

Reordering User Directories in JIRA and Confluence

JIRA and Confluence can authenticate users from LDAP directories, such as Microsoft's Active Directory. In fact it is common to have multiple LDAP directories configured, one after another:

User Directories [?](#)

The table below shows the user directories currently configured for JIRA.

The order of the directories is the order in which they will be searched for users and groups. Changes to users and groups will be made in the first directory where JIRA has permission to make changes. It is recommended that each user exist only in a single directory.

| Directory Name | Type | Order | Operations |
|---|---|-------|---|
| TX-DC1 You cannot edit this directory because you are logged in through it, please log in as a locally authenticating user to edit it. | Microsoft Active Directory (Read Only, with Local Groups) | ↓ | Test Synchronise Last synchronised at 1/31/16 5:59 PM (took 0s). Synchronisation failed. See server logs for details. |
| JIRA Internal Directory | Internal | ↑ ↓ | Disable Edit |
| TX-DC2 | Microsoft Active Directory (Read Only, with Local Groups) | ↑ | Disable Edit Test Synchronise Last synchronised at 1/31/16 7:13 PM (took 73s). Full synchronisation completed successfully. |

Here we have two AD servers configured for redundancy – and just as well, as the first is failing.

Normally you manipulate the User Directories via the web interface, using an `Internal` directory user for preference (because it is always available regardless of LDAP state). However the `Internal` account won't work if:

- You've forgotten the `Internal` user password. In that case, see [Resetting a user password in the database](#).
- The `JIRA Internal Directory` is **disabled**
- The **order** of directories is wrong. For instance, your admin user account in the `JIRA Internal Directory` might not be working because there is an admin in a higher-precedence directory (`TX-DC1` in the example above)..

Here we describe how to fix the last two scenarios with database edits.

Enabling and reordering the Internal Directory

Run the following query on the `cwd_directory` table to see what's going on with directory ordering.

```
mysql> select id, directory_name, active, description, directory_position from cwd_directory;
+-----+-----+-----+-----+-----+
| id    | directory_name      | active | description                | directory_position |
+-----+-----+-----+-----+-----+
| 1     | JIRA Internal Directory | 0     | JIRA default internal directory | 2 |
| 10200 | TX-DC2              | 1     | NULL                       | 1 |
| 10201 | TX-DC1              | 1     | NULL                       | 0 |
+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

In this example we have two LDAP directories configured, plus the internal directory. However notice that:

- The `active` flag is set to 0 for `JIRA Internal Directory`, meaning it is disabled.
- The `directory_position` order (0, 1, 2) indicates that `JIRA Internal Directory` is last to be consulted, meaning if admin is present in one of the two LDAPs, the password would be checked against LDAP first.

Enabling a disabled directory

If the internal directory is disabled, enable it with:

```
mysql> update cwd_directory set active=1 where id=1;
```

Reordering directories (if necessary)

To check whether `admin` comes from LDAP or just the Internal directory, run:

```
mysql> select user_name, directory_id from cwd_user where user_name='admin';
+-----+-----+
| user_name | directory_id |
+-----+-----+
| admin     |             1 |
+-----+-----+
1 row in set (0.00 sec)
```

If admin comes from multiple directories, you'll see more than one line returned. If so, run SQL to reorder the directories (if not, don't bother):

```
mysql> -- !!NOTE!! adapt the id refs for your system
mysql> update cwd_directory set directory_position=0 where id=1;
mysql> update cwd_directory set directory_position=2 where id=10201;
```

Then restart JIRA/Confluence for the change to take effect.