

JIRA Install Cookbook

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Requirements

Atlassian

See <https://confluence.atlassian.com/display/JIRA/JIRA+Requirements> for newest requirements

OS and Hardware Settings

Virtual: Why not - the benefist are huge

Preferred OS: Ubuntu LTS 64-bit

Hardware: At least 2 CPU's and at least 3 GB Ram

MySQL Settings

Preferred Database: MySQL (or Postgres)

Settings for MySQL (ref: [MySQL](#))

my.cnf

```
[mysqld]
#transaction-isolation = READ-COMMITTED (Seems obsolete with binlog_format=row)
log-bin=mysql-bin
binlog_format=row
default-table-type=innodb
default-storage-engine=innodb
max_allowed_packet=64M

[mysql]
default-character-set=utf8
```

On large installations or where indexes are huge, changing innodb_lock_wait_timeout can be an option (Ref: [JIRAKB](#))

my.cnf

```
[mysqld]
innodb_lock_wait_timeout = 300
```

Mail

SMTP Access for sending mail

IMAP Access for picking up mail

Installation

Prepare database

Create the Database

```
mysql> CREATE DATABASE jira CHARACTER SET utf8 COLLATE utf8_bin;
mysql> GRANT SELECT,INSERT,UPDATE,DELETE,CREATE,DROP,ALTER,INDEX on jira.* to jira@localhost identified by
'*****';
Query OK, 0 rows affected (0.00 sec)
```

Install binaries

Download JIRA from <http://www.atlassian.com/software/jira/download>

Download the MySQL JDBC from <http://dev.mysql.com/downloads/connector/j/>

For the binary installer, JAVA is integrated, for EAR or WAR files this must be downloaded and installed separately.

```
sh ./atlassian-jira-6.1.5-x64.bin
```

Follow the required steps (remember path to **JIRA_Install** and **JIRA_Home**) and connect to the tomcat instance started



Configuration should (if possible) be done directly at the host:8080 - going through a proxy or trafficmanager add a risk that pages time out, leaving the JIRA server (and the client) in an unknown state

Postinstall

This is where the tweaking comes into place, to avoid common problems:

setenv.sh

This file is found in the **JIRA_Install/bin**

Add support for UTF-8 File system by adding *-Dfile.encoding=UTF-8* to the JAVA_OPTS:

```
JAVA_OPTS="-Xms1024m -Xmx1024m -XX:MaxPermSize=512m $JAVA_OPTS -Djava.awt.headless=true -XX:NewSize=512m -Dfile.encoding=UTF-8"
export JAVA_OPTS
```

server.xml

This file is found in **JIRA_Install/conf**

Binding to a fixed IP Address, add the *address=* to the connector. Also the *port=* can be changed (Under Linux only root can bind to 0-1023):

```
<Connector className="org.apache.coyote.tomcat4.CoyoteConnector" port="8080" address="10.0.0.10" minProcessors="5"
maxProcessors="75"
enableLookups="false" redirectPort="8443" acceptCount="10" debug="0" connectionTimeout="20000"
useURValidationHack="false" />
```

To secure correct UTF-8 Handling, add `URIEncoding="UTF-8"` to the connector:

```
<Connector className="org.apache.coyote.tomcat4.CoyoteConnector" port="8080" address="10.0.0.10" minProcessors="5"
maxProcessors="75"
enableLookups="false" redirectPort="8443" acceptCount="10" debug="0" connectionTimeout="20000"
useURValidationHack="false" URIEncoding="UTF-8" />
```

If behind a traffic Manager or Apache Proxy, add `scheme=`, `proxyName=` and `proxyPort=` to the context (See [Apache2 Proxy Passing](#) or Proxy Passing section below):

```
<Context path="" docBase="../confluence" debug="0" reloadable="false" useHttpOnly="true" scheme="https"
proxyName="jira.example.com" proxyPort="443">
```

If the JIRA instance need to run below root /, change the *path=* parameter:

```
<Context path="/jira" docBase="../confluence" debug="0" reloadable="false" useHttpOnly="true" allowLinking="true">
```

Other

Proxy passing

There are good reasons for using an Apache or Traffic Manager in front of the Confluence Installation, some are:

- No port changing (non-root users can assign to ports below 1024)
- Use of URL Rewrite
- Use of URL Blocking
- Use of Allow/Denial
- SSL offloading/handling outside the Confluence

Se my example in [Apache2 Proxy Passing](#)

Time And Date Setup

Time and Date should be set up 2 places according to

<https://confluence.atlassian.com/display/JIRA/Customizing+the+Look+and+Feel>

<https://confluence.atlassian.com/display/JIRA/Advanced+JIRA+Configuration>

My formats for danish is:

Time Format	HH:mm
Day Format	dd-MM-yyyy
Complete Date/Time Format	dd-MM-yyyy HH:mm
Day/Month/Year Format	dd-MM-yyyy
jira.date.picker.java.format	dd-MM-yyyy
jira.date.picker.javascript.format	%d-%m-%Y
jira.date.time.picker.java.format	dd-MM-yyyy HH:mm
jira.date.time.picker.javascript.format	%d-%m-%Y %H:%M

Performace improvement

For setenv.sh (Reference: <https://answers.atlassian.com/questions/327828/tomcat-uses-100-cpu-after-jira-upgrade>)

```
-Dorg.apache.jasper.runtime.BodyContentImpl.LIMIT_BUFFER=true  
-Dmail.mime.decodeparameters=true
```

Logfiles

Logrotate

Set up logrotate to avoid ever growing catalina.out log file. Here **JIRA_Home** is /opt/jira, logs are rotated daily and kept for 7 days:

/etc/logrotate.d/confluence

```
/opt/jira/logs/catalina.out {  
    daily  
    rotate 7  
    compress  
    copytruncate  
    delaycompress  
    missingok  
    size 10M  
    notifempty  
}
```