

Dataverse Installation

Material

Guide:

- <http://guides.dataverse.org/en/latest/installation/prerequisites.html>

Environment:

- Centos 7.4

Prerequisites

```
sudo yum install java-1.8.0-openjdk
```

```
sudo yum install unzip
```

```
sudo yum install perl
```

```
sudo hostnamectl set-hostname dataverse
```

```
sudo vi /etc/hosts
```

```
127.0.0.1 localhost localhost.localdomain localhost4
```

```
localhost4.localdomain4
```

```
127.0.1.1 dataverse
```

```
<IP> dataverse
```

```
:::1 localhost localhost.localdomain localhost6
```

```
localhost6.localdomain6
```

```
sudo iptables -A INPUT -p tcp -m tcp --dport 8080 -j ACCEPT
```

```
sudo iptables -A INPUT -p tcp -m tcp --dport 8181 -j ACCEPT
```

```
sudo iptables -L INPUT --line-numbers
```

```
#remove line with DROP
```

```
sudo iptables -D INPUT <LINE NUMBER>
```

```
sudo iptables -A INPUT -j DROP
```

```
sudo service iptables save
```

Get Dataverse

```
wget https://github.com/IQSS/dataverse/releases/download/v4.8.6/dvinstall.zip
```

```
unzip dvinstall.zip
```

Glassfish

```
wget http://dlc-cdn.sun.com/glassfish/4.1/release/glassfish-4.1.zip
```

```
unzip glassfish-4.1.zip
```

```
sudo mv glassfish4 /usr/local
```

```
sudo useradd -s /bin/false -r glassfish # you will also need a home directory  
for glassfish —> used to store PID credentials and parameters
```

```
sudo chown glassfish /usr/local/glassfish4/glassfish/lib
```

```
sudo chown -R glassfish:glassfish /usr/local/glassfish4/glassfish/domains/  
domain1
```

```
cd /usr/local/glassfish4/glassfish/modules/  
sudo rm weld-osgi-bundle.jar  
cd
```

```
wget http://central.maven.org/maven2/org/jboss/weld/weld-osgi-bundle/  
2.2.10.SP1/weld-osgi-bundle-2.2.10.SP1-glassfish4.jar  
sudo cp weld-osgi-bundle-2.2.10.SP1-glassfish4.jar /usr/local/glassfish4/  
glassfish/modules
```

```
sudo vi /usr/local/glassfish4/glassfish/domains/domain1/config/domain.xml  
Change from -client to -server under <jvm-options>-client</jvm-options>  
Add <jvm-options>-Djava.net.preferIPv4Stack=true</jvm-options>
```

```
sudo /usr/local/glassfish4/bin/asadmin start-domain  
sudo /usr/local/glassfish4/bin/asadmin osgi lb | grep 'Weld OSGi Bundle'  
sudo /usr/local/glassfish4/bin/asadmin stop-domain
```

```
sudo vi /etc/init.d/glassfish  
#!/bin/sh  
# chkconfig: 2345 80 01  
# description: GlassFish App Server  
set -e
```

```
ASADMIN=/usr/local/glassfish4/bin/asadmin  
GF_USER=glassfish
```

```
case "$1" in  
    start)  
        echo -n "Starting GlassFish server: glassfish"  
        # Increase file descriptor limit:  
        ulimit -n 32768  
        # Allow "memory overcommit":  
        # (basically, this allows to run exec() calls  
from inside the  
        # app, without the Unix fork() call physically  
hogging 2X  
        # the amount of memory glassfish is already  
using)  
        echo 1 > /proc/sys/vm/overcommit_memory  
        LANG=en_US.UTF-8; export LANG  
  
        sudo -u $GF_USER $ASADMIN start-domain domain1  
        ;;  
    stop)  
        echo -n "Stopping GlassFish server: glassfish"
```

```

        sudo -u $GF_USER $ASADMIN stop-domain domain1
        echo "."
        ;;
    *)
        echo "Usage: /etc/init.d/glassfish {start|stop}"

        exit 1
esac
exit 0

```

```

sudo chmod +x /etc/init.d/glassfish
sudo chkconfig --add glassfish
sudo chkconfig glassfish on

```

- Stores uploaded data in /usr/local/glassfish4/glassfish/domains/domain1/files/
- Log files in /usr/local/glassfish4/glassfish/domains/domain1/logs/server.log

Postgres

```

sudo yum install postgresql-server
sudo service postgresql initdb
sudo vi /var/lib/pgsql/data/pg_hba.conf
    change from ident to trust
sudo service postgresql start
sudo chkconfig postgresql on

```

Solr

```

wget https://archive.apache.org/dist/lucene/solr/4.6.0/solr-4.6.0.tgz
tar xvzf solr-4.6.0.tgz
sudo rsync -auv solr-4.6.0 /usr/local/
cd /usr/local/solr-4.6.0/example/solr/collection1/conf/
cp -a schema.xml schema.xml.orig
cd
cp dvinstall/schema.xml /usr/local/solr-4.6.0/example/solr/collection1/conf/

```

Bind to IPv4

```

export _JAVA_OPTIONS="-Djava.net.preferIPv4Stack=true"

```

Start manually

```

rm /usr/local/solr-4.6.0/example/solr/collection1/data/index/write.lock
cd /usr/local/solr-4.6.0/example/
sudo java -jar start.jar &

```

Create init.d

```

sudo vi /etc/init.d/solr

```

```

#!/bin/bash
#
# chkconfig: 2345 20 20
# short-description: Solr
# description: Startup script for Apache Solr Server

SOLR_DIR="/usr/local/solr-4.6.0/example"
LOG_FILE="/var/log/solr.log"
JAVA="/usr/bin/java -Djava.net.preferIPv4Stack=true -jar
start.jar"

start() {
echo -n "Starting Solr... "
cd $SOLR_DIR
$JAVA > $LOG_FILE 2>&1 &
sleep 2
RETVAL=$?

    if [ $RETVAL = 0 ]
    then
        echo "done."
    else
        echo "failed. See error code for more
information."
    fi
    return $RETVAL
}

stop() {
echo -n "Stopping Solr... "
pkill -f start.jar > /dev/null
RETVAL=$?

    if [ $RETVAL = 0 ]
    then
        echo "done."
    else
        echo "failed. See error code for more
information."
    fi
    return $RETVAL
}

case "$1" in
start)
start
;;
stop)
stop

```

```
;;
restart)
stop
start
;;
*)
echo $"Usage: solr {start|stop|restart}"
exit 3
esac
exit $RETVAL
```

```
sudo chmod +x /etc/init.d/solr
sudo chkconfig --add solr
sudo chkconfig solr on
```

jq

```
cd /usr/bin/
sudo wget http://stedolan.github.io/jq/download/linux64/jq
sudo chmod +x jq
```

ImageMagic

```
sudo yum install ImageMagick
```

Install Dataverse

```
cd dvinstall
sudo su
export _JAVA_OPTIONS="-Djava.net.preferIPv4Stack=true"
./install
```

Fully Qualified Domain Name of your host: 145.100.59.118

Glassfish service account uvi inst sername: glassfish

Glassfish Directory: /usr/local/glassfish4

Administrator email address for this Dataverse:

christine.staiger@surfsara.nl

SMTP (mail) server to relay notification messages: mail.hmdc.harvard.edu

Postgres Server Address: 127.0.0.1

Postgres Server Port: 5432

Postgres ADMIN password: secret

Name of the Postgres Database: dvndb

Name of the Postgres User: dvnapp

Postgres user password: secret

Remote SOLR indexing service: LOCAL

Rserve Server: localhost

Rserve Server Port: 6311

Rserve User Name: rserve

Rserve User Password: rserve

Login information relevant to admin user name [admin] for host [localhost] and admin port [4848] stored at [/home/admincentos/.gfclient/pass] successfully
/usr/local/glassfish4/bin ~/dvinstall
asadmin --host localhost --port 4848 --user admin --secure --
interactive=true --echo=true --terse=false create-jvm-options --target server
-server
NCLS-ADMIN-00010

[http://145.100.59.118:8080/file.xhtml?fileId=6&version=DRAFT&version=.](http://145.100.59.118:8080/file.xhtml?fileId=6&version=DRAFT&version=)

Start Dataverse as user

```
#restart solr
sudo java -jar start.jar &
#restart glassfish
sudo /usr/local/glassfish4/bin/asadmin start-domain
```

Dataverse config

```
sudo /usr/local/glassfish4/bin/asadmin create-jvm-options "-
Ddataverse.fqdn=145.100.59.118\:8080"
sudo /usr/local/glassfish4/bin/asadmin delete-jvm-options '-
Ddoi.baseurlstring=https\://ezid.cdlib.org'
sudo /usr/local/glassfish4/bin/asadmin create-jvm-options '-
Ddoi.baseurlstring=https\://epic5.storage.surfsara.nl\:8003'
sudo /usr/local/glassfish4/bin/asadmin create-jvm-options "-
Ddataverse.handlenet.admcredfile=/usr/local/glassfish4/glassfish/
308_21.T12995_USER01_privkey.bin"
sudo /usr/local/glassfish4/bin/asadmin create-jvm-options "-
Ddvn.handle.auth=21.T12995"
sudo /usr/local/glassfish4/bin/asadmin create-jvm-options "-
Ddvn.handle.baseUrl=http\://145.100.59.118\:8080/dvn/study?globalId=hdl:"
```

```
curl -X PUT -d hdl http://localhost:8080/api/admin/settings/:Protocol
curl -X PUT -d 21.T12995 http://localhost:8080/api/admin/settings/:Authority
curl -X PUT -d / http://localhost:8080/api/admin/settings/:DoiSeparator
```

—> creates <https://hdl.handle.net/21.T12995/QL7VVX> for data, but no entry in hdl.[handle.net](https://hdl.handle.net)

```
[2018-04-13T11:54:11.779+0200] [glassfish 4.1] [SEVERE] [] [] [tid:
_ThreadID=25 _ThreadName=Thread-9] [timeMillis: 1523613251779]
[levelValue: 1000] [[
  sending HDL-TCP request (version=2.1; oc=200; rc=0; snId=263 caCrt
noAuth / HS_PUBKEY 300:0.NA/21.T12995) to 145.100.31.156:2644]]
```

Needs to become
HS_PUBKEY 308:21.T12995/TRAINING

—> two parameters

- 1) Authentication 308:21.T12995/TRAINING
- 2) Handle owner 200:0.NA/21.T12995

Reset and execute ./install again

```
postgres=# DROP DATABASE dvndb;  
DROP DATABASE  
postgres=# DROP USER dvnappp;  
DROP ROLE
```

SWORD app and other APIs

```
API_TOKEN=b18278c7-a6ad-46cf-8673-95b6aac6c715  
HOSTNAME=145.100.59.118
```

list dataverse

```
curl -u $API_TOKEN: http://\$HOSTNAME:8080/dvn/api/data-deposit/v1.1/  
swordv2/collection/dataverse/a64b880c-408b-11e8-a58f-040091643b8b
```

list dataset

```
curl -u $API_TOKEN: http://\$HOSTNAME:8080/dvn/api/data-deposit/v1.1/  
swordv2/statement/study/hdl:21.T12995/6HF8FR
```

#update all metadata

```
curl -u $API_TOKEN: --upload-file "/home/admincentos/metadata.xml" -H  
"Content-Type: application/atom+xml" http://\$HOSTNAME:8080/dvn/api/data-  
deposit/v1.1/swordv2/edit/study/hdl:21.T12995/0I0D31
```