Installing bob

sudo yum update
sudo hostnamectl set-hostname bob-centos

/etc/hosts
127.0.0.1   bob-centos localhost localhost.localdomain localhost4 localhost4.localdomain4
127.0.1.1   bob-centos
::1   bob-centos localhost localhost.localdomain localhost6 localhost6.localdomain6

<ip> alice-centos
<ip> bob-centos
<ip>   iarchive

sudo iptables -F
sudo iptables -A INPUT -i lo -j ACCEPT
sudo iptables -A INPUT -m conntrack --ctstate RELATED,ESTABLISHED -j ACCEPT
sudo iptables -A INPUT -p tcp -m tcp --dport 22 -j ACCEPT
sudo iptables -A INPUT -p tcp -m tcp --dport 1247 -j ACCEPT
sudo iptables -A INPUT -p tcp -m tcp --dport 1248 -j ACCEPT
sudo iptables -A INPUT -p tcp -m tcp --dport 20000:20199 -j ACCEPT
sudo iptables -A INPUT -p tcp -m tcp --dport 2811 -j ACCEPT
sudo iptables -A INPUT -p tcp -m tcp --dport 50000:51000 -j ACCEPT
sudo iptables -A INPUT -p icmp -j ACCEPT
sudo iptables -A INPUT -j DROP
sudo iptables -P FORWARD DROP

sudo service iptables save
sudo reboot

sudo yum install postgresql-server
sudo service postgresql initdb

Postgresql

sudo yum install postgresql-server
sudo service postgresql initdb

sudo vi /var/lib/pgsql/data/pg_hba.conf
Change
```
        # IPv4 local connections:
        host    all             all             127.0.0.1/32            ident
```

to

```
# IPv4 local connections:
host    all             all             127.0.0.1/32            md5
# IPv6 local connections:
host    all             all             ::1/128                 md5
```

```
sudo service postgresql start
sudo su - postgres
psql

create database "ICAT";
create user irods with password 'irods';
grant all privileges on database "ICAT" to irods;
\q
exit

sudo systemctl enable postgresql
```

iRODS 4.2.1

```
sudo rpm --import https://packages.irods.org/irods-signing-key.asc
wget -qO - https://packages.irods.org/renci-irods.yum.repo | sudo tee /etc/
yum.repos.d/renci-irods.yum.repo
sudo yum install epel-release
sudo yum install irods-server irods-database-plugin-postgres

sudo python /var/lib/irods/scripts/setup_irods.py
Database Type: postgres
ODBC Driver:   PostgreSQL
Database Host: localhost
Database Port: 5432
Database Name: ICAT
Database User: irods

Zone name:                bobZone
iRODS server port:        1247
iRODS port range (begin):   20000
iRODS port range (end):     20199
Control plane port:       1248
Schema validation base URI: file:///var/lib/irods/configuration_schemas
iRODS server administrator: bob

BOB_ZONE_KEY
TEMPORARY_32byte_negotiation_key
TEMPORARY__32byte_ctrl_plane_key
```

sudo systemctl enable irods

Test iRODS 4.2.1

iinit
ils
echo “test” > test.txt
put -K test.txt
ils -L

B2SAFE

sudo mkdir -p /opt/eudat
sudo cp -r HandleCerts/ /opt/eudat/
sudo chown -R irods:irods /opt/eudat/HandleCerts/

sudo yum install -y git
sudo yum install rpm-build

git clone https://github.com/EUDAT-B2SAFE/B2SAFE-core
cd ~/B2SAFE-core/packaging
./create_rpm_package.sh
cd
sudo rpm -ivh rpmbuild/RPMS/noarch/irods-eudat-b2safe-4.0-1.noarch.rpm
sudo vi /opt/eudat/b2safe/packaging/install.conf

```
#
# parameters for installation of irods module B2SAFE
#
# the absolute directory where the irods config is installed
IRODS_CONF_DIR=/etc/irods
#
# the absolute directory where irods is installed
IRODS_DIR=/var/lib/irods/iRODS
#
# the directory where B2SAFE is installed as a package
B2SAFE_PACKAGE_DIR=/opt/eudat/b2safe
#
# the default iRODS resource to use. Will be set in core.re
DEFAULT_RESOURCE=demoResc
#
# epic credentials type and location
CRED_STORE_TYPE=os
CRED_FILE_PATH=$B2SAFE_PACKAGE_DIR/conf/credentials
SERVER_ID="irods://bob-centos:1247"
#
# epic credentials file usage parameters
```

```
#
# old epicclient parameters
#BASE_URI="https://<fully_qualified_hostname_epic_server>/<instance>/
handles/"
#USERNAME=<username_for_prefix>
#PREFIX=<prefix>
#
# new epicclient2 parameters
HANDLE_SERVER_URL="https://epic4.storage.surfsara.nl:8007"
PRIVATE_KEY="/opt/eudat/HandleCerts/308_21.T12996_USER01_privkey.pem"
CERTIFICATE_ONLY="/opt/eudat/HandleCerts/
308_21.T12996_USER01_certificate_only.pem"
PREFIX="21.T12996"
HANDLEOWNER="200:0.NA/$PREFIX"
REVERSELOOKUP_USERNAME=21.T12996
HTTPS_VERIFY="False"
#
# users for msiexec command
USERS="user0#Zone0 user1#Zone1"
#
# loglevel and log directory
# possible log levels: DEBUG, INFO, WARNING, ERROR, CRITICAL
LOG_LEVEL=DEBUG
LOG_DIR=/var/log/irods
#
#
# iRODS behavioral parameters
#
# check if user is authorized to perform several functions
AUTHZ_ENABLED=true
#
# enable if iRODS contrib package is installed with msifree microservice to
# prevent memory leaks in iRODS
MSIFREE_ENABLED=false
#
# enable if a speedup is to be used. (won't work in future versions)
MSICURL_ENABLED=false
#

source /etc/irods/service_account.config
sudo su - irods
cd /opt/eudat/b2safe/packaging/
./install.sh
 —> provide password

sudo yum install python-pip
```

sudo pip install --upgrade pip
sudo pip install queuelib
sudo pip install dweepy
sudo yum install python-lxml
sudo yum install python-defusedxml
sudo yum install python-httplib2

git clone https://github.com/EUDAT-B2SAFE/B2HANDLE
cd B2HANDLE/
python setup.py bdist_egg
cd dist/
sudo easy_install b2handle-1.1.1-py2.7.egg

Test B2HANDLE

sudo su - irods
/opt/eudat/b2safe/cmd/epicclient2.py os /opt/eudat/b2safe/conf/credentials
create www.test.com
exit

GridFTP server

sudo curl -LOs https://downloads.globus.org/toolkit/globus-connect-server/globus-connect-server-repo-latest.noarch.rpm
sudo rpm --import https://downloads.globus.org/toolkit/gt6/stable/repo/rpm/RPM-GPG-KEY-Globus
sudo yum install globus-connect-server-repo-latest.noarch.rpm

sudo yum install globus-data-management-server
sudo yum install globus-data-management-client
sudo yum install globus-gridftp globus-gsi

grid-cert-request
name alice

sudo grid-ca-sign -in /home/admincentos/.globus/usercert_request.pem -out /home/admincentos/.globus/usercert.pem
SUBJ=`grid-cert-info -subject`
sudo grid-mapfile-add-entry -dn "$SUBJ" -ln admincentos

sudo vi */etc/gridftp.conf*
# globus-gridftp-server configuration file

this is a comment

option names beginning with '$' will be set as environment variables, e.g.

$GLOBUS_ERROR_VERBOSE 1
$GLOBUS_TCP_PORT_RANGE 50000,51000

port
port 2811
log_level ALL
log_single "/var/log/globus-gridftp-server.log"
log_transfer "/var/log/globus-gridftp-server-transfer.log"

control_interface 0.0.0.0

GridFTP certificates

mkdir GridCerts
sudo cp /etc/grid-security/certificates/7f69d827.* GridCerts/
scp alice-centos:GridCerts/* GridCerts

sudo cp GridCerts/7f69d827.* /etc/grid-security/certificates/

sudo vi /etc/grid-security/grid-mapfile
"/O=Grid/OU=GlobusTest/OU=simpleCA-bob-centos/OU=Globus Simple CA/CN=bob" admincentos
"/O=Grid/OU=GlobusTest/OU=simpleCA-alice-centos/OU=Globus Simple CA/CN=alice" admincentos

GridFTP-B2STAGE known issue

Always use
sudo /etc/init.d/globus-gridftp-server restart
to restart server do not use
sudo service globus-gridftp-server restart