/devops/tools/ansible-20150204

Bas Meijer. Ansible Benelux Meetup

Presentation iwelcome-ansible

- Introducing iWelcome
- DevOps Stories
  - Everything has one source of truth.
  - We deploy Java code frequently.
  - Develop on production-like system.
  - Dev/Ops use the same playbooks.

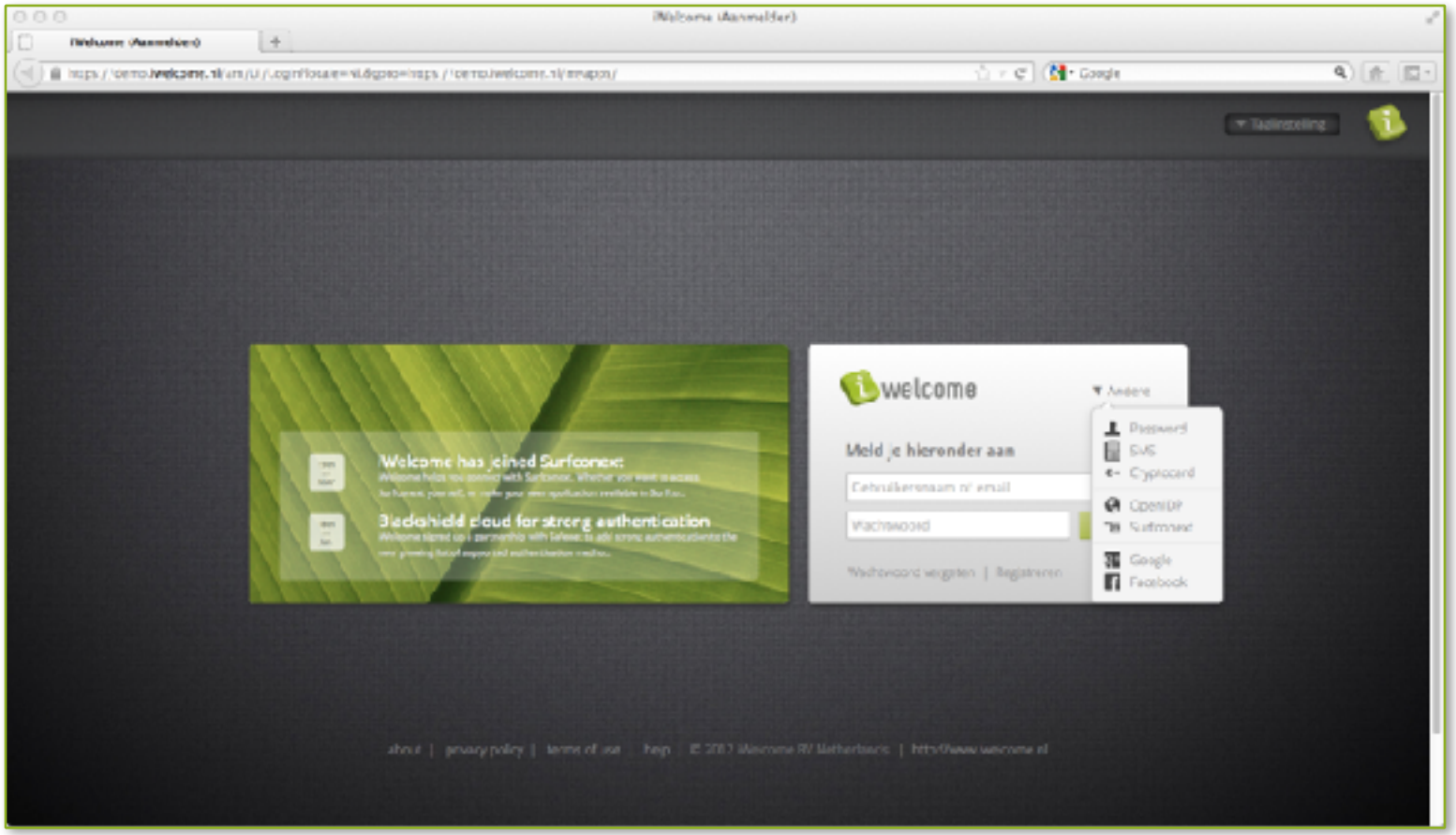
Introducing iWelcome

iWelcome provides cloud-based software for **identity and access management**, as a service.

This allows organizations to efficiently and securely *manage credentials and access rights* across applications.

Introducing iWelcome

1. iWelcome offers: Identity & Access Management (IAM) for external (cloud) and internal applications.



iWelcome uses Ansible…

ANSIBLE

- Configuration management
- Systems administration
- Deployment
- Provisioning
- Orchestration

…among other OSS tools:

Jenkins

ANSIBLE

Why Ansible?

ANSIBLE

- Easiest IT automation to use, ever.
- Minimal learning curve.
- Secure, fast, scalable.
- Easy audit/review/rewrite of content
- No agents, no master, no SPOF
- Pluggable, Extensible

Example playbook

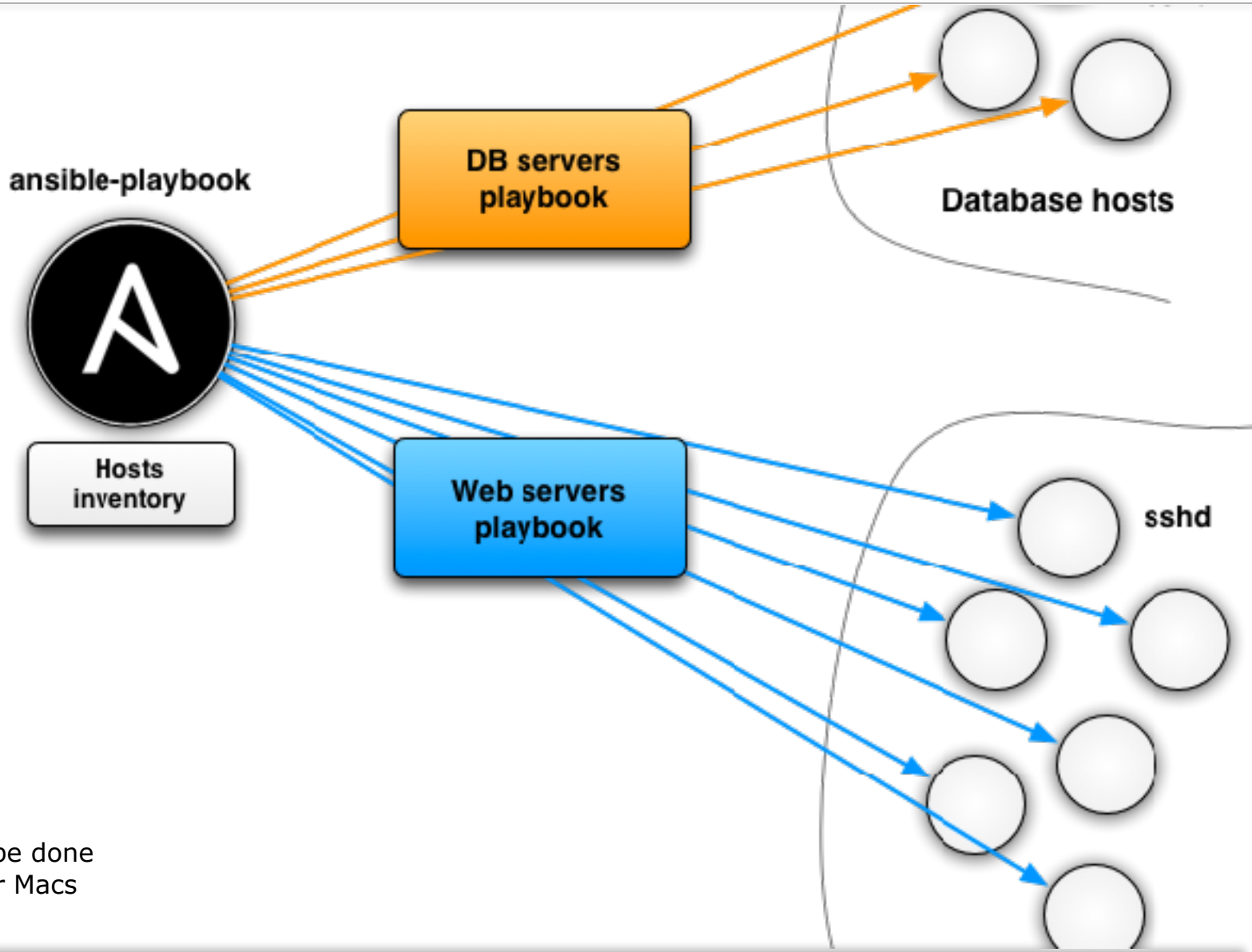
ANSIBLE

```
---
- hosts: all
  user: ansible
  sudo: True

  tasks:

  - name: 'security updates for Linux'
    action: yum name={{ item }} state=latest
    with_items:
        - bash
        - openssl
    when: ansible_os_family == "RedHat"
```

One source of truth: control host



Everything can be done
from each of our Macs

One source of truth: persistence

- **Admin server**: 3rd party software
- **Bitbucket**: holds all source code
- **Jenkins**: builds all code
- **Nexus**: holds all Java artifacts
- **Ansible:** deploys everything

One source of truth: security

- OSX or Linux
- SSH, https, VPN
- TrueCrypt
- PKI, OSSEC, iptables

One source of truth: validation

- A smoke test is a quick validation of the full stack running

```
TASK: [verify opendj/opendj.yml with ldapsearch for groups, try verbose] ******
changed: [iwqab01]

PLAY [backend_servers] ********************************************************

TASK: [verify openam/openam.yml] **********************************************
ok: [iwqab01]

TASK: [verify openam_ajpport is listening] ************************************
ok: [iwqab01]

TASK: [verify openam/deployment.yml] ******************************************
ok: [iwqab01]

TASK: [verify openam/openam-initialconfig.yml, no default page] ***************
ok: [iwqab01]

TASK: [verify openam/openam-admintools.yml, ssoadm tool is present] ***********
ok: [iwqab01]

TASK: [verify openam/openam-configure.yml, search lradmin in LDAP] ************
changed: [iwqab01]
```

One source of truth: audit-able

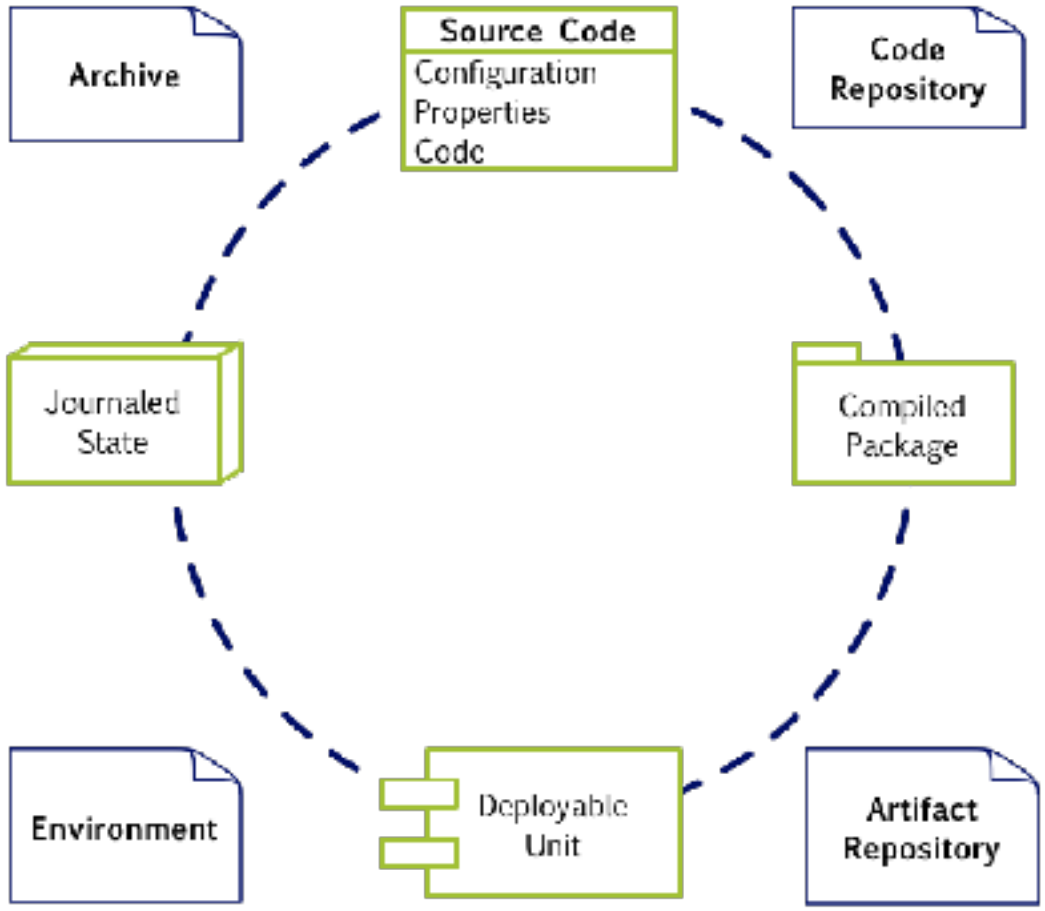
- Every change recorded and detected
- Ansible+playbooks
- virtualenv built daily
- deployed as software artifact
- $ANSIBLE_DIR for every build
- point-in-time audit/recovery/deploy

iWelcome is ISO 27001 certified

iWelcome is build with proven Open Source components and Everett Intellectual Property. iWelcome will enhance these within its platform. Therewith building its own Intellectual property base. For specific key functionality iWelcome OEM's Technology. The platform is partially ISO 27001 certified.

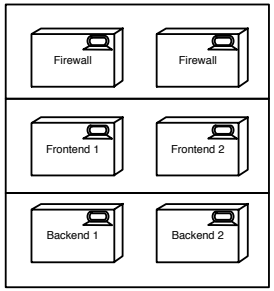
We deploy Java code frequently

- wars & jars
- properties
- configuration

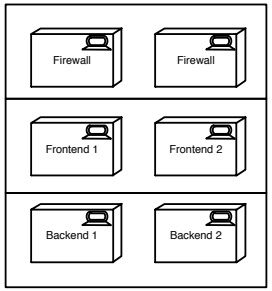


We deploy Java code frequently

- Each customer has VLAN's, firewalls, backend-, & frontend servers



[[customerA]]



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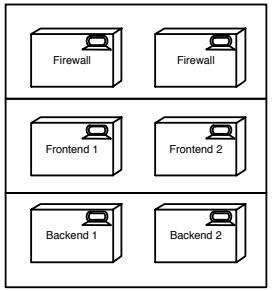

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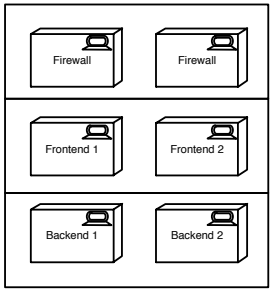

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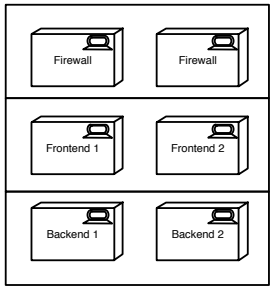

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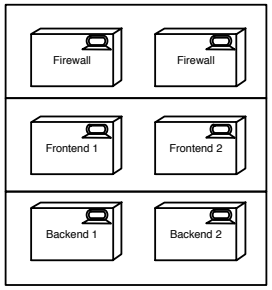

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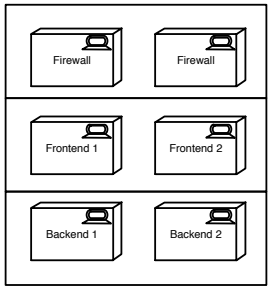

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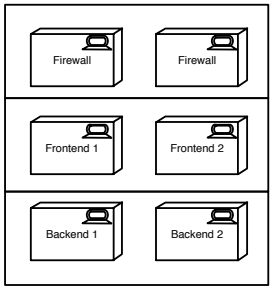
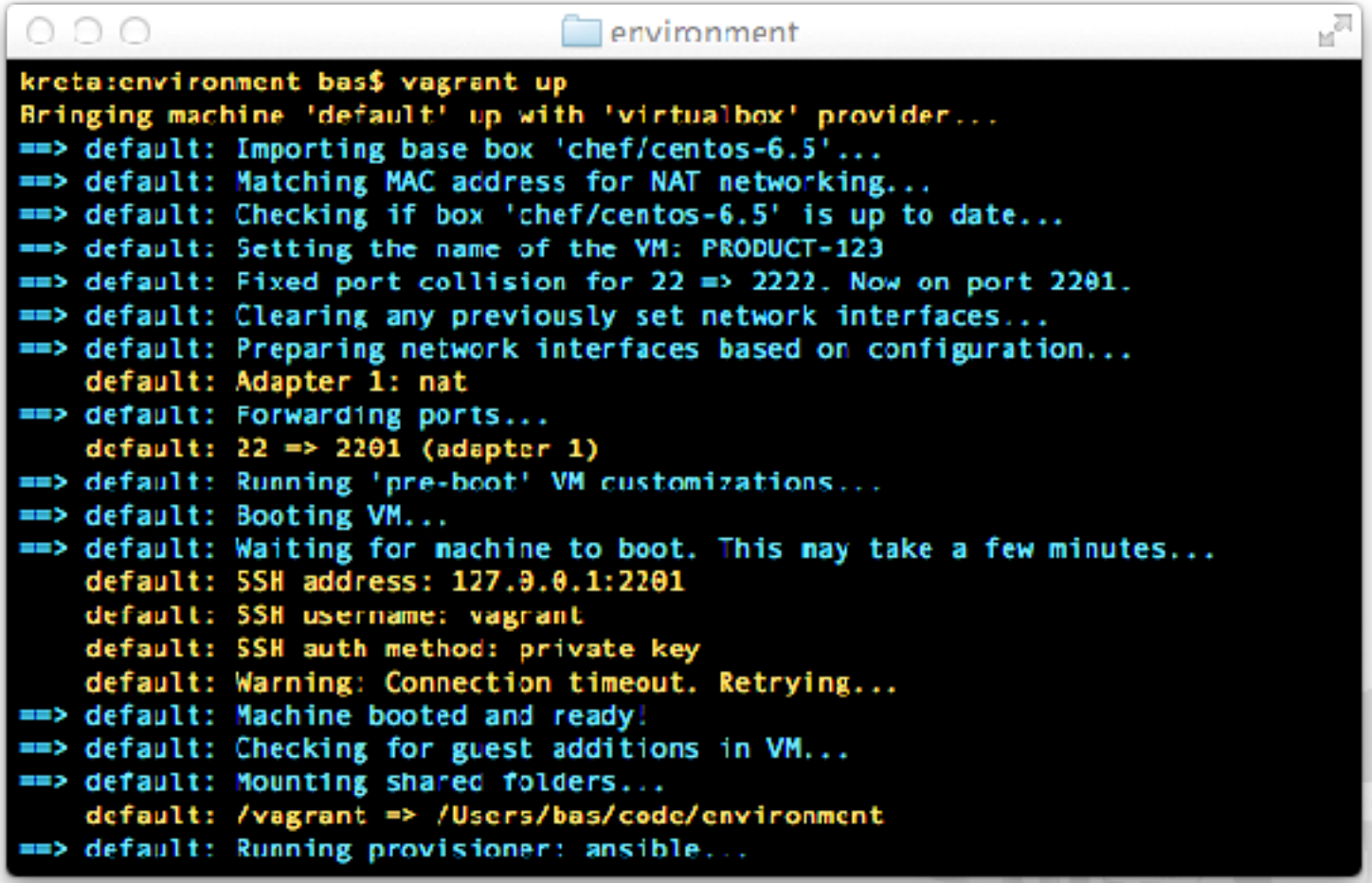
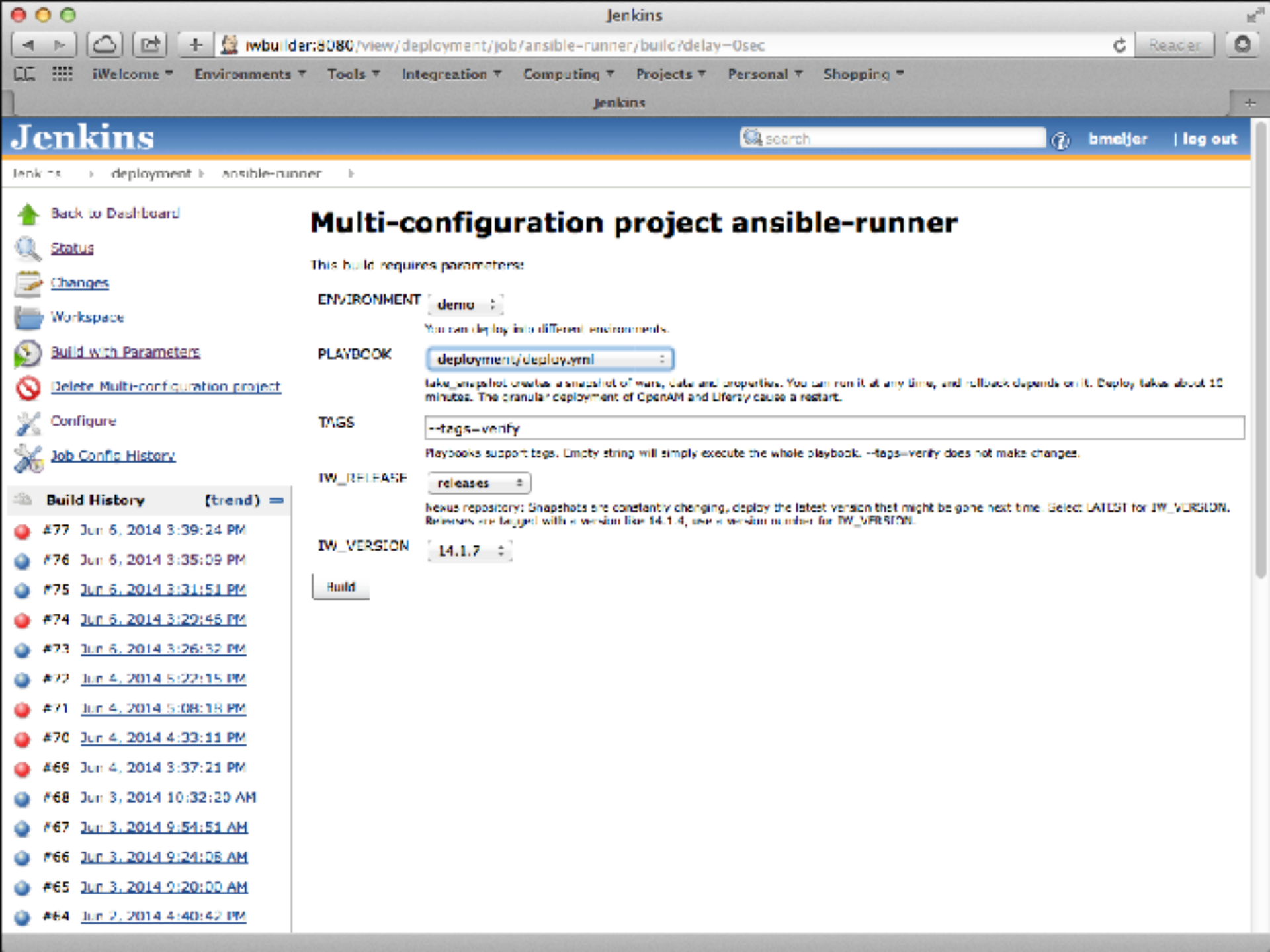


[[customerH]]

Develop on production-like system.

- Vagrant with Ansible

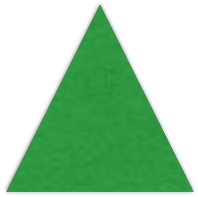



Jenkins
iwbuilder:8080/view/deployment/job/ansible-runner/build?delay=0sec
Reader
iWelcome
Environments
Tools
Integration
Computing
Projects
Personal
Shopping
Jenkins
Jenkins
search
bmeijer
log out
deployment
ansible-runner
Back to Dashboard
Status
Changes
Workspace
Build with Parameters
Delete Multi-configuration project
Configure
Job Config History
Build History
(trend)
#77 Jun 6, 2014 3:39:24 PM
#76 Jun 6, 2014 3:35:09 PM
#75 Jun 6, 2014 3:31:51 PM
#74 Jun 6, 2014 3:29:46 PM
#73 Jun 6, 2014 3:26:32 PM
#72 Jun 4, 2014 5:22:15 PM
#71 Jun 4, 2014 5:08:18 PM
#70 Jun 4, 2014 4:33:11 PM
#69 Jun 4, 2014 3:37:21 PM
#68 Jun 3, 2014 10:32:20 AM
#67 Jun 3, 2014 9:54:51 AM
#66 Jun 3, 2014 9:24:06 AM
#65 Jun 3, 2014 9:20:00 AM
#64 Jun 2, 2014 4:40:42 PM
Multi-configuration project ansible-runner
This build requires parameters:
ENVIRONMENT
demo
PLAYBOOK
deployment/deploy.yml
TAGS
--tags=verify
Playbooks support tags. Empty string will simply execute the whole playbook. --tags=verify does not make changes.
releases
IW_VERSION
14.1.7
Build

Dev/Ops use the same playbooks

deployment/firstdeploy.yml

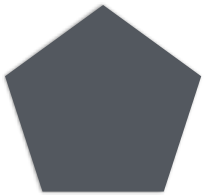
vagrant/provision.yml



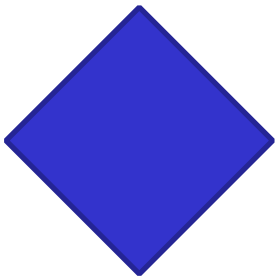
configure/mongodb.yml

syncope/pickups.yml

usermgt/usermgt.yml



backup/load_data_on_archive.yml



deployment/take_snapshot.yml

Wrapping it up

- git clone iwelcome-ansible
- make developer-mac
- make new environment
- smoketest

```
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< IT can be simple >
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         \  (oo)\_______
            (__)\       )\/\
                ||----w |
                ||     ||
```

welcome

Thank You for your attention ! _

END