**MoDaC Deployment Steps for UAT and Production**

**Prerequisites:**

UAT and Production deployment should be performed only after the DEV deployment is performed and tested. For instructions on DEV deployment, refer to this document[: MoDaC Dev Deployment Instructions](https://github.com/CBIIT/nci-doe-data-sharing/blob/master/doc/Steps%20for%20MoDaC%20Dev%20Deployment.docx)

1. **First Step: Build the war file on the MoDaC server:**

* Login into MoDaC dev server (ssh fsdsgl-modac01d.ncifcrf.gov).
* Do *sudo su - ncidoesvct2*
* Go to the directory /opt/nci-doe/nci-doe-data-sharing/
* Add all the service account, database, google captcha, google client and secret key passwords (all the properties which says <Configure Me>) in the config files which are located under the path: /opt/nci-doe/nci-doe-data-sharing/src/main/resources/appconfigs

* + - For UAT: add the passwords in preprod-env.conf file
    - For PROD: add the passwords in prod-env.conf file
  + The config files back up are located under the path: /opt/nci-doe/
* Do either one depending on the environment.
  + - For UAT: mvn clean install -DskipTests -Ppreprod
    - For PROD: mvn clean install -DskipTests -Pprod
* Copy the war file to the MoDaC server.
* **For UAT server:**

scp /opt/nci-doe/nci-doe-data-sharing/target/<war\_file> [<user\_name>@fsdsgl-modac01t.ncifcrf.gov:/home/<user\_name>](mailto:gantam2@fsdsgl-modac01p.ncifcrf.gov:/home/gantam2)

* **For PROD server:**

scp /opt/nci-doe/nci-doe-data-sharing/target/<war\_file>

[<user\_name>@fsdsgl-modac01p.ncifcrf.gov:/home/<user\_name>](mailto:gantam2@fsdsgl-modac01p.ncifcrf.gov:/home/gantam2)

1. **Second step: Deployment on MoDaC server**:

* ssh to the appropriate MoDaC server:
* MoDaC UAT server: ssh fsdsgl-modac01t.ncifcrf.gov
* MoDaC PROD server: ssh fsdsgl-modac01p.ncifcrf.gov
* Stop tomcat using the command: *sudo service tomcat stop*
* Change the permissions of the war file using the commands:

chmod 770 <war\_file>

* Move the war file to webapps folder using the command:

sudo mv <war\_file> /usr/share/tomcat/webapps

* Make sure you are under root user mode, else do “sudo su”.
* Do this step only when doing a first time build for a new branch. Else, skip this step.
* Go to the directory **/usr/share/tomcat/conf/** and edit the server.xml file for the following line:

<Context path="" docBase="web-doe-<war\_file\_version>" privileged="true"/>

* Go to directory **/usr/share/tomcat/webapps/**:
  + - Do this step only when doing a first time build for a new branch. Else, skip this step.
* Remove the old war file and directory using the command:

rm web-doe-<old\_war\_file\_version>.war

rm -rf web-doe-<old\_war\_file\_version>/

* + - Add service account group permissions to the war file using the following commands:
* On UAT:
* *chgrp ncidoesvct2 <war\_file.war>*
* *sudo chown ncidoesvct2 <war\_file.war>*
* On Prod:
* *chgrp ncidoesvcp2 <war\_file.war>*
* *sudo chown ncidoesvcp2 <war\_file.war>*
* Type “exit” (to get out of root user mode) and start tomcat using the command:

*sudo service tomcat start*

* Access the app by using the appropriate URL on the browser:
* UAT: <https://fsdsgl-modac01t.ncifcrf.gov/>
* PROD: https://modac.cancer.gov/

**To access Tomcat logs:**

* Login into MoDaC server.
* Do “sudo su”.
* Go to the path: /usr/share/tomcat/logs/
* Access the tomcat logs in the file catalina.out (located under the path: /usr/share/tomcat/logs/)

**To access gunicorn logs:**

* Login into MoDaC server.
* Do “sudo su”.
* Go to the path: /var/log
* Access the logs in the file messages (located under the path /var/log).

**Tomcat and gunicorn commands:**

* To start tomcat: sudo service tomcat start
* To stop tomcat: sudo service tomcat stop
* To restart tomcat: sudo service tomcat restart
* To start gunicorn: sudo systemctl start gunicorn
* To stop gunicorn: sudo systemctl stop gunicorn
* To restart gunicorn: sudo systemctl restart gunicorn

**Steps for changing the backend server:**

* Login into MoDaC dev server (ssh fsdsgl-modac01d.ncifcrf.gov).
* Do *sudo su – ncidoesvct2*
* Go to the path: /opt/nci-doe/nci-doe-data-sharing/src/main/resources/appconfigs
* Depending on which environment needs to be changed, do the following:
  + - For UAT: change the property in preprod-env.conf file
    - For PROD: change the property in prod-env.conf file
* Do the maven build and copy the war file to MoDaC servers as mentioned in the steps above.
* Do the deployment on MoDaC servers as mentioned in Step 2.

**Steps for adding the maintenance message:**

* Login to MoDaC prod server (ssh fsdsgl-modac01p.ncifcrf.gov)
* Do “sudo su”.
* Go to the path: /usr/share/tomcat/webapps/web-doe-<version>/WEB-INF/classes
* Edit the application.properties file located at this path.
* Change the property “doe.downtime.message” and add the appropiate timings for the maintenance.
* Save the file.
* Type “exit” to get out of root user mode
* Restart tomcat using “sudo service tomcat restart”