



/devops/tools/ansible-20150204

Bas Meijer. Ansible Benelux Meetup



.NL | .IT | .CO.UK | DE | BE | .ORG | .EU | .IN

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.



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

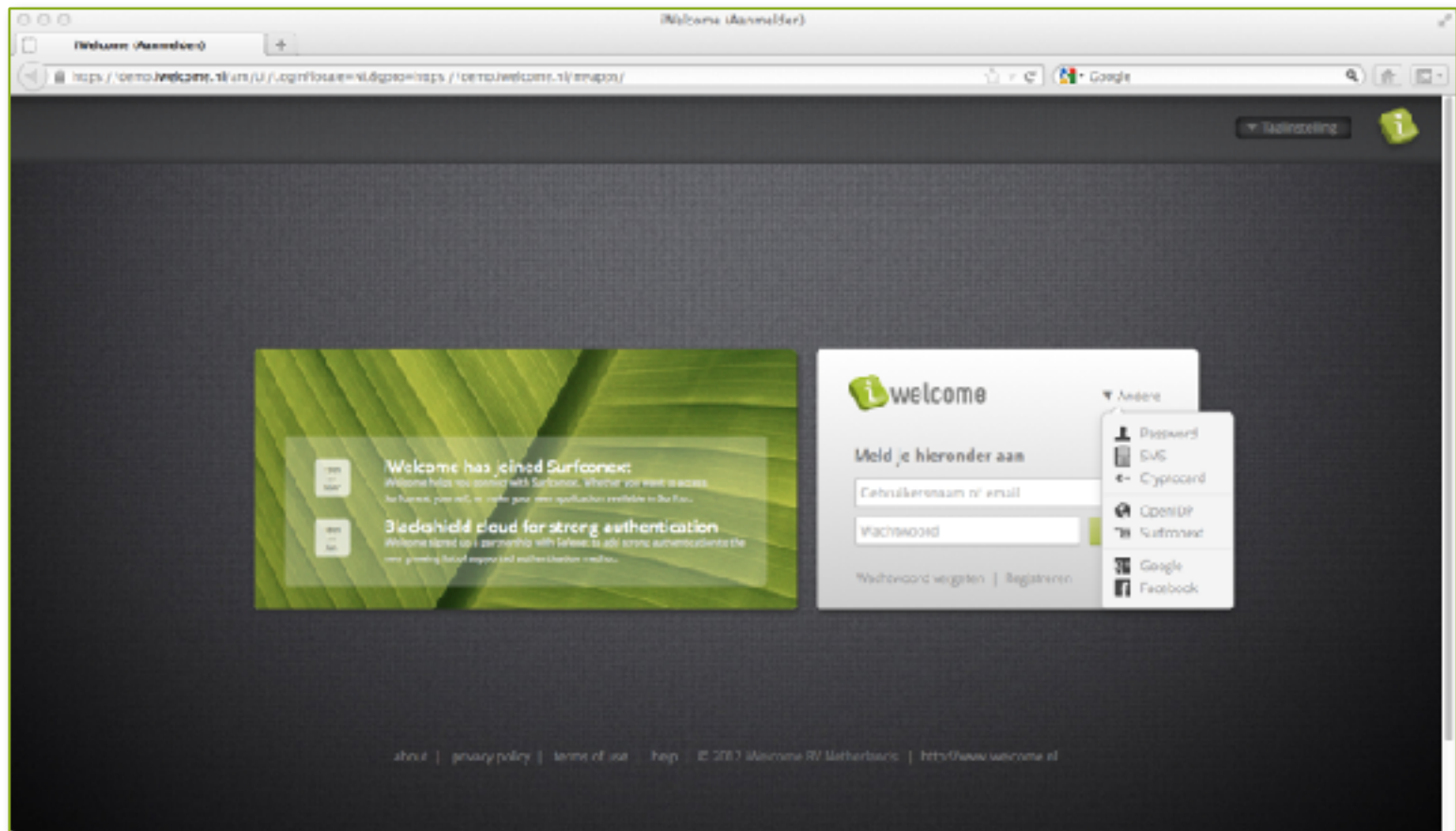
This allows organizations to efficiently and securely *manage credentials and access rights* across applications.



Introducing iWelcome



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



A N S I B L E

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

...among other OSS tools:



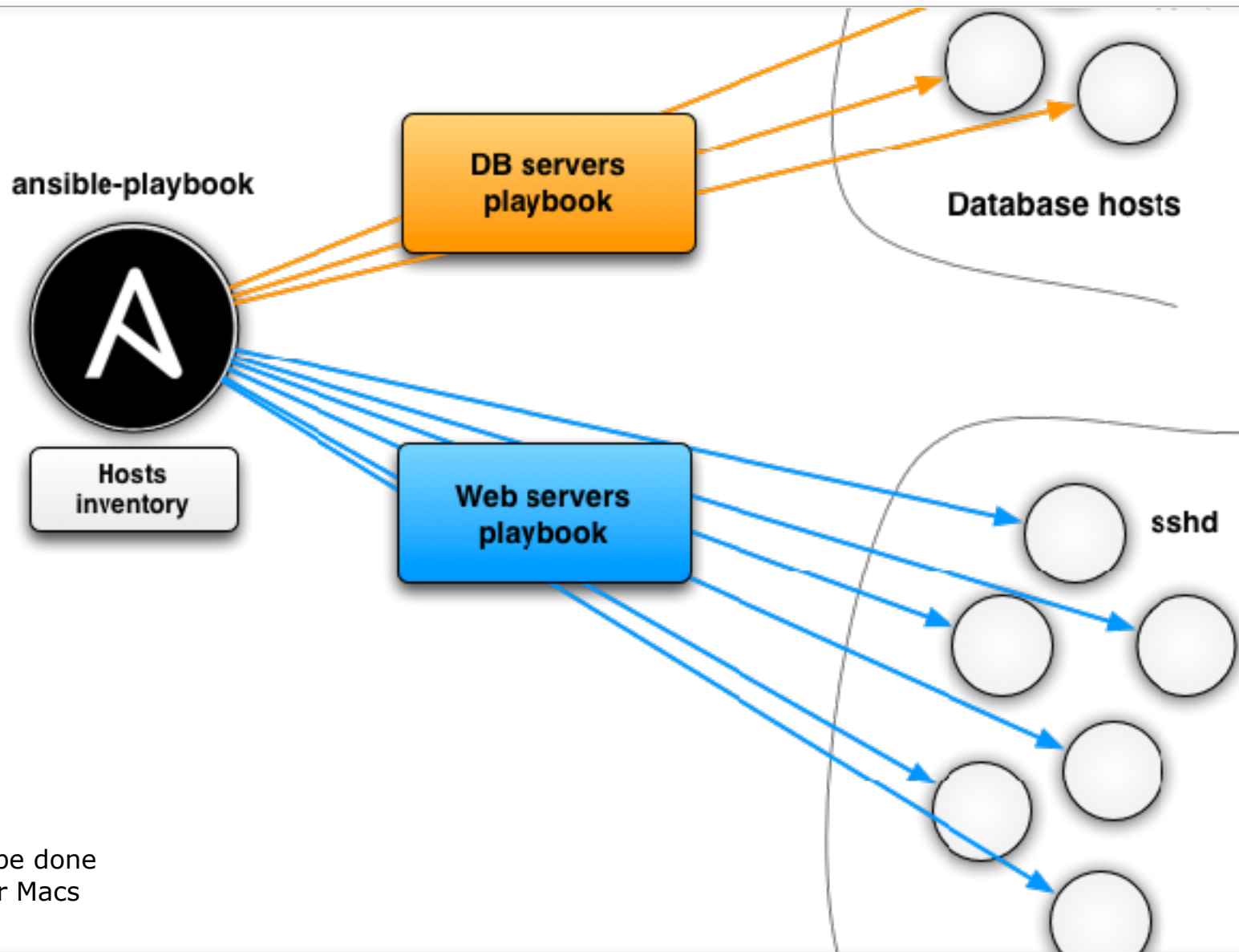
- Easiest IT automation to use, ever.
- Minimal learning curve.
- Secure, fast, scalable.
- Easy audit/review/rewrite of content
- No agents, no master, no SPOF
- Pluggable, Extensible



```
---  
- 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_ajppport 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 lradm 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

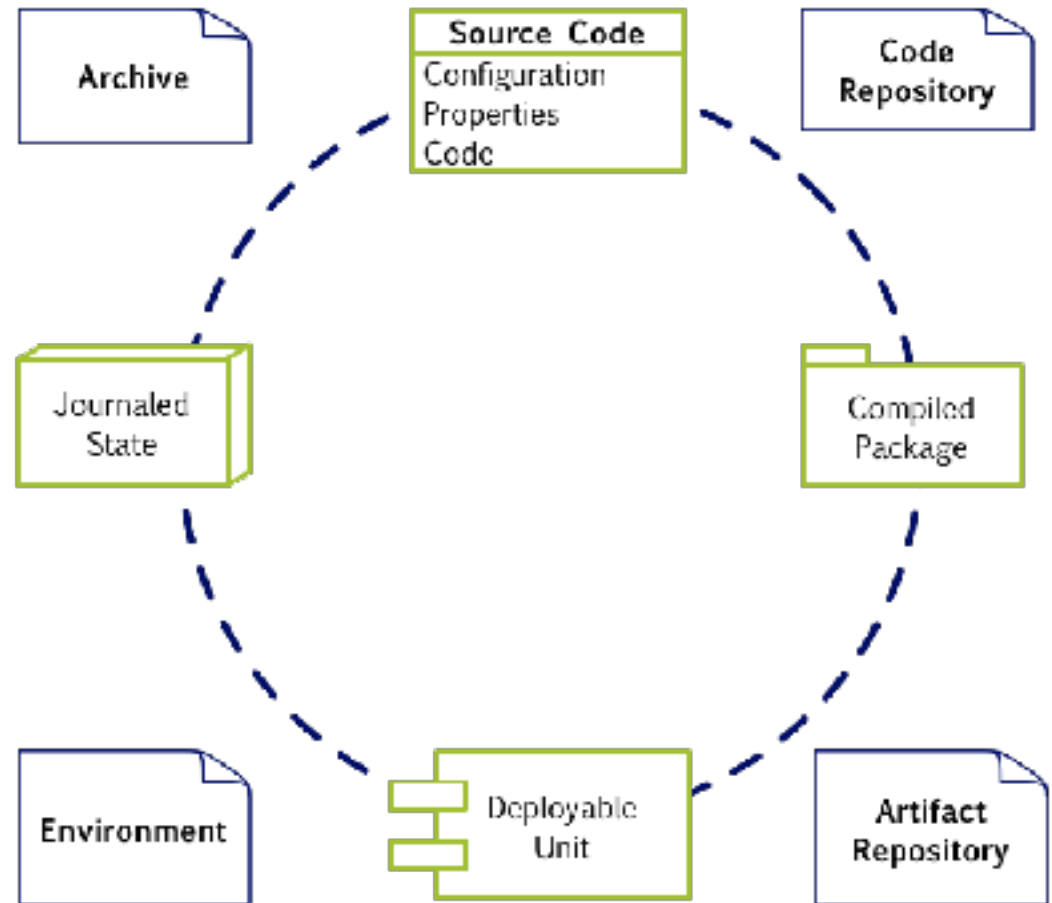


iWelcome is build with proven Open Source components and Everett Intellectual Property. iWelcome will enhance these within its platform. Therewith building its own Intellectual property base. For specific key functionality iWelcome OEM's Technology. The platform is partially ISO 27001 certified.

We deploy Java code frequently

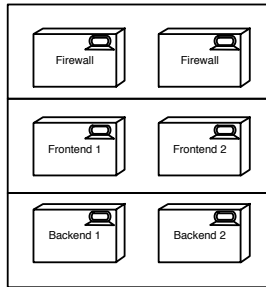


- wars & jars
- properties
- configuration

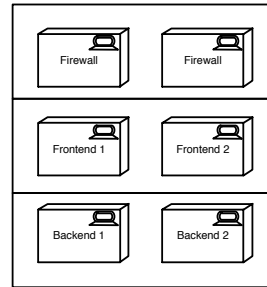


We deploy Java code frequently

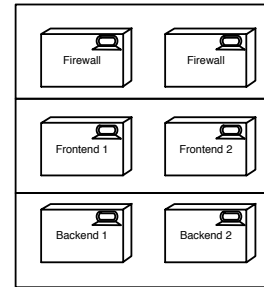
- Each customer has VLAN's, firewalls, backend-, & frontend servers



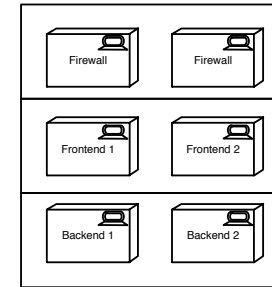
[[customerA]]



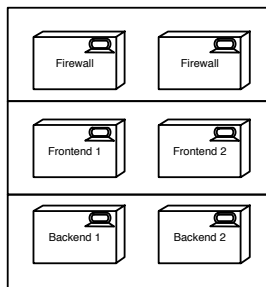
[[customerB]]



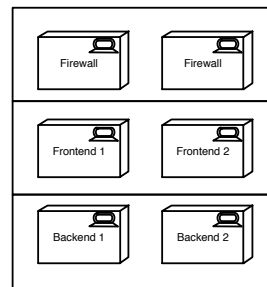
[[customerC]]



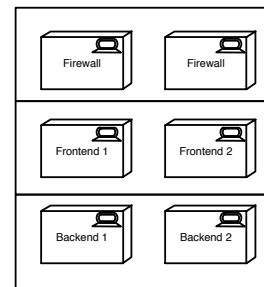
[[customerD]]



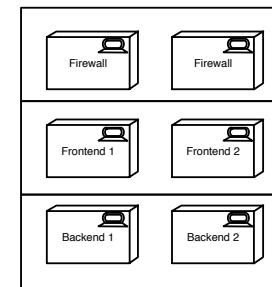
[[customerE]]



[[customerF]]



[[customerG]]



[[customerH]]

Develop on production-like system.



- Vagrant with Ansible

```
kreta:environment bas$ vagrant up
Bringing machine 'default' up with 'virtualbox' provider...
==> default: Importing base box 'chef/centos-6.5'...
==> default: Matching MAC address for NAT networking...
==> default: Checking if box 'chef/centos-6.5' is up to date...
==> default: Setting the name of the VM: PRODUCT-123
==> default: Fixed port collision for 22 => 2222. Now on port 2201.
==> default: Clearing any previously set network interfaces...
==> default: Preparing network interfaces based on configuration...
    default: Adapter 1: nat
==> default: Forwarding ports...
    default: 22 => 2201 (adapter 1)
==> default: Running 'pre-boot' VM customizations...
==> default: Booting VM...
==> default: Waiting for machine to boot. This may take a few minutes...
    default: SSH address: 127.0.0.1:2201
    default: SSH username: vagrant
    default: SSH auth method: private key
    default: Warning: Connection timeout. Retrying...
==> default: Machine booted and ready!
==> default: Checking for guest additions in VM...
==> default: Mounting shared folders...
    default: /vagrant => /Users/bas/code/environment
==> default: Running provisioner: ansible...
```



[Back to Dashboard](#)[Status](#)[Changes](#)[Workspace](#)[Build with Parameters](#)[Delete Multi-configuration project](#)[Configure](#)[Job Config History](#)[Build History](#) (trend) ▾

- #77 Jun 5, 2014 3:39:24 PM
- #76 Jun 5, 2014 3:35:09 PM
- #75 Jun 5, 2014 3:31:51 PM
- #74 Jun 5, 2014 3:29:46 PM
- #73 Jun 5, 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

You can deploy into different environments.

PLAYBOOK

take_snapshot creates a snapshot of runs, data and properties. You can run it at any time, and rollback depends on it. Deploy takes about 10 minutes. The granular deployment of OpenAM and Liferay cause a restart.

TAGS

Playbooks support tags. Empty string will simply execute the whole playbook. --tags=verify does not make changes.

IW_RELEASE

newus repository: Snapshots are constantly changing, deploy the latest version that might be gone next time. Select LATEST for IW_VERSION. Releases are tagged with a version like 14.1.4, use a version number for IW_VERSION.

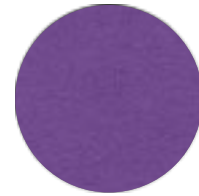
IW_VERSION

Build

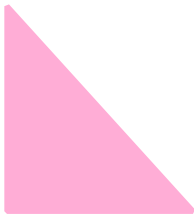
Dev/Ops use the same playbooks



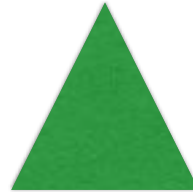
deployment/firstdeploy.yml



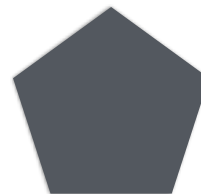
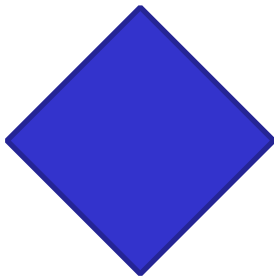
vagrant/provision.yml



configure/mongodb.yml



syncope/pickups.yml

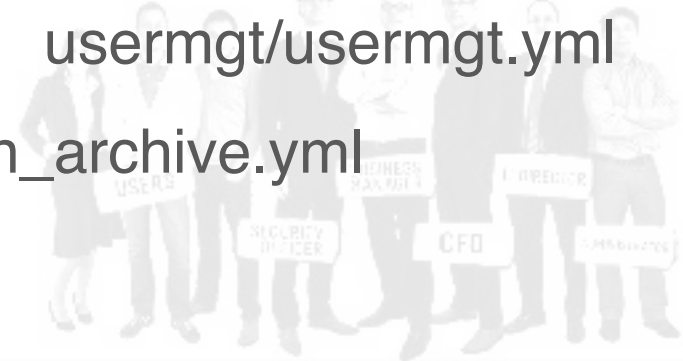


backup/load_data_on_archive.yml



usermgt/usermgt.yml

deployment/take_snapshot.yml



Wrapping it up

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

< IT can be simple >

```
\  ^__^
   (oo)\_______
      (__)\       )\/\
         ||----w |
         ||     ||
```



Thank You for your attention ! _

