

GUMSHands On (<https://twiki.grid.iu.edu/bin/view/ReleaseDocumentation/GUMSHandsOn>)

En un terminal con sesión de root se hace:

```
cd /usr/local
wget http://atlas.bu.edu/~youssef/pacman/sample_cache/tarballs/pacman-
latest.tar.gz
tar xvfz pacman-latest.tar.gz
cd pacman-3.29
. setup.sh
cd ..
mkdir vdt-2.0.0
cd vdt-2.0.0
pacman -get http://software.grid.iu.edu/osg-1.2:gums
Do you want to add [http://software.grid.iu.edu/osg-1.2] to [trusted.caches]?
(y/n/yall): y
Do you want to add [http://vdt.cs.wisc.edu/vdt_200_cache] to [trusted.caches]?
(y/n/yall): y
Beginning VDT prerequisite checking script vdt-common/vdt-prereq-check..
```

Nota: Cierre y abra un nuevo terminal con usuario root, ya que algunas variables de entorno pueden estar mal seteadas despues de los procesos anteriores.

```
cd /usr/local/vdt-2.0.0/
```

```
source setup.sh
```

```
vdt-post-install
```

Como el paquete vdt-ca-manage que se descargo no es compatible con Centos se debe descargar y reemplazar en la ubicación original (/usr/local/vdt-2.0.0/vdt/bin) por <https://integrationcloud.campfirenow.com/room/246255/uploads/939669/vdt-ca-manage>

```
[root@gc4-nfs-gums-ui vdt-2.0.0]# vdt-ca-manage setupCA --location local --url osg
```

```
You seem to have used RPM to install certificates (ningún paquete proporciona vdt-update-
certs
```

```
). Continuing anyway.
```

```
Setting CA Certificates for VDT installation at '/usr/local/vdt-2.0.0'
```

```
Setup completed successfully.
```

Se debe crear la carpeta `grid-security/certificates/`

```
mkdir -p /etc/grid-security/certificates
```

y allí se deben copiar los certificados que obtuvimos con anterioridad, para nuestro caso los certificados estaban en `/root/globusHost`

```
cp /root/globusHost/* /etc/grid-security/certificates/
```

crear la carpeta `http` en `/etc/grid_security` y copiar allí los certificados de servicio `http` que para nuestro caso están en `/root/globus` y se llaman `hostcert.pem` `hostkey.pem`

```
mkdir /etc/grid-security/http
```

para nuestro caso:

```
cp /root/globus/hostcert.pem /etc/grid-security/http/httpcert.pem
```

```
cp /root/globus/hostkey.pem /etc/grid-security/http/httpkey.pem
```

Ejecutamos:

```
ln -s /usr/local/vdt-2.0.0/globus/TRUSTED_CA /etc/grid-security/certificates
```

```
[root@gc4-nfs-gums-ui globus]# vdt-control --enable fetch-crl vdt-rotate-logs mysql5 apache tomcat-55 vdt-update-certs
```

```
running 'vdt-register-service --name fetch-crl --enable'... ok
```

```
running 'vdt-register-service --name vdt-rotate-logs --enable'... ok
```

```
running 'vdt-register-service --name mysql5 --enable'... ok
```

```
running 'vdt-register-service --name apache --enable'... ok
```

```
running 'vdt-register-service --name tomcat-55 --enable'... ok
```

```
running 'vdt-register-service --name vdt-update-certs --enable'... ok
```

ejecutar `vdt-control --on` :

```
[root@gc4-nfs-gums-ui bin]# vdt-control --on
```

```
enabling cron service fetch-crl... ok
```

```
enabling cron service vdt-rotate-logs... ok
```

```
enabling cron service vdt-update-certs... ok
```

```
enabling init service apache... ok
```

```
enabling init service tomcat-55... ok
```

```
enabling init service mysql5... ok
```

```
skipping cron service 'gums-host-cron' -- marked as disabled
```

ejecutamos:

```
cd tomcat/v55/webapps/gums/WEB-INF/scripts
```

```
[root@gc4-nfs-gums-ui scripts]# ./gums-add-mysql-admin "javeriana"
```

WARNING: You must have created the database before running this script!

Adding the following DN to the local database:

Certificate DN for administrator: "javeriana"

Is this correct? (Enter 'yes' to proceed)

yes

Adding the admin:

Enter the root mysql password

```
[root@gc4-nfs-gums-ui scripts]# ./gums-create-config --osg-template
```

Downloading OSG GUMS template...

```
2009-10-28 12:27:29 URL:http://software.grid.iu.edu/pacman/tarballs/vo-  
version/gums.template [49762/49762] -> "/tmp/gums.template" [1]
```

Searching for MySQL username in current configuration...

found MySQL user "gums"

Searching for MySQL password in current configuration...

found MySQL password "VJSIVFVXMIG"

Searching for MySQL server in current configuration...

found MySQL server "localhost.localdomain:49152"

will use domain name "" in hostToGroupMapping

WARNING: gums.config already present. Would you like to overwrite it?

(Enter 'yes' to overwrite)

yes

Lo que se puso en el Campfire fu:

Hello, We have a problem installing Gums, we are following the tutorial GUMSHands On (<https://twiki.grid.iu.edu/bin/view/ReleaseDocumentation/GUMSHandsOn>):
Do:

```
cd /usr/local
wget http://atlas.bu.edu/~youssef/pacman/sample_cache/tarballs/pacman-
latest.tar.gz
tar xvfz pacman-latest.tar.gz
cd pacman-3.29
. setup.sh
cd ..
mkdir vdt-2.0.0
cd vdt-2.0.0
pacman -get http://software.grid.iu.edu/osg-1.2:gums
Do you want to add [http://software.grid.iu.edu/osg-1.2] to [trusted.caches]?
(y/n/yall): y
Do you want to add [http://vdt.cs.wisc.edu/vdt_200_cache] to [trusted.caches]?
(y/n/yall): y
Beginning VDT prerequisite checking script vdt-common/vdt-prereq-check..

. setup.sh
vdt-post-install

vdt-ca-manage setupCA --location local --url osg
```

HERE'S THE PROBLEM

You seem to have used RPM to install certificates. You cannot use this tool to update.

Marco said that we try to

```
vdt-ca-manage setupCA --location local --url osg
```

NOW MY PROBLEM IS:

You seem to have used RPM to install certificates. You cannot use this tool to update.

Grid Certificate Request

(para solicitar los certificados:)

<https://twiki.grid.iu.edu/bin/view/ReleaseDocumentation/GridCertificateRequestTutorial>

user certificate

Se logea en una maquina con UI, para nuestro caso: gsu1.uchicago.edu

de la siguiente forma:

train09@gsu1.uchicago.edu

Pass: gc0+09

hacemos:

```
source /opt/client/setup.sh
```

Solicitamos el certificado con:

```
cert-request -ou p
```

Diligenciamos los datos:

```
checking CertLib version, V2-7, This is the latest version,
released 18 May 2009.
```

```
Processing OU=People request.
```

```
Give reason (1 line) you qualify for certificate, such as
  member of CMS experiment      or
  collaborating with Condor team, etc.
```

```
reason: OSG
```

```
input your full name: Jose Guerrero
```

```
you will be prompted for a passphrase to encryt the private key
that is being generated.
```

```
Generating a 2048 bit RSA private key
```

```
.....+++
```

```
.....+++
```

```
writing new private key to '/home/train09/.globus/31163key.pem'
```

```
Enter PEM pass phrase: javeriana
```

```
Verifying - Enter PEM pass phrase: javeriana
```

```
Verifying - Enter PEM pass phrase:
```

```
-----
```

```
input your email address: staver@mail.uniatlantico.edu.co
```

```
input your complete phone number: 3163126249
```

```
input your sponsor's name: Rob Gardner
```

input your sponsor's email address: rwg@hep.uchicago.edu
input your sponsor's phone number: 7738349885
Choose a registration authority to which you are affiliated.
If nothing else applies, pick OSG.

Enter this _____ for this registration authority

ANL	Argonne National Lab
ESG	Earth System Grid
ESnet	DOE Science network
FNAL	Fermilab host and service certificates
FusionGRID	National Fusion Collaboratory Project
LBNL	Berkeley LGUMSHands On

ab

LCG	LHC Computing Grid Catchall
NERSC	computer center
ORNL	Oak Ridge National Lab
OSG	Open Science Grid \$ cert-request -ou p

it will then ask you questions. When it asks you:
input your sponsor's name, email, phone, use me
as your sponsor:

input your email address: rwg@uchicago.edu
input your complete phone number: 312-804-0859
input your sponsor's name: Rob Gardner
input your sponsor's email address: rwg@uchicago.edu
input your sponsor's phone number: 312-804-0859

then, for the registration authority, choose OSG:

Choose a registration authority to which you are affiliated.
If nothing else applies, pick OSG.

Enter this _____ for this registration authority

ANL	Argonne National Lab
ESG	Earth System Grid
ESnet	DOE Science network
FNAL	Fermilab host and service certificates
FusionGRID	National Fusion Collaboratory Project
LBNL	Berkeley Lab
LCG	LHC Computing Grid Catchall
NERSC	computer center
ORNL	Oak Ridge National Lab
OSG	Open Science Grid (choose this if nothing else

applies)

PNNL	Pacific Northwest National Lab
------	--------------------------------

(choose from left column): OSG

and for the VO, choose OSGEDU.

See:

<https://twiki.grid.iu.edu/bin/view/ReleaseDocumentation/GridCertificateRequestTutorial>

which is linked to the workshop technical documents page:

<https://twiki.grid.iu.edu/bin/view/ReleaseDocumentation/GridColombiaWorkshop2009>(choose this if nothing else applies)

PNNL Pacific Northwest National Lab

(choose from left column): OSG

osg

OSG

Choose a virtual organization under your OSG affiliation:

ALICE: ALICE collaboration

ATLAS: United States ATLAS Collaboration

BNL: Brookhaven lab researchers

CDF: Collider Detector at Fermilab

CIGI: CyberInfrastructure and Geospatial Information Laboratory

CMS: Compact Muon Solenoid

CompBioGrid: CompBioGrid

DES: Dark Energy Survey

DOSAR: Distributed Organization for Scientific and

Academic Research

DZero: D0 Experiment at Fermilab

Engage: Engagement

Fermilab: Fermi National Accelerator Laboratory

FermilabAccelerator: Fermilab/Accelerator

FermilabAstro: Fermilab/Astro

FermilabCdms: Fermilab/Cdms

FermilabGrid: fermilab VO grid group

FermilabHypercp: Fermilab/Hypercp

FermilabKTeV: Fermilab/KTeV

FermilabMinerva: Fermilab/Minerva

FermilabMiniboone: Fermilab/Miniboone

FermilabMinos: Fermilab/Minos

FermilabMipp: Fermilab/Mipp

FermilabMu2e: Fermilab/Mu2e

FermilabNova: Fermilab/Nova

FermilabNumi: Fermilab/Numi

FermilabPatriot: Fermilab/Patriot

FermilabTest: Fermilab/Fgtest

FermilabTheory: Fermilab/Theory

Geant4: Geant4 Software Toolkit

GLOW: Grid Laboratory of Wisconsin

GlueX: GlueX experiment at Jefferson Lab

GPN: Great Plains Network

GRASE: Group Researching Advances in Software Engineering
at University of New York at Buffalo

GROW: Grid Research and Education Group at Iowa

I2u2: Interactions in Understanding the Universe Initiative

IceCube: IceCube Neutrino Telescope

ILC: International Linear Collider

JDEM: Joint Dark Energy Mission

JLab: Jefferson Lab researchers

LIGO: Laser Interferometer Gravitational-Wave Observatory
Mariachi: Mixed Apparatus for Radar Investigation of Cosmic-rays of High Ionization Experiment
MIS: OSG Monitoring Information System
NanoHUB: nanoHUB Network for Computational Nanotechnology (NCN)
NEBioGrid: New England Biomedical Grid
NWICG: Northwest Indiana Computational Grid
NYSGRID: NYSGRID
Ops: WLCG Operations Group
OSG: Open Science Grid
OSGEDU: OSG Education Activity
SBGrid: Structural Biology Grid
SLAC: SLAC National Accelerator Laboratory researchers
STAR: Solenoidal Tracker at RHIC
(Choose from left column; pick osg if nothing else applies):
OSGEDU

OSG:OSGEDU

You must agree to abide by the DOEGrids policies,
at <http://www.doe grids.org/Docs/CP-CPS.pdf>
Do you agree (y,N): y

Your Certificate Request has been successfully submitted
Your Certificate Request id: 51857

You will receive a notification email from the CA when your certificate has been issued. Please disregard the instructions to download your certificate though a web browser and use the cert-retrieve script instead.

Es necesario esperar que el certificado sea autorizado en este caso por Rob cundo esto ocurre se recibe un mail con serial number para el certificado, en nuestro caso:

DOEGrids-CA-1@doe grids.org

para usuario

Your certificate requested using the script interface, request id: 51852, has been approved and is available for download. To retrieve your certificate, execute the command below using the same working directory from which the request was made.

```
# cert-retrieve -serialnum 38785
```

If you requested the certificate with optional parameters specifying labelling or a non-standard directory for storing your certificate see the cert-retrieve and cert-request man pages for additional

explanation.

```
# cert-retrieve -help
```

```
# cert-request -help
```

IMPORTANT - PLEASE READ AND KEEP FOR REFERENCE

Your Responsibilities

Please notify the CA and your RA of any changes that affect your contact email address, your name, or your eligibility for this certificate.

Please take reasonable precautions to prevent any loss, disclosure or unauthorized use of the private key associated with your certificate, including:

For Person Certificates Your Certificate

- * Selecting a pass phrase of at minimum 8 characters.
- * Protecting the pass phrase from others.
- * Always using the pass phrase to encrypt the stored private key.
- * Never sharing the private key with others.

For Service Certificates

- * Storing them encrypted whenever possible.
- * They may be kept unencrypted on the host that they represent.

Please notify the CA immediately of any security incidents impacting your certificate.

Una vez se tiene el serial number utilizamos:

```
[train09@gsu1 ~]$ cert-retrieve -serial 38785
```

checking CertLib version, V2-7, This is the latest version, released 18 May 2009.

using CA doegrids

```
Using URL https://pki1.doegrids.org/displayBySerial?op=displayBySerial&serialNumber=38785
```

```
Checking that the certificate and /home/train09/.globus/31163key.pem match
```

```
Enter pass phrase for /home/train09/.globus/31163key.pem: javeriana
```

Genera los certificados en:

```
cd /home/train09/.globus
```

```
usercert.pem userkey.pem
```

Para generar el p12 que es el archivo que se debe asociar al navegador:

```
[train09@gsu1 .globus]$ openssl pkcs12 -export -in usercert.pem -inkey userkey.pem -out usercred.p12
```

```
Enter pass phrase for userkey.pem:javeriana
Enter Export Password:javeriana
Verifying - Enter Export Password:javeriana
[train09@gsu1 .globus]$ ls
```

```
31163key.pem  currentCertReq.req  usercert.pem  usercred.p12  userkey.pem
```

Ahora se debe recuperar desde el equipo donde se generaron gsu1.uchicago.edu:

```
scp train09@gsu1.uchicago.edu:/home/train09/.globus/* /home/sala_c/
```

\$ cert-request -ou p

**it will then ask you questions. When it asks you:
input your sponsor's name, email, phone, use me
as your sponsor:**

input your email address: rwg@uchicago.edu

input your complete phone number: 312-804-0859

input your sponsor's name: Rob Gardner

input your sponsor's email address: rwg@uchicago.edu

input your sponsor's phone number: 312-804-0859

then, for the registration authority, choose OSG:

Choose a registration authority to which you are affiliated.

If nothing else applies, pick OSG.

Enter this for this registration authority

ANL Argonne National Lab

ESG Earth System Grid

ESnet DOE Science network

FNAL Fermilab host and service certificates

FusionGRID National Fusion Collaboratory Project

LBL Berkeley Lab

LCG LHC Computing Grid Catchall

NERSC computer center

ORNL Oak Ridge National Lab

OSG Open Science Grid (choose this if nothing else applies)

PNNL Pacific Northwest National Lab

(choose from left column): OSG

and for the VO, choose OSGEDU.

See:

<https://twiki.grid.iu.edu/bin/view/ReleaseDocumentation/GridCertificateRequestTutorial>

which is linked to the workshop technical documents page:

[https://twiki.grid.iu.edu/bin/view/ReleaseDocumentation/GridColombiaWorkshop2009Host certificate](https://twiki.grid.iu.edu/bin/view/ReleaseDocumentation/GridColombiaWorkshop2009Hostcertificate)

Se logea en una maquina con UI, para nuestro caso: gsu1.uchicago.edu

de la siguiente forma:

train09@gsu1.uchicago.edu

Pass: gc0+09

Antes de solicitar el certificado e necesario que borre todos los *.key.pem que están en /home/trainXX asi:

```
[train09@gsu1 ~]$ rm *.pem
```

y borrar también todo el contenido de la carpetas /home/trainXX/.globus asi:

```
[train09@gsu1 ~]$ rm /home/trainXX/.globus/*
```

ahora hacemos:

```
cert-request -dryrun -agree -ou s -name "Wilson castano" -host gc4-nfs-gums-ui -  
email wcguis@yahoo.com -phone 300-213-6110 -reason "Colombia Grid School"  
-affiliation osg -vo osgedu -dir .
```

Luego el mismo comando sin -dryrun:

```
cert-request -dryrun -agree -ou s -name "Wilson castano" -host gc4-nfs-gums-ui -  
email wcguis@yahoo.com -phone 300-213-6110 -reason "Colombia Grid School"  
-affiliation osg -vo osgedu -dir .
```

Esperar a que confirmado por correo la realización de certificado y hacer (Donde XXXXX es el numero de serial enviado a su correo):

```
cert-retrieve -serialnum XXXXX
```

Nota: Terminar todo este proceso antes de solicitar otro tipo de certificado.

HTTP Certificate

Se logea en una maquina con UI, para nuestro caso: gsu1.uchicago.edu

de la siguiente forma:

train09@gsu1.uchicago.edu

Pass: gc0+09

hacemos lo mismo que para solicitar el host certificate pero se le agrega la opcion -service http:

```
cert-request -dryrun -agree -ou s -name "Wilson castano" -host gc4-nfs-gums-ui -  
email wcguis@yahoo.com -phone 300-213-6110 -reason "Colombia Grid School"  
-affiliation osg -vo osgedu -service http -dir .
```

Luego el mismo comando sin -dryrun:

```
cert-request -agree -ou s -service http -name "Wilson castano" -host gc4-nfs-  
gums-ui -email wcguis@yahoo.com -phone 300-213-6110 -reason "Colombia Grid  
School" -affiliation osg -vo osgedu -dir .
```

Agregar Certificado al Navegador (Firefox)

Editar -> Preferencias -> Avanzado-> cifrado-> ver certificados -> sus certificados-> importar->seleccionar el *.p12->Ingresar la contraseña del firefox (CUIDADO La de Firefox) -> Ingresar la contraseña del certificado.

Para hacer copias de seguridad:

Editar -> Preferencias -> Avanzado-> cifrado-> ver certificados -> sus certificados->Seleccionar Certificado->Hacer Copia-> Seleccionar directorio->Ingresar contraseña