

Migrating JIRA to Another Server

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This document describes how to migrate/upgrade to JIRA 6.3 on different server hardware or in a different server environment that entails one or more of the following:

- a new operating system that will run JIRA,
- new locations for storing your index and/or attachments, or
- a new database or database system that will store JIRA's data.

If you are upgrading to a newer version of JIRA during the migration, please see [Upgrading JIRA](#) for information on the pre-requisite tasks you need to complete before upgrading.

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1. Before You Start

- **Check your license** - Verify that your [license support period](#) is still valid.
- **Check for known issues** - Use the [JIRA Knowledge Base](#) to search for any issues in the new version that will affect you.
- **Check for compatibility:**
 - Confirm that your operating system, database, [other applicable platforms](#) and hardware still comply with the [requirements](#) for JIRA 6.3. The [End of Support Announcements for JIRA](#) page also has important information regarding platform support for future versions of JIRA.
 - If you have installed JIRA Add-ons (i.e. not included with JIRA), verify that they will be compatible. You can find a add-on's compatibility information from the the add-on's home page on the [Atlassian Marketplace](#). You can also follow the procedure outlined here: [Checking add-on compatibility with application updates](#) to have the Universal Add-on Manager help you with this.

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We strongly recommend performing your migration in a test environment first. Do not migrate your production JIRA server until you are satisfied that your test environment upgrade has been successful.

- If you have any problems with your test environment which you cannot resolve, create an issue at our [support site](#) so that we can assist you.
- If you have any problems during the migration of your production JIRA server, do not allow your users to start using this server. Instead:
 - Continue to use your old JIRA server — this will help ensure that you do not lose production data.
 - Also create an issue at our [support site](#) so that we can help you resolve the problems with your migration.

Some anti-virus or other Internet security tools may interfere with the migration and prevent the process from completing successfully. If you experience or anticipate experiencing such an issue with your anti-virus/Internet security tool, disable this tool first before proceeding with the JIRA migration.

2. Backing Up

2.1 Stop users from updating JIRA data

During the upgrade process, you'll export JIRA's database from your existing JIRA installation (via an XML backup) and then restore this backup into a new JIRA installation. To ensure that the data in the XML backup is consistent with the latest data in the system, you must temporarily

restrict access to JIRA so users can't update the data. Refer to the [Preventing users from accessing JIRA during backups](#) page for more information.



Be aware! Inconsistent XML backups cannot be restored!


2.2 Back up your database

Perform an [XML backup](#) of your existing JIRA installation's external database. For large JIRA installations, this process may require several hours to complete.

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The 'embedded database' is the HSQLDB database supplied with JIRA for evaluation purposes only. If you accidentally use the HSQLDB database in a production system, perform an XML backup of this database and continue on with this procedure.

2.3 Back up your JIRA Home directory

1. Shut down JIRA.
2. Locate the [JIRA Home directory](#). You can find information about the location of the directory by navigating to the <jira-application-dir>/WEB-INF/classes/jira-application.properties file in your [JIRA Installation Directory](#). Alternatively, you can open the [JIRA Configuration Tool](#) to see the directory that is set as your JIRA Home.
3. Navigate to the directory specified in the configuration file and create a backup of it in another directory.
4.  Delete the file <jira-home>/dbconfig.xml as soon as the backup is complete.

2.4 Back up your attachments and index directories if located outside your JIRA Home directory

If the attachments and index directories are located outside of your [JIRA Home Directory](#), you must back them up separately. These pages describe how to find out where these directories are located in your implementation:

- Your attachments directory — Refer to [Configuring File Attachments](#) page in the documentation for your version of JIRA.
- Your index directory — Refer to [Search Indexing](#) page in the documentation for your version of JIRA.

Also refer to [Backing Up Data](#) for more information about backing up attachments in JIRA.

2.5 Back up your JIRA Installation directory

The 'JIRA Installation Directory' is the directory into which the JIRA application files and libraries were extracted when JIRA was installed.

3. Setting up your New JIRA Installation

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If you are running a 'mission-critical' JIRA server, we highly recommend performing the remaining steps of this guide in a test environment (e.g. using a separate test JIRA database and a copy of your JIRA Home directory) before performing the upgrade for production use.

3.1 Install the new version of JIRA

First, you must start with a fresh installation of JIRA, either the current version or a newer one. If you are upgrading JIRA during this process, please see [Upgrading JIRA](#) for information on the pre-requisite tasks you need to complete before upgrading.

Download and extract the JIRA distribution you require, to a new directory. **Do not overwrite your existing JIRA installation. Ensure this has been shut down and install the new JIRA version to a new location.**

Follow the installation instructions for either:

- [Installing JIRA](#) (recommended), or
- [Installing JIRA WAR](#)




If you are using JIRA WAR, remember to build your new JIRA web application and deploy it to your server. For specific instructions, refer to the JIRA WAR installation page for your application server within the [Installing JIRA WAR](#) section.

3.2 Point your new JIRA to (a copy of) your existing JIRA Home directory


If your new JIRA 6.3 installation is on a new server, **copy the backup of your existing JIRA Home Directory** from the old server to the new server before proceeding.

To set up a "recommended" (not WAR) distribution:

1. Open the [JIRA Configuration Tool](#).
2. Click the **JIRA Home** tab.
3. Update the **JIRA Home Directory** field:
 - If your JIRA 6.3 installation is on a new server, update the **JIRA Home Directory** field to the path of your [copied](#) JIRA Home directory.

- If your JIRA 6.3 installation is on the same server, update the **JIRA Home Directory** field to the path of your **existing** JIRA Home directory.  For more information about this directory, see [JIRA Home Directory](#).

To set up a WAR distribution:

1. Edit the jira-application.properties file located within the <jira-application-dir>/WEB-INF/classes subdirectory of your new JIRA 6.3 Installation Directory [JIRA Installation Directory](#).
2. Update the jira.home property in this file to the path of the new JIRA Home Directory:
 - If your JIRA 6.3 installation is on a new server, update the jira.home property to the path of your [copied](#) JIRA Home directory.
 - If your JIRA 6.3 installation is on the same server, update the jira.home property to the path of your **existing** JIRA Home directory.  For more information about this directory, see [JIRA Home Directory](#).
3. Remove the '#' at the beginning of the jira.home line (so that JIRA no longer regards this line as a comment).
4. Save your updated jira-application.properties file.



You can also set your JIRA Home Directory's location by defining an operating system environment variable JIRA_HOME. This value of this variable takes precedence over the value of the jira.home property in the jira-application.properties file in your [JIRA Installation Directory](#). See [Setting your JIRA Home Directory](#) for details.

3.3 Connect the new version of JIRA to a new, empty database

Create a new, empty database that your new JIRA installation will use to store its data.

Follow the appropriate '**Connecting JIRA to...**' instructions for your database from stage 2, although from stage 4 of that procedure, be aware of the yellow note below:

- [Connecting JIRA to PostgreSQL](#)
- [Connecting JIRA to MySQL](#)
- [Connecting JIRA to Oracle](#)
- [Connecting JIRA to SQL Server 2005](#)
- [Connecting JIRA to SQL Server 2008](#)

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If you are using a database (called **jiradb**, for example) with your existing JIRA installation and the database for your new JIRA installation is running on the same machine or database server, create your new database with a different name (e.g. something intuitive like **jiradb_440** for JIRA 4.4.0). However, ensure the new database has identical access permissions to the old JIRA database. Consult your database administrator if you need assistance with this.



You do not need to create a new database if you are using the embedded HSQL database.

3.4 Migrate your existing JIRA configurations over to your new JIRA installation

If you have modified properties in configuration files of your existing JIRA installation, make the same modifications in your new JIRA installation. However, because the properties in the configuration files may have changed between versions, you cannot simply copy the configuration files from your existing installation and replace the equivalent files in the new installation.

For each file you have modified in your existing JIRA installation, you need to **manually edit each equivalent file in your new JIRA installation and re-apply your modifications**. If a file is not present in your new JIRA installation (for example, osuser.xml in recent JIRA versions), then simply copy that file over to your new JIRA installation.

The table below lists the most commonly modified files and their locations within your [JIRA Installation Directory](#):

File	Location in 'recommended' (formerly 'Standalone') JIRA distributions	Location in JIRA WAR	Description
jira-application.properties	atlassian-jira/WEB-INF/classes	webapp/WEB-INF/classes	Location of the JIRA Home Directory and Advanced JIRA Configuration in JIRA 4.3.x and earlier. Any custom property values defined in the jira-application.properties file of your existing JIRA 4.3.x (or earlier) installation must be migrated across to the jira-application.properties file of your new JIRA 6.3 installation <i>before you start your new JIRA installation</i> . Upon starting your new JIRA installation, any custom property values in the jira-application.properties file will automatically be migrated across to either the JIRA database or jira-config.properties file. jira.home is the only property of the jira-application.properties file subsequently used by JIRA.
setenv.bat (Windows) or setenv.sh (Linux)	bin	Application server's bin directory	Increasing JIRA Memory
osuser.xml (not required if upgrading from JIRA 4.3.0 or later)	atlassian-jira/WEB-INF/classes	webapp/WEB-INF/classes	Modified if you have integrated LDAP with JIRA , integrated Crowd with JIRA , or if you are using a custom form of external user management or user authentication.

seraph-config.xml	atlassian-jira/WEB-INF/classes	webapp/WEB-INF/classes	Modified if you have integrated Crowd with JIRA .
server.xml	conf	Application server's conf directory	Modified in the following situations: <ul style="list-style-type: none"> • If you had previously configured JIRA's TCP ports differently from their defaults. • If you had implemented SSL. • When connecting JIRA to a database in JIRA 4.3.x and earlier.

✓ The [version-specific upgrade notes](#) contain details on properties which may have changed in these commonly modified files. In addition to the files above, you should also consider and/or perform the following configurations as part of the upgrade process:

- **Using JIRA with [Atlassian's Crowd](#)?** — If you are using Crowd with JIRA, configure your new JIRA to talk to Crowd as described in [Integrating Crowd with JIRA](#).
 - Remember to configure Crowd to grant JIRA's new hostname/IP access: [Specifying an Application's Address or Hostname](#)
- **Allocating additional memory to JIRA** — If you had previously allocated additional memory to JIRA, do the same for your new JIRA instance. For more information refer to [Increasing JIRA memory](#).
- **Plugins** — For any plugins that you had installed in your old JIRA, download the plugin version for your new version of JIRA from the <http://plugins.atlassian.com> site.
- **Character encoding** — Ensure that character encoding (i.e. locale) is the same on the new and old locations. Your new version of JIRA may not function correctly if attachments are moved between two system with incompatible encoding.
- **Customisations** — If you had made any customisations (code, templates or configuration files), copy over compatible versions of these changes to the new JIRA. (The developers within your organisation who made the customisations to your old version will need to build and test equivalent changes for the new version, and provide you with the files to copy to your upgraded JIRA installation.)
- **(Optional) Running JIRA on a different port** — If your new JIRA is installed on the same machine as your old JIRA, you may wish to make sure it runs on a different port (in case you ever need to restart your old JIRA). See [Changing JIRA's TCP Ports](#) for details.

3.5 Start your new version of JIRA

1. Verify that your old JIRA installation is shut down — if this JIRA server is still operating, shut it down.
 2. If you installed the JIRA WAR distribution within **Tomcat**, **delete the Tomcat work directory before restarting JIRA**. If you do not do this, users may encounter errors when they try to display JIRA pages.
 3. Start up your new version of JIRA. For:
 - **'Recommended' distributions** — follow the [Starting JIRA](#) instructions.
 - **WAR distributions** — follow the instructions for starting JIRA for your application server within the [Installing JIRA WAR](#) section.
- i** During the startup process, your new JIRA installation will create any required database indexes. If you created any custom database indexes, please check them afterwards and remove any that duplicate the indexes added by JIRA.

Do not restart your old JIRA installation...

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If your new JIRA 6.3 installation is on the same server as your old one, it may still be configured to use the same JIRA Home directory as your new JIRA installation. Running two separate JIRA installations which share a common JIRA Home directory can lead to serious data corruption. Nevertheless, we recommend that you do not delete any aspect (or backed up component) of your old JIRA installation, until you are satisfied that your upgraded JIRA installation is functioning as expected.

3.6 Import your old JIRA data into your new JIRA

After you have started your new JIRA installation, import the data from your old instance into the new instance. You will need the backup file of data from your old JIRA that you created earlier in these instructions ([above](#)).

To import your old JIRA data into your new JIRA:

1. Log in as a user with the 'JIRA System Administrators' [global permission](#).
 2. Select **Administration > System > Import & Export > Restore System** (tab) to open the 'Restore JIRA data from Backup' page. ✓ [Keyboard shortcut: 'g' + 'g' + type 'rest'](#)
 3. In the **File name** field, specify the XML backup file you created previously during the export process ([above](#)). That zipped file should contain two xml files: activeobjects.xml and entities.xml. Both of these files must be included in the zipped file for the import process to work.
 4. Restore the attachments directory that you backed up previously, into the attachments directory of your new JIRA. (See [Restoring Data](#).)
- i** Avoid passing through a proxy when performing an XML restore, especially if your JIRA instance is very large. Using a proxy may cause timeout errors.
5. Access JIRA via your web browser again and log in using a username from your previous JIRA installation.
 6. Take a quick look around your JIRA site to confirm that your projects and issues are present and everything looks normal. You should see the new JIRA version number in the page footer.

4. Post Migration Checks and Tasks

It is strongly recommended that you perform the following checks and tasks after you have started your new instance of JIRA:

1. Check your [server logs](#) for error messages, even if JIRA appears to be running correctly. If there are any errors there that you cannot resolve, create a support case in <https://support.atlassian.com>, attach your log file and we will advise you on the errors.
2. If you were previously using [External User Management](#), enable it in the new JIRA instance.
3. If you changed machines when upgrading, change the paths to the indexes, attachments and backup directories, from within the **Administration** section of JIRA.
4. Enable email, if you disabled it during testing.
5. If you migrated any customisations from your old JIRA to the new JIRA, ensure that they are tested thoroughly.
 1. If you had downloaded plugins for the new version of JIRA, [install the downloaded JAR file\(s\)](#) in your new JIRA version and carry out any other required installation for the plugin.
 2. If the plugin has a properties file, apply the same changes to it as you had in the old properties file (don't just copy over the old properties file).
6. Once you have confirmed that the new server is working correctly, ensure that the production license is updated for the new server ID, as follows:
 1. Log in to <https://my.atlassian.com>.
 2. Locate the appropriate license.
 3. Edit the Server ID, as per the new production Server ID, and save it.
 4. Update the production license in the new server.

Congratulations! You have completed your JIRA migration/upgrade.

See Also

[Disabling Auto-Export](#) [Restoring Data](#) [Upgrading JIRA](#) [Switching Application Servers to Apache Tomcat](#) [Switching Databases](#)