

Installing OpenShift Enterprise multi-nodes config using VirtualBox for demos

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<https://github.com/gbechara/osedevops>

Prerequisites

- Virtual Box (tested on Version 5.0.20 r106931)
- Vagrant (tested on 1.8.1)
- Valid RHEL7 & OpenShift Enterprise Subscription
- Create your own Vagrant Box
 - Create a VirtualBox with RHEL7 “Server”
 - Add to this VirtualBox your valid Subs
 - Convert this Box into a Vagrant Base Box located on your local disk

Instruction are here <https://www.vagrantup.com/docs/boxes/base.html>
name this base box rhel72-server-base.box (or change the name in the Vagrantfile)
do not share this box : it contains your subscriptions

Usage

- Get the source code
 - > git clone <https://github.com/gbechara/osedevops.git>
- Launch
 - > Change the passwords in the file Vagrantfile to match the root password of your box
This password is needed to copy the generated ssh key to all OpenShift nodes
 - > cd osedevops
 - > vagrant plugin install vagrant-cachier
 - > vagrant up
- configure your host to add a dnsserver
 - on linux add in /etc/resolv.conf
search example.com
10.100.192.201
 - on osx create 2 files named 'example.com' and 'router.default.svc.cluster.local' in /etc/resolver add to those files
nameserver 10.100.192.201
- The openshift console is here
<https://ose-master.example.com:8443/console/>

Target architecture

DNS entry for each VM

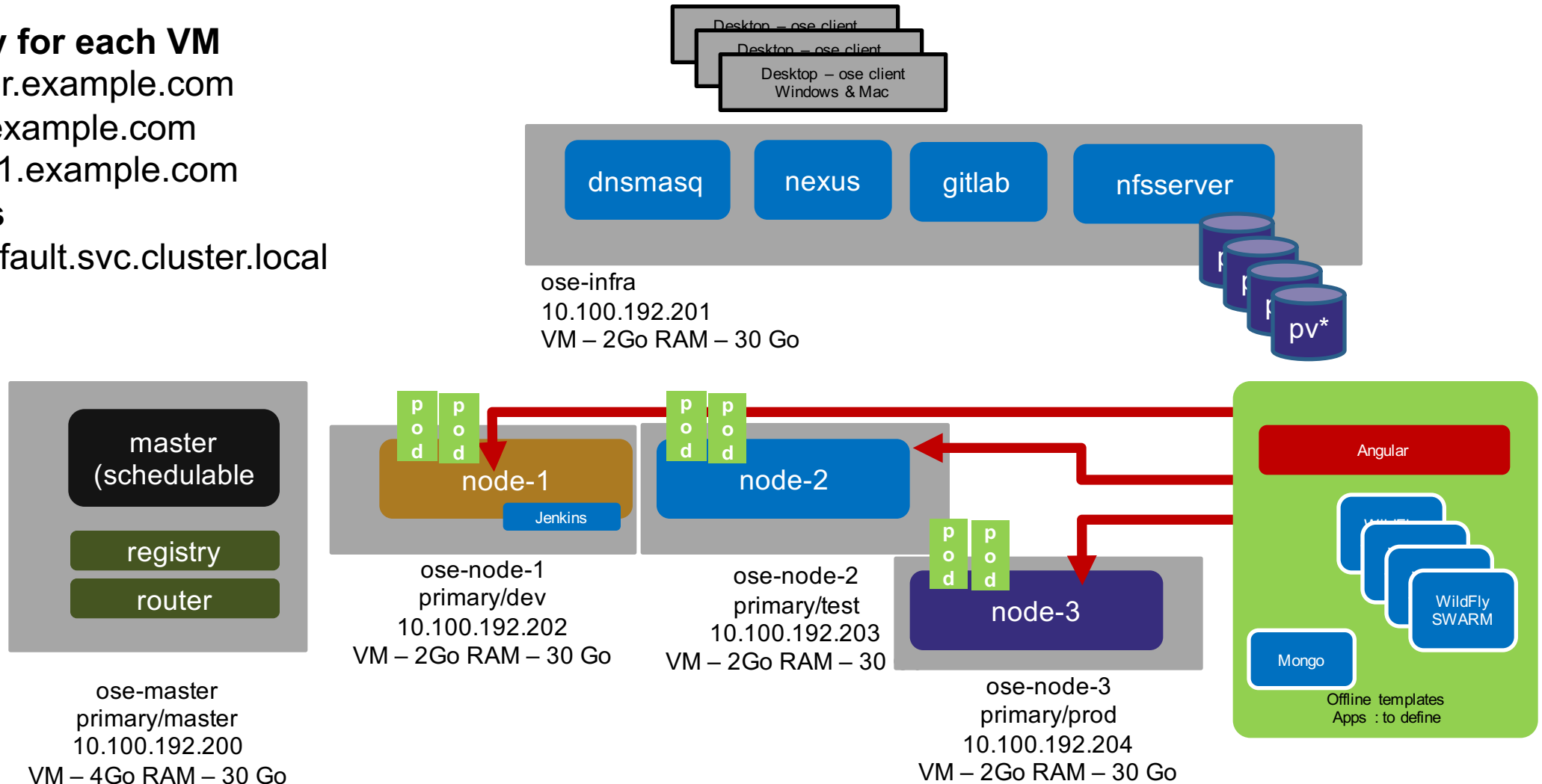
ose-master.example.com

ose-infra.example.com

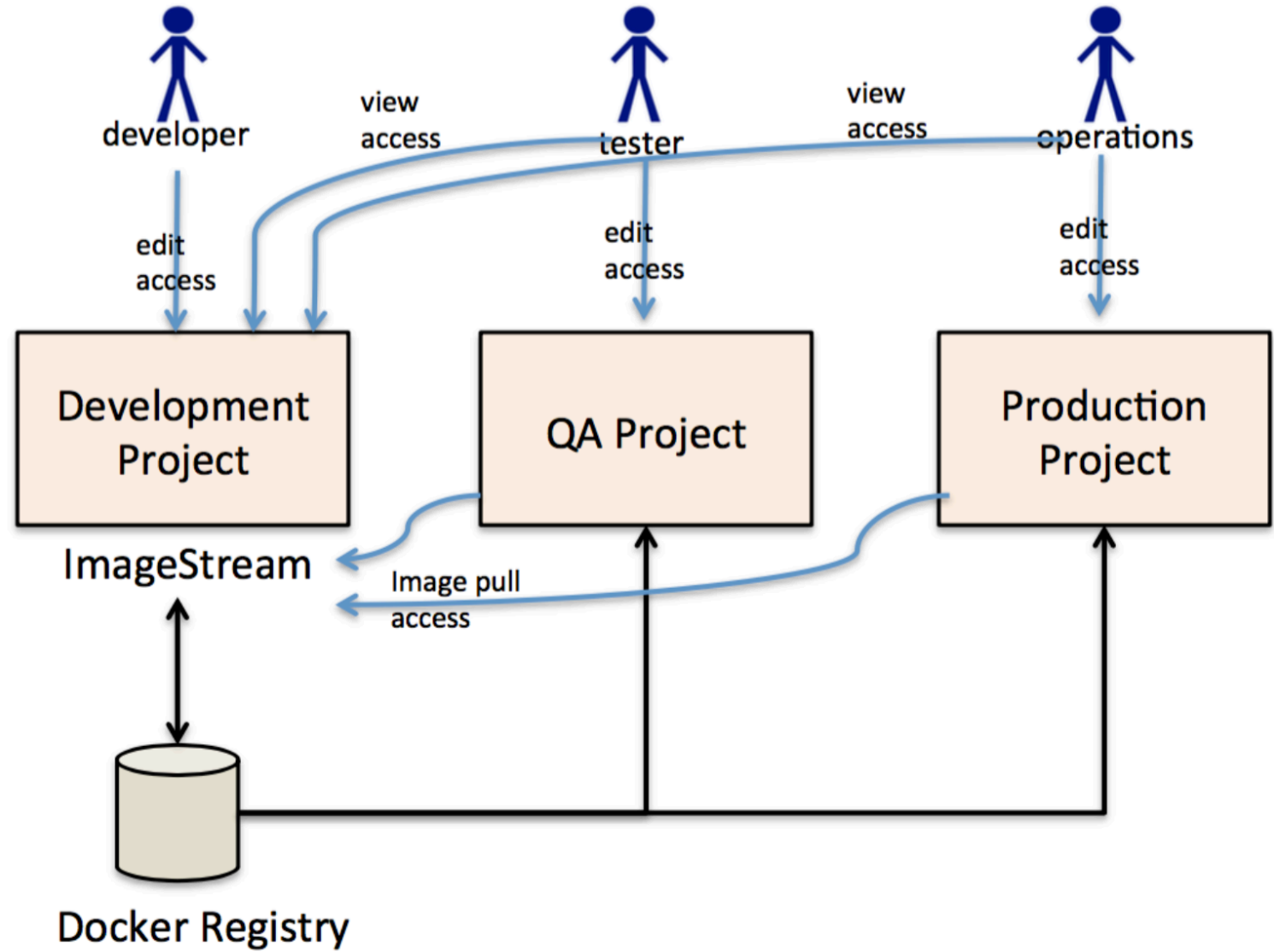
ose-node-1.example.com

Wildcards

*.router.default.svc.cluster.local




Example



Based on <https://blog.openshift.com/promoting-applications-across-environments/>

Jenkins Pipeline : from dev to production

→ Approvals between environments and creation of the next env if it does not exist

**Jenkins**

rechercher

Jenkins Admin | se déconnecter

Jenkins > pipeline-development-ticket-monster > [Rafraîchissement automatique](#)

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Pipeline pipeline-development-ticket-monster

[Ajouter une description](#)

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Stage View

Historique des builds [tendance](#)

find x

#4 3 juin 2016 23:04

#3 3 juin 2016 23:02

#2 3 juin 2016 22:42

#1 3 juin 2016 22:36

[RSS des builds](#) [RSS des échecs](#)

Average stage times:
(Average full run time: ~25s)

	Build image and deploy in Dev	Wait for approval	Deploy to testing	Wait for approval	Deploy to production
#4	8s	714ms	5s	NaNy NaNd	8s
#3	8s	471ms (paused for 46s)	7s	263ms (paused for 8s)	8s
#2	7s	418ms (paused for 7s)	6s failed		

Notes

- Installation works only when connected to internet
 - OOTB Templates use github and maven repos
 - It may take time, around 40 minutes, depending on the roles you add
- 2 templates can then be used to do offline demos
 - 1-eap64-ticket-monster-offline
 - 1-cakephp-offline
- During the install the sample gitlab, nexus, the docker images, the jenkins plugins are all populated to work offline for the 2 templates
- 3 users (gabriel, dev1, test1), 2 projects (development, testing) are created to deploy the sample, the jenkins job “pipeline-development-ticket-monster” will create a third project

Roadmap

- ✓ Add NFS for persistent Volumes
- ✓ Add a git server
- ✓ Add a nexus
- ✓ Add templates for offline demos using the git server and the nexus
- ✓ Deploy and example to populate the docker registry, gitlab and nexus
- ✓ Showcase a application promotion across environments
- ✓ Showcase Jenkins with approval steps
- Add other samples
 - Deploying WildFly SWARM microservices on OpenShift
 - Covering the entire DevOps lifecycle
 - Other ideas ?
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