

Jenkins 安装及CI配置

By Volshell & Wayen

Jenkins的安装

- 官网:<https://wiki.jenkins-ci.org/display/JENKINS/Installing+Jenkins>
- ubuntu:
\$wget -q -O - https://jenkins-ci.org/debian/jenkins-ci.org.key |
sudo apt-key add -
\$sudo sh -c 'echo deb http://pkg.jenkins-ci.org/debian binary/ > /
etc/apt/sources.list.d/jenkins.list'
\$sudo apt-get update
\$sudo apt-get install jenkins
- upgrade:
\$sudo apt-get update
\$sudo apt-get install jenkins


Jenkins 配置

- 开机启动时会以守护程序形式启动,可以查看/etc/init.d/jenkins
- 会生成一个'jenkins'用户来进行这项服务.
- log文件在/var/log/jenkins/jenkins.log可用于检查错误.
- 默认情况下jenkins监听8080端口,可通过修改/etc/init.d/jenkins和/etc/default/jenkins修改端口.

Jenkins 配置

登录web端:http://localhost:8080

Administrator

 Jenkins

admin


注销


查找


?


Jenkins


允许自动刷新


 新建


 用户

 任务历史

 系统管理

 Credentials

 Query and Trigger Gerrit Patches

 My Views

构建队列

队列中没有构建任务




构建执行状态

1 空闲

2 空闲


All


+


S	W	Name ↓	上次成功	上次失败	上次持续时间	
		test	4 days 21 小时 - #2	无	0.37 秒	

图标: [S](#) [M](#) [L](#)

图例

 [RSS 全部](#)

 [RSS 失败](#)

 [RSS 最新的构建](#)

添加说明

Jenkins plugins

安装plugins 【系统管理】 → 【管理插件】

 **Jenkins**

Jenkins ▶

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管理Jenkins

 **系统设置**
全局设置&路径

 **Configure Global Security**
Secure Jenkins; define who is allowed to access/use the system.

 **读取设置**
放弃当前内存中所有的设置信息并从配置文件中重新读取 仅用于当您手云

 **管理插件**
添加、删除、禁用或启用Jenkins功能扩展插件。 **(可用更新)**

 **系统信息**
显示系统环境信息以帮助解决问题。

 **System Log**
系统日志从java.util.logging捕获Jenkins相关的日志信息。

 **负载统计**
检查您的资源利用情况，看看是否需要更多的计算机来帮助您构建。

 **Jenkins CLI**
从您命令行或脚本访问或管理您的Jenkins。


 **脚本命令行**
执行用于管理或故障探测或诊断的任意脚本命令。


Jenkins plugins


启用	名称 ↓
<input checked="" type="checkbox"/>	Ant Plugin This plugin adds Apache Ant support to Jenkins.
<input checked="" type="checkbox"/>	Credentials Plugin This plugin allows you to store credentials in Jenkins.
<input checked="" type="checkbox"/>	CVS Plug-in Integrates Jenkins with CVS version control system using a modified version cvsclient.
<input checked="" type="checkbox"/>	External Monitor Job Type Plugin Adds the ability to monitor the result of externally executed jobs.
<input checked="" type="checkbox"/>	Gerrit Trigger This plugin integrates with Gerrit code review.
<input checked="" type="checkbox"/>	GIT client plugin Shared library plugin for other Git related Jenkins plugins.
<input checked="" type="checkbox"/>	GIT plugin This plugin integrates GIT with Jenkins.
<input checked="" type="checkbox"/>	Git server plugin Allows Jenkins to act as a Git server.
<input checked="" type="checkbox"/>	Javadoc Plugin This plugin adds Javadoc support to Jenkins.
<input checked="" type="checkbox"/>	JUnit Plugin Allows JUnit-format test results to be published.
	LDAP Plugin


Jenkins Credentials

Jenkins > Credentials > Global credentials (unrestricted)

 [Back to Global credentials \(unrestricted\)](#)

 [Update](#)

 [Delete](#)

 [Move](#)

Scope

Global (Jenkins, nodes, items, all child items, etc)

Username

jenkins

Private Key

☐ Enter directly

☒ From a file on Jenkins master

File

/var/lib/jenkins/.ssh/id_rsa

☐ From the Jenkins master ~/.ssh


Passphrase

.....

Description


Save


Jenkins Job


 Jenkins


Jenkins


▸ All ▸


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Item名称

☒ 构建一个自由风格的软件项目

这是Jenkins的主要功能.Jenkins将会结合任何SCM和任何构建系统来构建你的项目, 甚至可以构建软件以外的系统.

☐ 构建一个maven项目

构建一个maven项目.Jenkins利用你的POM文件,这样可以大大减轻构建配置.

☐ External Job

这个类型的任务允许你记录执行在外部Jenkins的任务, 任务甚至运行在远程机器上.这可以让Jenkins作为你所有自动构建系统的控制
[细内容](#).

☐ 构建一个多配置项目

适用于多配置项目,例如多环境测试,平台指定构建,等等.

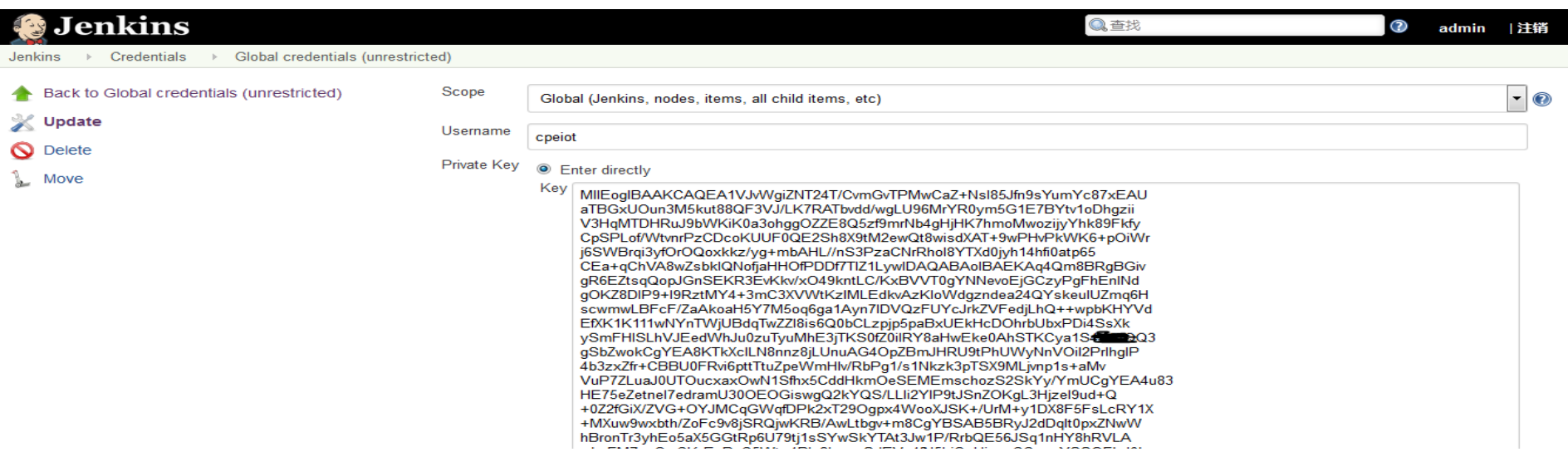
☐ 复制已有的Item

要复制的任务名称

OK





Jenkins Job

为了实现jenkins和gerrit关联，需要添加gerrit用户的private key 和jenkins 的private key



Global credentials (unrestricted)

Credentials that should be available irrespective of domain specification to requirements matching.

Name		Kind	Description
	jenkins	SSH Username with private key	
	cpeiot	SSH Username with private key	



图标: [S](#) [M](#) [L](#)

Jenkins Job

此外还要在jenkins关联的gerrit用户的key中添加jenkins的public key。

Settings

[Profile](#)
[Preferences](#)
[Watched Projects](#)
[Contact Information](#)
[SSH Public Keys](#)
[HTTP Password](#)
[Identities](#)
[Groups](#)


Status	Algorithm	Key	Comment
<input type="checkbox"/>	ssh-rsa	AAAAB3NzaC1yc2EAAAADAQABAAQ... MN/t0VnUvL 	cpeiot@IOT-GP3
<input type="checkbox"/>	ssh-rsa	AAAAB3NzaC1yc2EAAAADAQABAAQ... sfAgaCbBhD 	jenkins@IOT-GP3
<input type="button" value="Delete"/> <input type="button" value="Add Key ..."/>			

Server Host Key

Fingerprint:

b4:4e:e8:11:e5:28:a0:8d:f8:ea:da:5d:50:b9:cc:b8

Entry for ~/.ssh/known_hosts:

[135.252.145.126]:29418 ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQgQCWsc/mSS... ucpgo+QQ== 

Jenkins Job

源码管理


- ☐ None
- ☐ CVS
- ☐ CVS Projectset
- ☒ Git

Repositories

Repository URL ?

Credentials

cpeiot

 Add

 ?

 高级...

Add Repository

Delete Repository

- All

My

Projects

People

Plugins

Documentation
- List

General

Branches

Access

Dashboards

Create New Project

Search term

Project testC


clone

clone with commit-msg hook

Anonymous HTTP

SSH

HTTP

git clone http://admin@[REDACTED]:8088/testC 

Description

Jenkins Job

源码库浏览器

(自动)

Additional Behaviours

Strategy for choosing what to build

Choosing strategy

Gerrit Trigger

Dynamic Trigger Configuration



删除

Gerrit Project

删除	Type	Pattern	Branches						
	Plain	testC	<table><tr><td>Type</td><td>Pattern</td></tr><tr><td>Path</td><td>master</td></tr><tr><td colspan="2">Add Branch</td></tr></table>	Type	Pattern	Path	master	Add Branch	
Type	Pattern								
Path	master								
Add Branch									
Add Topic									
Add File path									
Add Forbidden File path									

Add Project

Gerrit Server

-  新建
-  用户
-  任务历史
-  **系统管理**
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-  [System Log](#)

Gerrit Server

在管理Jenkins里面找到Gerrit Trigger，【New Server】

Gerrit Server

Hostname	Gerrit服务器的主机名或IP地址
Frontend URL	Gerrit的web 页面地址
	 Must put something here.
SSH Port	29418
Proxy	
Username	你用来登录Gerrit的用户名
E-mail	279671687@qq.com
SSH Keyfile	/home/kurenai/.ssh/id_rsa（即在Gerrit个人Setting中添加的ssh-key对应的私钥）

SSH Keyfile ， 在创建的时候会有默认值，直接默认即可。

这个是jenkins用户的private key。

配置完成，点击【Test Connecction】 出现success即可

CI Demo

Clone project from gerrit

```
cpeiot@IOT-GP3:~/workspace/testC$ pwd
/home/cpeiot/workspace/testC
cpeiot@IOT-GP3:~/workspace/testC$ ll
total 12
-rw-rw-r-- 1 cpeiot cpeiot  57  9? 7 09:52 main.c
-rw-rw-r-- 1 cpeiot cpeiot 102  9? 7 09:52 README
-rw-rw-r-- 1 cpeiot cpeiot  21  9? 7 11:34 test
cpeiot@IOT-GP3:~/workspace/testC$
```

Add file – Main.java

```
cpeiot@IOT-GP3:~/workspace/testC$ git status
On branch master
Your branch is ahead of 'origin/master' by 1 commit.
  (use "git push" to publish your local commits)

Untracked files:
  (use "git add <file>..." to include in what will be committed)

        Main.java

nothing added to commit but untracked files present (use "git add" to track)
cpeiot@IOT-GP3:~/workspace/testC$ git add Main.java
cpeiot@IOT-GP3:~/workspace/testC$ git status
On branch master
Your branch is ahead of 'origin/master' by 1 commit.
  (use "git push" to publish your local commits)

Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        new file:   Main.java

cpeiot@IOT-GP3:~/workspace/testC$
```

CI Demo

Commit it

```
cpeiot@IOT-GP3:~/workspace/testC$ git commit -m 'add new file Main.java
> '
[master 903c0db] add new file Main.java
 1 file changed, 5 insertions(+)
 create mode 100644 Main.java
cpeiot@IOT-GP3:~/workspace/testC$ git status
On branch master
Your branch is ahead of 'origin/master' by 2 commits.
  (use "git push" to publish your local commits)

nothing to commit, working directory clean
cpeiot@IOT-GP3:~/workspace/testC$ █
```

Push it

```
cpeiot@IOT-GP3:~/workspace/testC$ git push origin HEAD:refs/for/master
Counting objects: 7, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 469 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
remote: Processing changes: new: 1, refs: 1, done
remote:
remote: New Changes:
remote:   http://IOT-GP3:8088/8 add new file Main.java
remote:
To ssh://admin@135.252.145.126:29418/testC
 * [new branch]      HEAD -> refs/for/master
cpeiot@IOT-GP3:~/workspace/testC$ █
```


CI Demo

Gerrit

All

My

Projects

People

Plugins

Documentation

Changes

Drafts

Draft Comments

Watched Changes

Starred Changes

Groups

Search term

Search

Administrator

My Reviews

Subject	Status	Owner	Project	Branch	Updated	Size	CR
Outgoing reviews							
☆ delete readme file		Administrator	testC	master	Sep 2		
☆ main.c commit		Administrator	test	master	10:02 AM		
☆ add readme file		Administrator	test	master	10:20 AM		
☆ add a test file		Administrator	test	master	11:33 AM		
☆ add a test file		Administrator	testC	master	11:34 AM		
☆ add new file Main.java		Administrator	testC	master	12:47 PM		
Incoming reviews							

Jenkins

Jenkins > test >

 返回面板

 状态

 修改记录

 工作空间

 Git Polling Log

Project test

 工作区

 最新修改记录

Build History

构建历史

#4	2015-9-7 下午12:47	8.1
#3	2015-9-7 上午11:34	7.1
#2	2015-9-2 下午1:58	3.1
#1	2015-9-2 下午1:50	2.1

 RSS 全部  RSS 失败

相关连接

- [Last build\(#4\), 1分 23秒之前](#)
- [Last stable build\(#4\), 1分 23秒之前](#)
- [Last successful build\(#4\), 1分 23秒之前](#)

CI Demo

CI Demo