**Install Jira on a Linux server**

* [**INSTALLATION**](https://www.ratosan.com/category/installation-services/)
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In this article, we will teach you how to install Jira service on a Linux server. [You can use this link](https://confluence.atlassian.com/adminjiraserver/jira-applications-installation-requirements-938846826.html) to know the amount of hardware required to install Jira service on a Linux server . The minimum requirements for installing JIRA here for the database server and JIRA server are as follows. The servers intended for the Database and Gira server in this article are two CentOS 7 servers:

Database Server:  
CPU: 4 Core  
RAM: 4 GB  
Hard: 100 GB

Jira Server:  
CPU: 8 Core  
RAM: 8 GB  
Hard: 50 GB

This amount of resources is enough to use for companies with 100 users. It is better to install the Jira server database separately from the JIRA server.

**Database installation**

Naturally, Jira needs a Database to store its data. For this purpose, you can use a variety of relational databases such as Microsoft SQL Server, mySQL and.. But it is better to use PostgreSQL database for this purpose.

Click on the SSH database server and update the server packages with the following command.

sudo yum update -y

To install the Postgres database on a CentOS 7 server, enter the following command. If you are using another distribution, you can find instructions for installing the database from [this link .](https://www.postgresql.org/download/linux/)Note that here we are installing version 9.6 as recommended by Atlassian for Jira.

yum install https://download.postgresql.org/pub/repos/yum/reporpms/EL-7-x86\_64/pgdg-redhat-repo-latest.noarch.rpm  
yum install postgresql96 postgresql96-server postgresql-contrib

After completing the database installation, enter the following commands to start the database service

/usr/pgsql-9.6/bin/postgresql96-setup initdb  
systemctl enable postgresql-9.6  
systemctl start postgresql-9.6

To ensure that the database service is up and running, you can view the status of the database service with the following command.

systemctl status postgresql-9.6

**PostgreSQL database settings**

Now that the PostgreSQL service is running on the server, it should be possible to connect to the console of this database by executing the psql command and work with the database. But if you run the psql command you will probably get the error message psql: FATAL: role "YOUR\_USER\_NAME" does not exist. The reason for this problem is that the user with whom you logged in to the server is not allowed to access the database and change it. In fact, PostgreSQL uses a concept called Role to increase security, and if you want to connect to the database and make changes to it, you must have a Role with the username you logged in to PostgreSQL, and obviously this is Role is not pre-defined for your user. However, PostgreSQL creates a user named postgres on the server during installation and also creates a Role of the same name for it.

sudo su - postgres  
psql

Executing the psql command opens the PostgreSQL console and allows you to connect to the database. For example, with the l \ command you can see the list of databases in PostgreSQL, or with the du \ command you can see the list of roles. You can also use the q \ command to exit the PostgreSQL console and return to your server terminal (but do not exit the PostgreSQL console for now).

Note that the person who is going to eventually connect to PostgreSQL and use it is Jira software. We will see later that this software, during installation, will need a user to connect to the database to write or read data on the database through this user. Naturally, this user needs to have full access to a special database. Have Jira. Executing the following command in the PostgreSQL console creates a role called jiradbuser with the password p @ ssW0rd in PostgreSQL. Be sure to note this name and password in a safe place as you will need it later in the Jira settings.

postgres=# CREATE USER jiradbuser WITH PASSWORD 'p@ssW0rd';

In the PostgreSQL console, run the following command to create a new database called jiradb that Jira software can use to store data:

postgres=# CREATE DATABASE jiradb WITH ENCODING 'UNICODE' LC\_COLLATE 'C' LC\_CTYPE 'C' TEMPLATE template0;

Now, in order for the jiradbuser user to be able to use the created database, he needs the relevant permissions, which he will obtain by executing the following command in the PostgreSQL console:

postgres=# GRANT ALL PRIVILEGES ON DATABASE jiradb TO jiradbuser;

So far, you have installed PostgreSQL as an active service on the server and built the database and user for the Jira software. We're done with PostgreSQL here, so exit the PostgreSQL console by running the q \ command.

Note that since we have already logged in to the server with the postgres user, we will return to this user's terminal by leaving the PostgreSQL console. So run the following command to log out of your postgres account and return to your account:

exit

**Install Jira software**

To download the latest version of Jira software, refer to Atlassain‌ site and download one of Jira packages, depending on your needs. Jira has three types of packages:

[The Jira Core package](https://www.ratosan.com/tools/jira-core/) includes the basic features for managing non-software projects ( [human resources](https://www.ratosan.com/tools/jira-core/hr/) , [finance](https://www.ratosan.com/tools/jira-core/finance/) , [marketing](https://www.ratosan.com/tools/jira-core/marketing/) , law and operations teams).

In addition to Jira Core features, the [Jira Software package includes features related to software project management in the form](https://www.ratosan.com/tools/jira-software/)[of agile methodologies such](https://www.ratosan.com/solutions/agile/) as [Scrum](https://www.ratosan.com/solutions/agile/scrum/) and Kanban.

[In addition to Jira Core and Jira Software features, the Jira Service Desk package](https://www.ratosan.com/tools/jira-service-desk/) includes support and customer service capabilities, a desk, and the implementation of ITSM processes such as ITIL.

Download links for each of these packages from the Atlison site:

Jira Core: https://www.atlassian.com/software/jira/core/download

Jira Software: https://www.atlassian.com/software/jira/download

Jira Service Desk: https://www.atlassian.com/software/jira/service-desk/download

In this tutorial, we will download and install the Jira Software version. If you want to install all three packages, you need to download and install the Jira Software version, which includes Jira Core, and then download the Jira Service Desk plug-in version and install it on the Jira Software service. In this article, we describe the same scenario.

After downloading, transfer the file to Jira server and install it with the following commands

We first need to create the executable file

chmod a+x atlassian-jira-software-x.x.x-x64.bin

Now run the following command and start installing the Jira software (when installing Jira, enter the sudo command at the beginning of Jira to be installed as a service):

sudo ./atlassian-jira-software-x.x.x-x64.bin

When installing Jira, you will be asked eight questions that you can answer or use the default answer for each question by pressing the Enter key. The questions that are asked at this stage are:

**First question**

This will install JIRA Software x.x.x on your computer.  
OK [o, Enter], Cancel [c]

Pressing the Enter key or the o key and then Enter will start installing the program.

**The second question**

Choose the appropriate installation or upgrade option.  
Please choose one of the following:  
Express Install (use default settings) [1], Custom Install (recommended for advanced users) [2, Enter], Upgrade an existing JIRA installation [3]

Pressing the Enter key or pressing the 2 key and then Enter selects the custom installation option, which allows you to change the installation location and..

**The third question**

Where should JIRA Software be installed?  
[/opt/atlassian/jira]

Pressing the Enter key installs the software in the default path (/ opt / atlassian / jira). If necessary, you can change this path and then press Enter.

**The fourth question**

Default location for JIRA Software data  
[/var/atlassian/application-data/jira]

Pressing the Enter key stores software data, such as issue attachments, in the default path (/ opt / atlassian / jira). If necessary, you can change this path and then press Enter.

**Fifth question**

Configure which ports JIRA Software will use.  
JIRA requires two TCP ports that are not being used by any other  
applications on this machine. The HTTP port is where you will access JIRA  
through your browser. The Control port is used to startup and shutdown JIRA.  
Use default ports (HTTP: 8080, Control: 8005) - Recommended [1, Enter], Set custom value for HTTP and Control ports [2]

By pressing the Enter key, port 8080 is considered to connect users to the Jira service through the Web Browser. If this port is already occupied by other software, you can change it and then press Enter.  
This port may be blocked by a firewall installed on your server, in which case you need to open it in the Firewall settings. Use telnet to make sure the port on the server is open.

For example, to ensure that port 8080 is open on an IP server with a value of 192.168.32.31, use the following command

telnet 192.168.32.31 8080

**Question six**

JIRA can be run in the background.  
You may choose to run JIRA as a service, which means it will start  
automatically whenever the computer restarts.  
Install JIRA as Service?  
Yes [y, Enter], No [n]

By pressing the Enter key or the y key and then Enter, the Jira software is recognized as a service and runs automatically every time the server is booted.

**Seventh question**

Details on where JIRA Software will be installed and the settings that will be used.  
Installation Directory: /opt/atlassian/jira  
Home Directory: /var/atlassian/application-data/jira  
HTTP Port: 8080  
RMI Port: 8005  
Install as service: Yes  
Install [i, Enter], Exit [e]

Pressing the Enter key or the i key and then Enter will confirm the accuracy of the above information and the installation will begin. This step may take a few minutes.

**Question eight**

Installation of JIRA Software x.x.x is complete  
Start JIRA Software 8.1.0 now?  
Yes [y, Enter], No [n]

Pressing the Enter key starts the JIRA service, and you can view the JIRA service from your browser by entering the server address and entering port 8080, and make settings for the database.

**Open the Dashboard and make the initial settings**

Now, using one of the computers connected to the network, enter a web browser (for example, Google Chrome) and in the address bar, enter the IP address of the server on which you installed Jira, along with the port number that you assigned to Jira during installation. enter. For example, if the Jira server address is 192.168.32.31:

192.168.32.31: 8080

Pressing the Enter key opens the Jira initial settings page. If this page does not open, first make sure that your computer and the server are on the same network (you can ping the server from your computer to do this) and if there is no network problem, the firewall installed on the server is probably the port used by Jira Has blocked. To be sure, you can test the open port on the server using telnet. If you are sure that the used port is closed, you can use the following commands on the server to open it:

iptables -A INPUT -m state --state NEW -p tcp --dport 8080 -j ACCEPT

The second page is about Database settings. Select the second option (My Own Database), enter the Database details that we previously installed on the server for this purpose, and then click Next.

* Select the PostgreSQL database type.
* In the Hostname field, enter the IP address of the server on which the database is installed.
* The default port for connecting to PostgreSQL is port 5432, which we enter in the Port field.
* The name of the database we created for Jira was jiradb. Enter it in the Database field.
* We also enter the username and password we created to connect Jira to PostgreSQL.
* In the Schema field we also give a name (here public) to the database schematic

On the third page in front of the Application Title, enter your company or brand name, select Private mode, and enter the web address you provided for Jira. If you do not have a specific domain for Jira, you can leave it by default (IP: PORT) and click the Next button, but if you are going to use a domain such as jira.your-domain.com, use it in Enter this section.

**Enter a software license**

In this step, you need to enter the software license. To obtain a license for Jira software, use our contact form to obtain the desired license from the Ratosan team. In this step, get the license by providing SEN related to JIRA service as well as JIRA version installed on the server. After entering the JIRA license, you need to enter the final settings.

**Final settings**

On the fifth page you will create an account for the Jira administrator. This account is used to install plugins and create accounts for other users, so keep it in a safe place.

The sixth page is about email settings. This setting allows Jira to notify users of status issues via email. If you do not want to have this feature at the moment, you can select the later option.

On the seventh page you can select the Jira language

On the eighth page, you can select an Avatar for your account (admin account) so that other colleagues can easily recognize you.

Click the Next button to finish your work and on the next page you can create and manage a project in Jira. You can then create an account for the rest of the team.

**Installing Jira Service Desk**

If the version you downloaded from atlassian.com is related to Jira Service Desk, in the license entry step, you need to enter the license related to Jira Service Desktop.

If your installation version is Jira Software (which is also described in this article) and you want to install Jira desktop service as well, download the relevant version from the link below and upload it from the Application قسمت section in the Jira Administrator section. .

https://marketplace.atlassian.com/apps/1213632/jira-service-desk/version-history

After installing JIRA, enter the received license disk service to activate it.

**Install Jira plugins**

Jira has very powerful plugins that you can install on your Jira and use their unique features. After installing the plugins, to get the license related to the plugins, refer to the contact us page and by providing the plugin key and SEN related to the Jira service and the installation version of your JIRA, get the license and enter the plugin license section.