

RPM Install Experiences and tips with OSG3

Including configuration choices

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Strategy

- Define sequence for transition from vdt to rpm (My case was):
 - Hadoop-0.19 → Hadoop-0-20 (Caltech) → Hadoop-0.20 (OSG)
 - Working nodes (WN) excluding condor
 - Storage server aka. Bestman (SE) + Gridftp hdfs server
 - Gatekeeper(CE)
 - condor (rocks) → condor(osg)
- Set a local repository for rpm packages install



Local repository

- With rocks commands we can create a local repository and convert it to a roll

```
cd /export/rocks/install
rocks create mirror http://repo.grid.iu.edu/3.0/e15/osg-release/x86_64 \
    rollname=osg-updates version=3.14
rocks enable roll osg-updates
rocks create distro
```

- Some OSG packages have dependency on epel repository
- But epel repository has its own set of grid packages
- This mean OSG and epel has conflicting grid packages
- Options for required epel packages
 - create a local repository for epel excluding grid packages
 - set plugins=1 in /etc/yum.conf (OSG recomendation)
 - create a new roll including only few required epel packages needed by OSG packages



Hadoop (1)

REF:<https://twiki.grid.iu.edu/bin/view/Documentation/Release3/InstallHadoopSE>

- Even if upgrading, the easy way on migrating to OSG3 is doing a fresh install.
 - Stop hadoop
 - Uninstall any previous version
 - Remove old repositories for hadoop
 - Remove config file (/etc/sysconfig/hadoop)
- prerequisites for rocks \leq 5.4.3 or centralized users file: create users in advance

```
/usr/sbin/groupadd -g 409 hadoop
/usr/sbin/groupadd -g 461 mapred
/usr/sbin/useradd -u 458 -g 409 -c "Hadoop HDFS" -s /bin/bash \
    -d /home/hadoop -m -k /etc/skel hdfs
/usr/sbin/useradd -u 461 -g 461 -c "Hadoop MapReduce" -s /bin/bash \
    -d /usr/lib/hadoop-0.20 mapred
```

- yum install hadoop-0.20-osg



Hadoop (2)

- Configure hadoop by editing `/etc/sysconfig/hadoop`

```
cp -p /etc/sysconfig/hadoop /etc/sysconfig/hadoop.save_original_install
sed -i -e "s#@HADOOP_NAMENODE@#login-0-0#" /etc/sysconfig/hadoop
sed -i -e "s#@HADOOP_REPLICATION_DEFAULT@#2#" /etc/sysconfig/hadoop
sed -i -e "s#@HADOOP_DATADIR@#/hadoop#" /etc/sysconfig/hadoop
sed -i -e "s#=$HADOOP_DATADIR/data#=/hadoop/data,/hadoop2/data#" /etc/sysconfig/hadoop
sed -i -e "s#@HADOOP_GANGLIA_ADDRESS@#224.0.0.3#" /etc/sysconfig/hadoop
sed -i -e "s#@HADOOP_SECONDARY_NAMENODE@#login-0-1#" /etc/sysconfig/hadoop
sed -i -e "s#@HADOOP_CHECKPOINT_DIRS@#/home/hadoop,/scratch/hadoop#" /etc/sysconfig/hadoop
sed -i -e "s#@HADOOP_CHECKPOINT_PERIOD@#600#" /etc/sysconfig/hadoop
sed -i -e "s#HADOOP_UPDATE_FSTAB=0#HADOOP_UPDATE_FSTAB=1#" /etc/sysconfig/hadoop
```

- When upgrading,
a significant change was `HADOOP_USER` (`hadoop` → `hdfs`),
this may imply changing ownership of data dirs.

```
chown -R hdfs:hadoop $HADOOP_DATADIR (my case /hadoop /hadoop2 )
```



Workernodes

REF:<https://twiki.grid.iu.edu/bin/view/Documentation/Release3/InstallOSGClient>

- prerequisites for rocks \leq 5.4.3 or centralized users file:
create users in advance

```
#make sure condor user exist already to avoid different uid/gid for condor
/usr/sbin/groupadd -g 407 condor
/usr/sbin/useradd -u 407 -g 407 -c "Condor Daemon Account" -s /bin/bash -d /home/condor condor
```

- yum install empty-ca-certs cluster share ca cert directory
- yum install osg-wn-client
- Set link for ca cert dir

```
ln -s /sharesoft/osg/ce/globus/share/certificates /etc/grid-security/certificates
```



Workernodes (including glxec)

REF:<https://twiki.grid.iu.edu/bin/view/Documentation/Release3/InstallGlxec>

- prerequisites for rocks \leq 5.4.3 or centralized users file:
create users in advance

```
#make sure condor user exist already to avoid different uid/gid for condor
/usr/sbin/groupadd -g 407 condor
/usr/sbin/useradd -u 407 -g 407 -c "Condor Daemon Account" -s /bin/bash -d /home/condor condor
```

```
### Create the glxec User
#glxec:x:463:463:glxec pilot user:/home/glxec:/bin/bash
/usr/sbin/groupadd -g 463 glxec
/usr/sbin/useradd -u 463 -c "gLExec user account" -s /sbin/nologin glxec
### Create glxec groups/gid glxec00--glxec49/65000--65049
for i in 0..49; do if [ $i -lt 10 ]; then /usr/sbin/groupadd -g 6500$i glxec0$i; \
else /usr/sbin/groupadd -g 650$i glxec$i; fi; done
#gratia:x:464:464:gratia runtime user:/etc/gratia:/sbin/nologin
/usr/sbin/groupadd -g 464 gratia
/usr/sbin/useradd -u 464 -c "gratia runtime user" -s /sbin/nologin -d /etc/gratia gratia
```

- yum install empty-ca-certs cluster share ca cert directory
- yum install osg-wn-client **-glxec**
- Set link for ca cert dir

```
ln -s /sharesoft/osg/ce/globus/share/certificates /etc/grid-security/certificates
```



Workernodes (including glxec) 2

Customize `/etc/lcmaps.db` for glxec on worker nodes

- Set certs (or proxies) and gums server

```
sed -i -e "s#hostcert.pem#hostproxy.pem#" /etc/lcmaps.db
sed -i -e "s#hostkey.pem#hostproxykey.pem#" /etc/lcmaps.db
sed -i -e "s#yourgums.yourdomain#My.Gums.Server#" /etc/lcmaps.db
```

- Uncomment/add glxec related lines

```
sed -i -e \  
"s#glxectracking = \"lcmaps_glxec_tracking.mod\"/glxectracking = \"lcmaps_glxec_tracking.mod\"/\" \  
/etc/lcmaps.db  
sed -i -e \  
"s@#          \\"-exec /usr/sbin/glxec_monitor\"@          \\"-exec /usr/sbin/glxec_monitor\"@\" \  
/etc/lcmaps.db  
echo 'verifyproxy -> gumsclient' >> /etc/lcmaps.db  
echo 'gumsclient -> glxectracking' >> /etc/lcmaps.db
```

All this can be automatized at installation level



Bestman (SE)

REF:<https://twiki.grid.iu.edu/bin/view/Documentation/Release3/InstallOSGBestmanSE>

- prerequisites for rocks \leq 5.4.3 or centralized users file:
create users in advance

```
### Create bestman user
#bestman:x:459:410:BeStMan 2 Server user:/etc/bestman2:/bin/bash
/usr/sbin/groupadd -g 410 bestman
/usr/sbin/useradd -u 459 -g 410 -c "Bestman SRM user" -s /sbin/nologin -d /etc/bestman2 bestman
#gratia:x:464:464:gratia runtime user:/etc/gratia:/sbin/nologin
/usr/sbin/groupadd -g 464 gratia
/usr/sbin/useradd -u 464 -g 464 -c "gratia runtime user" -s /sbin/nologin -d /etc/gratia gratia
```

- yum install osg-ca-certs
- yum install bestman2-server
- Configure /etc/sudoers for bestman

```
sed -i -e "s/Defaults    requiretty/#Defaults    requiretty/" /etc/sudoers
echo 'Cmdnd_Alias SRM_CMD = /bin/rm, /bin/mkdir, /bin/rmdir, /bin/mv, /bin/cp, /bin/ls' >> /etc/sudoers
echo 'Runas_Alias SRM_USR = ALL, !root' >> /etc/sudoers
echo 'bestman    ALL=(SRM_USR) NOPASSWD: SRM_CMD' >> /etc/sudoers
```

Warning: Service certificate should be a copy of host certificate.



Bestman Configuration

- Customize `/etc/bestman2/conf/bestman2.rc`

```
sed -i -e "s@### localPathListAllowed=@localPathListAllowed=/mnt/hadoop;/data/se@" \
/etc/bestman2/conf/bestman2.rc
sed -i -e "s@### supportedProtocolList=@supportedProtocolList=gsiftp://my.gridftp.server:2811@" \
/etc/bestman2/conf/bestman2.rc
sed -i -e \
"s@### GUMSserviceURL=@GUMSserviceURL=https://my.gums.server:8443/gums/services/GUMSXACMLAuthorizationSer
/etc/bestman2/conf/bestman2.rc
```

- Customize `/etc/sysconfig/bestman2` in case of firewall

```
sed -i -e "s/# GLOBUS_TCP_PORT_RANGE=/GLOBUS_TCP_PORT_RANGE=20000,25000/" /etc/sysconfig/bestman2
sed -i -e "s/# GLOBUS_TCP_SOURCE_RANGE=/GLOBUS_TCP_SOURCE_RANGE=20000,25000/" /etc/sysconfig/bestman2
```

- Configure SE gums auth by editing 2 extra files

```
sed -i -e "s#yourgums.yourdomain#my.gums.server#" /etc/lcmaps.db
sed -i -e "s#@# globus_mapping@globus_mapping@" /etc/grid-security/gsi-authz.conf
```

All this can be automatized at installation level



Bestman Firewall

- In case of firewall (iptables) make sure to open corresponding ports. For example for iptables edit `/etc/sysconfig/iptables`.

```
# A20-BESTMAN-SECURE-TCP-PORT (host) :  
-A INPUT -i eth1 -p tcp --dport 8443 -m state --state NEW -j ACCEPT  
# A20-BESTMAN-TCP-PORT (host) :  
-A INPUT -i eth1 -p tcp --dport 8080 -m state --state NEW -j ACCEPT  
# A20-GLOBUS-TCP-PORT-RANGE (host) :  
-A INPUT -i eth1 -p tcp --dport 20000:25000 -m state --state NEW -j ACCEPT
```

- In rocks 5.5/6.x this is accomplished by setting in nodes profiles some lines like this

```
<eval mode="xml">  
/opt/rocks/bin/rocks add firewall host=&hostname; rulename=A20-GLOBUS-TCP-PORT-RANGE \  
network=public service="20000:25000" protocol="tcp" action="ACCEPT" chain="INPUT" \  
flags="-m state --state NEW"  
/opt/rocks/bin/rocks add firewall host=&hostname; rulename=A20-BESTMAN-SECURE-TCP-PORT \  
network=public service=8443 protocol="tcp" action="ACCEPT" chain="INPUT" \  
flags="-m state --state NEW"  
/opt/rocks/bin/rocks report host firewall &hostname;  
</eval>
```



Gridftp

REF:<https://twiki.grid.iu.edu/bin/view/Documentation/Release3/InstallOSGGridFTP>

REF:<https://twiki.grid.iu.edu/bin/view/Documentation/Release3/InstallOSGBestmanSE>

- yum install osg-gridftp-hdfs
- Configure gums auth by editing 2 extra files

```
sed -i -e "s#yourgums.yourdomain#my.gums.server#" /etc/lcmaps.db
sed -i -e "s@# globus_mapping@globus_mapping@" /etc/grid-security/gsi-authz.conf
```

- If firewall present customize server

```
sed -i -e "s@#export GLOBUS_TCP_PORT_RANGE=min,max@export GLOBUS_TCP_PORT_RANGE=20000,25000@" \
/etc/sysconfig/globus-gridftp-server
sed -i -e "s@#export GLOBUS_TCP_SOURCE_RANGE=min,max@export GLOBUS_TCP_SOURCE_RANGE=20000,25000@" \
/etc/sysconfig/globus-gridftp-server
```

- Edit `/etc/sysconfig/iptables` if needed

All this can be automatized at installation level



CE (condor)

REF:<https://twiki.grid.iu.edu/bin/view/Documentation/Release3/InstallComputeElement>

- prerequisites for rocks \leq 5.4.3 or centralized users file:
create users in advance

```
/usr/sbin/groupadd -g 48 apache
/usr/sbin/useradd -u 48 -c "Apache" -s /sbin/nologin gratia -d /var/www apache
/usr/sbin/groupadd -g 91 tomcat
/usr/sbin/useradd -u 91 -g 91 -c "Tomcat" -s /bin/sh -d /usr/share/tomcat5
/usr/sbin/groupadd -g 464 gratia
/usr/sbin/useradd -u 464 -c "gratia runtime user" -s /sbin/nologin -d /etc/gratia gratia
/usr/sbin/groupadd -g 407 condor
/usr/sbin/useradd -u 407 -g 407 -c "Condor Daemon Account" -s /bin/bash -d /home/condor condor
```

- yum install osg-ca-certs
- yum install osg-ce-condor
- yum install globus-gram-job-manager-managedfork



CE configuration

- post install: preconfigure already known parameters (automatized Site dependent)

```
sed -i -e "s@glexec_location = UNAVAILABLE@glexec_location = /usr/sbin/glexec@" /etc/osg/config.d/10-misc
sed -i -e "s@gums_host = DEFAULT@gums_host = my.gums.server@" /etc/osg/config.d/10-misc.ini
#bestman info server 10-storage.ini
sed -i -e "s@se_available = FALSE@se_available = TRUE@" /etc/osg/config.d/10-storage.ini
sed -i -e "s@default_se = UNAVAILABLE@default_se = my.se.server@" /etc/osg/config.d/10-storage.ini
sed -i -e "s@app_dir = UNAVAILABLE@app_dir = /sharesoft/osg/app@" /etc/osg/config.d/10-storage.ini
sed -i -e "s@data_dir = UNAVAILABLE@data_dir = /data/se/osg@" /etc/osg/config.d/10-storage.ini
sed -i -e "s@worker_node_temp = UNAVAILABLE@worker_node_temp = /tmp@" /etc/osg/config.d/10-storage.ini
sed -i -e "s@site_read = UNAVAILABLE@site_read = srm://my.se.server:8443/srm/v2/server@" /etc/osg/config.d/10-storage.ini
sed -i -e "s@write_read = UNAVAILABLE@write_read = srm://my.se.server:8443/srm/v2/server@" /etc/osg/config.d/10-storage.ini
#if managedfork is installed 15-managedfork.ini
sed -i -e "s@enabled = FALSE@enabled = TRUE@" /etc/osg/config.d/15-managedfork.ini
#globus port range/firewall 40-network.ini
sed -i -e "s@source_range = UNAVAILABLE@source_range = 20000,25000@" /etc/osg/config.d/40-network.ini
sed -i -e "s@port_range = UNAVAILABLE@port_range = 20000,25000@" /etc/osg/config.d/40-network.ini
sed -i -e "s@port_state_file = UNAVAILABLE@port_state_file = /var/tmp/globus-port-state.log@" /etc/osg/config.d/40-network.ini
```

- Configure CE gums auth by editing

```
sed -i -e "s#yourgums.yourdomain#my.gums.server#" /etc/lcmaps.db
sed -i -e "s#@ globus_mapping@globus_mapping@" /etc/grid-security/gsi-authz.conf
sed -i -e "s@localhost@my.gums.server@" /etc/gums/gums-client.properties
```



CE (condor) configuration

- post install: preconfigure already known parameters (automatized Site dependent) for ce-condor

```
#fill 20-condor.ini
sed -i -e "s@enabled = FALSE@enabled = TRUE@" /etc/osg/config.d/20-condor.ini
sed -i -e "s@job_contact = host.name/jobmanager-condor@job_contact = my.ce.server/jobmanager-condor@" \
/etc/osg/config.d/20-condor.ini
sed -i -e "s@util_contact = host.name/jobmanager@util_contact = my.ce.server/jobmanager@" \
/etc/osg/config.d/20-condor.ini
#partial gip info 30-gip.ini
sed -i -e "s@batch = DEFAULT@batch = condor@" /etc/osg/config.d/30-gip.ini
sed -i -e "s@gsiftp_host = DEFAULT@gsiftp_host = my.gridftp.server@" /etc/osg/config.d/30-gip.ini
```

- Automatized preconfiguration reduces human intervention to 2 out of 6 files:
/etc/osg/config.d/30-gip.ini
/etc/osg/config.d/40-siteinfo.ini



CE Firewall

- In case of firewall (iptables) make sure to open corresponding ports. For example for iptables edit `/etc/sysconfig/iptables`.

```
# A20-GRAM-TCP-PORT (host) :  
-A INPUT -i eth1 -p tcp --dport 2119 -m state --state NEW -j ACCEPT  
# A20-GLOBUS-TCP-PORT-RANGE (host) :  
-A INPUT -i eth1 -p tcp --dport 20000:25000 -m state --state NEW -j ACCEPT
```

- In rocks 5.5/6.x this is accomplished by setting in nodes profiles some lines like this

```
<eval mode="xml">  
/opt/rocks/bin/rocks add firewall host=&hostname; rulename=A20-GLOBUS-TCP-PORT-RANGE \  
network=public service="20000:25000" protocol="tcp" action="ACCEPT" chain="INPUT" \  
flags="-m state --state NEW"  
/opt/rocks/bin/rocks add firewall host=&hostname; rulename=A20-GRAM-TCP-PORT \  
network=public service=2119 protocol="tcp" action="ACCEPT" chain="INPUT" \  
flags="-m state --state NEW"  
/opt/rocks/bin/rocks report host firewall &hostname;  
</eval>
```



Sharing CA certs

- When workernodes use nfs sharing for ca certs, we need a server to export it. In our case it is exported from the CE server.

```
### Set export directory
echo '/scratch/ce 10.2.0.0/255.255.0.0(rw,async)' >> /etc/exports
### Create dir on server
mkdir -p /scratch/ce/globus/share
### Move ca cert dir
mv /etc/grid-security/certificates /scratch/ce/globus/share/.
### Create soft link on local server
ln -s /scratch/ce/globus/share/certificates /etc/grid-security/certificates
### Set fetch-crl to new dir
sed -i -e \
"@CRLDIR=/etc/grid-security/certificates@CRLDIR=/scratch/ce/globus/share/certificates@" \
/etc/fetch-crl.conf
```



Hostproxy (for glexec)

https://twiki.grid.iu.edu/twiki/pub/Documentation/Release3/InstallGlexec/host_dist_latest.tgz

- Download and untar package

```
mkdir -p /opt/hostproxy; cd /opt/hostproxy
wget https://twiki.grid.iu.edu/twiki/pub/Documentation/Release3/InstallGlexec/host_dist_latest.tgz
tar xzf host_dist_latest.tgz
```

- Edit host_dist.nodes.cfg (default proxy is 12 hours)

```
#set hostproxy for rpm
sed -i -e "/vdtbase/#vdtbase/" host_dist.nodes.cfg
#unset kerberos if not using
sed -i -e "/keytab/#keytab/" host_dist.nodes.cfg
#example for changing proxy duration to 1 week
sed -i -e "/x509proxyvalid=\"12:00\"/x509proxyvalid=\"168:00\"/" host_dist.nodes.cfg
```

- Edit host_dist.nodes (add your nodes)

```
#on rocks a predefined attribute is useful
rocks report host attr attr=OSG_Client | grep true | sed s/: true/.local/g >> host_dist.nodes
```

- Set a cron job to update proxy on a regular basis from a node that can ssh to all workernodes



Gums Install

<https://twiki.grid.iu.edu/bin/view/Documentation/Release3/InstallGums>

- **If upgrading:** Get old (pacman) database (using ssh to clean env session)

```
#backup pacman gums
ssh gums-server "source /vdt/gums/setup.sh; mysqldump GUMS_1_3 > /tmp/gums_1_3.sql"
ssh gums-server "cp -p /vdt/gums/vdt-app-data/gums/config/gums.config /tmp/gums.config_pacman"
#turn off vdt services
ssh gums-server "source /vdt/gums/setup.sh; vdt-control --off"
```

- login into gums server and install

```
#Install certificates rpm
yum install osg-ca-certs
yum install fetch-crl
yum install osg-ca-certs-updater
#Install gums
yum install osg-gums
```



Gums upgrade configuration

<https://twiki.grid.iu.edu/bin/view/Documentation/Release3/InstallGums>

- Configure gums

```
echo '1...importing database from pacman'
service mysqld start
echo 'CREATE DATABASE IF NOT EXISTS GUMS_1_3;' | mysql
mysql GUMS_1_3 < /tmp/gums_1_3.sql
echo 'RENAME TABLE USER TO USERS;' | mysql GUMS_1_3 #only for pacman upgrade
echo '2...configuring new gums server'
echo "GRANT ALL ON GUMS_1_3.* TO 'gums'@'localhost' IDENTIFIED BY '$GUMSPASSWD';" | mysql -u root mysql
```

- Convert gums.config from pacman to rpm version

```
echo '3...converting gums.config from pacman to rpm'
cp -f /etc/gums/gums.config /etc/gums/gums.config.original
cp -f /tmp/gums.config_pacman /etc/gums/gums.config
chown tomcat:tomcat /etc/gums/gums.config
chmod 600 /etc/gums/gums.config
sed -i -e "s@hibernate.connection.username='.*'@hibernate.connection.username='gums'@g" /etc/gums/gums.config
sed -i -e "s@hibernate.connection.url='jdbc:mysql://.*'/GUMS_1_3'@hibernate.connection.url='jdbc:mysql://localhost:3306'/GUMS_1_3'@g" /etc/gums/gums.config
sed -i -e "s@sslCAFiles='.*'@sslCAFiles='/etc/grid-security/certificates/*.0'@g" /etc/gums/gums.config
sed -i -e "s@/services/VOMSAdmin'@'@g" /etc/gums/gums.config
```

- Add your self as gums admin

```
cat /usr/lib/gums/sql/addAdmin.mysql | sed -e "s%@ADMINIDN@%$ADMINID1%g" | mysql -u gums --password=$GUMSPASSWD
```



Conclusion

- Most of the installation can be automatized
- In case of rocks I developed a “OSG roll” with this automatization

http://charma.uprm.edu/Tier3/RPMS/rocks-5.5/osg-3.1.14-0.x86_64.disk1.iso

- turning services on/off was left for site customization



Backups



Epel dependency

- So far this is the list of epel packages needed by OSG 3.14, rhel/sl/centos/5
 - jakarta-commons-cli-*
 - bouncycastle-*
 - mysql-connector-java-*
 - gsoap-*
 - is-interface-*
 - perl-XML-DOM-*
 - perl-XML-RegExp-*
 - jakarta-commons-io-*
 - iperf-*
 - fetch-crl-*



screen shoots of OSG Roll

frontend-0-0-3 Virtual Machine <@cms-hn.hep.uprm.edu>

Virtual Machine View Send Key

Run Pause Shut Down Fullscreen

Console Overview Hardware

Welcome to Rocks

Selected Rolls

No rolls have been selected.

If you have CD/DVD based rolls that is, ISO images that have been burned onto CDs or a DVDs, then click the CD/DVD based Roll button. The selection will reject. Thus, please your first roll click in the key and click Continue. Repeat this process for each roll disk.

If you are performing a network-based installation (also known as a central installation), then enter the name of your roll server into the *Hostname of Roll Server* field and then click the Download button. This will query the roll server and all the available roll server base available will be displayed. Check the selected checkboxes for each roll you wish to install from the roll server.

When you have completed your roll selections, click the *Next* button to proceed to cluster input screens (e.g., IP address selection, root password setup, etc.)

<input type="checkbox"/>	kernel	5.5	x86_64
<input type="checkbox"/>	LTS	5.4	x86_64
<input type="checkbox"/>	LTS	5.5	x86_64
<input type="checkbox"/>	mg	3.1.10	x86_64
<input type="checkbox"/>	osg-updates	5.4.4	x86_64
<input type="checkbox"/>	perl	5.5	x86_64
<input type="checkbox"/>	python	5.5	x86_64
<input type="checkbox"/>	service-pack	5.4.2	x86_64
<input type="checkbox"/>	SL	5.8	x86_64
<input type="checkbox"/>	updates@	5.4.0	x86_64
<input type="checkbox"/>	webserver	5.4	x86_64
<input type="checkbox"/>	webserver	5.5	x86_64
<input type="checkbox"/>	zen	5.4	x86_64
<input type="checkbox"/>	zen	5.5	x86_64

Submit

Done

frontend-0-0-3 Virtual Machine <@cms-hn.hep.uprm.edu>

Virtual Machine View Send Key

Run Pause Shut Down Fullscreen

Console Overview Hardware

Welcome to Rocks

Select Your Rolls

Local Rolls

CD/DVD-based Roll

Network-based Rolls

Hostname of Roll Server
central-5-5-x86-64.rocksclusters.org

Download

Next

Done

frontend-0-0-3 Virtual Machine <@cms-hn.hep.uprm.edu>

Virtual Machine View Send Key

Run Pause Shut Down Fullscreen

Console Overview Hardware

Welcome to Rocks

Help

OSG Hadoop Default Configuration

OSG Hadoop Name Node:
This is the default Hadoop Name Node

OSG Hadoop Secondary Node:
This is the default Hadoop Secondary Node

OSG Hadoop Name Node:

OSG Hadoop Secondary Node:

Back Next

frontend-0-0-3 Virtual Machine <@cms-hn.hep.uprm.edu>

Virtual Machine View Send Key

Run Pause Shut Down Fullscreen

Console Overview Hardware

Welcome to Rocks

Help

OSG CE/SE/GUMS Default Configuration

OSG Public CE Server Name:
This is the default public name of the grid gatekeeper

OSG Private CE Server Name:
This is the default private name of the grid gatekeeper

OSG Public SE Server Name:
This is the default public name of the session server

OSG Private SE Server Name:
This is the default private name of the session server

OSG Public GUMS Server Name:
This is the default public name of the GUMS server

OSG Private GUMS Server Name:
This is the default private name of the GUMS server

OSG Public CE Server:

OSG Private CE Server:

OSG Public SE Server:

OSG Private SE Server:

OSG Public GUMS Server:

OSG Private GUMS Server:

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