

# How *not* to Deploy to AWS

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ecossio

Electronic Data Interchange **EDI**

**Automated exchange of B2B documents**



# Stability

Automated **builds**

Manual **bl**essing

Weekend **de**ployments

**Code**

master

release

**P**ull **R**equests

# Tools

**Java + Maven**



**GitHub**



**Jenkins**



**AWS: S3  $\Leftrightarrow$  EC2**

# Environments

local, vagrant, test

continuous-integration

development, stage, production

# Properties

```
db.host=127.0.0.1  
db.database=stage
```

# Blessing 🙏

**Promote** the build on Jenkins

```
$ mvn package -Dspring.profiles.active=development  
    Copy the artifact to S3
```

**Fetch** it during the deployment



**W**hat **Y**ou **B**less **I**s **not**

**W**hat **Y**ou **P**ackage

Changed **snapshot** dependencies

Always packages the **latest build**

**MissingProjectException**

reconsider



# The Twelve-Factor App



**Jo eh...**

# I. Codebase

**Git**



# II. Dependencies

## Maven

# III. Config

## ~~Properties~~

# **IV. Backing Services**

**RDS, ElastiCache, ActiveMQ,...**

**V. Build, Release, Run**

**Jenkins**



# **VI. Processes**

**Tanuki Java Service Wrapper**

# **VII. Port Binding**

**Tanuki Java Service Wrapper**

# VIII. Concurrency

DJ Bernstein **Daemontools**

# **IX. Disposability**

**ActiveMQ**

# **X. Dev / Prod Parity**

**Vagrant, deploy yourself**  
**~~Continuous Delivery~~**

# XI. Logs

File

~~LogEntries via Logback~~

# **XII. Admin Processes**

**Internal admin app**

# Non-Issues

**C**ontinuous **D**elivery  
Log appender

**Issues**

**Builds**

Properties

**Buuilds**

# Unified Build

**Package** during the **build**

**Copy** to S3 during the **promotion**

# Spring Profiles

**Load** the right **properties file**


**Define** the **environment** on the instance

# Jenkins: **Archive**

## Post-build Actions

### Archive the artifacts

Files to archive

Advanced...

Delete

# Jenkins: Promote

## Actions

### Copy artifacts from another project

Project name



**⚠ Value references a build parameter, so it cannot be validated.**

Which build

Specific build



Build number



Artifacts to copy



Artifacts not to copy



Target directory



Parameter filters



Flatten directories  Optional  Fingerprint Artifacts



Delete

# PS Jenkins: Release

Maven release build

Release goals and options  ?

DryRun goals and options  ?

Number of successful release builds to keep  ?

Default versioning mode  ?

Preselect 'Specify custom SCM comment prefix'  ?

Preselect 'Append Jenkins Username'  ?

Preselect 'Specify SCM login/password'  ?

**Properties**

**Encrypt** all the properties

<http://ejohn.org/blog/keeping-passwords-in-source-control/>



# **.gitignore**

**\*-dev.properties**

**\*-stage.properties**

**\*-prod.properties**

```
!/bin/sh
```

```
FILE=$1
```

```
FILENAME=$(basename "$FILE")
```

```
EXTENSION="{FILENAME###*}"
```

```
NAME="{FILENAME%.*}"
```

```
if [[ "$EXTENSION" != "aes256" ]]
```

```
then
```

```
    echo "Encrypting $FILENAME and removing the plaintext file"
```

```
    openssl aes-256-cbc -e -a -in $FILENAME -out ${FILENAME}.aes256
```

```
    rm $FILENAME
```

```
elif [[ "$EXTENSION" == "aes256" ]]
```

```
then
```

```
    echo "Decrypting $FILENAME"
```

```
    openssl aes-256-cbc -d -a -in $FILENAME -out $NAME
```

```
fi
```

# Deployment

wget **from S3**

**Decrypt**

**Switch & restart**

**Report**

# Security

## Service-wide outage

### Incident Report for Bonsai

On Wednesday, June 19th, One More Cloud's services Websolr.com and Bonsai.io suffered a major extended outage. This outage was the result of an attack on our systems using a compromised API key.

We are so sorry for the severe impact to our customers and their businesses, and we regret the circumstances which made it possible.










#### Timeline

*This outage was the result of an attack on our systems using a compromised API key.*

– **<http://status.bonsai.io/incidents/qt70mqtjbf0s>**

# Tip

**Color code** environments

 Build History	<a href="#">trend</a> 
 #47	<a href="#">Mar 9, 2015 3:52:55 PM</a> 123 MB
 #46	<a href="#">Mar 5, 2015 3:13:38 PM</a>    129 MB 
 #45	<a href="#">Mar 5, 2015 3:07:01 PM</a> 285 MB

# Tip

**Add information** to the artifacts

```
$ cat version  
Build number: 544  
Build date: 2015-05-13_15-30-42  
Git SHA1: 52c86f63895606f08cd
```

Thank you!  
**Questions?**

**@xeraa**

# Image Credits

Paper <https://flic.kr/p/7AdQmH>

Reconsider <https://flic.kr/p/7SMvEu>

Twelve <https://flic.kr/p/3iRDd9>

Austria <https://flic.kr/p/cUsAR1>