

# Upgrading from 3.x

## Upgrading from 3.5+ to 3.8

Work-in-progress

3.5 to 3.8 Upgrade Instructions have not been thoroughly tested. YMMV.

Version 3.6 does not require a database or resource index rebuild, nor does it require an upgrade to your configuration. In order to "swap in" the new version of the software, you may:

1. Shut down your old 3.5 repository
2. Install the newer version of Fedora in a different location, but before starting it:
  - a. Copy your old server/config/fedora.fcfg file into the new installation's server/config/ directory.
  - b. Copy your old bean definitions under server/config/spring into the new installation's server/config/spring/ directory.
  - c. Edit one of the bean definitions to include an object cache. An example can be seen in the 3.7.0 source at <https://github.com/fcrepo/fcrepo/blob/master/fcrepo-server/src/main/resources/fcfg/server/doreader-cache.xml> .
  - d. If you have previously made changes to the repository-wide XACML policies, copy them into the new repository installation's data/fedora-xacml-policies directory (you will need to create this directory)
3. Start the new instance of Fedora for the first time.
4. If you are using FeSL and are using a different policy index configuration to your existing installation (i.e. you are no longer using DB XML, the only option available for 3.4.x)
  - a. Shut down your repository
  - b. Run the Policy Index [Rebuilder](#).
  - c. Restart your repository

## Upgrading from 3.x to 3.8

Deprecated Sun XACML libraries

As of Fedora 3.8.0, the private Sun XACML libraries have been removed, and replaced by the public JBOSS Sun XACML libraries. If you are migrating from an older version of Fedora, you'll need to change the XACML-COMBINING-ALGORITHM parameter in your `fedora.fcfg` file:

Change

### Old XACML-COMBINING-ALGORITHM

```
<param name="XACML-COMBINING-ALGORITHM" value="com.sun.xacml.combine.OrderedDenyOverridesPolicyAlg" />
```

to

### New XACML-COMBINING-ALGORITHM

```
<param name="XACML-COMBINING-ALGORITHM" value="org.jboss.security.xacml.sunxacml.combine.OrderedDenyOverridesPolicyAlg" />
```

Akubra low-level storage

As of Fedora 3.4, Akubra is the default low-level storage implementation. Akubra is not backwards-compatible with the datastream and object storage from previous releases, so when upgrading ensure you use the same low-level storage implementation as your existing installation. Your existing install.properties file will specify `lstore.type` as either `legacy-fs` or `akubra`, the same option should be used for your new installation. A limited migration utility to migrate from legacy low-level storage to Akubra can be built from source available at <https://github.com/fcrepo/fcrepo-store> .

1. Shut down your old 3.x repository
2. Install the newer version of Fedora, but before starting it, modify the new `fedora.fcfg` so that:
  - a. It points to your previous 3.x database
  - b. The object and datastream paths point to your previous 3.x locations
  - c. Note: Due to the Mulgara version upgrade, if you have enabled the Resource Index previously, it will need to be rebuilt. Therefore, it is unnecessary to point the resource index configuration to the old location.
  - d. If you were using Akubra in 3.5, copy your old `server/config/akubra-lstore.xml` file into the new installation's `server/config/spring/` directory.
  - e. Update the XACML-COMBINING-ALGORITHM parameter, if migrating from a pre-3.8.x version of Fedora
3. If you are using FeSL AuthZ, [configure the Policy Index](#)
4. Start the new repository for the first time.
5. Shut down the new repository.
6. If you have previously made changes to the repository-wide XACML policies, copy them into the new repository's XACML directory.
7. If you previously enabled messaging, and there were messages from your old repository that have not yet been delivered, copy its `activemq-data` directory over the new `activemq-data` directory in your new install.
8. Run the Resource Index [Rebuilder](#).
9. If you are using FeSL and are using a different policy index configuration to your existing installation, run the Policy Index [Rebuilder](#).
10. Restart the new repository