MIGRATION GUIDE: FSI Server 2 to FSI Server 3

This guide is meant for operations personel familiar with FSI Server 2, its configuration and operation. It describes migration scenarios enabling the reader to quickly upgrade an FSI Server 2 installation to FSI Server 3.

What changed? A brief overview

FSI Server 3 not only introduces a whole set of new features, we also changed some of the implementation details underneath to be able to offer a state of the art imaging solution.

New storage format

The probably largest change is the format of the internal storage. The new storage format offers nearly a 1:1 source file relation, which leads to less files and directories. This enables FSI Server 3 to manage even larger installations. The new format takes a lot of load off the file system itself and simplifies backups of the storage.

Changed nomenclature

As FSI Server now allows image delivery directly from multi-resolution source images and also allows the delivery of any kind of asset provided, not all data is necessarily imported into the internal storage. Due to this change, some component names needed to be changed. These new names are used in various places, from logger configuration to the names of the configuration files:

> **importer** → **source manager**
> **importer profile** → **source connector**
> **core** → **requestprocessor**
> **server profile** → **renderer**
> **pyramid images** → **multi resolution images**

New Source Connector Types

A Source Connector defines a source directory and a set of rules on how to handle the content of a directory. It also defines the access restrictions that apply to the assets within the source directory.
The Source Connector type '**Storage**' imports images to the storage for the best possible image delivery performance (like in previous versions). As of version 3 of FSI Server there are two new source connectors types that allow access to assets and images without the need to import them.
The source connector type '**Multi-Resolution**' provides the ability to upload multi-resolution .tiff or .fpx files and accessing these directly using the same URL-syntax as you would for imported images. This feature is primarily aimed at customers with a large stock of multi-resolution images and makes it easier to migrate for users of imaging servers other than FSI Server.
The other new source connector type '**Static**' allows managing and serving static files such as PDFs and videos, which can be addressed via a simple URL.

Migration Scenarios

Before migrating a production system you should make yourself familiar with the new features and especially the changed configuration files. FSI Server 3 is compatible with the previous versions regarding image URLs and FSI Viewer codesnips. This means existing codesnips and URLs can be used without change although this might mean you are not making use of any of the new features yet.

Pre-considerations

The change of the storage format makes a re-import of the image data inevitable. As in previous versions the import places a noticeable load on the system, this means the resources used for importing are not available for request processing. Depending on the amount of traffic the server is handling, this might have an impact on the server's performance.

1 Two or more servers

If you have a mirror server setup then the recommended migration path would be to take one down at a time, perform a clean installation of FSI Server 3 and let the server import all images before putting it back online. This method offers the maximum safety as it allows to re-run integration tests on the new server before putting it into production.

2 One server with more than 50% free disk space

The new storage format uses less files and the overall disk space is also reduced notably. Nevertheless the new storage also requires a considerable amount of disk space. If you have enough disk space to fit your current storage again, then you should consider deploying FSI Server 3 in parallel to FSI Server 2 and configure it to access the same source images but a different storage location. This will leave your productive FSI Server 2 untouched and operative. The disadvantage over the first scenario is obvious and was mentioned above: the resources required for importing will not be available for image delivery. As in scenario 1 though, you will be able to test the FSI Server setup before putting it into production. Once the images have been imported and you have completed your tests, you can simply switch to FSI Server 3, undeploy the now unused FSI Server 2 and delete the old servers storage directory.

3 One server with less than 50% free disk space

If you have only one server available and the available disk space does not satisfy the requirements for a copy of the storage, you can replace the FSI Server 2 installation with an FSI Server 3 setup. After adapting the configuration files, FSI Server 3 will notice that the configured storage location already contains an old storage version. It will then enable the built-in automatic migration mode and will serve images from the old storage that have not been imported into the new storage yet. Meanwhile, the server can access both the old and the new storage, but may be slower, since images are imported in the background. Images that have been imported into the new storage will be deleted from the old storage automatically, the required additional disk space is therefore reduced to a minimum. Please note: This is not the recommended migration method for business-critical systems. We highly recommend setting up FSI Server 3 in parallel as described in scenario 1 and 2 before touching the production system.

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FSI Server Migration Assistant

As mentioned above the location and the names of the configuration files have changed. The contents of **WEB-INF/config**, **WEB-INF/importer_profiles** and **WEB-INF/server_profiles** has been consolidated and is now located in **WEB-INF/config** only.
FSI Server 3 offers an automatic configuration migration to assist in applying the required changed to the configuration files.

In order to make use of this feature, create the migration directory (**WEB-INF/migration**) beneath the FSI Server 3 webapp directory. Place all configuration and viewer files that need to be migrated. This means copying the following directories from your old FSI Server 2 configuration into the migration directory: **viewer, users, WEB-INF/config, WEB-INF/importer_profiles** and **WEB-INF/server_profiles** or a subset thereof. Please ensure the migration directory and all files paced into it are readable and writable by the user running Tomcat.

On startup FSI Server 3 will check for the existence of the migration directory and if present the configuration and viewer data will be integrated into the new configuration.

Any changes you have made to the FSI Server 3 configuration prior to using the migration assistant will most likely be overwritten.

The migration assistant will log it's progress or any errors to the systems standard error console, usually visible in the catalina logfile.

Please note: When migrating as described in scenario 2 on the previous page, then using the migration assistant will result in FSI Server 3 using the same storage directory as the production FSI Server 2, which is not intended. To prevent this, please change the storage location to an empty directory in the copy of the **settings.xml** and **importer.xml** before using these files for the migration.

Limits of the migration assistant

FSI Server 2 licence keys are not valid for FSI Server 3. Please see the section "Licensing" on the following page in order to learn how to obtain a new licence key.

The metadata search functionality has completely changed in FSI Server 3. This setting can therefore not be migrated. For details on the serach functionality please see the appropriate section on the following page.

Enabling Search

FSI Server 3 no longer uses an internal database for searching images. In order to display large amounts of data conveniently, we now use the free external search platform **Apache Solr**. If you require the search functionality either for the webinterface, for FSI Pages or for 3rd party applications, then you will have to deploy an Apache Solr instance in your Tomcat and configure FSI Server to make use of it. A detailed description of how this can be done can be found in the "Documents" folder in your new FSI Server webinterface.

Licensing

FSI Server 2 licences are not valid in FSI Server 3. **The FQDN is not needed any longer**. In order to generate a licence, we need the **licence request data**. This data can be found in **WEB-INF/config/licencerequest.txt** after the first start of the new FSI Server or alternatively it can be copied from the licence-tab in the FSI Server webinterface when logging in with administrator permissions.

FSI Viewer Configuration Changes

When using the migration assistant described on the previous page to migrate the FSI Viewer instances, then no manual action is required. For manual configuration, please read the information below:

As we constantly extend the range of our client viewer applications with non-flash products, it is becoming more essential that servers deliver the correct content type headers. To avoid confusion, all .fsi files in the viewer directory have been renamed to .xml. As of version 6, FSI Viewer expects .xml files. In order to use the old configurations you will need to copy all .fsi files from the old viewers config directory to the same location in the new viewer directory and rename them accordingly. The skin .skn files and the plug-in .plg files have both been renamed to .swf files. FSI Viewer skins and intros are compatible with FSI Viewer 6. Please also remember to copy and update any user viewer directories that might be in use.

PLEASE NOTE: FSI Viewer versions below version 6 are not compatible with FSI Server 3 and need to be updated beforehand.