

Customize public SPARQL endpoint

The following assumes that you are in the **SSH** terminal connected to your **EC2** instance.

1. Stop the running tomcat instance

1. Go to the tomcat directory
 - `cd /opt/apache-tomcat-7.0.39/`
2. Stop tomcat using the shutdown wrapper script
 - `sudo -su tomcat bin/shutdownwrapper.sh`
3. Verify tomcat has been shutdown
 - `ps aux | grep tomcat`

Shutdown tomcat

```
[root@ip-172-31-54-208 log]# cd /opt/apache-tomcat-7.0.39/
[root@ip-172-31-54-208 apache-tomcat-7.0.39]# sudo -su tomcat
bin/shutdown.sh
Using CATALINA_BASE:   /opt/apache-tomcat-7.0.39
Using CATALINA_HOME:   /opt/apache-tomcat-7.0.39
Using CATALINA_TMPDIR: /opt/apache-tomcat-7.0.39/temp
Using JRE_HOME:        /opt/jdk1.8.0_66
Using CLASSPATH:
/opt/apache-tomcat-7.0.39/bin/bootstrap.jar:/opt/apache-tomcat-7.0.39/bin/
tomcat-juli.jar
[root@ip-172-31-54-208 apache-tomcat-7.0.39]# ps aux | grep tomcat
root      1646  0.0  0.0 103312   876 pts/0    S+   13:02   0:00 grep
tomcat

#### The following means that tomcat is still running ####
tomcat    1674  93.2 11.4 3599164 116800 pts/0    Sl   13:08   0:03
/opt/jdk1.8.0_66/bin/java
-Djava.util.logging.config.file=/opt/apache-tomcat-7.0.39/conf/logging.pro
perties
-Djava.util.logging.manager=org.apache.juli.ClassLoaderLogManager -Xmx1536m
-XX:+PrintGCDetails
-Xloggc:/opt/apache-tomcat-7.0.39/logs/tomcat-gc.log
-Djava.endorsed.dirs=/opt/apache-tomcat-7.0.39/endorsed
-classpath
/opt/apache-tomcat-7.0.39/bin/bootstrap.jar:/opt/apache-tomcat-7.0.39/bin/
tomcat-juli.jar
-Dcatalina.base=/opt/apache-tomcat-7.0.39
-Dcatalina.home=/opt/apache-tomcat-7.0.39
-Djava.io.tmpdir=/opt/apache-tomcat-7.0.39/temp
org.apache.catalina.startup.Bootstrap start
```

2. Modify configuration.properties for the public sparql endpoint

1. Go to the repository home directory
 - `cd ${SPARQLER_HOME}`
2. Open `configuration.properties` file in a text editor of your choice

- **vim configuration.properties**
3. The following property must be set for your eagle-i node
 - **eaglei.repository.namespace**
 4. The following properties should be set for proper display of the interface
 - **eaglei.repository.title**
 - **eaglei.repository.logo**
 5. Save the changes.

Edit repository properties

```
[root@ip-172-31-54-208 ~]# cd ${SPARQLER_HOME}
[root@ip-172-31-54-208 sparqler]# vim configuration.properties

##### configuration.properties file #####
eaglei.repository.namespace =
http://ec2-54-175-59-6.compute-1.amazonaws.com/i/
eaglei.repository.title = AMI Test Repository
eaglei.repository.logo =
https://alaska.qa.eagle-i.net:8443/sweet/images/eaglei-medium-blue.png
```

3. Prepare the public sparql repository for customization

1. Go to the repository home directory
 - **cd \${REPO_HOME}**
2. Run the prepare-install script in the etc directory. Replace **SPARQLADMINUSER** and **SPARQLADMINPW** with the credentials for the public sparqler repository administrator.
 - **bash etc/prepare-install.sh SPARQLADMINUSER SPARQLADMINPW \${REPO_HOME} sparqler-users.derby**
3. Modify the ownership of the derby database to be owned by the tomcat user
 - **chown -R tomcat:tomcat db/**

Prepare repository

```
[root@ip-172-31-54-208 sparqler]# cd ${REPO_HOME}
[root@ip-172-31-54-208 repo]# bash etc/prepare-install.sh
sparqler-user sparqler-pw ${REPO_HOME} sparqler-users.derby
_RUNJAVA set to "/opt/jdk1.8.0_66/jre/bin/java"
java version "1.8.0_66"
Java(TM) SE Runtime Environment (build 1.8.0_66-b17)
Java HotSpot(TM) 64-Bit Server VM (build 25.66-b17, mixed mode)

---all superuser logins---
sparqler-user
[root@ip-172-31-54-208 repo]# chown -R tomcat:tomcat db/
```

4. Update eagle-i property files with public sparqler information

1. Go to the eagle-i configuration directory
 - **cd /opt/eaglei/conf/**
2. Using the text editor of your choice, edit the **eagle-i-apps.properties** file
 - **vim eagle-i-apps.properties**
3. Add the following two properties to the **eagle-i-apps.properties** file to define the source and target repository for the public sparql endpoint:
 - **eaglei.sparqler.source.URL**, this will be your main repository URL

- `eaglei.sparqler.target.URL`, this will be the URL of your public sparql endpoint. Typically it is a concatenation of the main repository URL with 'sparqler'
4. Save your changes.
 5. Using the text editor of your choice, edit the `eagle-i-apps-credentials.properties` file.
 6. Add the credentials used when running the `prepare-install.sh` script for the sparqler to the `eagle-i-apps-credentials.properties` file.
 - `eaglei.sparqler.target.user`
 - `eaglei.sparqler.target.password`
 7. Save your changes

```

Update Sparqler configs
[root@ip-172-31-54-208 sparqler]# cd /opt/eaglei/conf/
[root@ip-172-31-54-208 conf]# vim eagle-i-apps.properties
##### eagle-i-apps.properties file #####
## SPARQLER
### URL of source-repository (from which the sparqler reads public
information):
eaglei.sparqler.source.URL =
https://ec2-54-175-59-6.compute-1.amazonaws.com/

### URL of target (i.e., sparqler) repository:
eaglei.sparqler.target.URL =
https://ec2-54-175-59-6.compute-1.amazonaws.com/sparqler/
#####

[root@ip-172-31-54-208 conf]# vim eagle-i-apps-credentials.properties
##### eagle-i-apps-credentials.properties file #####
eaglei.sparqler.target.user=sparqler-user
eaglei.sparqler.target.password=sparqler-password
#####

```

5. Start tomcat

1. Go to the tomcat directory
 - `cd /opt/apache-tomcat-7.0.39/`
2. Start tomcat using the startup wrapper script
 - `sudo -su tomcat bin/startupwrapper.sh`
3. Wait for tomcat to finish startup.

```

Start tomcat
[root@ip-172-31-54-208 opt]# cd apache-tomcat-7.0.39/
[root@ip-172-31-54-208 apache-tomcat-7.0.39]# sudo -su tomcat bash
bin/startupwrapper.sh
Waiting for Tomcat to startup ...
Tomcat startup finished in ~115 seconds

```

6. Finish the public sparql repository customization

1. Go to the repository home directory
 - `cd ${REPO_HOME}`
2. Run the finish install script in the etc directory. Replace `SPARQLADMINUSER` and `SPARQLADMINPW` with the credentials for the public

sparqler repository administrator.

- `bash etc/finish-install.sh SPARQLADMINUSER SPARQLADMINPW sparqler-repository-url-prefix`

Finish repo

```
[root@ip-172-31-54-208 sparqler]# cd ${REPO_HOME}
[root@ip-172-31-54-208 repo]# bash etc/finish-install.sh sparqler-user
sparqler-pw https://ec2-54-175-59-6.compute-1.amazonaws.com/sparqler
User metadata created.
Updating data model ontology from jar, please wait...
Updated data model ontology from jar
```

7. Verify the public sparql endpoint has been customized correctly

In a browser, navigate to the public sparql endpoint admin console and log in using the public sparqler repository administrator credentials.

The screenshot shows a web browser window displaying the SPARQL Query Workbench interface. The browser's address bar shows the URL `https://ec2-54-175-59-6.compute-1.amazonaws.com/sparqler/query/`. The page title is "SPARQL Query Workbench" and the subtitle is "AMI Test Repository".

The interface includes a "Query:" field with a "Get Results" button. Below the query field, there is a "Choose Dataset" section with the following options:

- View:** --none--
- Workspace:** --none--
- Default Graph:** --none--
- Named Graph:** --none--

The "Default Graph" and "Named Graph" sections each have a list of available datasets:

- Default Graph:** NG_Metadata (Publicly-visible admin metadata), ero.owl (eagle-I Data Model Ontology), NG_GlobalProxy (Global proxy workspace), NG_Inferred (Inferred statements only), (Repository Internal Ontology)
- Named Graph:** NG_Metadata (Publicly-visible admin metadata), ero.owl (eagle-I Data Model Ontology), NG_GlobalProxy (Global proxy workspace), NG_Inferred (Inferred statements only), (Repository Internal Ontology)

Below the dataset selection, there is an "Output Format:" section with a dropdown menu set to "HTML", a "No Inferred:" checkbox, and a "Time Limit:" input field. At the bottom, there are "Clear Form!" and "Get Results" buttons.