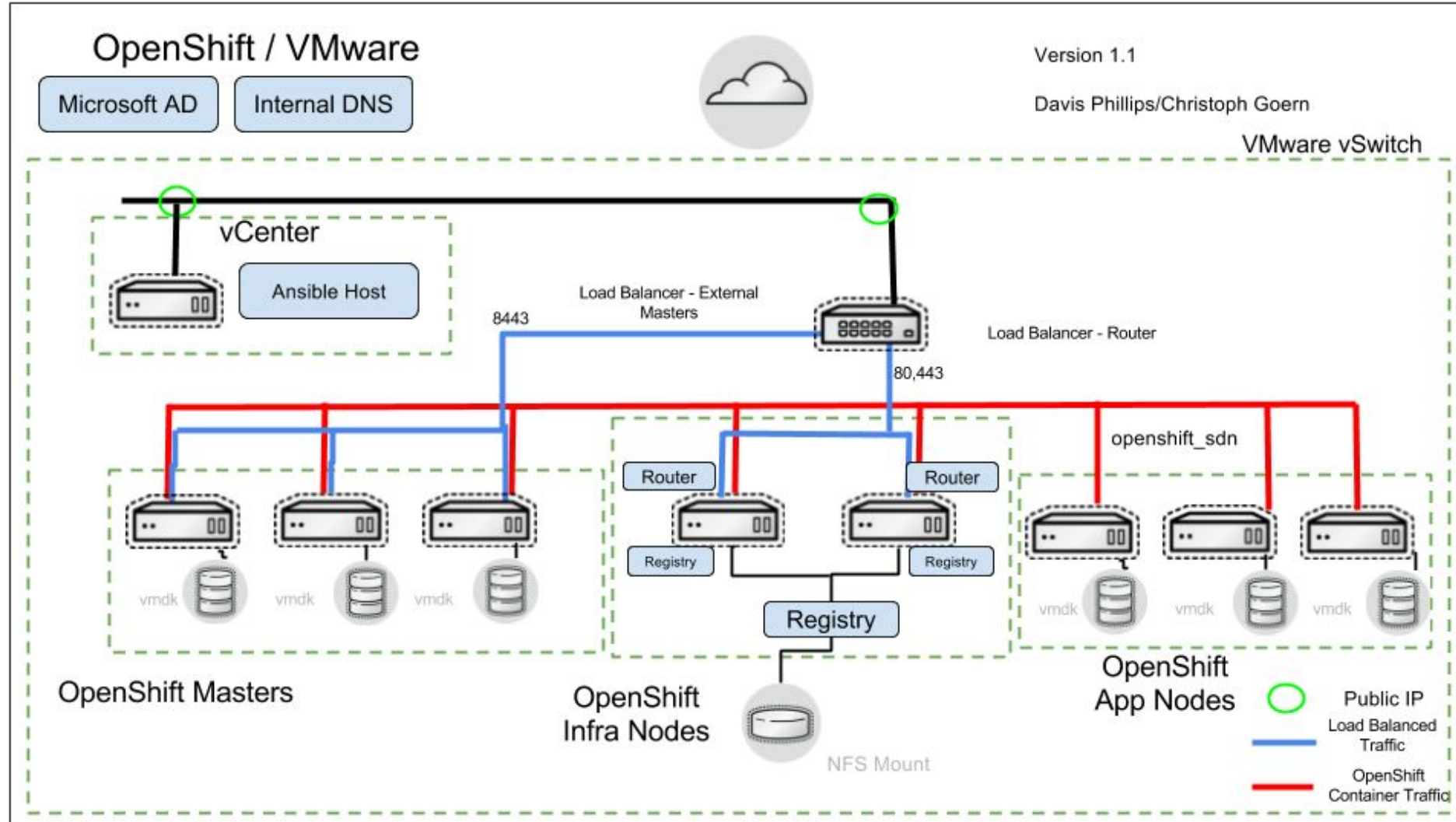
## PoC Assumptions:

- Natural erosion of the monolithic system to new platform over 16 months
- Scope of PoC will be to prove the platform
- Customer will spin up a separate project to re-architect the application

# Proof of Concept Estimates

- Install and configure Openshift Enterprise on VMware - 2 days
  - Single master + Three nodes
- Build docker image for customer weblogic - 5 days
- Configure service layer for DB connectivity - 2 days
- Deploy weblogic pod to Openshift environment - 1 day
- Define acceptance tests for proof of concept (smoke tests) - 2 days
- Execute acceptance tests - 1 week
- Prove horizontal scaling of weblogic containers - 2 days

# Production Architecture (Single Datacenter)

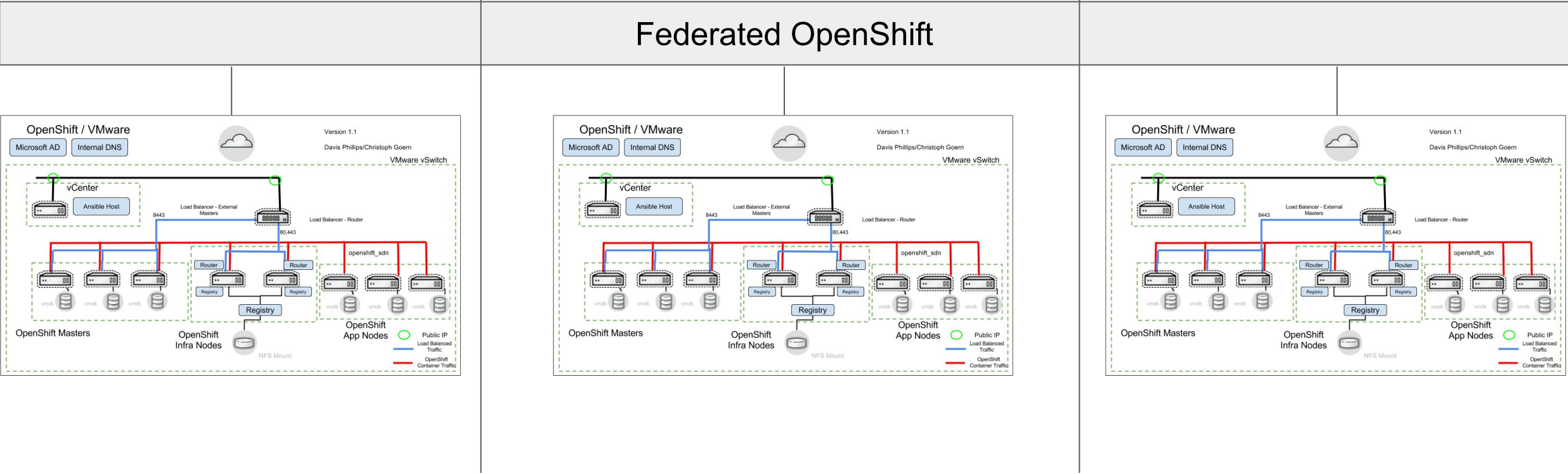


# Production Architecture (Evolution)

Primary Datacenter

Secondary Datacenter

Public Cloud





# Thank you

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