# REMOVED_Upgrading From an Older Version of WSO2 IS

> ⊘ Note that these instructions have been tested for migration from WSO2 IS 5.0.0 to 5.4.0 only with the ORACLE database.

The following sections provide instructions that enable you to upgrade from older versions of WSO2 Identity Server (from version 5.0.0 onwards) to the latest version of WSO2 Identity Server. In this topic, `<OLD_IS_HOME>` is the directory that the older version of WSO2 Identity Server resides in, and `<NEW_IS_HOME>` is the directory that the latest version of WSO2 Identity Server resides in.

> ⊘
> # Before you begin
>
> This release is a WUM-only release. This means that there are no manual patches. Any further fixes or latest updates for this release can be updated through WSO2 Update Manager (WUM).
>
> - **If you are upgrading to use this version in your production environment**, use the WSO2 Update Manager to get the latest updates available for WSO2 IS. For more information on how to do this, see Updating WSO2 Products.

- Migrating the embedded LDAP user store
- Migrating the configurations
- Migrating the custom components
- Migrating the data

## Migrating the embedded LDAP user store

It is not generally recommended to use the embedded LDAP user store that is shipped with WSO2 Identity Server in production setups. However, if migration of the embedded LDAP is required, follow the instructions below to migrate the existing WSO2 IS LDAP user store to the new version of WSO2 IS.

1. Copy the `<OLD_IS_HOME>/repository/data` folder to `<NEW_IS_HOME>/repository/data` folder.
2. Restart the server to save the changes.

## Migrating the configurations

You can use one of the following approaches to migrate depending on your production evironment.

- **Migrating by updating the custom configurations**

  > **This approach is recommended if:**
  >
  > - You have done very few configuration changes in your previous version of WSO2 IS. These configuration changes have been tracked and are easy to redo.
  >
  > **Steps:**
  >
  > 1. If you have made configuration changes to the config files in your previous version of WSO2 IS, update the files in the `<NEW_IS_HOME>/repository/conf` folder with your own configurations.
  > 2. Proceed to the Migrating the data section to run the migration client.

- **Migrating by updating the new configurations in 5.3.0**

**This approach is recommended if:**

- You have done many configuration changes in your previous version of WSO2 IS.
- These configurations have not been tracked completely and/or are difficult to redo.

**Steps:**

1. Make a copy of the `<OLD_IS_HOME>/repository/conf` folder. (Do not change the original configurations. You may use it as a backup in case there are any issues)
2. Copy the following configuration files from the `<NEW_IS_HOME>` and paste it in the copy of the `<OLD _IS_HOME>` in the relevant path.
   - `<IS_HOME>/repository/conf/carbon.properties`
   - `<IS_HOME>/repository/conf/consent-mgt-config.xml`
3. The sections below list out all the configuration changes from IS 5.0.0 to IS 5.3.0. You can scroll through each table and change the relevant configurations according to the features you are using.

   > ⊘ **Note:** The configuration changes listed below will not affect the existing system because these configurations are applied only at first start up and new tenant creation.
   >
   > If you want to change the configurations for the existing tenants, configure it through the management console user interface.

   <See Gdoc>
4. Replace the `<NEW_IS_HOME>/repository/conf` folder with the modified copy of the `<OLD_IS_H OME>/repository/conf` folder.
5. Proceed to the Migrating the data section to run the migration client.

**Migrating the custom components**

Any custom OSGI bundles which were added manually should be recompiled with new dependency versions that are relevant to the new WSO2 IS version. All custom OSGI components reside in the `<OLD_IS_HOME>/repository/components/dropins` directory.

1. Get the source codes of the custom OSGI components located in the `dropins` directory.
2. Change the dependency versions in the relevant POM files according to the WSO2 IS version that you are upgrading to, and compile them. The compatible dependency versions for each release of WSO2 IS is given below.
   - WSO2 Identity Server 5.1.0
   - WSO2 Identity Server 5.2.0
   - WSO2 Identity Server 5.3.0
3. If you come across any compile time errors, refer to the WSO2 IS code base and make the necessary changes related to that particular component version.
4. Add the compiled JAR files to the `<NEW_IS_HOME>/repository/components/dropins` directory.
5. If there were any custom OSGI components in `<OLD_IS_HOME>/repository/components/lib` directory, add newly compiled versions of those components to the `<NEW_IS_HOME>/repository /components/lib` directory.

**Migrating the data**

To upgrade the version of WSO2 Identity Server, the user store database should be upgraded. Note that there are no registry schema changes between versions.

Follow the steps below as needed to complete the migration process.

Download the latest version of WSO2 Identity Server and unzip it in the `<NEW_IS_HOME>` directory.

1. Take a backup of the existing database used by the `<OLD_IS>`. This backup is necessary in case the migration causes issues in the existing database.
   Make the following database updates as indicated below.
   a. Download the migration resources and unzip it to a local directory. This folder is referred to as `<IS_MIGRATION_TOOL_HOME>`.
   b. Copy the `org.wso2.carbon.is.migration-5.x.x.jar` and the `snakeyaml-1.16.0.wso2v1.jar` found in the `<IS_MIGRATION_TOOL_HOME>` folder, and paste it in the `<NEW_IS_HOME>/repository/components/dropins` directory.
   c. Copy migration-resources folder to the `<NEW_IS_HOME>` root folder.
   d. Set the following property values accordingly in the `migration-config.yaml` file found in the `<NEW_IS_HOME>/migration-resources` folder. Specify the current WSO2 Identity Server version as the `currentVersion` value and specify the new version of WSO2 Identity Server that you want to migrate to, as the `migrateVersion`.

   ```
   migrationEnable: "true"

   currentVersion: "5.x.x"

   migrateVersion: "5.x.x"
   ```

2. Copy any custom OSGI bundles that were added manually from the `<OLD_IS_HOME>/repository/components/dropins` folder and paste it in the `<NEW_IS_HOME>/repository/components/dropins` folder.
3. Copy any added JAR files from the `<OLD_IS_HOME>/repository/components/lib` folder and paste it in the `<NEW_IS_HOME>/repository/components/lib` folder.
4. Copy the `.jks` files from the `<OLD_IS_HOME>/repository/resources/security` folder and paste them in `<NEW_IS_HOME>/repository/resources/security` folder.
5. If you have created tenants in the previous WSO2 Identity Server version and if there are any resources in the `<OLD_IS_HOME>/repository/tenants` directory, copy the content to the `<NEW_IS_HOME>/repository/tenants` directory.
6. If you have created secondary user stores in the previous WSO2 IS version, copy the content in the `<OLD_IS_HOME>/repository/deployment/server/userstores` directory to the `<NEW_IS_HOME>/repository/deployment/server/userstores` directory.

   > ✓ **Note:** If your current version is 5.0.0, run the following queries on the database that is referenced in the `identity.xml` file in order to identify if there is any corrupted data.
   >
   > ```
   > SELECT * FROM IDN_OAUTH2_ACCESS_TOKEN WHERE AUTHZ_USER LIKE '% @%' AND
   > TOKEN_STATE='ACTIVE';
   > SELECT * FROM IDN_OAUTH2_ACCESS_TOKEN WHERE AUTHZ_USER NOT LIKE '%@%'
   > AND TOKEN_STATE='ACTIVE';
   > ```

7. Start WSO2 Identity Server with the following command to perform the data migration for all components.
   a. Linux/Unix:

   ```
   sh wso2server.sh –Dmigrate –Dcomponent=identity
   ```

   b. Windows:

```
wso2server.bat -Dmigrate -Dcomponent=identity
```

8. Once the migration is successful, stop the server and remove the following files and folders from the `<NEW_IS_HOME>/repository/components/dropins` directory.

    a. `org.wso2.carbon.is.migration-5.x.x.jar`
    b. `snakeyaml-1.16.0.wso2v1.jar`
    c. `migration-resources` directory