

# RocketMQ Deployment Guide

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RocketMQ Deployment Guide .....	1
Deploy Name Server Cluster Manager Server .....	3
Deploy RocketMQ .....	5
Application Example .....	6
Contact .....	7

## Prerequisite Software

OS: 64bit  
Java SDK 1.7.x 64bit  
Git  
Maven 3.2.x  
Jetty

Make sure you have set JAVA\_HOME, PATH, M2\_HOME properly.

## Clone Source Repository

Source code of this project is hosted on github: [link](#)

To clone the source, execute the following command:

git clone [https://github.com/lizhanhui/Alibaba\\_RocketMQ.git](https://github.com/lizhanhui/Alibaba_RocketMQ.git)

## Build

```
cd Alibaba_RocketMQ
sh install.sh
```

## Deploy Name Server Cluster Manager Server

At present we have two management portals: rocketmq-cockpit(referred as cockpit) and rocketmq-console(referred as console). Cockpit is to manage name server list, internal and public IP mapping. Future planned features will include monitoring running status of the whole cluster status. Console contains tools of MQ administration tools. These are identical to console commands like “mqadmin sub-command option-list”.

To deploy these two web application, we need a web container, say jetty. Latest version of jetty is preferred. You may download jetty <http://www.eclipse.org/downloads/>  
Unzip and add a soft link in user home folder, pointing to the folder of your

jetty.

Modify start.ini, change default port to 80.

```
104 ## HTTP port to listen on
105 jetty.port=80
```

Execute shell script Alibaba\_RocketMQ/deploy\_webapps.sh

Use root account to start jetty:

**cd ~/jetty**

**nohup java -jar start.jar &**

Open a browser, visit <http://localhost>

Login as root/password

You may manage name server list and IP mapping:

- Add IP Mapping

Go to <http://COCKPIT-IP/cockpit/ip/> to add internal IP and public IP mapping for this broker if you need to.

## Deploy RocketMQ

### 1 Configure And Build

- Generate two Java key stores, both of which contain private-public key pair: one for server side and one for client side. Make sure each key store has the counterpart public key trusted. For now, key store and trust key store are the same. You may refer to the following class for security settings: `com.alibaba.rocketmq.remoting.netty.SslHelper`
- Put the two key stores into `${Alibaba_RocketMQ}/rocketmq-remoting/src/main/resources`, naming them as existing.  
Make sure your start up scripts has the following system property properly set:
  - DRocketMQServerKeyStorePassword
  - DRocketMQServerTrustKeyStorePassword
  - DRocketMQServerKeyPassword
  
  - DRocketMQClientKeyStorePassword
  - DRocketMQClientTrustKeyStorePassword
  - DRocketMQClientKeyPassword
- Configure SSL Settings  
Enable `ROCKETMQ_ENABLE_SSL=true` environment variable or add `-Denable_ssl=true` option while starting up.  
You may refer to `bin/tools.sh` to enable SSL.
- `sh install.sh`
- Set `ROCKETMQ_HOME`, pointing this environment variable to `~/Alibaba_RocketMQ/devenv`.

### 2 Deploy Name Server

- Edit System hosts file by adding the following entry, pointing to the Name Server Manager Site:  
`CONFIG-SERVER-IP rocketmq.api`
- Go to `devenv/bin` folder and execute the following command:  
**`nohup sh start.sh nameserver &`**
- Go to `http://COCKPIT-IP/cockpit/name-server/` add this name server to the list.

### 3 Deploy Broker

Go to `devenv/bin` and execute the following command to start master sync broker:

**`nohup sh start.sh broker master sync &`**

Execute the following command to start slave sync broker:

## nohup sh start.sh broker master sync &

### 4 Verification

At devenv/bin, execute the following commands; you should see the following cluster list once your broker is running correctly:

```
[lizhanhui@lizhanhui bin]$ sh mqadmin clusterList
Java HotSpot(TM) 64-Bit Server VM warning: ignoring option PermSize=128m; support was removed in 8.0
Java HotSpot(TM) 64-Bit Server VM warning: ignoring option MaxPermSize=128m; support was removed in 8.0
#Cluster Name    #Broker Name    #BID    #Addr    #Version    #InTPS    #OutTPS
DefaultCluster    broker-a        0        172.30.50.112:10911    V3_2_2        0.00        0.00
[lizhanhui@lizhanhui bin]$ sh mqadmin topicList
Java HotSpot(TM) 64-Bit Server VM warning: ignoring option PermSize=128m; support was removed in 8.0
Java HotSpot(TM) 64-Bit Server VM warning: ignoring option MaxPermSize=128m; support was removed in 8.0
BenchmarkTest
OFFSET_MOVED_EVENT
broker-a
TBW102
SELF_TEST_TOPIC
DefaultCluster
[lizhanhui@lizhanhui bin]$
```

## Application Example

For clients, these java options are required to set properly:

```
JAVA_OPT="{JAVA_OPT} -Drocketmq.namesrv.domain=rocketmq.api"
JAVA_OPT="{JAVA_OPT} -Denable_ssl=true"
JAVA_OPT="{JAVA_OPT} -DRocketMQClientKeyStorePassword=changeit"
JAVA_OPT="{JAVA_OPT} -DRocketMQClientTrustKeyStorePassword=changeit"
JAVA_OPT="{JAVA_OPT} -DRocketMQClientKeyPassword=changeit"
JAVA_OPT="{JAVA_OPT} -Duse_elastic_ip=true"
```

On default, Java key store `{Alibaba_RocketMQ}/conf/client.ks` should be copied to `{Alibaba_RocketMQ}/devenv/conf/client.ks`

#### 1 Producer

See

[https://github.com/lizhanhui/Alibaba\\_RocketMQ/blob/ssl/rocketmq-example/src/main/java/com/alibaba/rocketmq/example/quickstart/Producer.java](https://github.com/lizhanhui/Alibaba_RocketMQ/blob/ssl/rocketmq-example/src/main/java/com/alibaba/rocketmq/example/quickstart/Producer.java)

#### 2 Consumer

See

[https://github.com/lizhanhui/Alibaba\\_RocketMQ/blob/ssl/rocketmq-example/src/main/java/com/alibaba/rocketmq/example/quickstart/Consumer.java](https://github.com/lizhanhui/Alibaba_RocketMQ/blob/ssl/rocketmq-example/src/main/java/com/alibaba/rocketmq/example/quickstart/Consumer.java)

## Contact

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