

# ElasticBox CI

Provides full integration between Jenkins and ElasticBox (<http://elasticbox.com>). With this plugin, Jenkins can launch, provision, and manage Jenkins slaves on-demand in different cloud providers via ElasticBox. It also provides build steps to deploy and manage your applications, including complex, multi-tier applications that are defined as boxes in ElasticBox.

## Version compatibility

The plugin is always compatible with the latest version of ElasticBox.  
If you're using a previous version of ElasticBox (<4.0), the latest compatible version of the plugin is the 0.9.14

## Plugin Information

View ElasticBox CI [on the plugin site](#) for more information.

 The current version of this plugin may not be safe to use. Please review the following warnings before use:

- [Credentials stored in plain text](#)

The latest documentation and tutorials can be found at <https://elasticbox.com/documentation/integrate-with-jenkins/ci-cd-overview/>

## Installation / Configuration

- Jenkins must be restarted after installation of this plugin for it to work properly. You can trigger a hot restart of Jenkins by checking the check box as shown below after your selection to install ElasticBox CI plugin.

## Installing Plugins/Upgrades

Preparation

elasticbox

 Success

Preparation

- Checking internet connectivity

Restarting Jenkins

 Pending

 [Go back to the top page](#)  
(you can start using the installed plugins right away)

  Restart Jenkins when installation is complete and no jobs are running

- If you are starting a JNLP Jenkins slave agent in your slave instance and your Jenkins server is not wide-open at every port, configure a fixed JNLP port for your Jenkins server under Manager Jenkins > Configure Global Security.
- Set Jenkins URL in configuration page of your Jenkins server with a host name or IP address that are accessible to the slaves.

## How To Use

- Add ElasticBox as a cloud in the configuration page of Jenkins. You can add multiple ElasticBox clouds, one for each user at elasticbox.com or your own ElasticBox appliance. An authentication token is required to access ElasticBox. You can retrieve an authentication token from your

ElasticBox account or enter the username and password, click Get Authentication Token button, then copy the returned token to the Authentication Token field. Click Verify Authentication Token to make sure that the specified token is correct.

#### Cloud

**ElasticBox**

Description	ElasticBox SaaS
End Point URL	https://elasticbox.com
Max. No. of Instances	5
Authentication Token	4ba5db23-4278-4243-b11d-75f292cf1730
The authentication token is valid for https://elasticbox.com. <input type="button" value="Verify Authentication Token"/>	
Username	tphongio@gmail.com
Password	*****
4ba5db23-4278-4243-b11d-75f292cf1730 <input type="button" value="Get Authentication Token"/>	
Slave Configurations	<input type="button" value="Add"/>
Configuration of boxes to be launched as slaves	
<input type="button" value="Delete cloud"/>	

- Create a Jenkins Slave box in ElasticBox (you can sign up at <http://elasticbox.com> and use it right away if you don't have an ElasticBox account yet). The box must have required variables JENKINS\_URL and JNLP\_SLAVE\_OPTIONS. ElasticBox CI plugin will set the value of JENKINS\_URL variable to the URL configured for this Jenkins server, and fill the value of JNLP\_SLAVE\_OPTIONS automatically. Those variable are needed to download the slave agent from Jenkins server and start it from within the slave instance as shown in the following scripts.

#### Install event script

```
#!/bin/bash

# Download the slave agent from Jenkins server
wget $JENKINS_URL/jnlpJars/slave.jar -O slave.jar
```

#### Start event script

```
#!/bin/bash

# Execute the agent and save the PID
nohup java -jar slave.jar $JNLP_SLAVE_OPTIONS > /dev/null 2>&1 &
echo \${!} > slave.pid
```

You also need to add the following command in the stop event script of the Jenkins Slave box to kill the slave agent process when the instance is shutting down

```
#!/bin/bash

# Stop the agent
kill -9 $(cat slave.pid)
```

- Configure slave to be provisioned on demand by clicking on Add button next to Slave Configurations in the ElasticBox cloud form.

Slave Configurations

Description	Maven Slave	
Workspace	Jenkins Room	
Box	Maven Jenkins Slave	
Version	Latest	
Deployment Profile	jenkins	
Min. No. of Instances	0	
Max. No. of Instances	2	
Environment	jenkins	
Labels	mvn-linux	

The required variables JNLP\_SLAVE\_OPTIONS, JENKINS\_URL are detected in child box Linux Jenkins Slave. They will be set by Jenkins at deployment time.

**Variables**

- ▶ **Maven Jenkins Slave**
- ▶ **Linux Jenkins Slave (jnlp\_jenkins\_slave)**
- ▶ **Git Repository (github.git\_repo)**

**Advanced Configuration**

Remote FS root		
Usage	Utilize this slave as much as possible	
Retention Time	30	
<p>Specifies how long a slave can remain idle before being terminated.</p> <p>Times are expressed in minutes, and a value of 0 indicates that the slave will not be used for another build and should be terminated immediately.</p> <p>(from <a href="#">ElasticBox CI Plug-in</a>)</p>		
Number of Executors	1	
Launch Timeout	60	

Configuration of boxes to be launched as slaves

Specify labels for the slave that any job can use to tie with slaves deployed with the configuration. The Environment is required and must be unique among slave configurations of the same ElasticBox cloud.

- You also can configure your Jenkins project or job to be built on ElasticBox-managed slaves as following. The slaves deployed with this per-project configuration are used exclusively for the project.

## Build Environment

ElasticBox Instance Creation

Cloud

Workspace  

The workspace in ElasticBox where the slaves will be deployed to run the builds of this project.

(from [ElasticBox CI Plug-in](#))

Box  

A box in the selected workspace to deploy.

(from [ElasticBox CI Plug-in](#))

Version  

A version of the selected box to deploy slave. The box version or one of its child boxes must have variables JENKINS\_URL and JNLP\_SLAVE\_OPTIONS.

(from [ElasticBox CI Plug-in](#))

Deployment Profile  

Max. No. of Instances

Environment

## Variables

  Linux Jenkins Slave

JENKINS\_URL

JNLP\_SLAVE\_OPTIONS

Advanced...

ElasticBox Single-Use Slave

Select ElasticBox Single-Use Slave if you want to create a new instance for every execution of the job. After the job finished and the retention time elapsed, the instance will be terminated.

- Add ElasticBox - Deploy Box to deploy an instance of a specified box

**ElasticBox - Deploy Box (Website - Latest)**

Cloud: ElasticBox SaaS

Workspace: Production

Box: Website

Version: Latest

Deployment Profile: production-east

Number of Instances: 1

Tags: staging

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**Variables**

- Website
- SSH Key Manager (ssh)
- Git Repository (git)
  - CLONE\_URL: git@git.elasticbox.com:elasticbox/website.git
  - CLONE\_DIRECTORY: website
  - BRANCH: \${ghprbSourceBranch}

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**Advanced**

If instance already exists: reinstall

Wait for completion:

Inject environment variables: WEBSITE

Define an environment variable for the instance deployed by this build step. The variable will hold the instance ID.

Additional instance properties will also be available via other environment variables that have the defined variable as prefix of their name. For example, if **INSTANCE** is specified for this field then the following environment variables are available:

**INSTANCE** - ID of the deployed instance  
**INSTANCE\_URL** - URL of the deployed instance  
**INSTANCE\_SERVICE\_ID** - service ID of the deployed instance  
**INSTANCE\_TAGS** - comma-separated list of tags of the deployed instance

If 1 is specified for Number of Instances then the following environment variables are available:

**INSTANCE\_MACHINE\_NAME** - VM name of the deployed instance  
**INSTANCE\_PUBLIC\_ADDRESS** - VM public address of the deployed instance  
**INSTANCE\_PRIVATE\_ADDRESS** - VM private address of the deployed instance

If Number of Instances is greater than 1, the following environment variables are available:

**INSTANCE\_MACHINE\_NAMES** - space-separated list of VM names  
**INSTANCE\_PUBLIC\_ADDRESSES** - space-separated list of public addresses of the VMs  
**INSTANCE\_PRIVATE\_ADDRESSES** - space-separated list of private addresses of the VMs

(from [ElasticBox CI Plug-in](#))

You can specify build parameters or build environment variables as value of the variables or environment of the box you select to deploy. In the above picture, the GitHub Pull Request build parameter `ghprbSourceBranch` is specified as value for the variable `BRANCH` to receive the Git source branch to be used during deployment of the box.

- Add ElasticBox - Manage Instance build step to Update, Reconfigure, Reinstall, Stop, or Terminate instances

- **Update**

**ElasticBox - Manage Instance**

Cloud

Workspace

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**Update**

Box

Version

Tags

Comma-separate tags of the instances to update. Build parameters or environment variables can be specified in tag with the format `${VARIABLE_NAME}`. Tag can be a Java regular expression that is enclosed in 2 forward slashes (/) such as `/^elasticbox-.*` that matches any tag starting with 'elasticbox-'.

(from [ElasticBox CI Plug-in](#))

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**Variables**

- Jpetstore (base)**
  - mysql
  - Name
- Tomcat (Puppet) (base.APPSERVER)**
- Puppet (base.APPSERVER.PUPPET)**

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- Reconfigure
- Reinstall
- Start
- Stop
- Terminate
- Update

You can specify build parameters or build environment variables as value of the variables or environment of the box you select to update.

- **Reconfigure**

Specify tags that are used to find the instances in the selected workspace of ElasticBox - Manage Instance build step to reconfigure

**Reconfigure**

Tags

Comma-separate tags of the instances to reconfigure. Build parameters or environment variables can be specified in tag with the format `${VARIABLE_NAME}`. Tag can be a Java regular expression that is enclosed in 2 forward slashes (/) such as `/^elasticbox-.*` that matches any tag starting with 'elasticbox-'.

(from [ElasticBox CI Plug-in](#))

Wait for completion

- **Reinstall**

Similarly to Reconfigure, specify tags used to find instances to reinstall.

- **Start**

Similarly to Reconfigure, specify tags used to find instances to start.

- **Stop**

Similarly to Reconfigure, specify tags used to find instances to stop.

- **Terminate**

Similarly to Reconfigure, specify tags used to find instances to terminate. Additionally, you can select to delete the instance after its termination.

☰ **Terminate**

Tags



Comma-separate tags of the instances to terminate. Build parameters or environment variables can be specified in tag with the format `${VARIABLE_NAME}`. Tag can be a Java regular expression that is enclosed in 2 forward slashes (`/`) such as `/^elasticbox-.*` that matches any tag starting with 'elasticbox-'.

(from [ElasticBox CI Plug-in](#))

Wait for completion

Delete after termination

Delete