

# Installing and Configuring the Variations Web Services - 6.0

## Variations Web Services

 The Variations Web Services are required to run the Variations Web UI and/or the Variations Access Manager.

Perform the following steps as the tomcat user.

- As root, "su - tomcat"

Download the Variations Web Services war file.

To download the file,

- first go to <http://variations.sourceforge.net>
- next select the [Download Variations server](#) link,
- then select the latest version [variations-ws-server.war](#) download link.
- The download sequence for the browser should commence.

## Installation

First copy the war to tomcat's webapp directory:

```
cp variations-ws-server.war /usr/local/tomcat/webapps/
```

Then copy needed files outside of the webapp directory:

```
mkdir /usr/local/tomcat/conf/variations-ws-server/  
cp /usr/local/tomcat/webapps/variations-ws-server/WEB-INF/conf/config.xml /usr/local/tomcat/conf/variations-ws-server/  
cp /usr/local/tomcat/webapps/variations-ws-server/WEB-INF/conf/accessPolicy-ws.xml /usr/local/tomcat/conf/variations-ws-server/
```

## Configuration

### config.xml

This is the main configuration file for the Variations Web Services.

For each web service, a manager connects to a Variations server as a super-user to read and update data. Configure each manager with the appropriate url to your Variations server and the superuser authentication username (protocol and principal) and password:

```
<repository>  
  <type>variations</type>  
  <url>//example.example.edu:1099/EXAMPLE</url>  
  <username>superuser@example.edu</username>  
  <password>password</password>  
</repository>
```

For the Metadata web service, you also need to supply the prefix to your OPAC (this is the same as the **dml.client.url.catalog** system property in your **/home/dmlserv/conf/server/dmlserver.xml**) as well as replace the hostname in the bibinfo url:

```
<opacurl>http://purl.dlib.indiana.edu/iudl/iucat/</opacurl>  
<bibinfofourl>http://example.example.edu/variations-ws-server/bibinfo</bibinfofourl>
```

An authentication web service operates to allow restricted access to non-public recordings through the web player and for authentication to the access manager. Configure this authentication proxy by setting the appropriate url to your Variations server along with the protocol and realm used by the Variations server:

```
<authenticationproxy>
  <type>variations</type>
  <url>//example.example.edu:1099/EXAMPLE</url>
  <protocol>cas</protocol>
  <realm>iu.edu</realm>
</authenticationproxy>
```

If you have the Variations server installed in a place other than **/home/dmiers** or tomcat installed in a place other than **/usr/local/tomcat**, then you will need to adjust paths for access control policies, access pages, and the variations2.dir system property.

## WEB-INF/accessPolicy-ws.xml

This configuration file manages the access policy for the Web Services and only needs to be modified if you want to implement IP-based access.

## WEB-INF/web.xml

If tomcat is not installed at **/usr/local/tomcat/** or you prefer to keep config.xml outside of the variations-ws-server webapp directory at a different location, then edit **configPath** in **WEB-INF/web.xml**:

```
<context-param>
  <param-name>configPath</param-name>
  <param-value>/usr/local/tomcat/conf/variations-ws-server/config.xml</param-value>
</context-param>
```

## WEB-INF/classes/log4j.properties

If you prefer to keep the log files outside of tomcat's log directory, then edit the following line in **WEB-INF/classes/log4j.properties**:

```
log4j.appender.A1.File=${catalina.home}/logs/variations-ws-server.log
```

## Restart and Test

Once all configuration has been done, then restart tomcat:

```
bin/shutdown.sh
bin/startup.sh
```

Check that the webapp has loaded properly by browsing to <http://webserver.example.edu/variations-ws-server/metadata/145587> where *webserver.example.edu* is replaced by the fully-qualified domain name of your Variations web server.

Note that the first time you try this URL, you may have to accept a security certificate and enter the user name and password you specified with the wsconsumer role in `~tomcat/conf/tomcat-users.xml`. The URL should return an xml document with metadata for a recording (you may have to view the page source to see the full document depending on how your browser displays xml).