# Quality Criteria Verification Report

|  |  |  |  |
| --- | --- | --- | --- |
| **Product** | *QCG.qcg-comp.centos7.x86\_64* | **Release** | *4.0.0* |
| **Software Provider** | *www.qoscosgrid.org* | **RT Ticket** | *#11283* |
| **Provider contact** | *Piotr Kopta <pkopta@man.poznan.pl>* |
| **Verifier** | *Piotr Brona <pbrona@man.poznan.pl>* |
| **Hours worked** | *2* | **Date** | *12.07.2016* |
| **Status** | **Accepted** |

# Summary

*Verification of the product was done by its installation and basic tests in a clean Centos 7 system. The process of the installation and tests finished successfully.*

# Related tickets

# Documentation Criteria

|  |  |
| --- | --- |
| **Document** | **Link** |
| Release notes | [*http://www.qoscosgrid.org/trac/qcg-computing/export/HEAD/tags/current/RELEASE\_NOTES#1*](http://www.qoscosgrid.org/trac/qcg-computing/export/HEAD/tags/current/RELEASE_NOTES#1) |
| User Documentation | *QCG Computing is used mainly via QCG-Broker and QCG-Icon* |
| API Documentation | [*http://www.qoscosgrid.org/trac/qcg-computing/wiki/JavaSDK*](http://www.qoscosgrid.org/trac/qcg-computing/wiki/JavaSDK) |
| Admin Documentation | [*http://www.qoscosgrid.org/trac/qcg-computing/wiki/InstallationGuide*](http://www.qoscosgrid.org/trac/qcg-computing/wiki/InstallationGuide) |
| Software License |  [*http://www.qoscosgrid.org/trac/qcg/wiki/license*](file:///C%3A%5CUsers%5Cpkopt%5CDocuments%5CProjects%5Cqcg%5Cegi-reports%5C%20http%3A%5Cwww.qoscosgrid.org%5Ctrac%5Cqcg%5Cwiki%5Clicense) |

# Generic Criteria

|  |  |  |
| --- | --- | --- |
| **Criteria** | **Status[[1]](#footnote-1)** | **Additional Comments** |
| Binary Distribution | **OK** | The first release for Centos 7 |
| Upgrade | **NA** |  |
| X.509 Certificate support | **OK** |  |
| SHA-2 Certificates Support | **OK** |  |
| RFC Proxy support | **OK** |  |
| ARGUS Integration | **NA** |  |
| World Writable Files | **OK** |  |
| Passwords in world readable files | **OK** |  |
| GlueSchema 1.3 Support | **OK** | ?? |
| GlueSchema 2.0 Support | **OK** | ?? |
| Middleware Version Information | **OK** |  |
| Service Probes | **OK** | https://ngi-mon.grid.cyf-kr.edu.pl/nagios/cgi-bin/extinfo.cgi?type=2&host=inula.man.poznan.pl&service=pl.plgrid.QCG-Computing |
| Accounting Records | **NT** | Missing apel-ssm dependency package in UMD-4 repository |
| Bug Tracking System | **NT** |  |

# Specific QC

## Basic Functionality Test

|  |  |  |
| --- | --- | --- |
| **Criteria** | **Status[[2]](#footnote-2)** | **Additional Comments** |
| Job Execution Interface | **OK** | BES Compilant interface with extensions: http://ogf.org/documents/GFD.179.pdf |
| Simple job | **OK** |  |
| Simple job with input/output files | **OK** |  |
| Cancel job | **OK** |  |
| Underlying system information | **OK** | Information from the queuing system is updated every 5 minutes (adjustable) |
| Simple parallel job submission | **OK** |  |
| Single machine parallel job submission | **OK** |  |
| Multi-node multi-core parallel job submission | **OK** |  |
| Specific host parallel job submission | **OK** |  |
| Mpi-start single node parallel job submission | **OK** |  |
| Mpi-start multi-node parallel job submission | **OK** |  |
| Precompiled OpenMP job execution | **OK** |  |
| OpenMP job execution from source | **OK** |  |

## New Features/Fixed Bugs

*Report any new features/fixed bugs of the software tested and the results or NA*

# Additional Info

## *Generic criteria – Binary Distribution logs*

[root@qcg-c7 ~]# cd /etc/yum.repos.d/

[root@qcg-c7 yum.repos.d]# curl -O http://admin-repo.egi.eu/sw/unverified/umd-4.qcg.qcg-comp.centos7.x86\_64/4/0/0/repofiles/QCG.qcg-comp.centos7.x86\_64.repo

 % Total % Received % Xferd Average Speed Time Time Time Current

 Dload Upload Total Spent Left Speed

100 356 100 356 0 0 2252 0 --:--:-- --:--:-- --:--:-- 2253

[root@qcg-c7 yum.repos.d]# cat epel.repo

[epel]

name=Extra Packages for Enterprise Linux 7 - $basearch

#baseurl=http://download.fedoraproject.org/pub/epel/7/$basearch

mirrorlist=https://mirrors.fedoraproject.org/metalink?repo=epel-7&arch=$basearch

failovermethod=priority

enabled=1

gpgcheck=1

gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-EPEL-7

[epel-debuginfo]

name=Extra Packages for Enterprise Linux 7 - $basearch - Debug

#baseurl=http://download.fedoraproject.org/pub/epel/7/$basearch/debug

mirrorlist=https://mirrors.fedoraproject.org/metalink?repo=epel-debug-7&arch=$basearch

failovermethod=priority

enabled=0

gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-EPEL-7

gpgcheck=1

[epel-source]

name=Extra Packages for Enterprise Linux 7 - $basearch - Source

#baseurl=http://download.fedoraproject.org/pub/epel/7/SRPMS

mirrorlist=https://mirrors.fedoraproject.org/metalink?repo=epel-source-7&arch=$basearch

failovermethod=priority

enabled=0

gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-EPEL-7

gpgcheck=1

[root@qcg-c7 ~]# wget http://repository.egi.eu/sw/production/umd/4/centos7/x86\_64/base/umd-release-4.0.0-1.el7.noarch.rpm

--2016-05-16 14:35:46-- http://repository.egi.eu/sw/production/umd/4/centos7/x86\_64/base/umd-release-4.0.0-1.el7.noarch.rpm

Resolving repository.egi.eu (repository.egi.eu)... 195.251.53.182

Connecting to repository.egi.eu (repository.egi.eu)|195.251.53.182|:80... connected.

HTTP request sent, awaiting response... 200 OK

Length: 9960 (9.7K) [application/x-rpm]

Saving to: ‘umd-release-4.0.0-1.el7.noarch.rpm’

100%[================================================================================================================================================>] 9,960 --.-K/s in 0s

2016-05-16 14:35:46 (76.8 MB/s) - ‘umd-release-4.0.0-1.el7.noarch.rpm’ saved [9960/9960]

[root@qcg-c7 yum.repos.d]# yum install umd-release-4.0.0-1.el7.noarch.rpm

Loaded plugins: fastestmirror, priorities

Examining umd-release-4.0.0-1.el7.noarch.rpm: umd-release-4.0.0-1.el7.noarch

Marking umd-release-4.0.0-1.el7.noarch.rpm to be installed

Resolving Dependencies

--> Running transaction check

---> Package umd-release.noarch 0:4.0.0-1.el7 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

==========================================================================================================================================================================================

 Package Arch Version Repository Size

==========================================================================================================================================================================================

Installing:

 umd-release noarch 4.0.0-1.el7 /umd-release-4.0.0-1.el7.noarch 14 k

Transaction Summary

==========================================================================================================================================================================================

Install 1 Package

Total size: 14 k

Installed size: 14 k

Is this ok [y/d/N]: y

Downloading packages:

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

 Installing : umd-release-4.0.0-1.el7.noarch 1/1

 Verifying : umd-release-4.0.0-1.el7.noarch 1/1

Installed:

 umd-release.noarch 0:4.0.0-1.el7

Complete!

[root@qcg-c7 yum.repos.d]# grep enabled UMD-4-untested.repo

enabled=1

[root@qcg-c7 ~]# yum clean all

Loaded plugins: fastestmirror, priorities

Cleaning repos: EGI-trustanchors QCG.qcg-comp.centos7.x86\_64 UMD-4-base UMD-4-untested UMD-4-updates base epel extras updates

Cleaning up everything

Cleaning up list of fastest mirrors

[root@qcg-c7 ~]# yum update

Loaded plugins: fastestmirror, priorities

EGI-trustanchors | 2.5 kB 00:00:00

QCG.qcg-comp.centos7.x86\_64 | 1.9 kB 00:00:00

UMD-4-base | 1.9 kB 00:00:00

UMD-4-untested | 1.9 kB 00:00:00

UMD-4-updates | 1.9 kB 00:00:00

base | 3.6 kB 00:00:00

epel/x86\_64/metalink | 24 kB 00:00:00

epel | 4.3 kB 00:00:00

extras | 3.4 kB 00:00:00

updates | 3.4 kB 00:00:00

(1/8): base/7/x86\_64/primary\_db | 5.3 MB 00:00:00

(2/8): epel/x86\_64/group\_gz | 170 kB 00:00:00

(3/8): base/7/x86\_64/group\_gz | 155 kB 00:00:00

(4/8): epel/x86\_64/updateinfo | 576 kB 00:00:00

(5/8): extras/7/x86\_64/primary\_db | 149 kB 00:00:00

(6/8): epel/x86\_64/primary\_db | 4.2 MB 00:00:00

(7/8): EGI-trustanchors/primary\_db | 58 kB 00:00:00

(8/8): updates/7/x86\_64/primary\_db | 5.7 MB 00:00:01

(1/4): QCG.qcg-comp.centos7.x86\_64/primary\_db | 8.8 kB 00:00:00

(2/4): UMD-4-updates/x86\_64/primary\_db | 4.1 kB 00:00:00

(3/4): UMD-4-base/x86\_64/primary\_db | 53 kB 00:00:00

(4/4): UMD-4-untested/x86\_64/primary\_db | 95 kB 00:00:00

Determining fastest mirrors

 \* base: centos2.hti.pl

 \* epel: ftp.ps.pl

 \* extras: centos2.hti.pl

 \* updates: centos1.hti.pl

132 packages excluded due to repository priority protections

No packages marked for update

[root@qcg-c7 ~]# yum install qcg-comp

Loaded plugins: fastestmirror, priorities

Loading mirror speeds from cached hostfile

 \* base: centos2.hti.pl

 \* epel: ftp.ps.pl

 \* extras: centos2.hti.pl

 \* updates: centos1.hti.pl

132 packages excluded due to repository priority protections

Resolving Dependencies

--> Running transaction check

---> Package qcg-comp.x86\_64 0:4.0.0-13 will be installed

--> Processing Dependency: qcg-core >= 4.0.0 for package: qcg-comp-4.0.0-13.x86\_64

--> Processing Dependency: postgresql-odbc >= 08.01.0200-3.1 for package: qcg-comp-4.0.0-13.x86\_64

--> Processing Dependency: libxml2-python for package: qcg-comp-4.0.0-13.x86\_64

--> Processing Dependency: libglobus\_gssapi\_gsi.so.4(globus\_gssapi\_gsi)(64bit) for package: qcg-comp-4.0.0-13.x86\_64

--> Processing Dependency: qcg-comp-schemas for package: qcg-comp-4.0.0-13.x86\_64

--> Processing Dependency: python-lxml for package: qcg-comp-4.0.0-13.x86\_64

--> Processing Dependency: libglobus\_openssl.so.0()(64bit) for package: qcg-comp-4.0.0-13.x86\_64

--> Processing Dependency: libglobus\_gssapi\_gsi.so.4()(64bit) for package: qcg-comp-4.0.0-13.x86\_64

--> Processing Dependency: libqcg-core.so.4()(64bit) for package: qcg-comp-4.0.0-13.x86\_64

--> Processing Dependency: libvomsapi.so.1()(64bit) for package: qcg-comp-4.0.0-13.x86\_64

--> Processing Dependency: libodbc.so.2()(64bit) for package: qcg-comp-4.0.0-13.x86\_64

--> Running transaction check

---> Package globus-gssapi-gsi.x86\_64 0:12.1-1.el7 will be installed

--> Processing Dependency: libglobus\_common.so.0(GLOBUS\_COMMON\_14)(64bit) for package: globus-gssapi-gsi-12.1-1.el7.x86\_64

--> Processing Dependency: libglobus\_openssl\_error.so.0()(64bit) for package: globus-gssapi-gsi-12.1-1.el7.x86\_64

--> Processing Dependency: libglobus\_gsi\_sysconfig.so.1()(64bit) for package: globus-gssapi-gsi-12.1-1.el7.x86\_64

--> Processing Dependency: libglobus\_gsi\_proxy\_core.so.0()(64bit) for package: globus-gssapi-gsi-12.1-1.el7.x86\_64

--> Processing Dependency: libglobus\_gsi\_credential.so.1()(64bit) for package: globus-gssapi-gsi-12.1-1.el7.x86\_64

--> Processing Dependency: libglobus\_gsi\_cert\_utils.so.0()(64bit) for package: globus-gssapi-gsi-12.1-1.el7.x86\_64

--> Processing Dependency: libglobus\_gsi\_callback.so.0()(64bit) for package: globus-gssapi-gsi-12.1-1.el7.x86\_64

--> Processing Dependency: libglobus\_common.so.0()(64bit) for package: globus-gssapi-gsi-12.1-1.el7.x86\_64

---> Package globus-openssl-module.x86\_64 0:4.6-2.el7 will be installed

---> Package libxml2-python.x86\_64 0:2.9.1-6.el7\_2.3 will be installed

---> Package postgresql-odbc.x86\_64 0:09.03.0100-2.el7 will be installed

--> Processing Dependency: libpq.so.5()(64bit) for package: postgresql-odbc-09.03.0100-2.el7.x86\_64

---> Package python-lxml.x86\_64 0:3.2.1-4.el7 will be installed

--> Processing Dependency: libxslt.so.1(LIBXML2\_1.1.9)(64bit) for package: python-lxml-3.2.1-4.el7.x86\_64

--> Processing Dependency: libxslt.so.1(LIBXML2\_1.1.26)(64bit) for package: python-lxml-3.2.1-4.el7.x86\_64

--> Processing Dependency: libxslt.so.1(LIBXML2\_1.1.2)(64bit) for package: python-lxml-3.2.1-4.el7.x86\_64

--> Processing Dependency: libxslt.so.1(LIBXML2\_1.0.24)(64bit) for package: python-lxml-3.2.1-4.el7.x86\_64

--> Processing Dependency: libxslt.so.1(LIBXML2\_1.0.22)(64bit) for package: python-lxml-3.2.1-4.el7.x86\_64

--> Processing Dependency: libxslt.so.1(LIBXML2\_1.0.18)(64bit) for package: python-lxml-3.2.1-4.el7.x86\_64

--> Processing Dependency: libxslt.so.1(LIBXML2\_1.0.11)(64bit) for package: python-lxml-3.2.1-4.el7.x86\_64

--> Processing Dependency: libxslt.so.1()(64bit) for package: python-lxml-3.2.1-4.el7.x86\_64

--> Processing Dependency: libexslt.so.0()(64bit) for package: python-lxml-3.2.1-4.el7.x86\_64

---> Package qcg-comp-schemas.x86\_64 0:4.0.0-13 will be installed

---> Package qcg-core.x86\_64 0:4.0.0-2 will be installed

--> Processing Dependency: qcg-libxml2 >= 2.9.1 for package: qcg-core-4.0.0-2.x86\_64

---> Package unixODBC.x86\_64 0:2.3.1-11.el7 will be installed

--> Processing Dependency: libltdl.so.7()(64bit) for package: unixODBC-2.3.1-11.el7.x86\_64

---> Package voms.x86\_64 0:2.0.13-1.el7 will be installed

--> Running transaction check

---> Package globus-common.x86\_64 0:16.4-1.el7 will be installed

---> Package globus-gsi-callback.x86\_64 0:5.8-1.el7 will be installed

---> Package globus-gsi-cert-utils.x86\_64 0:9.12-1.el7 will be installed

---> Package globus-gsi-credential.x86\_64 0:7.9-1.el7 will be installed

---> Package globus-gsi-openssl-error.x86\_64 0:3.5-2.el7 will be installed

---> Package globus-gsi-proxy-core.x86\_64 0:7.9-1.el7 will be installed

---> Package globus-gsi-sysconfig.x86\_64 0:6.9-1.el7 will be installed

---> Package libtool-ltdl.x86\_64 0:2.4.2-21.el7\_2 will be installed

---> Package libxslt.x86\_64 0:1.1.28-5.el7 will be installed

---> Package postgresql-libs.x86\_64 0:9.2.15-1.el7\_2 will be installed

---> Package qcg-libxml2.x86\_64 0:2.9.1-2 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

==========================================================================================================================================================================================

 Package Arch Version Repository Size

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Installing:

 qcg-comp x86\_64 4.0.0-13 QCG.qcg-comp.centos7.x86\_64 1.5 M

Installing for dependencies:

 globus-common x86\_64 16.4-1.el7 epel 125 k

 globus-gsi-callback x86\_64 5.8-1.el7 epel 41 k

 globus-gsi-cert-utils x86\_64 9.12-1.el7 epel 22 k

 globus-gsi-credential x86\_64 7.9-1.el7 epel 35 k

 globus-gsi-openssl-error x86\_64 3.5-2.el7 epel 18 k

 globus-gsi-proxy-core x86\_64 7.9-1.el7 epel 35 k

 globus-gsi-sysconfig x86\_64 6.9-1.el7 epel 30 k

globus-gssapi-gsi x86\_64 12.1-1.el7 epel 63 k

 globus-openssl-module x86\_64 4.6-2.el7 epel 16 k

 libtool-ltdl x86\_64 2.4.2-21.el7\_2 updates 49 k

 libxml2-python x86\_64 2.9.1-6.el7\_2.3 updates 247 k

 libxslt x86\_64 1.1.28-5.el7 base 242 k

 postgresql-libs x86\_64 9.2.15-1.el7\_2 updates 231 k

 postgresql-odbc x86\_64 09.03.0100-2.el7 base 273 k

 python-lxml x86\_64 3.2.1-4.el7 base 758 k

 qcg-comp-schemas x86\_64 4.0.0-13 QCG.qcg-comp.centos7.x86\_64 19 k

 qcg-core x86\_64 4.0.0-2 QCG.qcg-comp.centos7.x86\_64 416 k

 qcg-libxml2 x86\_64 2.9.1-2 QCG.qcg-comp.centos7.x86\_64 611 k

 unixODBC x86\_64 2.3.1-11.el7 base 413 k

 voms x86\_64 2.0.13-1.el7 epel 159 k

Transaction Summary

==========================================================================================================================================================================================

Install 1 Package (+20 Dependent packages)

Total download size: 5.2 M

Installed size: 25 M

Is this ok [y/d/N]: y

Downloading packages:

(1/21): globus-common-16.4-1.el7.x86\_64.rpm | 125 kB 00:00:00

(2/21): globus-gsi-callback-5.8-1.el7.x86\_64.rpm | 41 kB 00:00:00

(3/21): globus-gsi-cert-utils-9.12-1.el7.x86\_64.rpm | 22 kB 00:00:00

(4/21): globus-gsi-credential-7.9-1.el7.x86\_64.rpm | 35 kB 00:00:00

(5/21): globus-gsi-openssl-error-3.5-2.el7.x86\_64.rpm | 18 kB 00:00:00

(6/21): globus-gsi-proxy-core-7.9-1.el7.x86\_64.rpm | 35 kB 00:00:00

(7/21): globus-gsi-sysconfig-6.9-1.el7.x86\_64.rpm | 30 kB 00:00:00

(8/21): globus-gssapi-gsi-12.1-1.el7.x86\_64.rpm | 63 kB 00:00:00

(9/21): globus-openssl-module-4.6-2.el7.x86\_64.rpm | 16 kB 00:00:00

(10/21): libxslt-1.1.28-5.el7.x86\_64.rpm | 242 kB 00:00:00

(11/21): libtool-ltdl-2.4.2-21.el7\_2.x86\_64.rpm | 49 kB 00:00:00

(12/21): postgresql-odbc-09.03.0100-2.el7.x86\_64.rpm | 273 kB 00:00:00

(13/21): libxml2-python-2.9.1-6.el7\_2.3.x86\_64.rpm | 247 kB 00:00:00

(14/21): postgresql-libs-9.2.15-1.el7\_2.x86\_64.rpm | 231 kB 00:00:00

(15/21): python-lxml-3.2.1-4.el7.x86\_64.rpm | 758 kB 00:00:00

(16/21): qcg-comp-schemas-4.0.0-13.centos7.x86\_64.rpm | 19 kB 00:00:00

(17/21): qcg-core-4.0.0-2.x86\_64.rpm | 416 kB 00:00:01

(18/21): unixODBC-2.3.1-11.el7.x86\_64.rpm | 413 kB 00:00:00

(19/21): voms-2.0.13-1.el7.x86\_64.rpm | 159 kB 00:00:00

(20/21): qcg-comp-4.0.0-13.centos7.x86\_64.rpm | 1.5 MB 00:00:02

(21/21): qcg-libxml2-2.9.1-2.x86\_64.rpm | 611 kB 00:00:01

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Total 1.3 MB/s | 5.2 MB 00:00:04

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

 Installing : qcg-libxml2-2.9.1-2.x86\_64 1/21

 Installing : voms-2.0.13-1.el7.x86\_64 2/21

 Installing : libtool-ltdl-2.4.2-21.el7\_2.x86\_64 3/21

 Installing : globus-common-16.4-1.el7.x86\_64 4/21

 Installing : globus-gsi-openssl-error-3.5-2.el7.x86\_64 5/21

 Installing : globus-openssl-module-4.6-2.el7.x86\_64 6/21

 Installing : globus-gsi-cert-utils-9.12-1.el7.x86\_64 7/21

 Installing : globus-gsi-sysconfig-6.9-1.el7.x86\_64 8/21

 Installing : unixODBC-2.3.1-11.el7.x86\_64 9/21

 Installing : globus-gsi-callback-5.8-1.el7.x86\_64 10/21

 Installing : globus-gsi-credential-7.9-1.el7.x86\_64 11/21

 Installing : globus-gsi-proxy-core-7.9-1.el7.x86\_64 12/21

 Installing : globus-gssapi-gsi-12.1-1.el7.x86\_64 13/21

 Installing : qcg-core-4.0.0-2.x86\_64 14/21

 Installing : libxml2-python-2.9.1-6.el7\_2.3.x86\_64 15/21

 Installing : libxslt-1.1.28-5.el7.x86\_64 16/21

 Installing : python-lxml-3.2.1-4.el7.x86\_64 17/21

 Installing : qcg-comp-schemas-4.0.0-13.x86\_64 18/21

 Installing : postgresql-libs-9.2.15-1.el7\_2.x86\_64 19/21

 Installing : postgresql-odbc-09.03.0100-2.el7.x86\_64 20/21

 Installing : qcg-comp-4.0.0-13.x86\_64 21/21

Run "/sbin/service qcg-compd start" to start qcg-compd service.

IMPORTANT: You must first configure the QCG Computing database prior to

starting the service. You can either use the

/usr/share/qcg-comp/tools/qcg-comp-install.sh script or

create it manually using the QCG Computing documentation available at

http://www.qoscosgrid.org/trac/qcg-computing/wiki/InstallingUsingRPMS as the reference.

 Verifying : globus-gsi-cert-utils-9.12-1.el7.x86\_64 1/21

 Verifying : postgresql-libs-9.2.15-1.el7\_2.x86\_64 2/21

 Verifying : globus-common-16.4-1.el7.x86\_64 3/21

 Verifying : globus-gsi-proxy-core-7.9-1.el7.x86\_64 4/21

 Verifying : globus-gsi-credential-7.9-1.el7.x86\_64 5/21

 Verifying : libtool-ltdl-2.4.2-21.el7\_2.x86\_64 6/21

 Verifying : postgresql-odbc-09.03.0100-2.el7.x86\_64 7/21

 Verifying : qcg-core-4.0.0-2.x86\_64 8/21

 Verifying : qcg-comp-4.0.0-13.x86\_64 9/21

 Verifying : libxml2-python-2.9.1-6.el7\_2.3.x86\_64 10/21

 Verifying : python-lxml-3.2.1-4.el7.x86\_64 11/21

 Verifying : libxslt-1.1.28-5.el7.x86\_64 12/21

 Verifying : voms-2.0.13-1.el7.x86\_64 13/21

 Verifying : globus-gsi-sysconfig-6.9-1.el7.x86\_64 14/21

 Verifying : globus-gssapi-gsi-12.1-1.el7.x86\_64 15/21

 Verifying : globus-openssl-module-4.6-2.el7.x86\_64 16/21

 Verifying : qcg-libxml2-2.9.1-2.x86\_64 17/21

 Verifying : globus-gsi-openssl-error-3.5-2.el7.x86\_64 18/21

 Verifying : qcg-comp-schemas-4.0.0-13.x86\_64 19/21

 Verifying : globus-gsi-callback-5.8-1.el7.x86\_64 20/21

 Verifying : unixODBC-2.3.1-11.el7.x86\_64 21/21

Installed:

 qcg-comp.x86\_64 0:4.0.0-13

Dependency Installed:

 globus-common.x86\_64 0:16.4-1.el7 globus-gsi-callback.x86\_64 0:5.8-1.el7 globus-gsi-cert-utils.x86\_64 0:9.12-1.el7 globus-gsi-credential.x86\_64 0:7.9-1.el7

 globus-gsi-openssl-error.x86\_64 0:3.5-2.el7 globus-gsi-proxy-core.x86\_64 0:7.9-1.el7 globus-gsi-sysconfig.x86\_64 0:6.9-1.el7 globus-gssapi-gsi.x86\_64 0:12.1-1.el7

 globus-openssl-module.x86\_64 0:4.6-2.el7 libtool-ltdl.x86\_64 0:2.4.2-21.el7\_2 libxml2-python.x86\_64 0:2.9.1-6.el7\_2.3 libxslt.x86\_64 0:1.1.28-5.el7

 postgresql-libs.x86\_64 0:9.2.15-1.el7\_2 postgresql-odbc.x86\_64 0:09.03.0100-2.el7 python-lxml.x86\_64 0:3.2.1-4.el7 qcg-comp-schemas.x86\_64 0:4.0.0-13

 qcg-core.x86\_64 0:4.0.0-2 qcg-libxml2.x86\_64 0:2.9.1-2 unixODBC.x86\_64 0:2.3.1-11.el7 voms.x86\_64 0:2.0.13-1.el7

Complete!

[root@qcg-c7 ~]# yum install ca-policy-egi-core

Loaded plugins: fastestmirror, priorities

Loading mirror speeds from cached hostfile

 \* base: centos2.hti.pl

 \* epel: ftp.ps.pl

 \* extras: centos2.hti.pl

 \* updates: centos1.hti.pl

132 packages excluded due to repository priority protections

Resolving Dependencies

--> Running transaction check

---> Package ca-policy-egi-core.noarch 0:1.75-1 will be installed

--> Processing Dependency: ca\_seegrid-ca-2013 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_pkIRISGrid = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_cilogon-silver = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_cilogon-osg = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_UniandesCA = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_UTNAAAClient = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_UTN-USERTrust-RSA-CA = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_UTN-USERFirst-Hardware = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_UNLPGrid = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_UNAMgrid-ca = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_UKeScienceRoot-2007 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_UKeScienceCA-2B = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_UKeScienceCA-2A = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_UGRID = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_TSU-GE = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_TRGrid = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_TERENAeSciencePersonalCA3 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_TERENAeSciencePersonalCA2 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_TERENAeSciencePersonalCA = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_TERENA-eScience-SSL-CA-3 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_TERENA-eScience-SSL-CA-2 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_TERENA-eScience-SSL-CA = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_SlovakGrid = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_SiGNET-CA = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_SRCE = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_SDG-G2 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_RomanianGRID = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_REUNA-ca = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_RDIG = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_QuoVadis-Root-CA1 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_QuoVadis-Grid-ICA = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_PolishGrid = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_PSC-Myproxy-CA = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_PK-Grid-2007 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_NorduGrid-2015 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_NIKHEF = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_NIIF-Root-CA-2 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_NERSC-SLCS = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_NECTEC = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_NCSA-tfca-2013 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_NCSA-slcs-2013 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_MaGrid = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_MYIFAM = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_MREN-CA = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_MD-Grid = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_MARGI = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_LIPCA = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_LACGridCA = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_KISTI-2007 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_KENETROOTCA = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_KENETCA-ICA-2015 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_KEK = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_InCommon-IGTF-Server-CA = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_IRAN-GRID = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_INFN-CA-2015 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_INFN-CA-2006 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_IHEP-2013 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_IGCA = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_HellasGrid-CA-2016 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_HPCI = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_HKU = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_GridCanada = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_GermanGrid = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_FNAL-SLCS = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_EG-GRID = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_DigiCertGridTrustCAG2-Classic = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_DigiCertGridTrustCA-Classic = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_DigiCertGridRootCA-Root = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_DigiCertGridCA-1G2-Classic-2015 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_DigiCertGridCA-1-Classic = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_DigiCertAssuredIDRootCA-Root = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_DZeScience = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_DFN-SLCS = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_DFN-GridGermany-Root = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_CyGrid = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_COMODO-RSA-CA = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_CNRS2-Projets = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_CNRS2-Grid-FR = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_CNRS2 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_CNIC = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_CESNET-CA-Root = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_CESNET-CA-3 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_CERN-Root-2 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_CERN-GridCA = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_BYGCA = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_BG-ACAD-CA = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_BEGrid2008 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_AustrianGrid = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_ArmeSFo = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_AddTrust-External-CA-Root = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_ASGCCA-2007 = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_ANSPGrid = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_AEGIS = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Processing Dependency: ca\_AAACertificateServices = 1.75 for package: ca-policy-egi-core-1.75-1.noarch

--> Running transaction check

---> Package ca\_AAACertificateServices.noarch 0:1.75-1 will be installed

---> Package ca\_AEGIS.noarch 0:1.75-1 will be installed

---> Package ca\_ANSPGrid.noarch 0:1.75-1 will be installed

---> Package ca\_ASGCCA-2007.noarch 0:1.75-1 will be installed

---> Package ca\_AddTrust-External-CA-Root.noarch 0:1.75-1 will be installed

---> Package ca\_ArmeSFo.noarch 0:1.75-1 will be installed

---> Package ca\_AustrianGrid.noarch 0:1.75-1 will be installed

---> Package ca\_BEGrid2008.noarch 0:1.75-1 will be installed

---> Package ca\_BG-ACAD-CA.noarch 0:1.75-1 will be installed

---> Package ca\_BYGCA.noarch 0:1.75-1 will be installed

---> Package ca\_CERN-GridCA.noarch 0:1.75-1 will be installed

---> Package ca\_CERN-Root-2.noarch 0:1.75-1 will be installed

---> Package ca\_CESNET-CA-3.noarch 0:1.75-1 will be installed

---> Package ca\_CESNET-CA-Root.noarch 0:1.75-1 will be installed

---> Package ca\_CNIC.noarch 0:1.75-1 will be installed

---> Package ca\_CNRS2.noarch 0:1.75-1 will be installed

---> Package ca\_CNRS2-Grid-FR.noarch 0:1.75-1 will be installed

---> Package ca\_CNRS2-Projets.noarch 0:1.75-1 will be installed

---> Package ca\_COMODO-RSA-CA.noarch 0:1.75-1 will be installed

---> Package ca\_CyGrid.noarch 0:1.75-1 will be installed

---> Package ca\_DFN-GridGermany-Root.noarch 0:1.75-1 will be installed

---> Package ca\_DFN-SLCS.noarch 0:1.75-1 will be installed

---> Package ca\_DZeScience.noarch 0:1.75-1 will be installed

---> Package ca\_DigiCertAssuredIDRootCA-Root.noarch 0:1.75-1 will be installed

---> Package ca\_DigiCertGridCA-1-Classic.noarch 0:1.75-1 will be installed

---> Package ca\_DigiCertGridCA-1G2-Classic-2015.noarch 0:1.75-1 will be installed

---> Package ca\_DigiCertGridRootCA-Root.noarch 0:1.75-1 will be installed

---> Package ca\_DigiCertGridTrustCA-Classic.noarch 0:1.75-1 will be installed

---> Package ca\_DigiCertGridTrustCAG2-Classic.noarch 0:1.75-1 will be installed

---> Package ca\_EG-GRID.noarch 0:1.75-1 will be installed

---> Package ca\_FNAL-SLCS.noarch 0:1.75-1 will be installed

---> Package ca\_GermanGrid.noarch 0:1.75-1 will be installed

---> Package ca\_GridCanada.noarch 0:1.75-1 will be installed

---> Package ca\_HKU.noarch 0:1.75-1 will be installed

---> Package ca\_HPCI.noarch 0:1.75-1 will be installed

---> Package ca\_HellasGrid-CA-2016.noarch 0:1.75-1 will be installed

---> Package ca\_IGCA.noarch 0:1.75-1 will be installed

---> Package ca\_IHEP-2013.noarch 0:1.75-1 will be installed

---> Package ca\_INFN-CA-2006.noarch 0:1.75-1 will be installed

---> Package ca\_INFN-CA-2015.noarch 0:1.75-1 will be installed

---> Package ca\_IRAN-GRID.noarch 0:1.75-1 will be installed

---> Package ca\_InCommon-IGTF-Server-CA.noarch 0:1.75-1 will be installed

---> Package ca\_KEK.noarch 0:1.75-1 will be installed

---> Package ca\_KENETCA-ICA-2015.noarch 0:1.75-1 will be installed

---> Package ca\_KENETROOTCA.noarch 0:1.75-1 will be installed

---> Package ca\_KISTI-2007.noarch 0:1.75-1 will be installed

---> Package ca\_LACGridCA.noarch 0:1.75-1 will be installed

---> Package ca\_LIPCA.noarch 0:1.75-1 will be installed

---> Package ca\_MARGI.noarch 0:1.75-1 will be installed

---> Package ca\_MD-Grid.noarch 0:1.75-1 will be installed

---> Package ca\_MREN-CA.noarch 0:1.75-1 will be installed

---> Package ca\_MYIFAM.noarch 0:1.75-1 will be installed

---> Package ca\_MaGrid.noarch 0:1.75-1 will be installed

---> Package ca\_NCSA-slcs-2013.noarch 0:1.75-1 will be installed

---> Package ca\_NCSA-tfca-2013.noarch 0:1.75-1 will be installed

---> Package ca\_NECTEC.noarch 0:1.75-1 will be installed

---> Package ca\_NERSC-SLCS.noarch 0:1.75-1 will be installed

---> Package ca\_NIIF-Root-CA-2.noarch 0:1.75-1 will be installed

---> Package ca\_NIKHEF.noarch 0:1.75-1 will be installed

---> Package ca\_NorduGrid-2015.noarch 0:1.75-1 will be installed

---> Package ca\_PK-Grid-2007.noarch 0:1.75-1 will be installed

---> Package ca\_PSC-Myproxy-CA.noarch 0:1.75-1 will be installed

---> Package ca\_PolishGrid.noarch 0:1.75-1 will be installed

---> Package ca\_QuoVadis-Grid-ICA.noarch 0:1.75-1 will be installed

---> Package ca\_QuoVadis-Root-CA1.noarch 0:1.75-1 will be installed

---> Package ca\_RDIG.noarch 0:1.75-1 will be installed

---> Package ca\_REUNA-ca.noarch 0:1.75-1 will be installed

---> Package ca\_RomanianGRID.noarch 0:1.75-1 will be installed

---> Package ca\_SDG-G2.noarch 0:1.75-1 will be installed

---> Package ca\_SRCE.noarch 0:1.75-1 will be installed

---> Package ca\_SiGNET-CA.noarch 0:1.75-1 will be installed

---> Package ca\_SlovakGrid.noarch 0:1.75-1 will be installed

---> Package ca\_TERENA-eScience-SSL-CA.noarch 0:1.75-1 will be installed

---> Package ca\_TERENA-eScience-SSL-CA-2.noarch 0:1.75-1 will be installed

---> Package ca\_TERENA-eScience-SSL-CA-3.noarch 0:1.75-1 will be installed

---> Package ca\_TERENAeSciencePersonalCA.noarch 0:1.75-1 will be installed

---> Package ca\_TERENAeSciencePersonalCA2.noarch 0:1.75-1 will be installed

---> Package ca\_TERENAeSciencePersonalCA3.noarch 0:1.75-1 will be installed

---> Package ca\_TRGrid.noarch 0:1.75-1 will be installed

---> Package ca\_TSU-GE.noarch 0:1.75-1 will be installed

---> Package ca\_UGRID.noarch 0:1.75-1 will be installed

---> Package ca\_UKeScienceCA-2A.noarch 0:1.75-1 will be installed

---> Package ca\_UKeScienceCA-2B.noarch 0:1.75-1 will be installed

---> Package ca\_UKeScienceRoot-2007.noarch 0:1.75-1 will be installed

---> Package ca\_UNAMgrid-ca.noarch 0:1.75-1 will be installed

---> Package ca\_UNLPGrid.noarch 0:1.75-1 will be installed

---> Package ca\_UTN-USERFirst-Hardware.noarch 0:1.75-1 will be installed

---> Package ca\_UTN-USERTrust-RSA-CA.noarch 0:1.75-1 will be installed

---> Package ca\_UTNAAAClient.noarch 0:1.75-1 will be installed

---> Package ca\_UniandesCA.noarch 0:1.75-1 will be installed

---> Package ca\_cilogon-osg.noarch 0:1.75-1 will be installed

---> Package ca\_cilogon-silver.noarch 0:1.75-1 will be installed

---> Package ca\_pkIRISGrid.noarch 0:1.75-1 will be installed

---> Package ca\_seegrid-ca-2013.noarch 0:1.75-1 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

==========================================================================================================================================================================================

 Package Arch Version Repository Size

==========================================================================================================================================================================================

Installing:

 ca-policy-egi-core noarch 1.75-1 EGI-trustanchors 9.5 k

Installing for dependencies:

 ca\_AAACertificateServices noarch 1.75-1 EGI-trustanchors 5.4 k

 ca\_AEGIS noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_ANSPGrid noarch 1.75-1 EGI-trustanchors 5.2 k

 ca\_ASGCCA-2007 noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_AddTrust-External-CA-Root noarch 1.75-1 EGI-trustanchors 5.7 k

 ca\_ArmeSFo noarch 1.75-1 EGI-trustanchors 4.8 k

 ca\_AustrianGrid noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_BEGrid2008 noarch 1.75-1 EGI-trustanchors 4.8 k

 ca\_BG-ACAD-CA noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_BYGCA noarch 1.75-1 EGI-trustanchors 4.9 k

 ca\_CERN-GridCA noarch 1.75-1 EGI-trustanchors 5.8 k

 ca\_CERN-Root-2 noarch 1.75-1 EGI-trustanchors 5.7 k

 ca\_CESNET-CA-3 noarch 1.75-1 EGI-trustanchors 4.6 k

 ca\_CESNET-CA-Root noarch 1.75-1 EGI-trustanchors 4.9 k

 ca\_CNIC noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_CNRS2 noarch 1.75-1 EGI-trustanchors 4.7 k

 ca\_CNRS2-Grid-FR noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_CNRS2-Projets noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_COMODO-RSA-CA noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_CyGrid noarch 1.75-1 EGI-trustanchors 4.8 k

 ca\_DFN-GridGermany-Root noarch 1.75-1 EGI-trustanchors 5.1 k

 ca\_DFN-SLCS noarch 1.75-1 EGI-trustanchors 4.8 k

 ca\_DZeScience noarch 1.75-1 EGI-trustanchors 6.8 k

 ca\_DigiCertAssuredIDRootCA-Root noarch 1.75-1 EGI-trustanchors 5.2 k

 ca\_DigiCertGridCA-1-Classic noarch 1.75-1 EGI-trustanchors 5.4 k

 ca\_DigiCertGridCA-1G2-Classic-2015 noarch 1.75-1 EGI-trustanchors 5.5 k

 ca\_DigiCertGridRootCA-Root noarch 1.75-1 EGI-trustanchors 5.1 k

 ca\_DigiCertGridTrustCA-Classic noarch 1.75-1 EGI-trustanchors 5.7 k

 ca\_DigiCertGridTrustCAG2-Classic noarch 1.75-1 EGI-trustanchors 5.5 k

 ca\_EG-GRID noarch 1.75-1 EGI-trustanchors 6.5 k

 ca\_FNAL-SLCS noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_GermanGrid noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_GridCanada noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_HKU noarch 1.75-1 EGI-trustanchors 4.7 k

 ca\_HPCI noarch 1.75-1 EGI-trustanchors 5.2 k

 ca\_HellasGrid-CA-2016 noarch 1.75-1 EGI-trustanchors 5.6 k

 ca\_IGCA noarch 1.75-1 EGI-trustanchors 4.8 k

 ca\_IHEP-2013 noarch 1.75-1 EGI-trustanchors 4.9 k

 ca\_INFN-CA-2006 noarch 1.75-1 EGI-trustanchors 4.9 k

 ca\_INFN-CA-2015 noarch 1.75-1 EGI-trustanchors 5.5 k

 ca\_IRAN-GRID noarch 1.75-1 EGI-trustanchors 4.9 k

 ca\_InCommon-IGTF-Server-CA noarch 1.75-1 EGI-trustanchors 5.2 k

 ca\_KEK noarch 1.75-1 EGI-trustanchors 5.2 k

 ca\_KENETCA-ICA-2015 noarch 1.75-1 EGI-trustanchors 5.2 k

 ca\_KENETROOTCA noarch 1.75-1 EGI-trustanchors 5.5 k

 ca\_KISTI-2007 noarch 1.75-1 EGI-trustanchors 4.9 k

 ca\_LACGridCA noarch 1.75-1 EGI-trustanchors 5.1 k

 ca\_LIPCA noarch 1.75-1 EGI-trustanchors 4.7 k

 ca\_MARGI noarch 1.75-1 EGI-trustanchors 4.8 k

 ca\_MD-Grid noarch 1.75-1 EGI-trustanchors 5.2 k

 ca\_MREN-CA noarch 1.75-1 EGI-trustanchors 4.8 k

 ca\_MYIFAM noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_MaGrid noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_NCSA-slcs-2013 noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_NCSA-tfca-2013 noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_NECTEC noarch 1.75-1 EGI-trustanchors 5.2 k

 ca\_NERSC-SLCS noarch 1.75-1 EGI-trustanchors 5.4 k

 ca\_NIIF-Root-CA-2 noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_NIKHEF noarch 1.75-1 EGI-trustanchors 5.1 k

 ca\_NorduGrid-2015 noarch 1.75-1 EGI-trustanchors 5.6 k

 ca\_PK-Grid-2007 noarch 1.75-1 EGI-trustanchors 5.4 k

 ca\_PSC-Myproxy-CA noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_PolishGrid noarch 1.75-1 EGI-trustanchors 4.9 k

 ca\_QuoVadis-Grid-ICA noarch 1.75-1 EGI-trustanchors 4.9 k

 ca\_QuoVadis-Root-CA1 noarch 1.75-1 EGI-trustanchors 5.4 k

 ca\_RDIG noarch 1.75-1 EGI-trustanchors 5.3 k

 ca\_REUNA-ca noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_RomanianGRID noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_SDG-G2 noarch 1.75-1 EGI-trustanchors 4.9 k

 ca\_SRCE noarch 1.75-1 EGI-trustanchors 4.6 k

 ca\_SiGNET-CA noarch 1.75-1 EGI-trustanchors 5.1 k

 ca\_SlovakGrid noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_TERENA-eScience-SSL-CA noarch 1.75-1 EGI-trustanchors 5.4 k

 ca\_TERENA-eScience-SSL-CA-2 noarch 1.75-1 EGI-trustanchors 5.4 k

 ca\_TERENA-eScience-SSL-CA-3 noarch 1.75-1 EGI-trustanchors 5.5 k

 ca\_TERENAeSciencePersonalCA noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_TERENAeSciencePersonalCA2 noarch 1.75-1 EGI-trustanchors 5.3 k

 ca\_TERENAeSciencePersonalCA3 noarch 1.75-1 EGI-trustanchors 5.6 k

 ca\_TRGrid noarch 1.75-1 EGI-trustanchors 4.9 k

 ca\_TSU-GE noarch 1.75-1 EGI-trustanchors 5.4 k

 ca\_UGRID noarch 1.75-1 EGI-trustanchors 4.8 k

 ca\_UKeScienceCA-2A noarch 1.75-1 EGI-trustanchors 4.7 k

 ca\_UKeScienceCA-2B noarch 1.75-1 EGI-trustanchors 4.7 k

 ca\_UKeScienceRoot-2007 noarch 1.75-1 EGI-trustanchors 5.2 k

 ca\_UNAMgrid-ca noarch 1.75-1 EGI-trustanchors 5.2 k

 ca\_UNLPGrid noarch 1.75-1 EGI-trustanchors 5.0 k

 ca\_UTN-USERFirst-Hardware noarch 1.75-1 EGI-trustanchors 5.4 k

 ca\_UTN-USERTrust-RSA-CA noarch 1.75-1 EGI-trustanchors 5.3 k

 ca\_UTNAAAClient noarch 1.75-1 EGI-trustanchors 4.9 k

 ca\_UniandesCA noarch 1.75-1 EGI-trustanchors 5.1 k

 ca\_cilogon-osg noarch 1.75-1 EGI-trustanchors 4.9 k

 ca\_cilogon-silver noarch 1.75-1 EGI-trustanchors 4.8 k

 ca\_pkIRISGrid noarch 1.75-1 EGI-trustanchors 4.8 k

 ca\_seegrid-ca-2013 noarch 1.75-1 EGI-trustanchors 4.9 k

Transaction Summary

==========================================================================================================================================================================================

Install 1 Package (+94 Dependent packages)

Total download size: 492 k

Installed size: 283 k

Is this ok [y/d/N]: y

Downloading packages:

(1/95): ca-policy-egi-core-1.75-1.noarch.rpm | 9.5 kB 00:00:00

(2/95): ca\_AAACertificateServices-1.75-1.noarch.rpm | 5.4 kB 00:00:00

(3/95): ca\_AEGIS-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(4/95): ca\_ANSPGrid-1.75-1.noarch.rpm | 5.2 kB 00:00:00

(5/95): ca\_ASGCCA-2007-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(6/95): ca\_AddTrust-External-CA-Root-1.75-1.noarch.rpm | 5.7 kB 00:00:00

(7/95): ca\_ArmeSFo-1.75-1.noarch.rpm | 4.8 kB 00:00:00

(8/95): ca\_AustrianGrid-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(9/95): ca\_BEGrid2008-1.75-1.noarch.rpm | 4.8 kB 00:00:00

(10/95): ca\_BG-ACAD-CA-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(11/95): ca\_BYGCA-1.75-1.noarch.rpm | 4.9 kB 00:00:00

(12/95): ca\_CERN-GridCA-1.75-1.noarch.rpm | 5.8 kB 00:00:00

(13/95): ca\_CERN-Root-2-1.75-1.noarch.rpm | 5.7 kB 00:00:00

(14/95): ca\_CESNET-CA-3-1.75-1.noarch.rpm | 4.6 kB 00:00:00

(15/95): ca\_CESNET-CA-Root-1.75-1.noarch.rpm | 4.9 kB 00:00:00

(16/95): ca\_CNIC-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(17/95): ca\_CNRS2-1.75-1.noarch.rpm | 4.7 kB 00:00:00

(18/95): ca\_CNRS2-Grid-FR-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(19/95): ca\_CNRS2-Projets-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(20/95): ca\_COMODO-RSA-CA-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(21/95): ca\_CyGrid-1.75-1.noarch.rpm | 4.8 kB 00:00:00

(22/95): ca\_DFN-GridGermany-Root-1.75-1.noarch.rpm | 5.1 kB 00:00:00

(23/95): ca\_DFN-SLCS-1.75-1.noarch.rpm | 4.8 kB 00:00:00

(24/95): ca\_DZeScience-1.75-1.noarch.rpm | 6.8 kB 00:00:00

(25/95): ca\_DigiCertAssuredIDRootCA-Root-1.75-1.noarch.rpm | 5.2 kB 00:00:00

(26/95): ca\_DigiCertGridCA-1-Classic-1.75-1.noarch.rpm | 5.4 kB 00:00:00

(27/95): ca\_DigiCertGridCA-1G2-Classic-2015-1.75-1.noarch.rpm | 5.5 kB 00:00:00

(28/95): ca\_DigiCertGridRootCA-Root-1.75-1.noarch.rpm | 5.1 kB 00:00:00

(29/95): ca\_DigiCertGridTrustCA-Classic-1.75-1.noarch.rpm | 5.7 kB 00:00:00

(30/95): ca\_DigiCertGridTrustCAG2-Classic-1.75-1.noarch.rpm | 5.5 kB 00:00:00

(31/95): ca\_EG-GRID-1.75-1.noarch.rpm | 6.5 kB 00:00:00

(32/95): ca\_FNAL-SLCS-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(33/95): ca\_GermanGrid-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(34/95): ca\_GridCanada-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(35/95): ca\_HKU-1.75-1.noarch.rpm | 4.7 kB 00:00:00

(36/95): ca\_HPCI-1.75-1.noarch.rpm | 5.2 kB 00:00:00

(37/95): ca\_HellasGrid-CA-2016-1.75-1.noarch.rpm | 5.6 kB 00:00:00

(38/95): ca\_IGCA-1.75-1.noarch.rpm | 4.8 kB 00:00:00

(39/95): ca\_IHEP-2013-1.75-1.noarch.rpm | 4.9 kB 00:00:00

(40/95): ca\_INFN-CA-2006-1.75-1.noarch.rpm | 4.9 kB 00:00:00

(41/95): ca\_INFN-CA-2015-1.75-1.noarch.rpm | 5.5 kB 00:00:00

(42/95): ca\_IRAN-GRID-1.75-1.noarch.rpm | 4.9 kB 00:00:00

(43/95): ca\_InCommon-IGTF-Server-CA-1.75-1.noarch.rpm | 5.2 kB 00:00:00

(44/95): ca\_KEK-1.75-1.noarch.rpm | 5.2 kB 00:00:00

(45/95): ca\_KENETCA-ICA-2015-1.75-1.noarch.rpm | 5.2 kB 00:00:00

(46/95): ca\_KENETROOTCA-1.75-1.noarch.rpm | 5.5 kB 00:00:00

(47/95): ca\_KISTI-2007-1.75-1.noarch.rpm | 4.9 kB 00:00:00

(48/95): ca\_LACGridCA-1.75-1.noarch.rpm | 5.1 kB 00:00:00

(49/95): ca\_LIPCA-1.75-1.noarch.rpm | 4.7 kB 00:00:00

(50/95): ca\_MARGI-1.75-1.noarch.rpm | 4.8 kB 00:00:00

(51/95): ca\_MD-Grid-1.75-1.noarch.rpm | 5.2 kB 00:00:00

(52/95): ca\_MREN-CA-1.75-1.noarch.rpm | 4.8 kB 00:00:00

(53/95): ca\_MYIFAM-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(54/95): ca\_MaGrid-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(55/95): ca\_NCSA-slcs-2013-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(56/95): ca\_NCSA-tfca-2013-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(57/95): ca\_NECTEC-1.75-1.noarch.rpm | 5.2 kB 00:00:00

(58/95): ca\_NERSC-SLCS-1.75-1.noarch.rpm | 5.4 kB 00:00:00

(59/95): ca\_NIIF-Root-CA-2-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(60/95): ca\_NIKHEF-1.75-1.noarch.rpm | 5.1 kB 00:00:00

(61/95): ca\_NorduGrid-2015-1.75-1.noarch.rpm | 5.6 kB 00:00:00

(62/95): ca\_PK-Grid-2007-1.75-1.noarch.rpm | 5.4 kB 00:00:00

(63/95): ca\_PSC-Myproxy-CA-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(64/95): ca\_PolishGrid-1.75-1.noarch.rpm | 4.9 kB 00:00:00

(65/95): ca\_QuoVadis-Grid-ICA-1.75-1.noarch.rpm | 4.9 kB 00:00:00

(66/95): ca\_QuoVadis-Root-CA1-1.75-1.noarch.rpm | 5.4 kB 00:00:00

(67/95): ca\_RDIG-1.75-1.noarch.rpm | 5.3 kB 00:00:00

(68/95): ca\_REUNA-ca-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(69/95): ca\_RomanianGRID-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(70/95): ca\_SDG-G2-1.75-1.noarch.rpm | 4.9 kB 00:00:00

(71/95): ca\_SRCE-1.75-1.noarch.rpm | 4.6 kB 00:00:00

(72/95): ca\_SiGNET-CA-1.75-1.noarch.rpm | 5.1 kB 00:00:00

(73/95): ca\_SlovakGrid-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(74/95): ca\_TERENA-eScience-SSL-CA-1.75-1.noarch.rpm | 5.4 kB 00:00:00

(75/95): ca\_TERENA-eScience-SSL-CA-2-1.75-1.noarch.rpm | 5.4 kB 00:00:00

(76/95): ca\_TERENA-eScience-SSL-CA-3-1.75-1.noarch.rpm | 5.5 kB 00:00:00

(77/95): ca\_TERENAeSciencePersonalCA-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(78/95): ca\_TERENAeSciencePersonalCA2-1.75-1.noarch.rpm | 5.3 kB 00:00:00

(79/95): ca\_TERENAeSciencePersonalCA3-1.75-1.noarch.rpm | 5.6 kB 00:00:00

(80/95): ca\_TRGrid-1.75-1.noarch.rpm | 4.9 kB 00:00:00

(81/95): ca\_TSU-GE-1.75-1.noarch.rpm | 5.4 kB 00:00:00

(82/95): ca\_UGRID-1.75-1.noarch.rpm | 4.8 kB 00:00:00

(83/95): ca\_UKeScienceCA-2A-1.75-1.noarch.rpm | 4.7 kB 00:00:00

(84/95): ca\_UKeScienceCA-2B-1.75-1.noarch.rpm | 4.7 kB 00:00:00

(85/95): ca\_UKeScienceRoot-2007-1.75-1.noarch.rpm | 5.2 kB 00:00:00

(86/95): ca\_UNAMgrid-ca-1.75-1.noarch.rpm | 5.2 kB 00:00:00

(87/95): ca\_UNLPGrid-1.75-1.noarch.rpm | 5.0 kB 00:00:00

(88/95): ca\_UTN-USERFirst-Hardware-1.75-1.noarch.rpm | 5.4 kB 00:00:00

(89/95): ca\_UTN-USERTrust-RSA-CA-1.75-1.noarch.rpm | 5.3 kB 00:00:00

(90/95): ca\_UTNAAAClient-1.75-1.noarch.rpm | 4.9 kB 00:00:00

(91/95): ca\_UniandesCA-1.75-1.noarch.rpm | 5.1 kB 00:00:00

(92/95): ca\_cilogon-osg-1.75-1.noarch.rpm | 4.9 kB 00:00:00

(93/95): ca\_cilogon-silver-1.75-1.noarch.rpm | 4.8 kB 00:00:00

(94/95): ca\_pkIRISGrid-1.75-1.noarch.rpm | 4.8 kB 00:00:00

(95/95): ca\_seegrid-ca-2013-1.75-1.noarch.rpm | 4.9 kB 00:00:00

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Total 63 kB/s | 492 kB 00:00:07

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

 Installing : ca\_DigiCertAssuredIDRootCA-Root-1.75-1.noarch 1/95

 Installing : ca\_AddTrust-External-CA-Root-1.75-1.noarch 2/95

 Installing : ca\_UTN-USERTrust-RSA-CA-1.75-1.noarch 3/95

 Installing : ca\_UKeScienceRoot-2007-1.75-1.noarch 4/95

 Installing : ca\_DigiCertGridRootCA-Root-1.75-1.noarch 5/95

 Installing : ca\_COMODO-RSA-CA-1.75-1.noarch 6/95

 Installing : ca\_UTN-USERFirst-Hardware-1.75-1.noarch 7/95

 Installing : ca\_KENETROOTCA-1.75-1.noarch 8/95

 Installing : ca\_AAACertificateServices-1.75-1.noarch 9/95

 Installing : ca\_UTNAAAClient-1.75-1.noarch 10/95

 Installing : ca\_CERN-Root-2-1.75-1.noarch 11/95

 Installing : ca\_QuoVadis-Root-CA1-1.75-1.noarch 12/95

 Installing : ca\_CNRS2-1.75-1.noarch 13/95

 Installing : ca\_CNRS2-Projets-1.75-1.noarch 14/95

 Installing : ca\_CESNET-CA-Root-1.75-1.noarch 15/95

 Installing : ca\_CESNET-CA-3-1.75-1.noarch 16/95

 Installing : ca\_CNRS2-Grid-FR-1.75-1.noarch 17/95

 Installing : ca\_QuoVadis-Grid-ICA-1.75-1.noarch 18/95

 Installing : ca\_CERN-GridCA-1.75-1.noarch 19/95

 Installing : ca\_TERENAeSciencePersonalCA-1.75-1.noarch 20/95

 Installing : ca\_KENETCA-ICA-2015-1.75-1.noarch 21/95

 Installing : ca\_TERENA-eScience-SSL-CA-1.75-1.noarch 22/95

 Installing : ca\_InCommon-IGTF-Server-CA-1.75-1.noarch 23/95

 Installing : ca\_DigiCertGridCA-1-Classic-1.75-1.noarch 24/95

 Installing : ca\_DigiCertGridCA-1G2-Classic-2015-1.75-1.noarch 25/95

 Installing : ca\_UKeScienceCA-2A-1.75-1.noarch 26/95

 Installing : ca\_UKeScienceCA-2B-1.75-1.noarch 27/95

 Installing : ca\_TERENAeSciencePersonalCA2-1.75-1.noarch 28/95

 Installing : ca\_TERENA-eScience-SSL-CA-2-1.75-1.noarch 29/95

 Installing : ca\_TERENAeSciencePersonalCA3-1.75-1.noarch 30/95

 Installing : ca\_DigiCertGridTrustCA-Classic-1.75-1.noarch 31/95

 Installing : ca\_DigiCertGridTrustCAG2-Classic-1.75-1.noarch 32/95

 Installing : ca\_TERENA-eScience-SSL-CA-3-1.75-1.noarch 33/95

 Installing : ca\_TSU-GE-1.75-1.noarch 34/95

 Installing : ca\_UNAMgrid-ca-1.75-1.noarch 35/95

 Installing : ca\_BG-ACAD-CA-1.75-1.noarch 36/95

 Installing : ca\_UNLPGrid-1.75-1.noarch 37/95

 Installing : ca\_cilogon-silver-1.75-1.noarch 38/95

 Installing : ca\_NERSC-SLCS-1.75-1.noarch 39/95

 Installing : ca\_NECTEC-1.75-1.noarch 40/95

 Installing : ca\_AustrianGrid-1.75-1.noarch 41/95

 Installing : ca\_SRCE-1.75-1.noarch 42/95

 Installing : ca\_UniandesCA-1.75-1.noarch 43/95

 Installing : ca\_BEGrid2008-1.75-1.noarch 44/95

 Installing : ca\_FNAL-SLCS-1.75-1.noarch 45/95

 Installing : ca\_EG-GRID-1.75-1.noarch 46/95

 Installing : ca\_IGCA-1.75-1.noarch 47/95

 Installing : ca\_HPCI-1.75-1.noarch 48/95

 Installing : ca\_NCSA-tfca-2013-1.75-1.noarch 49/95

 Installing : ca\_MD-Grid-1.75-1.noarch 50/95

 Installing : ca\_MaGrid-1.75-1.noarch 51/95

 Installing : ca\_IRAN-GRID-1.75-1.noarch 52/95

 Installing : ca\_GridCanada-1.75-1.noarch 53/95

 Installing : ca\_NIKHEF-1.75-1.noarch 54/95

 Installing : ca\_UGRID-1.75-1.noarch 55/95

 Installing : ca\_AEGIS-1.75-1.noarch 56/95

 Installing : ca\_DZeScience-1.75-1.noarch 57/95

 Installing : ca\_INFN-CA-2015-1.75-1.noarch 58/95

 Installing : ca\_MARGI-1.75-1.noarch 59/95

 Installing : ca\_CyGrid-1.75-1.noarch 60/95

 Installing : ca\_REUNA-ca-1.75-1.noarch 61/95

 Installing : ca\_SDG-G2-1.75-1.noarch 62/95

 Installing : ca\_RomanianGRID-1.75-1.noarch 63/95

 Installing : ca\_MREN-CA-1.75-1.noarch 64/95

 Installing : ca\_SlovakGrid-1.75-1.noarch 65/95

 Installing : ca\_BYGCA-1.75-1.noarch 66/95

 Installing : ca\_NorduGrid-2015-1.75-1.noarch 67/95

 Installing : ca\_CNIC-1.75-1.noarch 68/95

 Installing : ca\_DFN-SLCS-1.75-1.noarch 69/95

 Installing : ca\_INFN-CA-2006-1.75-1.noarch 70/95

 Installing : ca\_MYIFAM-1.75-1.noarch 71/95

 Installing : ca\_pkIRISGrid-1.75-1.noarch 72/95

 Installing : ca\_RDIG-1.75-1.noarch 73/95

 Installing : ca\_LACGridCA-1.75-1.noarch 74/95

 Installing : ca\_KEK-1.75-1.noarch 75/95

 Installing : ca\_SiGNET-CA-1.75-1.noarch 76/95

 Installing : ca\_HKU-1.75-1.noarch 77/95

 Installing : ca\_GermanGrid-1.75-1.noarch 78/95

 Installing : ca\_PK-Grid-2007-1.75-1.noarch 79/95

 Installing : ca\_ANSPGrid-1.75-1.noarch 80/95

 Installing : ca\_ArmeSFo-1.75-1.noarch 81/95

 Installing : ca\_HellasGrid-CA-2016-1.75-1.noarch 82/95

 Installing : ca\_cilogon-osg-1.75-1.noarch 83/95

 Installing : ca\_PSC-Myproxy-CA-1.75-1.noarch 84/95

 Installing : ca\_seegrid-ca-2013-1.75-1.noarch 85/95

 Installing : ca\_NIIF-Root-CA-2-1.75-1.noarch 86/95

 Installing : ca\_LIPCA-1.75-1.noarch 87/95

 Installing : ca\_NCSA-slcs-2013-1.75-1.noarch 88/95

 Installing : ca\_KISTI-2007-1.75-1.noarch 89/95

 Installing : ca\_ASGCCA-2007-1.75-1.noarch 90/95

 Installing : ca\_TRGrid-1.75-1.noarch 91/95

 Installing : ca\_IHEP-2013-1.75-1.noarch 92/95

 Installing : ca\_PolishGrid-1.75-1.noarch 93/95

 Installing : ca\_DFN-GridGermany-Root-1.75-1.noarch 94/95

 Installing : ca-policy-egi-core-1.75-1.noarch 95/95

 Verifying : ca\_DFN-GridGermany-Root-1.75-1.noarch 1/95

 Verifying : ca\_PolishGrid-1.75-1.noarch 2/95

 Verifying : ca\_IHEP-2013-1.75-1.noarch 3/95

 Verifying : ca\_TRGrid-1.75-1.noarch 4/95

 Verifying : ca\_UTN-USERTrust-RSA-CA-1.75-1.noarch 5/95

 Verifying : ca\_COMODO-RSA-CA-1.75-1.noarch 6/95

 Verifying : ca\_ASGCCA-2007-1.75-1.noarch 7/95

 Verifying : ca\_KISTI-2007-1.75-1.noarch 8/95

 Verifying : ca\_NCSA-slcs-2013-1.75-1.noarch 9/95

 Verifying : ca\_InCommon-IGTF-Server-CA-1.75-1.noarch 10/95

 Verifying : ca\_LIPCA-1.75-1.noarch 11/95

 Verifying : ca\_CNRS2-Grid-FR-1.75-1.noarch 12/95

 Verifying : ca\_NIIF-Root-CA-2-1.75-1.noarch 13/95

 Verifying : ca\_seegrid-ca-2013-1.75-1.noarch 14/95

 Verifying : ca\_PSC-Myproxy-CA-1.75-1.noarch 15/95

 Verifying : ca\_DigiCertGridRootCA-Root-1.75-1.noarch 16/95

 Verifying : ca\_cilogon-osg-1.75-1.noarch 17/95

 Verifying : ca\_HellasGrid-CA-2016-1.75-1.noarch 18/95

 Verifying : ca\_KENETCA-ICA-2015-1.75-1.noarch 19/95

 Verifying : ca\_QuoVadis-Grid-ICA-1.75-1.noarch 20/95

 Verifying : ca\_CNRS2-Projets-1.75-1.noarch 21/95

 Verifying : ca\_ArmeSFo-1.75-1.noarch 22/95

 Verifying : ca\_ANSPGrid-1.75-1.noarch 23/95

 Verifying : ca\_PK-Grid-2007-1.75-1.noarch 24/95

 Verifying : ca\_GermanGrid-1.75-1.noarch 25/95

 Verifying : ca\_HKU-1.75-1.noarch 26/95

 Verifying : ca\_SiGNET-CA-1.75-1.noarch 27/95

 Verifying : ca\_DigiCertGridCA-1-Classic-1.75-1.noarch 28/95

 Verifying : ca\_KEK-1.75-1.noarch 29/95

 Verifying : ca\_LACGridCA-1.75-1.noarch 30/95

 Verifying : ca\_RDIG-1.75-1.noarch 31/95

 Verifying : ca\_pkIRISGrid-1.75-1.noarch 32/95

 Verifying : ca\_AddTrust-External-CA-Root-1.75-1.noarch 33/95

 Verifying : ca\_MYIFAM-1.75-1.noarch 34/95

 Verifying : ca\_UKeScienceRoot-2007-1.75-1.noarch 35/95

 Verifying : ca\_INFN-CA-2006-1.75-1.noarch 36/95

 Verifying : ca\_CESNET-CA-3-1.75-1.noarch 37/95

 Verifying : ca\_DigiCertAssuredIDRootCA-Root-1.75-1.noarch 38/95

 Verifying : ca\_CESNET-CA-Root-1.75-1.noarch 39/95

 Verifying : ca\_CNRS2-1.75-1.noarch 40/95

 Verifying : ca\_DFN-SLCS-1.75-1.noarch 41/95

 Verifying : ca\_QuoVadis-Root-CA1-1.75-1.noarch 42/95

 Verifying : ca\_CNIC-1.75-1.noarch 43/95

 Verifying : ca\_NorduGrid-2015-1.75-1.noarch 44/95

 Verifying : ca\_BYGCA-1.75-1.noarch 45/95

 Verifying : ca\_CERN-Root-2-1.75-1.noarch 46/95

 Verifying : ca\_UKeScienceCA-2A-1.75-1.noarch 47/95

 Verifying : ca\_SlovakGrid-1.75-1.noarch 48/95

 Verifying : ca\_TERENAeSciencePersonalCA2-1.75-1.noarch 49/95

 Verifying : ca\_MREN-CA-1.75-1.noarch 50/95

 Verifying : ca\_UTN-USERFirst-Hardware-1.75-1.noarch 51/95

 Verifying : ca\_RomanianGRID-1.75-1.noarch 52/95

 Verifying : ca\_SDG-G2-1.75-1.noarch 53/95

 Verifying : ca\_TERENAeSciencePersonalCA3-1.75-1.noarch 54/95

 Verifying : ca\_REUNA-ca-1.75-1.noarch 55/95

 Verifying : ca\_CERN-GridCA-1.75-1.noarch 56/95

 Verifying : ca-policy-egi-core-1.75-1.noarch 57/95

 Verifying : ca\_CyGrid-1.75-1.noarch 58/95

 Verifying : ca\_MARGI-1.75-1.noarch 59/95

 Verifying : ca\_INFN-CA-2015-1.75-1.noarch 60/95

 Verifying : ca\_DigiCertGridTrustCA-Classic-1.75-1.noarch 61/95

 Verifying : ca\_DZeScience-1.75-1.noarch 62/95

 Verifying : ca\_AEGIS-1.75-1.noarch 63/95

 Verifying : ca\_UGRID-1.75-1.noarch 64/95

 Verifying : ca\_NIKHEF-1.75-1.noarch 65/95

 Verifying : ca\_GridCanada-1.75-1.noarch 66/95

 Verifying : ca\_IRAN-GRID-1.75-1.noarch 67/95

 Verifying : ca\_UTNAAAClient-1.75-1.noarch 68/95

 Verifying : ca\_MaGrid-1.75-1.noarch 69/95

 Verifying : ca\_AAACertificateServices-1.75-1.noarch 70/95

 Verifying : ca\_UKeScienceCA-2B-1.75-1.noarch 71/95

 Verifying : ca\_MD-Grid-1.75-1.noarch 72/95

 Verifying : ca\_NCSA-tfca-2013-1.75-1.noarch 73/95

 Verifying : ca\_TERENA-eScience-SSL-CA-2-1.75-1.noarch 74/95

 Verifying : ca\_HPCI-1.75-1.noarch 75/95

 Verifying : ca\_IGCA-1.75-1.noarch 76/95

 Verifying : ca\_DigiCertGridTrustCAG2-Classic-1.75-1.noarch 77/95

 Verifying : ca\_EG-GRID-1.75-1.noarch 78/95

 Verifying : ca\_FNAL-SLCS-1.75-1.noarch 79/95

 Verifying : ca\_TERENAeSciencePersonalCA-1.75-1.noarch 80/95

 Verifying : ca\_BEGrid2008-1.75-1.noarch 81/95

 Verifying : ca\_TERENA-eScience-SSL-CA-3-1.75-1.noarch 82/95

 Verifying : ca\_UniandesCA-1.75-1.noarch 83/95

 Verifying : ca\_SRCE-1.75-1.noarch 84/95

 Verifying : ca\_AustrianGrid-1.75-1.noarch 85/95

 Verifying : ca\_KENETROOTCA-1.75-1.noarch 86/95

 Verifying : ca\_DigiCertGridCA-1G2-Classic-2015-1.75-1.noarch 87/95

 Verifying : ca\_NECTEC-1.75-1.noarch 88/95

 Verifying : ca\_TERENA-eScience-SSL-CA-1.75-1.noarch 89/95

 Verifying : ca\_NERSC-SLCS-1.75-1.noarch 90/95

 Verifying : ca\_cilogon-silver-1.75-1.noarch 91/95

 Verifying : ca\_UNLPGrid-1.75-1.noarch 92/95

 Verifying : ca\_BG-ACAD-CA-1.75-1.noarch 93/95

 Verifying : ca\_UNAMgrid-ca-1.75-1.noarch 94/95

 Verifying : ca\_TSU-GE-1.75-1.noarch 95/95

Installed:

 ca-policy-egi-core.noarch 0:1.75-1

Dependency Installed:

 ca\_AAACertificateServices.noarch 0:1.75-1 ca\_AEGIS.noarch 0:1.75-1 ca\_ANSPGrid.noarch 0:1.75-1

 ca\_ASGCCA-2007.noarch 0:1.75-1 ca\_AddTrust-External-CA-Root.noarch 0:1.75-1 ca\_ArmeSFo.noarch 0:1.75-1

 ca\_AustrianGrid.noarch 0:1.75-1 ca\_BEGrid2008.noarch 0:1.75-1 ca\_BG-ACAD-CA.noarch 0:1.75-1

 ca\_BYGCA.noarch 0:1.75-1 ca\_CERN-GridCA.noarch 0:1.75-1 ca\_CERN-Root-2.noarch 0:1.75-1

 ca\_CESNET-CA-3.noarch 0:1.75-1 ca\_CESNET-CA-Root.noarch 0:1.75-1 ca\_CNIC.noarch 0:1.75-1

 ca\_CNRS2.noarch 0:1.75-1 ca\_CNRS2-Grid-FR.noarch 0:1.75-1 ca\_CNRS2-Projets.noarch 0:1.75-1

 ca\_COMODO-RSA-CA.noarch 0:1.75-1 ca\_CyGrid.noarch 0:1.75-1 ca\_DFN-GridGermany-Root.noarch 0:1.75-1

 ca\_DFN-SLCS.noarch 0:1.75-1 ca\_DZeScience.noarch 0:1.75-1 ca\_DigiCertAssuredIDRootCA-Root.noarch 0:1.75-1

 ca\_DigiCertGridCA-1-Classic.noarch 0:1.75-1 ca\_DigiCertGridCA-1G2-Classic-2015.noarch 0:1.75-1 ca\_DigiCertGridRootCA-Root.noarch 0:1.75-1

 ca\_DigiCertGridTrustCA-Classic.noarch 0:1.75-1 ca\_DigiCertGridTrustCAG2-Classic.noarch 0:1.75-1 ca\_EG-GRID.noarch 0:1.75-1

 ca\_FNAL-SLCS.noarch 0:1.75-1 ca\_GermanGrid.noarch 0:1.75-1 ca\_GridCanada.noarch 0:1.75-1

 ca\_HKU.noarch 0:1.75-1 ca\_HPCI.noarch 0:1.75-1 ca\_HellasGrid-CA-2016.noarch 0:1.75-1

 ca\_IGCA.noarch 0:1.75-1 ca\_IHEP-2013.noarch 0:1.75-1 ca\_INFN-CA-2006.noarch 0:1.75-1

 ca\_INFN-CA-2015.noarch 0:1.75-1 ca\_IRAN-GRID.noarch 0:1.75-1 ca\_InCommon-IGTF-Server-CA.noarch 0:1.75-1

 ca\_KEK.noarch 0:1.75-1 ca\_KENETCA-ICA-2015.noarch 0:1.75-1 ca\_KENETROOTCA.noarch 0:1.75-1

 ca\_KISTI-2007.noarch 0:1.75-1 ca\_LACGridCA.noarch 0:1.75-1 ca\_LIPCA.noarch 0:1.75-1

 ca\_MARGI.noarch 0:1.75-1 ca\_MD-Grid.noarch 0:1.75-1 ca\_MREN-CA.noarch 0:1.75-1

 ca\_MYIFAM.noarch 0:1.75-1 ca\_MaGrid.noarch 0:1.75-1 ca\_NCSA-slcs-2013.noarch 0:1.75-1

 ca\_NCSA-tfca-2013.noarch 0:1.75-1 ca\_NECTEC.noarch 0:1.75-1 ca\_NERSC-SLCS.noarch 0:1.75-1

 ca\_NIIF-Root-CA-2.noarch 0:1.75-1 ca\_NIKHEF.noarch 0:1.75-1 ca\_NorduGrid-2015.noarch 0:1.75-1

 ca\_PK-Grid-2007.noarch 0:1.75-1 ca\_PSC-Myproxy-CA.noarch 0:1.75-1 ca\_PolishGrid.noarch 0:1.75-1

 ca\_QuoVadis-Grid-ICA.noarch 0:1.75-1 ca\_QuoVadis-Root-CA1.noarch 0:1.75-1 ca\_RDIG.noarch 0:1.75-1

 ca\_REUNA-ca.noarch 0:1.75-1 ca\_RomanianGRID.noarch 0:1.75-1 ca\_SDG-G2.noarch 0:1.75-1

 ca\_SRCE.noarch 0:1.75-1 ca\_SiGNET-CA.noarch 0:1.75-1 ca\_SlovakGrid.noarch 0:1.75-1

 ca\_TERENA-eScience-SSL-CA.noarch 0:1.75-1 ca\_TERENA-eScience-SSL-CA-2.noarch 0:1.75-1 ca\_TERENA-eScience-SSL-CA-3.noarch 0:1.75-1

 ca\_TERENAeSciencePersonalCA.noarch 0:1.75-1 ca\_TERENAeSciencePersonalCA2.noarch 0:1.75-1 ca\_TERENAeSciencePersonalCA3.noarch 0:1.75-1

 ca\_TRGrid.noarch 0:1.75-1 ca\_TSU-GE.noarch 0:1.75-1 ca\_UGRID.noarch 0:1.75-1

 ca\_UKeScienceCA-2A.noarch 0:1.75-1 ca\_UKeScienceCA-2B.noarch 0:1.75-1 ca\_UKeScienceRoot-2007.noarch 0:1.75-1

 ca\_UNAMgrid-ca.noarch 0:1.75-1 ca\_UNLPGrid.noarch 0:1.75-1 ca\_UTN-USERFirst-Hardware.noarch 0:1.75-1

 ca\_UTN-USERTrust-RSA-CA.noarch 0:1.75-1 ca\_UTNAAAClient.noarch 0:1.75-1 ca\_UniandesCA.noarch 0:1.75-1

 ca\_cilogon-osg.noarch 0:1.75-1 ca\_cilogon-silver.noarch 0:1.75-1 ca\_pkIRISGrid.noarch 0:1.75-1

 ca\_seegrid-ca-2013.noarch 0:1.75-1

Complete!

[root@qcg-c7 ~]# yum install fetch-crl

Loaded plugins: fastestmirror, priorities

Loading mirror speeds from cached hostfile

 \* base: centos2.hti.pl

 \* epel: ftp.ps.pl

 \* extras: centos2.hti.pl

 \* updates: centos1.hti.pl

132 packages excluded due to repository priority protections

Resolving Dependencies

--> Running transaction check

---> Package fetch-crl.noarch 0:3.0.17-3.el7 will be installed

--> Processing Dependency: perl(Sys::Syslog) for package: fetch-crl-3.0.17-3.el7.noarch

--> Processing Dependency: perl(LWP) for package: fetch-crl-3.0.17-3.el7.noarch

--> Running transaction check

---> Package perl-Sys-Syslog.x86\_64 0:0.33-3.el7 will be installed

---> Package perl-libwww-perl.noarch 0:6.05-2.el7 will be installed

--> Processing Dependency: perl(WWW::RobotRules) >= 6 for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(URI) >= 1.10 for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(Net::HTTP) >= 6.04 for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(LWP::MediaTypes) >= 6 for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(HTTP::Status) >= 6 for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(HTTP::Response) >= 6 for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(HTTP::Request::Common) >= 6 for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(HTTP::Request) >= 6 for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(HTTP::Negotiate) >= 6 for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(HTTP::Date) >= 6 for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(HTTP::Daemon) >= 6 for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(HTTP::Cookies) >= 6 for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(File::Listing) >= 6 for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(URI::Heuristic) for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(URI::Escape) for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(HTML::HeadParser) for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(HTML::Entities) for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(Encode::Locale) for package: perl-libwww-perl-6.05-2.el7.noarch

--> Processing Dependency: perl(Digest::MD5) for package: perl-libwww-perl-6.05-2.el7.noarch

--> Running transaction check

---> Package perl-Digest-MD5.x86\_64 0:2.52-3.el7 will be installed

--> Processing Dependency: perl(Digest::base) >= 1.00 for package: perl-Digest-MD5-2.52-3.el7.x86\_64

---> Package perl-Encode-Locale.noarch 0:1.03-5.el7 will be installed

---> Package perl-File-Listing.noarch 0:6.04-7.el7 will be installed

---> Package perl-HTML-Parser.x86\_64 0:3.71-4.el7 will be installed

--> Processing Dependency: perl(HTML::Tagset) >= 3 for package: perl-HTML-Parser-3.71-4.el7.x86\_64

---> Package perl-HTTP-Cookies.noarch 0:6.01-5.el7 will be installed

---> Package perl-HTTP-Daemon.noarch 0:6.01-5.el7 will be installed

---> Package perl-HTTP-Date.noarch 0:6.02-8.el7 will be installed

--> Processing Dependency: perl(Time::Zone) for package: perl-HTTP-Date-6.02-8.el7.noarch

---> Package perl-HTTP-Message.noarch 0:6.06-6.el7 will be installed

--> Processing Dependency: perl(IO::Uncompress::Bunzip2) >= 2.021 for package: perl-HTTP-Message-6.06-6.el7.noarch

--> Processing Dependency: perl(IO::Compress::Bzip2) >= 2.021 for package: perl-HTTP-Message-6.06-6.el7.noarch

--> Processing Dependency: perl(IO::Uncompress::RawInflate) for package: perl-HTTP-Message-6.06-6.el7.noarch

--> Processing Dependency: perl(IO::Uncompress::Inflate) for package: perl-HTTP-Message-6.06-6.el7.noarch

--> Processing Dependency: perl(IO::Uncompress::Gunzip) for package: perl-HTTP-Message-6.06-6.el7.noarch

--> Processing Dependency: perl(IO::HTML) for package: perl-HTTP-Message-6.06-6.el7.noarch

--> Processing Dependency: perl(IO::Compress::Gzip) for package: perl-HTTP-Message-6.06-6.el7.noarch

--> Processing Dependency: perl(IO::Compress::Deflate) for package: perl-HTTP-Message-6.06-6.el7.noarch

--> Processing Dependency: perl(Compress::Raw::Zlib) for package: perl-HTTP-Message-6.06-6.el7.noarch

---> Package perl-HTTP-Negotiate.noarch 0:6.01-5.el7 will be installed

---> Package perl-LWP-MediaTypes.noarch 0:6.02-2.el7 will be installed

--> Processing Dependency: mailcap for package: perl-LWP-MediaTypes-6.02-2.el7.noarch

---> Package perl-Net-HTTP.noarch 0:6.06-2.el7 will be installed

--> Processing Dependency: perl(IO::Socket::SSL) >= 1.38 for package: perl-Net-HTTP-6.06-2.el7.noarch

---> Package perl-URI.noarch 0:1.60-9.el7 will be installed

--> Processing Dependency: perl(Data::Dumper) for package: perl-URI-1.60-9.el7.noarch

--> Processing Dependency: perl(Business::ISBN) for package: perl-URI-1.60-9.el7.noarch

---> Package perl-WWW-RobotRules.noarch 0:6.02-5.el7 will be installed

--> Running transaction check

---> Package mailcap.noarch 0:2.1.41-2.el7 will be installed

---> Package perl-Business-ISBN.noarch 0:2.06-2.el7 will be installed

--> Processing Dependency: perl(Business::ISBN::Data) >= 20120719.001 for package: perl-Business-ISBN-2.06-2.el7.noarch

---> Package perl-Compress-Raw-Zlib.x86\_64 1:2.061-4.el7 will be installed

---> Package perl-Data-Dumper.x86\_64 0:2.145-3.el7 will be installed

---> Package perl-Digest.noarch 0:1.17-245.el7 will be installed

---> Package perl-HTML-Tagset.noarch 0:3.20-15.el7 will be installed

---> Package perl-IO-Compress.noarch 0:2.061-2.el7 will be installed

--> Processing Dependency: perl(Compress::Raw::Bzip2) >= 2.061 for package: perl-IO-Compress-2.061-2.el7.noarch

---> Package perl-IO-HTML.noarch 0:1.00-2.el7 will be installed

---> Package perl-IO-Socket-SSL.noarch 0:1.94-3.el7 will be installed

--> Processing Dependency: perl(Net::SSLeay) >= 1.21 for package: perl-IO-Socket-SSL-1.94-3.el7.noarch

--> Processing Dependency: perl(IO::Socket::IP) >= 0.20 for package: perl-IO-Socket-SSL-1.94-3.el7.noarch

--> Processing Dependency: perl(Net::SSLeay) for package: perl-IO-Socket-SSL-1.94-3.el7.noarch

--> Processing Dependency: perl(Net::LibIDN) for package: perl-IO-Socket-SSL-1.94-3.el7.noarch

---> Package perl-TimeDate.noarch 1:2.30-2.el7 will be installed

--> Running transaction check

---> Package perl-Business-ISBN-Data.noarch 0:20120719.001-2.el7 will be installed

---> Package perl-Compress-Raw-Bzip2.x86\_64 0:2.061-3.el7 will be installed

---> Package perl-IO-Socket-IP.noarch 0:0.21-4.el7 will be installed

---> Package perl-Net-LibIDN.x86\_64 0:0.12-15.el7 will be installed

---> Package perl-Net-SSLeay.x86\_64 0:1.55-3.el7 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

==========================================================================================================================================================================================

 Package Arch Version Repository Size

==========================================================================================================================================================================================

Installing:

 fetch-crl noarch 3.0.17-3.el7 epel 50 k

Installing for dependencies:

 mailcap noarch 2.1.41-2.el7 base 31 k

 perl-Business-ISBN noarch 2.06-2.el7 base 25 k

 perl-Business-ISBN-Data noarch 20120719.001-2.el7 base 24 k

 perl-Compress-Raw-Bzip2 x86\_64 2.061-3.el7 base 32 k

 perl-Compress-Raw-Zlib x86\_64 1:2.061-4.el7 base 57 k

 perl-Data-Dumper x86\_64 2.145-3.el7 base 47 k

 perl-Digest noarch 1.17-245.el7 base 23 k

 perl-Digest-MD5 x86\_64 2.52-3.el7 base 30 k

 perl-Encode-Locale noarch 1.03-5.el7 base 16 k

 perl-File-Listing noarch 6.04-7.el7 base 13 k

 perl-HTML-Parser x86\_64 3.71-4.el7 base 115 k

 perl-HTML-Tagset noarch 3.20-15.el7 base 18 k

 perl-HTTP-Cookies noarch 6.01-5.el7 base 26 k

 perl-HTTP-Daemon noarch 6.01-5.el7 base 20 k

 perl-HTTP-Date noarch 6.02-8.el7 base 14 k

 perl-HTTP-Message noarch 6.06-6.el7 base 82 k

 perl-HTTP-Negotiate noarch 6.01-5.el7 base 17 k

 perl-IO-Compress noarch 2.061-2.el7 base 260 k

 perl-IO-HTML noarch 1.00-2.el7 base 23 k

 perl-IO-Socket-IP noarch 0.21-4.el7 base 35 k

 perl-IO-Socket-SSL noarch 1.94-3.el7 base 113 k

 perl-LWP-MediaTypes noarch 6.02-2.el7 base 24 k

 perl-Net-HTTP noarch 6.06-2.el7 base 29 k

 perl-Net-LibIDN x86\_64 0.12-15.el7 base 28 k

 perl-Net-SSLeay x86\_64 1.55-3.el7 base 285 k

 perl-Sys-Syslog x86\_64 0.33-3.el7 base 42 k

 perl-TimeDate noarch 1:2.30-2.el7 base 52 k

 perl-URI noarch 1.60-9.el7 base 106 k

 perl-WWW-RobotRules noarch 6.02-5.el7 base 18 k

 perl-libwww-perl noarch 6.05-2.el7 base 205 k

Transaction Summary

==========================================================================================================================================================================================

Install 1 Package (+30 Dependent packages)

Total download size: 1.8 M

Installed size: 4.4 M

Is this ok [y/d/N]: y

Downloading packages:

(1/31): mailcap-2.1.41-2.el7.noarch.rpm | 31 kB 00:00:00

(2/31): perl-Business-ISBN-Data-20120719.001-2.el7.noarch.rpm | 24 kB 00:00:00

(3/31): perl-Business-ISBN-2.06-2.el7.noarch.rpm | 25 kB 00:00:00

(4/31): perl-Compress-Raw-Bzip2-2.061-3.el7.x86\_64.rpm | 32 kB 00:00:00

(5/31): fetch-crl-3.0.17-3.el7.noarch.rpm | 50 kB 00:00:00

(6/31): perl-Compress-Raw-Zlib-2.061-4.el7.x86\_64.rpm | 57 kB 00:00:00

(7/31): perl-Data-Dumper-2.145-3.el7.x86\_64.rpm | 47 kB 00:00:00

(8/31): perl-Digest-1.17-245.el7.noarch.rpm | 23 kB 00:00:00

(9/31): perl-Digest-MD5-2.52-3.el7.x86\_64.rpm | 30 kB 00:00:00

(10/31): perl-Encode-Locale-1.03-5.el7.noarch.rpm | 16 kB 00:00:00

(11/31): perl-File-Listing-6.04-7.el7.noarch.rpm | 13 kB 00:00:00

(12/31): perl-HTML-Tagset-3.20-15.el7.noarch.rpm | 18 kB 00:00:00

(13/31): perl-HTML-Parser-3.71-4.el7.x86\_64.rpm | 115 kB 00:00:00

(14/31): perl-HTTP-Cookies-6.01-5.el7.noarch.rpm | 26 kB 00:00:00

(15/31): perl-HTTP-Daemon-6.01-5.el7.noarch.rpm | 20 kB 00:00:00

(16/31): perl-HTTP-Date-6.02-8.el7.noarch.rpm | 14 kB 00:00:00

(17/31): perl-HTTP-Message-6.06-6.el7.noarch.rpm | 82 kB 00:00:00

(18/31): perl-HTTP-Negotiate-6.01-5.el7.noarch.rpm | 17 kB 00:00:00

(19/31): perl-IO-HTML-1.00-2.el7.noarch.rpm | 23 kB 00:00:00

(20/31): perl-IO-Compress-2.061-2.el7.noarch.rpm | 260 kB 00:00:00

(21/31): perl-IO-Socket-IP-0.21-4.el7.noarch.rpm | 35 kB 00:00:00

(22/31): perl-LWP-MediaTypes-6.02-2.el7.noarch.rpm | 24 kB 00:00:00

(23/31): perl-IO-Socket-SSL-1.94-3.el7.noarch.rpm | 113 kB 00:00:00

(24/31): perl-Net-HTTP-6.06-2.el7.noarch.rpm | 29 kB 00:00:00

(25/31): perl-Net-SSLeay-1.55-3.el7.x86\_64.rpm | 285 kB 00:00:00

(26/31): perl-Sys-Syslog-0.33-3.el7.x86\_64.rpm | 42 kB 00:00:00

(27/31): perl-TimeDate-2.30-2.el7.noarch.rpm | 52 kB 00:00:00

(28/31): perl-Net-LibIDN-0.12-15.el7.x86\_64.rpm | 28 kB 00:00:00

(29/31): perl-URI-1.60-9.el7.noarch.rpm | 106 kB 00:00:00

(30/31): perl-WWW-RobotRules-6.02-5.el7.noarch.rpm | 18 kB 00:00:00

(31/31): perl-libwww-perl-6.05-2.el7.noarch.rpm | 205 kB 00:00:00

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Total 2.5 MB/s | 1.8 MB 00:00:00

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

 Installing : 1:perl-Compress-Raw-Zlib-2.061-4.el7.x86\_64 1/31

 Installing : perl-Data-Dumper-2.145-3.el7.x86\_64 2/31

 Installing : perl-Encode-Locale-1.03-5.el7.noarch 3/31

 Installing : perl-HTML-Tagset-3.20-15.el7.noarch 4/31

 Installing : perl-Digest-1.17-245.el7.noarch 5/31

 Installing : perl-Digest-MD5-2.52-3.el7.x86\_64 6/31

 Installing : perl-Net-LibIDN-0.12-15.el7.x86\_64 7/31

 Installing : 1:perl-TimeDate-2.30-2.el7.noarch 8/31

 Installing : perl-HTTP-Date-6.02-8.el7.noarch 9/31

 Installing : perl-File-Listing-6.04-7.el7.noarch 10/31

 Installing : perl-Net-SSLeay-1.55-3.el7.x86\_64 11/31

 Installing : perl-Business-ISBN-Data-20120719.001-2.el7.noarch 12/31

 Installing : perl-Business-ISBN-2.06-2.el7.noarch 13/31

 Installing : perl-URI-1.60-9.el7.noarch 14/31

 Installing : perl-WWW-RobotRules-6.02-5.el7.noarch 15/31

 Installing : perl-Sys-Syslog-0.33-3.el7.x86\_64 16/31

 Installing : perl-Compress-Raw-Bzip2-2.061-3.el7.x86\_64 17/31

 Installing : perl-IO-Compress-2.061-2.el7.noarch 18/31

 Installing : perl-IO-HTML-1.00-2.el7.noarch 19/31

 Installing : perl-IO-Socket-IP-0.21-4.el7.noarch 20/31

 Installing : perl-IO-Socket-SSL-1.94-3.el7.noarch 21/31

 Installing : perl-Net-HTTP-6.06-2.el7.noarch 22/31

 Installing : mailcap-2.1.41-2.el7.noarch 23/31

 Installing : perl-LWP-MediaTypes-6.02-2.el7.noarch 24/31

 Installing : perl-HTTP-Message-6.06-6.el7.noarch 25/31

 Installing : perl-HTTP-Cookies-6.01-5.el7.noarch 26/31

 Installing : perl-HTML-Parser-3.71-4.el7.x86\_64 27/31

 Installing : perl-HTTP-Daemon-6.01-5.el7.noarch 28/31

 Installing : perl-HTTP-Negotiate-6.01-5.el7.noarch 29/31

 Installing : perl-libwww-perl-6.05-2.el7.noarch 30/31

 Installing : fetch-crl-3.0.17-3.el7.noarch 31/31

 Verifying : fetch-crl-3.0.17-3.el7.noarch 1/31

 Verifying : perl-Business-ISBN-2.06-2.el7.noarch 2/31

 Verifying : mailcap-2.1.41-2.el7.noarch 3/31

 Verifying : perl-HTTP-Cookies-6.01-5.el7.noarch 4/31

 Verifying : perl-IO-Socket-IP-0.21-4.el7.noarch 5/31

 Verifying : perl-IO-HTML-1.00-2.el7.noarch 6/31

 Verifying : perl-Compress-Raw-Bzip2-2.061-3.el7.x86\_64 7/31

 Verifying : perl-HTML-Parser-3.71-4.el7.x86\_64 8/31

 Verifying : perl-LWP-MediaTypes-6.02-2.el7.noarch 9/31

 Verifying : perl-WWW-RobotRules-6.02-5.el7.noarch 10/31

 Verifying : perl-Digest-MD5-2.52-3.el7.x86\_64 11/31

 Verifying : perl-HTTP-Date-6.02-8.el7.noarch 12/31

 Verifying : perl-HTTP-Message-6.06-6.el7.noarch 13/31

 Verifying : perl-Sys-Syslog-0.33-3.el7.x86\_64 14/31

 Verifying : perl-Encode-Locale-1.03-5.el7.noarch 15/31

 Verifying : perl-Business-ISBN-Data-20120719.001-2.el7.noarch 16/31

 Verifying : perl-Data-Dumper-2.145-3.el7.x86\_64 17/31

 Verifying : perl-HTTP-Daemon-6.01-5.el7.noarch 18/31

 Verifying : perl-Net-SSLeay-1.55-3.el7.x86\_64 19/31

 Verifying : perl-HTTP-Negotiate-6.01-5.el7.noarch 20/31

 Verifying : 1:perl-Compress-Raw-Zlib-2.061-4.el7.x86\_64 21/31

 Verifying : perl-File-Listing-6.04-7.el7.noarch 22/31

 Verifying : perl-IO-Compress-2.061-2.el7.noarch 23/31

 Verifying : perl-Net-HTTP-6.06-2.el7.noarch 24/31

 Verifying : 1:perl-TimeDate-2.30-2.el7.noarch 25/31

 Verifying : perl-IO-Socket-SSL-1.94-3.el7.noarch 26/31

 Verifying : perl-Net-LibIDN-0.12-15.el7.x86\_64 27/31

 Verifying : perl-Digest-1.17-245.el7.noarch 28/31

 Verifying : perl-HTML-Tagset-3.20-15.el7.noarch 29/31

 Verifying : perl-URI-1.60-9.el7.noarch 30/31

 Verifying : perl-libwww-perl-6.05-2.el7.noarch 31/31

Installed:

 fetch-crl.noarch 0:3.0.17-3.el7

Dependency Installed:

 mailcap.noarch 0:2.1.41-2.el7 perl-Business-ISBN.noarch 0:2.06-2.el7 perl-Business-ISBN-Data.noarch 0:20120719.001-2.el7 perl-Compress-Raw-Bzip2.x86\_64 0:2.061-3.el7

 perl-Compress-Raw-Zlib.x86\_64 1:2.061-4.el7 perl-Data-Dumper.x86\_64 0:2.145-3.el7 perl-Digest.noarch 0:1.17-245.el7 perl-Digest-MD5.x86\_64 0:2.52-3.el7

 perl-Encode-Locale.noarch 0:1.03-5.el7 perl-File-Listing.noarch 0:6.04-7.el7 perl-HTML-Parser.x86\_64 0:3.71-4.el7 perl-HTML-Tagset.noarch 0:3.20-15.el7

 perl-HTTP-Cookies.noarch 0:6.01-5.el7 perl-HTTP-Daemon.noarch 0:6.01-5.el7 perl-HTTP-Date.noarch 0:6.02-8.el7 perl-HTTP-Message.noarch 0:6.06-6.el7

 perl-HTTP-Negotiate.noarch 0:6.01-5.el7 perl-IO-Compress.noarch 0:2.061-2.el7 perl-IO-HTML.noarch 0:1.00-2.el7 perl-IO-Socket-IP.noarch 0:0.21-4.el7

 perl-IO-Socket-SSL.noarch 0:1.94-3.el7 perl-LWP-MediaTypes.noarch 0:6.02-2.el7 perl-Net-HTTP.noarch 0:6.06-2.el7 perl-Net-LibIDN.x86\_64 0:0.12-15.el7

 perl-Net-SSLeay.x86\_64 0:1.55-3.el7 perl-Sys-Syslog.x86\_64 0:0.33-3.el7 perl-TimeDate.noarch 1:2.30-2.el7 perl-URI.noarch 0:1.60-9.el7

 perl-WWW-RobotRules.noarch 0:6.02-5.el7 perl-libwww-perl.noarch 0:6.05-2.el7

Complete!

[root@qcg-c7 ~]# /usr/sbin/fetch-crl

[root@qcg-c7 ~]# systemctl enable fetch-crl-cron

Created symlink from /etc/systemd/system/multi-user.target.wants/fetch-crl-cron.service to /usr/lib/systemd/system/fetch-crl-cron.service.

[root@qcg-c7 ~]# systemctl start fetch-crl-cron

[root@qcg-c7 ~]# /usr/share/qcg-comp/tools/qcg-comp-install.sh

Welcome to qcg-comp installation script!

This script will guide you through process of configuring proper environment

for running the QCG Computing service. You have to answer few questions regarding

parameters of your database. If you are not sure just press Enter and use the

default values.

Use local PostgreSQL server? (y/n) [y]:

Database [qcg-comp]:

User [qcg-comp]:

Password [mpiM14zaPEf2AiKEMrlZ7MEC+Us4YFPN]:

Create database? (y/n) [y]:

Create user? (y/n) [y]:

Checking for system user qcg-comp...OK

Checking whether PostgreSQL server is installed...OK

Checking whether PostgreSQL server is running...OK

Performing installation

 \* Creating user qcg-comp...OK

 \* Creating database qcg-comp...OK

 \* Creating database schema...OK

 \* Checking for ODBC data source qcg-comp...OK

Remember to add appropriate entry to /var/lib/pgsql/data/pg\_hba.conf (as the first rule!) to allow user qcg-comp to

access database qcg-comp. For instance:

host qcg-comp qcg-comp 127.0.0.1/32 md5

and reload Postgres server.

[root@qcg-c7 ~]# grep qcg-comp /var/lib/pgsql/data/pg\_hba.conf

host qcg-comp qcg-comp 127.0.0.1/32 md5

[root@qcg-c7 ~]# systemctl reload postgresql

[root@qcg-c7 ~]# echo '"/C=PL/O=GRID/O=PSNC/CN=Piotr Kopta" plgkopta' >> /etc/grid-security/grid-mapfile

[root@qcg-c7 ~]# yum install qcg-appscripts

Loaded plugins: fastestmirror, priorities

Loading mirror speeds from cached hostfile

 \* base: centos2.hti.pl

 \* epel: ftp.ps.pl

 \* extras: centos2.hti.pl

 \* updates: centos1.hti.pl

132 packages excluded due to repository priority protections

Resolving Dependencies

--> Running transaction check

---> Package qcg-appscripts.noarch 0:4.0.0-18 will be installed

--> Processing Dependency: openssl-devel for package: qcg-appscripts-4.0.0-18.noarch

--> Processing Dependency: gcc for package: qcg-appscripts-4.0.0-18.noarch

--> Running transaction check

---> Package gcc.x86\_64 0:4.8.5-4.el7 will be installed

--> Processing Dependency: cpp = 4.8.5-4.el7 for package: gcc-4.8.5-4.el7.x86\_64

--> Processing Dependency: libmpfr.so.4()(64bit) for package: gcc-4.8.5-4.el7.x86\_64

--> Processing Dependency: libmpc.so.3()(64bit) for package: gcc-4.8.5-4.el7.x86\_64

---> Package openssl-devel.x86\_64 1:1.0.1e-51.el7\_2.5 will be installed

--> Processing Dependency: zlib-devel(x86-64) for package: 1:openssl-devel-1.0.1e-51.el7\_2.5.x86\_64

--> Processing Dependency: krb5-devel(x86-64) for package: 1:openssl-devel-1.0.1e-51.el7\_2.5.x86\_64

--> Running transaction check

---> Package cpp.x86\_64 0:4.8.5-4.el7 will be installed

---> Package krb5-devel.x86\_64 0:1.13.2-12.el7\_2 will be installed

--> Processing Dependency: libverto-devel for package: krb5-devel-1.13.2-12.el7\_2.x86\_64

--> Processing Dependency: libselinux-devel for package: krb5-devel-1.13.2-12.el7\_2.x86\_64

--> Processing Dependency: libcom\_err-devel for package: krb5-devel-1.13.2-12.el7\_2.x86\_64

--> Processing Dependency: keyutils-libs-devel for package: krb5-devel-1.13.2-12.el7\_2.x86\_64

---> Package libmpc.x86\_64 0:1.0.1-3.el7 will be installed

---> Package mpfr.x86\_64 0:3.1.1-4.el7 will be installed

---> Package zlib-devel.x86\_64 0:1.2.7-15.el7 will be installed

--> Running transaction check

---> Package keyutils-libs-devel.x86\_64 0:1.5.8-3.el7 will be installed

---> Package libcom\_err-devel.x86\_64 0:1.42.9-7.el7 will be installed

---> Package libselinux-devel.x86\_64 0:2.2.2-6.el7 will be installed

--> Processing Dependency: libsepol-devel >= 2.1.9-1 for package: libselinux-devel-2.2.2-6.el7.x86\_64

--> Processing Dependency: pkgconfig(libsepol) for package: libselinux-devel-2.2.2-6.el7.x86\_64

--> Processing Dependency: pkgconfig(libpcre) for package: libselinux-devel-2.2.2-6.el7.x86\_64

---> Package libverto-devel.x86\_64 0:0.2.5-4.el7 will be installed

--> Running transaction check

---> Package libsepol-devel.x86\_64 0:2.1.9-3.el7 will be installed

---> Package pcre-devel.x86\_64 0:8.32-15.el7\_2.1 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

==========================================================================================================================================================================================

 Package Arch Version Repository Size

==========================================================================================================================================================================================

Installing:

 qcg-appscripts noarch 4.0.0-18 QCG.qcg-comp.centos7.x86\_64 88 k

Installing for dependencies:

 cpp x86\_64 4.8.5-4.el7 base 5.9 M

 gcc x86\_64 4.8.5-4.el7 base 16 M

 keyutils-libs-devel x86\_64 1.5.8-3.el7 base 37 k

 krb5-devel x86\_64 1.13.2-12.el7\_2 updates 649 k

 libcom\_err-devel x86\_64 1.42.9-7.el7 base 30 k

 libmpc x86\_64 1.0.1-3.el7 base 51 k

 libselinux-devel x86\_64 2.2.2-6.el7 base 174 k

 libsepol-devel x86\_64 2.1.9-3.el7 base 71 k

 libverto-devel x86\_64 0.2.5-4.el7 base 12 k

 mpfr x86\_64 3.1.1-4.el7 base 203 k

 openssl-devel x86\_64 1:1.0.1e-51.el7\_2.5 updates 1.2 M

 pcre-devel x86\_64 8.32-15.el7\_2.1 updates 479 k

 zlib-devel x86\_64 1.2.7-15.el7 base 50 k

Transaction Summary

==========================================================================================================================================================================================

Install 1 Package (+13 Dependent packages)

Total download size: 25 M

Installed size: 59 M

Is this ok [y/d/N]: y

Downloading packages:

(1/14): cpp-4.8.5-4.el7.x86\_64.rpm | 5.9 MB 00:00:00

(2/14): keyutils-libs-devel-1.5.8-3.el7.x86\_64.rpm | 37 kB 00:00:00

(3/14): libcom\_err-devel-1.42.9-7.el7.x86\_64.rpm | 30 kB 00:00:00

(4/14): gcc-4.8.5-4.el7.x86\_64.rpm | 16 MB 00:00:00

(5/14): libmpc-1.0.1-3.el7.x86\_64.rpm | 51 kB 00:00:00

(6/14): krb5-devel-1.13.2-12.el7\_2.x86\_64.rpm | 649 kB 00:00:00

(7/14): libsepol-devel-2.1.9-3.el7.x86\_64.rpm | 71 kB 00:00:00

(8/14): libselinux-devel-2.2.2-6.el7.x86\_64.rpm | 174 kB 00:00:00

(9/14): libverto-devel-0.2.5-4.el7.x86\_64.rpm | 12 kB 00:00:00

(10/14): mpfr-3.1.1-4.el7.x86\_64.rpm | 203 kB 00:00:00

(11/14): zlib-devel-1.2.7-15.el7.x86\_64.rpm | 50 kB 00:00:00

(12/14): openssl-devel-1.0.1e-51.el7\_2.5.x86\_64.rpm | 1.2 MB 00:00:00

(13/14): pcre-devel-8.32-15.el7\_2.1.x86\_64.rpm | 479 kB 00:00:00

(14/14): qcg-appscripts-4.0.0-18.centos7.noarch.rpm | 88 kB 00:00:00

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Total 16 MB/s | 25 MB 00:00:01

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

 Installing : mpfr-3.1.1-4.el7.x86\_64 1/14

 Installing : libmpc-1.0.1-3.el7.x86\_64 2/14

 Installing : cpp-4.8.5-4.el7.x86\_64 3/14

 Installing : gcc-4.8.5-4.el7.x86\_64 4/14

 Installing : libcom\_err-devel-1.42.9-7.el7.x86\_64 5/14

 Installing : pcre-devel-8.32-15.el7\_2.1.x86\_64 6/14

 Installing : keyutils-libs-devel-1.5.8-3.el7.x86\_64 7/14

 Installing : libverto-devel-0.2.5-4.el7.x86\_64 8/14

 Installing : libsepol-devel-2.1.9-3.el7.x86\_64 9/14

 Installing : libselinux-devel-2.2.2-6.el7.x86\_64 10/14

 Installing : krb5-devel-1.13.2-12.el7\_2.x86\_64 11/14

 Installing : zlib-devel-1.2.7-15.el7.x86\_64 12/14

 Installing : 1:openssl-devel-1.0.1e-51.el7\_2.5.x86\_64 13/14

 Installing : qcg-appscripts-4.0.0-18.noarch 14/14

Please read installation instructions in /usr/share/qcg-appscripts/INSTALL file

 Verifying : zlib-devel-1.2.7-15.el7.x86\_64 1/14

 Verifying : qcg-appscripts-4.0.0-18.noarch 2/14

 Verifying : gcc-4.8.5-4.el7.x86\_64 3/14

 Verifying : cpp-4.8.5-4.el7.x86\_64 4/14

 Verifying : libsepol-devel-2.1.9-3.el7.x86\_64 5/14

 Verifying : libverto-devel-0.2.5-4.el7.x86\_64 6/14

 Verifying : mpfr-3.1.1-4.el7.x86\_64 7/14

 Verifying : keyutils-libs-devel-1.5.8-3.el7.x86\_64 8/14

 Verifying : pcre-devel-8.32-15.el7\_2.1.x86\_64 9/14

 Verifying : libmpc-1.0.1-3.el7.x86\_64 10/14

 Verifying : 1:openssl-devel-1.0.1e-51.el7\_2.5.x86\_64 11/14

 Verifying : libcom\_err-devel-1.42.9-7.el7.x86\_64 12/14

 Verifying : libselinux-devel-2.2.2-6.el7.x86\_64 13/14

 Verifying : krb5-devel-1.13.2-12.el7\_2.x86\_64 14/14

Installed:

 qcg-appscripts.noarch 0:4.0.0-18

Dependency Installed:

 cpp.x86\_64 0:4.8.5-4.el7 gcc.x86\_64 0:4.8.5-4.el7 keyutils-libs-devel.x86\_64 0:1.5.8-3.el7 krb5-devel.x86\_64 0:1.13.2-12.el7\_2

 libcom\_err-devel.x86\_64 0:1.42.9-7.el7 libmpc.x86\_64 0:1.0.1-3.el7 libselinux-devel.x86\_64 0:2.2.2-6.el7 libsepol-devel.x86\_64 0:2.1.9-3.el7

 libverto-devel.x86\_64 0:0.2.5-4.el7 mpfr.x86\_64 0:3.1.1-4.el7 openssl-devel.x86\_64 1:1.0.1e-51.el7\_2.5 pcre-devel.x86\_64 0:8.32-15.el7\_2.1

 zlib-devel.x86\_64 0:1.2.7-15.el7

Complete!

[root@qcg-c7 ~]# vim /etc/qcg/qcg-comp/app-scripts/config

[root@qcg-c7 ~]# qcg-appscripts-deploy

cluster shared path [/home/qcg/q-app-scripts-c7] ...

QCG application scripts deployed successfully

[root@qcg-c7 ~]# vim /etc/qcg/qcg-comp/application\_mapfile

[root@qcg-c7 ~]# grep bash /etc/qcg/qcg-comp/application\_mapfile

bash \* /home/qcg/q-app-scripts-c7/apps/bash.app

*For standard Torque version, installed from repository, there is proper pbs-drmaa library package in repository. In this case, the Torque package was in older version, so the drmaa library must be compiled from sources.*

[root@qcg-c7 ~]# yum install gcc-c++ libtool

Loaded plugins: fastestmirror, priorities

Loading mirror speeds from cached hostfile

 \* base: centos2.hti.pl

 \* epel: ftp.ps.pl

 \* extras: centos1.hti.pl

 \* updates: centos2.hti.pl

132 packages excluded due to repository priority protections

Resolving Dependencies

--> Running transaction check

---> Package gcc-c++.x86\_64 0:4.8.5-4.el7 will be installed

---> Package libtool.x86\_64 0:2.4.2-21.el7\_2 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

==========================================================================================================================================================================================

 Package Arch Version Repository Size

==========================================================================================================================================================================================

Installing:

 gcc-c++ x86\_64 4.8.5-4.el7 base 7.2 M

 libtool x86\_64 2.4.2-21.el7\_2 updates 588 k

Transaction Summary

==========================================================================================================================================================================================

Install 2 Packages

Total download size: 7.7 M

Installed size: 19 M

Is this ok [y/d/N]: y

Downloading packages:

(1/2): gcc-c++-4.8.5-4.el7.x86\_64.rpm | 7.2 MB 00:00:00

(2/2): libtool-2.4.2-21.el7\_2.x86\_64.rpm | 588 kB 00:00:00

------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Total 21 MB/s | 7.7 MB 00:00:00

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

 Installing : gcc-c++-4.8.5-4.el7.x86\_64 1/2

 Installing : libtool-2.4.2-21.el7\_2.x86\_64 2/2

 Verifying : libtool-2.4.2-21.el7\_2.x86\_64 1/2

 Verifying : gcc-c++-4.8.5-4.el7.x86\_64 2/2

Installed:

 gcc-c++.x86\_64 0:4.8.5-4.el7 libtool.x86\_64 0:2.4.2-21.el7\_2

Complete!

[plgkopta@qcg-c7 ~]$ wget -O pbs-drmaa-1.0.19.tar.gz http://downloads.sourceforge.net/project/pbspro-drmaa/pbs-drmaa/1.0/pbs-drmaa-1.0.19.tar.gz?r=https%3A%2F%2Fsourceforge.net%2Fprojects%2Fpbspro-drmaa%2F&ts=1466172736&use\_mirror=jaist

[1] 2198

[2] 2199

[plgkopta@qcg-c7 ~]$ --2016-07-11 12:08:24-- http://downloads.sourceforge.net/project/pbspro-drmaa/pbs-drmaa/1.0/pbs-drmaa-1.0.19.tar.gz?r=https%3A%2F%2Fsourceforge.net%2Fprojects%2Fpbspro-drmaa%2F

Resolving downloads.sourceforge.net (downloads.sourceforge.net)... 216.34.181.59

Connecting to downloads.sourceforge.net (downloads.sourceforge.net)|216.34.181.59|:80... connected.

HTTP request sent, awaiting response... 302 Found

Location: http://tenet.dl.sourceforge.net/project/pbspro-drmaa/pbs-drmaa/1.0/pbs-drmaa-1.0.19.tar.gz [following]

--2016-07-11 12:08:24-- http://tenet.dl.sourceforge.net/project/pbspro-drmaa/pbs-drmaa/1.0/pbs-drmaa-1.0.19.tar.gz

Resolving tenet.dl.sourceforge.net (tenet.dl.sourceforge.net)... 155.232.191.245, 2001:4200:fffc::245

Connecting to tenet.dl.sourceforge.net (tenet.dl.sourceforge.net)|155.232.191.245|:80... connected.

HTTP request sent, awaiting response... 200 OK

Length: 802762 (784K) [application/x-gzip]

Saving to: ‘pbs-drmaa-1.0.19.tar.gz’

100%[================================================================================================================================================>] 802,762 596KB/s in 1.3s

2016-07-11 12:08:27 (596 KB/s) - ‘pbs-drmaa-1.0.19.tar.gz’ saved [802762/802762]

[1]- Done wget -O pbs-drmaa-1.0.19.tar.gz http://downloads.sourceforge.net/project/pbspro-drmaa/pbs-drmaa/1.0/pbs-drmaa-1.0.19.tar.gz?r=https%3A%2F%2Fsourceforge.net%2Fprojects%2Fpbspro-drmaa%2F

[2]+ Done ts=1466172736

[plgkopta@qcg-c7 ~]$ tar xzf pbs-drmaa-1.0.19.tar.gz

[plgkopta@qcg-c7 ~]$ cd pbs-drmaa-1.0.19

[plgkopta@qcg-c7 pbs-drmaa-1.0.19]$ ./configure --prefix=/opt/qcg/dependencies --sysconfdir=/opt/qcg/dependencies/etc CPPFLAGS='-fstack-protector-all -I/usr/include/torque/'

[plgkopta@qcg-c7 pbs-drmaa-1.0.19]$ make

[plgkopta@qcg-c7 pbs-drmaa-1.0.19]$ sudo make install

[root@qcg-c7 ~]# vim /etc/qcg/qcg-comp/qcg-compd.xml

[root@qcg-c7 ~]# ls -l /etc/grid-security/host{cert,key}.pem

-rw-r--r-- 1 root root 1915 Jun 16 15:00 /etc/grid-security/hostcert.pem

-r-------- 1 root root 3272 Jun 16 15:05 /etc/grid-security/hostkey.pem

[root@qcg-c7 ~]# systemctl enable qcg-compd

qcg-compd.service is not a native service, redirecting to /sbin/chkconfig.

Executing /sbin/chkconfig qcg-compd on

[root@qcg-c7 ~]# systemctl start qcg-compd

## Generic criteria – X.509 Certificate support

[root@qcg-c7 ~]# grep X509 /etc/qcg/qcg-comp/qcg-compd.xml

 <sm:X509CertFile>/etc/grid-security/hostcert.pem</sm:X509CertFile>

 <sm:X509KeyFile>/etc/grid-security/hostkey.pem</sm:X509KeyFile>

[root@qcg-c7 ~]# openssl x509 -text -noout -in /etc/grid-security/hostcert.pem

Certificate:

 Data:

 Version: 3 (0x2)

 Serial Number: 6760406215989003151 (0x5dd1c9a2a15e038f)

 Signature Algorithm: sha256WithRSAEncryption

 Issuer: C=PL, O=GRID, CN=Polish Grid CA

 Validity

 Not Before: Apr 28 13:46:08 2016 GMT

 Not After : May 29 13:46:08 2017 GMT

 Subject: C=PL, O=GRID, O=PSNC, CN=qcg-c7.inula.man.poznan.pl

 Subject Public Key Info:

 Public Key Algorithm: rsaEncryption

 Public-Key: (4096 bit)

 Modulus:

 00:e4:97:ea:14:e1:e1:45:25:7e:56:6a:62:d4:68:

 65:5d:d0:29:60:37:92:e2:f5:0c:d7:4d:7a:cf:d4:

 06:91:7f:eb:ae:6c:05:54:10:8b:48:cd:10:10:98:

 97:99:3c:c9:13:1c:33:8e:2c:de:4f:7e:bd:63:6c:

 b4:eb:7a:a1:c1:53:53:d5:86:32:8c:5f:bb:f0:f9:

 0a:b3:bc:ce:76:53:e8:38:9a:07:4b:60:9d:6a:10:

 e8:d5:de:23:e4:3b:5c:f6:c2:33:83:09:10:9c:2f:

 f3:af:f0:3d:55:a2:88:56:b0:0c:83:5b:4b:83:1b:

 60:3c:08:a9:68:57:b6:ca:3b:12:5d:88:c3:ed:a6:

 d2:80:3d:23:d2:e9:69:7c:70:82:3b:e8:59:ce:46:

 98:9f:df:55:e9:5b:61:b3:ee:24:f0:9b:4b:48:71:

 83:b9:b5:c4:e1:08:94:f8:59:19:b8:6d:e9:27:a0:

 0e:5d:5c:2a:b1:ac:c6:f8:a9:47:4b:f3:95:52:14:

 db:cf:d9:b0:ca:6a:98:3d:00:4f:9d:e0:b6:0d:ac:

 fa:a0:e2:98:62:5f:ab:00:07:74:2b:1a:74:31:c8:

 f1:91:e0:4f:4a:d0:b0:9e:db:33:c6:ee:be:d0:24:

 dd:a3:bc:3e:98:2a:e3:76:20:b9:a5:c5:a7:b1:c6:

 65:e8:d6:19:a9:62:88:83:15:ac:ba:7c:2f:a1:c3:

 c3:ee:7f:a5:f6:ad:64:ce:4f:21:34:ec:2d:e3:92:

 e6:17:fa:11:c2:fa:17:6e:19:ad:01:44:8c:a6:ac:

 1a:db:b8:8f:9b:7e:f0:98:e0:b3:b0:99:d2:47:02:

 1d:b0:5b:53:bf:2d:fd:24:d4:f4:f7:2e:42:b2:42:

 49:5b:a7:82:65:5e:ba:d8:ca:de:5d:01:9e:7a:12:

 13:17:94:bd:18:6d:3a:97:22:88:ea:6e:8e:7e:58:

 d3:0b:09:ec:0d:de:0c:e6:fc:f2:04:78:e8:96:d8:

 9e:0a:a4:f7:fc:a3:40:1d:f2:da:4e:6f:97:2a:d7:

 d2:45:ff:4f:19:7c:e3:e4:dc:b2:22:cc:af:6f:59:

 95:bd:7f:f7:56:47:74:32:26:22:09:86:bb:e7:b7:

 09:36:cd:68:86:e9:a6:56:58:c4:51:e1:1b:36:a5:

 b3:a4:3f:27:76:80:3f:8b:0b:31:5e:12:ba:7d:ba:

 ce:94:2e:79:43:e4:d1:8f:92:7c:d7:81:be:5c:f9:

 7a:d1:14:aa:43:3a:b5:56:4f:a0:b0:d0:ec:1f:cd:

 f4:21:fa:26:04:b3:60:41:25:74:7e:24:93:df:7a:

 57:5d:02:de:64:11:02:fc:36:7a:71:35:a1:32:65:

 e3:7b:eb

 Exponent: 65537 (0x10001)

 X509v3 extensions:

 X509v3 Subject Key Identifier:

 0F:81:14:A9:B6:AC:34:EC:26:DE:67:2E:C6:AA:CE:B0:5E:F1:01:1C

 X509v3 Basic Constraints: critical

 CA:FALSE

 X509v3 Authority Key Identifier:

 keyid:3C:2A:A1:84:45:6E:6F:94:F6:47:62:48:01:C1:B7:83:8F:CD:10:3D

 X509v3 Certificate Policies:

 Policy: 1.2.840.113612.5.2.2.1

 Policy: 1.3.6.1.4.1.2698.1.5.1.0.6

 CPS: http://www.man.poznan.pl/plgrid-ca/ca-policy.html

 X509v3 CRL Distribution Points:

 Full Name:

 URI:http://www.man.poznan.pl/plgrid-ca/crl.der

 X509v3 Key Usage: critical

 Digital Signature, Key Encipherment, Data Encipherment

 X509v3 Extended Key Usage:

 TLS Web Server Authentication, TLS Web Client Authentication

 X509v3 Subject Alternative Name:

 DNS:qcg-c7.inula.man.poznan.pl

 Signature Algorithm: sha256WithRSAEncryption

 1b:fc:f8:96:d9:c5:a7:6d:da:6a:5c:04:ff:fd:f9:4e:fd:e8:

 59:00:81:b8:ec:b8:2f:f8:e1:8a:b4:dd:b8:f0:3b:6f:23:7a:

 87:84:44:56:c0:e4:70:9c:3d:e1:96:3d:3a:38:94:52:5d:8b:

 e9:19:3a:12:63:25:c1:76:9e:6d:a5:19:ab:f8:bf:1b:27:ac:

 15:76:ef:7c:7f:56:af:fd:ac:fc:06:a4:61:48:ef:6f:3a:85:

 87:60:0e:53:34:85:4f:c6:fa:01:8b:54:52:c5:1e:ad:92:0b:

 f8:c7:14:b3:60:33:b6:00:3e:2f:73:97:3b:5d:9d:a1:35:86:

 6d:08:10:ed:ac:45:3f:56:3e:75:7b:3b:d4:f6:0e:e3:c1:16:

 0e:7d:90:79:d8:54:36:17:be:41:d5:76:22:50:af:b8:6e:26:

 f8:b8:7e:da:8d:0f:ea:16:68:eb:3c:b0:a1:b1:36:6e:69:3e:

 29:d5:ac:b0:14:ea:2a:72:fc:50:c5:9a:82:2b:17:10:79:ea:

 56:44:cd:d5:8a:d9:e5:fb:ca:e8:26:b9:d0:4f:5c:d7:2d:56:

 70:c8:dc:6a:97:8f:35:29:c1:b4:9c:c9:4b:17:2d:d8:fd:97:

 93:6a:28:ed:f8:93:e3:56:10:cb:df:7b:25:8c:d1:46:17:03:

 24:0e:18:f3

## Generic criteria – RFC Proxy support

[root@qcg-c7 ~]# yum install globus-proxy-utils

Loaded plugins: fastestmirror, priorities

Loading mirror speeds from cached hostfile

 \* base: centos2.hti.pl

 \* epel: ftp.ps.pl

 \* extras: centos1.hti.pl

 \* updates: centos2.hti.pl

132 packages excluded due to repository priority protections

Resolving Dependencies

--> Running transaction check

---> Package globus-proxy-utils.x86\_64 0:6.15-1.el7 will be installed

--> Processing Dependency: libglobus\_gss\_assist.so.3()(64bit) for package: globus-proxy-utils-6.15-1.el7.x86\_64

--> Running transaction check

---> Package globus-gss-assist.x86\_64 0:10.15-1.el7 will be installed

--> Processing Dependency: libglobus\_callout.so.0()(64bit) for package: globus-gss-assist-10.15-1.el7.x86\_64

--> Running transaction check

---> Package globus-callout.x86\_64 0:3.14-1.el7 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

==========================================================================================================================================================================================

 Package Arch Version Repository Size

==========================================================================================================================================================================================

Installing:

 globus-proxy-utils x86\_64 6.15-1.el7 epel 53 k

Installing for dependencies:

 globus-callout x86\_64 3.14-1.el7 epel 21 k

 globus-gss-assist x86\_64 10.15-1.el7 epel 35 k

Transaction Summary

==========================================================================================================================================================================================

Install 1 Package (+2 Dependent packages)

Total download size: 108 k

Installed size: 215 k

Is this ok [y/d/N]: y

Downloading packages:

(1/3): globus-gss-assist-10.15-1.el7.x86\_64.rpm | 35 kB 00:00:00

(2/3): globus-callout-3.14-1.el7.x86\_64.rpm | 21 kB 00:00:00

(3/3): globus-proxy-utils-6.15-1.el7.x86\_64.rpm | 53 kB 00:00:00

------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Total 240 kB/s | 108 kB 00:00:00

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

 Installing : globus-callout-3.14-1.el7.x86\_64 1/3

 Installing : globus-gss-assist-10.15-1.el7.x86\_64 2/3

 Installing : globus-proxy-utils-6.15-1.el7.x86\_64 3/3

 Verifying : globus-proxy-utils-6.15-1.el7.x86\_64 1/3

 Verifying : globus-gss-assist-10.15-1.el7.x86\_64 2/3

 Verifying : globus-callout-3.14-1.el7.x86\_64 3/3

Installed:

 globus-proxy-utils.x86\_64 0:6.15-1.el7

Dependency Installed:

 globus-callout.x86\_64 0:3.14-1.el7 globus-gss-assist.x86\_64 0:10.15-1.el7

Complete!

[plgkopta@qcg-c7 ~]$ grid-proxy-init -rfc

Your identity: /C=PL/O=GRID/O=PSNC/CN=Piotr Kopta

Enter GRID pass phrase for this identity:

Creating proxy .................................. Done

Your proxy is valid until: Tue Jul 12 00:29:39 2016

[plgkopta@qcg-c7 ~]$ grid-proxy-info

subject : /C=PL/O=GRID/O=PSNC/CN=Piotr Kopta/CN=66571723

issuer : /C=PL/O=GRID/O=PSNC/CN=Piotr Kopta

identity : /C=PL/O=GRID/O=PSNC/CN=Piotr Kopta

type : RFC 3820 compliant impersonation proxy

strength : 1024 bits

path : /tmp/x509up\_u40050

timeleft : 11:59:51

[root@qcg-c7 plgkopta]# yum install qcg-comp-client

Loaded plugins: fastestmirror, priorities

Loading mirror speeds from cached hostfile

 \* base: centos2.hti.pl

 \* epel: ftp.ps.pl

 \* extras: centos1.hti.pl

 \* updates: centos2.hti.pl

132 packages excluded due to repository priority protections

Resolving Dependencies

--> Running transaction check

---> Package qcg-comp-client.x86\_64 0:4.0.0-13 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

==========================================================================================================================================================================================

 Package Arch Version Repository Size

==========================================================================================================================================================================================

Installing:

 qcg-comp-client x86\_64 4.0.0-13 QCG.qcg-comp.centos7.x86\_64 310 k

Transaction Summary

==========================================================================================================================================================================================

Install 1 Package

Total download size: 310 k

Installed size: 1.5 M

Is this ok [y/d/N]: y

Downloading packages:

qcg-comp-client-4.0.0-13.centos7.x86\_64.rpm | 310 kB 00:00:01

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

 Installing : qcg-comp-client-4.0.0-13.x86\_64 1/1

 Verifying : qcg-comp-client-4.0.0-13.x86\_64 1/1

Installed:

 qcg-comp-client.x86\_64 0:4.0.0-13

Complete!

# The service URL must be set in client configuration file.

[root@qcg-c7 qcg-comp]# vim /etc/qcg/qcg-comp/qcg-comp.xml

[plgkopta@qcg-c7 ~]$ qcg-comp -G | xmllint --format - | (head -n 5; tail -n 3)

<?xml version="1.0"?>

<bes-factory:FactoryResourceAttributesDocument xmlns:bes-factory="http://schemas.ggf.org/bes/2006/08/bes-factory">

 <bes-factory:IsAcceptingNewActivities>true</bes-factory:IsAcceptingNewActivities>

 <bes-factory:CommonName>qcg-c7.inula.man.poznan.pl</bes-factory:CommonName>

 <bes-factory:LongDescription>QCG enabled cluster</bes-factory:LongDescription>

 <qcf:VersionString xmlns:qcf="http://schemas.qoscosgrid.org/comp/2011/04/factory">4.0.0</qcf:VersionString>

 <qcf:NotificationProviderURL xmlns:qcf="http://schemas.qoscosgrid.org/comp/2011/04/factory">http://frontend.example.com:19001/</qcf:NotificationProviderURL>

</bes-factory:FactoryResourceAttributesDocument>

## Generic criteria – SHA-2 Certificates Support

[root@qcg-c7 ~]# openssl x509 -text -noout -in /etc/grid-security/hostcert.pem | grep "Signature Algorithm"

 Signature Algorithm: sha256WithRSAEncryption

 Signature Algorithm: sha256WithRSAEncryption

## Generic criteria - World Writable Files

[root@qcg-c7 ~]# find /{bin,etc,lib,lib64,root,sbin,tmp,usr,var} -regex "/\(proc\|selinux\)" -prune -o -perm -0002 -type f -ls

[root@qcg-c7 ~]# find /opt/qcg -prune -o -perm -0002 -type f -ls

## Generic criteria - Passwords in world readable files

[root@qcg-c7 ~]# ls -l /etc/qcg/qcg-comp/qcg-compd.xml

-rw------- 1 qcg-comp root 3079 Jul 11 14:16 /etc/qcg/qcg-comp/qcg-compd.xml

## Generic criteria - GlueSchema 1.3 Support

[root@qcg-c7 ~]# yum install emi-resource-information-service

Loaded plugins: fastestmirror, priorities

Loading mirror speeds from cached hostfile

 \* base: centos2.hti.pl

 \* epel: ftp.ps.pl

 \* extras: centos1.hti.pl

 \* updates: centos2.hti.pl

132 packages excluded due to repository priority protections

Resolving Dependencies

--> Running transaction check

---> Package emi-resource-information-service.noarch 0:1.0.4-1.el7.cern will be installed

--> Processing Dependency: glue-validator for package: emi-resource-information-service-1.0.4-1.el7.cern.noarch

--> Processing Dependency: bdii for package: emi-resource-information-service-1.0.4-1.el7.cern.noarch

--> Processing Dependency: glue-schema for package: emi-resource-information-service-1.0.4-1.el7.cern.noarch

--> Processing Dependency: glite-info-provider-service for package: emi-resource-information-service-1.0.4-1.el7.cern.noarch

--> Running transaction check

---> Package bdii.noarch 0:5.2.23-1.el7 will be installed

--> Processing Dependency: openldap-servers for package: bdii-5.2.23-1.el7.noarch

--> Processing Dependency: policycoreutils-python for package: bdii-5.2.23-1.el7.noarch

---> Package glite-info-provider-service.noarch 0:1.13.4-1.el7.cern will be installed

---> Package glue-schema.noarch 0:2.0.11-1.el7.cern will be installed

---> Package glue-validator.noarch 0:2.0.25-0.el7.cern will be installed

--> Running transaction check

---> Package openldap-servers.x86\_64 0:2.4.40-9.el7\_2 will be installed

---> Package policycoreutils-python.x86\_64 0:2.2.5-20.el7 will be installed

--> Processing Dependency: libsemanage-python >= 2.1.10-1 for package: policycoreutils-python-2.2.5-20.el7.x86\_64

--> Processing Dependency: audit-libs-python >= 2.1.3-4 for package: policycoreutils-python-2.2.5-20.el7.x86\_64

--> Processing Dependency: python-IPy for package: policycoreutils-python-2.2.5-20.el7.x86\_64

--> Processing Dependency: libqpol.so.1(VERS\_1.4)(64bit) for package: policycoreutils-python-2.2.5-20.el7.x86\_64

--> Processing Dependency: libqpol.so.1(VERS\_1.2)(64bit) for package: policycoreutils-python-2.2.5-20.el7.x86\_64

--> Processing Dependency: libcgroup for package: policycoreutils-python-2.2.5-20.el7.x86\_64

--> Processing Dependency: libapol.so.4(VERS\_4.0)(64bit) for package: policycoreutils-python-2.2.5-20.el7.x86\_64

--> Processing Dependency: checkpolicy for package: policycoreutils-python-2.2.5-20.el7.x86\_64

--> Processing Dependency: libqpol.so.1()(64bit) for package: policycoreutils-python-2.2.5-20.el7.x86\_64

--> Processing Dependency: libapol.so.4()(64bit) for package: policycoreutils-python-2.2.5-20.el7.x86\_64

--> Running transaction check

---> Package audit-libs-python.x86\_64 0:2.4.1-5.el7 will be installed

---> Package checkpolicy.x86\_64 0:2.1.12-6.el7 will be installed

---> Package libcgroup.x86\_64 0:0.41-8.el7 will be installed

---> Package libsemanage-python.x86\_64 0:2.1.10-18.el7 will be installed

---> Package python-IPy.noarch 0:0.75-6.el7 will be installed

---> Package setools-libs.x86\_64 0:3.3.7-46.el7 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

==========================================================================================================================================================================================

 Package Arch Version Repository Size

==========================================================================================================================================================================================

Installing:

 emi-resource-information-service noarch 1.0.4-1.el7.cern UMD-4-base 2.2 k

Installing for dependencies:

 audit-libs-python x86\_64 2.4.1-5.el7 base 69 k

 bdii noarch 5.2.23-1.el7 UMD-4-base 25 k

 checkpolicy x86\_64 2.1.12-6.el7 base 247 k

 glite-info-provider-service noarch 1.13.4-1.el7.cern UMD-4-base 63 k

 glue-schema noarch 2.0.11-1.el7.cern UMD-4-base 31 k

 glue-validator noarch 2.0.25-0.el7.cern UMD-4-base 75 k

 libcgroup x86\_64 0.41-8.el7 base 64 k

 libsemanage-python x86\_64 2.1.10-18.el7 base 94 k

 openldap-servers x86\_64 2.4.40-9.el7\_2 updates 2.1 M

 policycoreutils-python x86\_64 2.2.5-20.el7 base 435 k

 python-IPy noarch 0.75-6.el7 base 32 k

 setools-libs x86\_64 3.3.7-46.el7 base 485 k

Transaction Summary

==========================================================================================================================================================================================

Install 1 Package (+12 Dependent packages)

Total download size: 3.7 M

Installed size: 10 M

Is this ok [y/d/N]: y

Downloading packages:

(1/13): audit-libs-python-2.4.1-5.el7.x86\_64.rpm | 69 kB 00:00:00

(2/13): checkpolicy-2.1.12-6.el7.x86\_64.rpm | 247 kB 00:00:00

(3/13): emi-resource-information-service-1.0.4-1.el7.cern.noarch.rpm | 2.2 kB 00:00:00

(4/13): bdii-5.2.23-1.el7.noarch.rpm | 25 kB 00:00:00

(5/13): glite-info-provider-service-1.13.4-1.el7.cern.noarch.rpm | 63 kB 00:00:00

(6/13): libcgroup-0.41-8.el7.x86\_64.rpm | 64 kB 00:00:00

(7/13): glue-schema-2.0.11-1.el7.cern.noarch.rpm | 31 kB 00:00:00

(8/13): libsemanage-python-2.1.10-18.el7.x86\_64.rpm | 94 kB 00:00:00

(9/13): python-IPy-0.75-6.el7.noarch.rpm | 32 kB 00:00:00

(10/13): policycoreutils-python-2.2.5-20.el7.x86\_64.rpm | 435 kB 00:00:00

(11/13): setools-libs-3.3.7-46.el7.x86\_64.rpm | 485 kB 00:00:00

(12/13): openldap-servers-2.4.40-9.el7\_2.x86\_64.rpm | 2.1 MB 00:00:00

(13/13): glue-validator-2.0.25-0.el7.cern.noarch.rpm | 75 kB 00:00:00

------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Total 2.6 MB/s | 3.7 MB 00:00:01

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

 Installing : glue-schema-2.0.11-1.el7.cern.noarch 1/13

 Installing : audit-libs-python-2.4.1-5.el7.x86\_64 2/13

 Installing : glue-validator-2.0.25-0.el7.cern.noarch 3/13

 Installing : glite-info-provider-service-1.13.4-1.el7.cern.noarch 4/13

 Installing : libsemanage-python-2.1.10-18.el7.x86\_64 5/13

 Installing : python-IPy-0.75-6.el7.noarch 6/13

 Installing : checkpolicy-2.1.12-6.el7.x86\_64 7/13

 Installing : setools-libs-3.3.7-46.el7.x86\_64 8/13

 Installing : libcgroup-0.41-8.el7.x86\_64 9/13

 Installing : policycoreutils-python-2.2.5-20.el7.x86\_64 10/13

 Installing : openldap-servers-2.4.40-9.el7\_2.x86\_64 11/13

 Installing : bdii-5.2.23-1.el7.noarch 12/13

 Installing : emi-resource-information-service-1.0.4-1.el7.cern.noarch 13/13

 Verifying : bdii-5.2.23-1.el7.noarch 1/13

 Verifying : openldap-servers-2.4.40-9.el7\_2.x86\_64 2/13

 Verifying : libcgroup-0.41-8.el7.x86\_64 3/13

 Verifying : emi-resource-information-service-1.0.4-1.el7.cern.noarch 4/13

 Verifying : setools-libs-3.3.7-46.el7.x86\_64 5/13

 Verifying : checkpolicy-2.1.12-6.el7.x86\_64 6/13

 Verifying : python-IPy-0.75-6.el7.noarch 7/13

 Verifying : libsemanage-python-2.1.10-18.el7.x86\_64 8/13

 Verifying : glue-schema-2.0.11-1.el7.cern.noarch 9/13

 Verifying : glite-info-provider-service-1.13.4-1.el7.cern.noarch 10/13

 Verifying : glue-validator-2.0.25-0.el7.cern.noarch 11/13

 Verifying : policycoreutils-python-2.2.5-20.el7.x86\_64 12/13

 Verifying : audit-libs-python-2.4.1-5.el7.x86\_64 13/13

Installed:

 emi-resource-information-service.noarch 0:1.0.4-1.el7.cern

Dependency Installed:

 audit-libs-python.x86\_64 0:2.4.1-5.el7 bdii.noarch 0:5.2.23-1.el7 checkpolicy.x86\_64 0:2.1.12-6.el7 glite-info-provider-service.noarch 0:1.13.4-1.el7.cern

 glue-schema.noarch 0:2.0.11-1.el7.cern glue-validator.noarch 0:2.0.25-0.el7.cern libcgroup.x86\_64 0:0.41-8.el7 libsemanage-python.x86\_64 0:2.1.10-18.el7

 openldap-servers.x86\_64 0:2.4.40-9.el7\_2 policycoreutils-python.x86\_64 0:2.2.5-20.el7 python-IPy.noarch 0:0.75-6.el7 setools-libs.x86\_64 0:3.3.7-46.el7

Complete!

[root@qcg-c7 ~]# yum install qcg-comp-egi-is-provider qcg-egi-is-conf

Loaded plugins: fastestmirror, priorities

Loading mirror speeds from cached hostfile

 \* base: centos2.hti.pl

 \* epel: ftp.ps.pl

 \* extras: centos1.hti.pl

 \* updates: centos2.hti.pl

132 packages excluded due to repository priority protections

Resolving Dependencies

--> Running transaction check

---> Package qcg-comp-egi-is-provider.noarch 0:4.0.0-5 will be installed

---> Package qcg-egi-is-conf.noarch 0:4.0.0-1 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

==========================================================================================================================================================================================

 Package Arch Version Repository Size

==========================================================================================================================================================================================

Installing:

 qcg-comp-egi-is-provider noarch 4.0.0-5 QCG.qcg-comp.centos7.x86\_64 5.1 k

 qcg-egi-is-conf noarch 4.0.0-1 UMD-4-untested 3.6 k

Transaction Summary

==========================================================================================================================================================================================

Install 2 Packages

Total download size: 8.7 k

Installed size: 4.5 k

Is this ok [y/d/N]: y

Downloading packages:

(1/2): qcg-egi-is-conf-4.0.0-1.centos7.noarch.rpm | 3.6 kB 00:00:00

(2/2): qcg-comp-egi-is-provider-4.0.0-5.centos7.noarch.rpm | 5.1 kB 00:00:00

------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Total 15 kB/s | 8.7 kB 00:00:00

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

 Installing : qcg-egi-is-conf-4.0.0-1.noarch 1/2

The package requires initial configuration in order to be used by QCG providers.

Run qcg-info-site-config -s <site-ID> to set appropriate data.

The list of available site-IDs can be found at https://goc.egi.eu/portal/index.php?Page\_Type=Sites

 Installing : qcg-comp-egi-is-provider-4.0.0-5.noarch 2/2

 Verifying : qcg-egi-is-conf-4.0.0-1.noarch 1/2

 Verifying : qcg-comp-egi-is-provider-4.0.0-5.noarch 2/2

Installed:

 qcg-comp-egi-is-provider.noarch 0:4.0.0-5 qcg-egi-is-conf.noarch 0:4.0.0-1

Complete!

The package requires initial configuration in order to be used by QCG providers.

Run qcg-info-site-config -s <site-ID> to set appropriate data.

The list of available site-IDs can be found at https://goc.egi.eu/portal/index.php?Page\_Type=Sites

[root@qcg-c7 ~]# qcg-info-site-config -s PCSS-TEST

[root@qcg-c7 ~]# qcg-info-site-config -d

QCG\_SITE\_ID=PCSS-TEST

[root@qcg-c7 ~]# systemctl enable bdii

bdii.service is not a native service, redirecting to /sbin/chkconfig.

Executing /sbin/chkconfig bdii on

[root@qcg-c7 ~]# systemctl start bdii

[root@qcg-c7 ~]# glue-validator -s general -H qcg-c7.inula.man.poznan.pl -p 2170 -b o=grid -v 3 -g glue1

WARNING - errors 0, warnings 1, info 0 | errors=0;warnings=1;info=0

W037 Description: Wrong type

W037 Affected DN: GlueServiceUniqueID=qcg-c7\_org.ogf.bes\_2596930851

 Mds-Vo-name=resource

 o=grid

W037 Affected attribute: GlueServiceType

W037 Published value: ['org.ogf.bes']

W037 Additional information: Expected type is ServiceType\_t

## Generic criteria - GlueSchema 2 Support

[root@qcg-c7 ~]# glue-validator -s general -H qcg-c7.inula.man.poznan.pl -p 2170 -b o=glue -v 3 -g glue2

WARNING - errors 0, warnings 1, info 0 | errors=0;warnings=1;info=0

W037 Description: Wrong type

W037 Affected DN: GLUE2ServiceID=qcg-c7\_unknown\_2596930851

 GLUE2GroupID=resource

 o=glue

W037 Affected attribute: GLUE2ServiceType

W037 Published value: ['org.qcg.computing']

W037 Additional information: Expected type is ServiceType\_t

## Generic criteria - Middleware Version Information

[root@qcg-c7 ~]# ldapsearch -x -h localhost -p 2170 -b GLUE2GroupID=resource,o=glue objectclass=GLUE2Endpoint | grep -e ImplementationVersion

GLUE2EndpointImplementationVersion: 4.0.0

## Generic criteria – Accounting records

*Missing apel-ssm dependency package in UMD-4 repository.*

## Specific QC – Simple job

[plgkopta@qcg-c7 jsdl-examples]$ cat /usr/share/qcg-comp/doc/examples/jsdl/sleep.xml

<?xml version="1.0" encoding="UTF-8"?>

<jsdl:JobDefinition

 xmlns:jsdl="http://schemas.ggf.org/jsdl/2005/11/jsdl"

 xmlns:jsdl-hpcpa="http://schemas.ggf.org/jsdl/2006/07/jsdl-hpcpa"

 xmlns:jsdl-qcg-comp-factory="http://schemas.qoscosgrid.org/comp/2011/04/jsdl/factory">

 <jsdl:JobDescription>

 <jsdl:JobIdentification>

 <jsdl:JobName>Sleep</jsdl:JobName>

 <jsdl:Description>sleep comment</jsdl:Description>

 </jsdl:JobIdentification>

 <jsdl:Application>

 <jsdl-hpcpa:HPCProfileApplication>

 <jsdl-hpcpa:Executable>/bin/sleep</jsdl-hpcpa:Executable>

 <jsdl-hpcpa:Argument>60</jsdl-hpcpa:Argument>

 </jsdl-hpcpa:HPCProfileApplication>

 </jsdl:Application>

 </jsdl:JobDescription>

</jsdl:JobDefinition>

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -c -J /usr/share/qcg-comp/doc/examples/jsdl/sleep.xml

Activity Id: d1ac8357-c655-4027-66e7-63d83d054c53

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a d1ac8357-c655-4027-66e7-63d83d054c53

status = Queued

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a d1ac8357-c655-4027-66e7-63d83d054c53

status = Executing

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a d1ac8357-c655-4027-66e7-63d83d054c53

status = Finished (exit status = 0)

## Specific QC – Simple job with input/output files

[plgkopta@qcg-c7 jsdl-examples]$ cat files.xml

<?xml version="1.0" encoding="UTF-8"?>

<jsdl:JobDefinition

 xmlns:jsdl="http://schemas.ggf.org/jsdl/2005/11/jsdl"

 xmlns:jsdl-hpcpa="http://schemas.ggf.org/jsdl/2006/07/jsdl-hpcpa">

 <jsdl:JobDescription>

 <jsdl:JobIdentification>

 <jsdl:JobName>Files</jsdl:JobName>

 </jsdl:JobIdentification>

 <jsdl:Application>

 <jsdl:ApplicationName>bash</jsdl:ApplicationName>

 <jsdl-hpcpa:HPCProfileApplication>

 <jsdl-hpcpa:Argument>script.sh</jsdl-hpcpa:Argument>

 <jsdl-hpcpa:Output>files.out</jsdl-hpcpa:Output>

 <jsdl-hpcpa:Error>files.err</jsdl-hpcpa:Error>

 </jsdl-hpcpa:HPCProfileApplication>

 </jsdl:Application>

 <jsdl:DataStaging>

 <jsdl:FileName>script.sh</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:Source>

 <jsdl:URI>script.sh</jsdl:URI>

 </jsdl:Source>

 </jsdl:DataStaging>

 <jsdl:DataStaging>

 <jsdl:FileName>files.out</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:DeleteOnTermination>true</jsdl:DeleteOnTermination>

 <jsdl:Target>

 <jsdl:URI>files.staged.out</jsdl:URI>

 </jsdl:Target>

 </jsdl:DataStaging>

 <jsdl:DataStaging>

 <jsdl:FileName>files.err</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:DeleteOnTermination>true</jsdl:DeleteOnTermination>

 <jsdl:Target>

 <jsdl:URI>files.staged.err</jsdl:URI>

 </jsdl:Target>

 </jsdl:DataStaging>

 </jsdl:JobDescription>

</jsdl:JobDefinition>

[plgkopta@qcg-c7 files]$ ls -l

total 0

-rw-r--r-- 1 plgkopta plgrid-users 1653 Jul 11 16:30 files.xml

-rw-r--r-- 1 plgkopta plgrid-users 58 Jul 11 16:31 script.sh

[plgkopta@qcg-c7 files]$ qcg-comp -i -J files.xml

Staging file: script.sh

All files staged in.

[plgkopta@qcg-c7 files]$ qcg-comp -c -J files.xml

Activity Id: c4ad8357-3348-4093-676f-fd6314443f0e

[plgkopta@qcg-c7 files]$ qcg-comp -s -a c4ad8357-3348-4093-676f-fd6314443f0e

status = Queued

[plgkopta@qcg-c7 files]$ qcg-comp -s -a c4ad8357-3348-4093-676f-fd6314443f0e

status = Finished (exit status = 0)

[plgkopta@qcg-c7 files]$ qcg-comp -o -J files.xml

File files.staged.out staged out.

File files.staged.err staged out.

All files staged out.

[plgkopta@qcg-c7 files]$ ls -l

total 0

-rw-r--r-- 1 plgkopta plgrid-users 12 Jul 11 16:32 files.staged.err

-rw-r--r-- 1 plgkopta plgrid-users 33 Jul 11 16:32 files.staged.out

-rw-r--r-- 1 plgkopta plgrid-users 1653 Jul 11 16:30 files.xml

-rw-r--r-- 1 plgkopta plgrid-users 58 Jul 11 16:31 script.sh

[plgkopta@qcg-c7 files]$ cat files.staged.out

Mon Jul 11 16:31:39 CEST 2016

h1

[plgkopta@qcg-c7 files]$ cat files.staged.err

stderr test

## Specific QC – Cancel job

[plgkopta@qcg-c7 jsdl-examples]$ cat sleep.xml

<?xml version="1.0" encoding="UTF-8"?>

<jsdl:JobDefinition

 xmlns:jsdl="http://schemas.ggf.org/jsdl/2005/11/jsdl"

 xmlns:jsdl-hpcpa="http://schemas.ggf.org/jsdl/2006/07/jsdl-hpcpa"

 xmlns:jsdl-qcg-comp-factory="http://schemas.qoscosgrid.org/comp/2011/04/jsdl/factory">

 <jsdl:JobDescription>

 <jsdl:JobIdentification>

 <jsdl:JobName>Sleep</jsdl:JobName>

 <jsdl:Description>sleep comment</jsdl:Description>

 </jsdl:JobIdentification>

 <jsdl:Application>

 <jsdl-hpcpa:HPCProfileApplication>

 <jsdl-hpcpa:Executable>/bin/sleep</jsdl-hpcpa:Executable>

 <jsdl-hpcpa:Argument>60</jsdl-hpcpa:Argument>

 </jsdl-hpcpa:HPCProfileApplication>

 </jsdl:Application>

 </jsdl:JobDescription>

</jsdl:JobDefinition>

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -c -J sleep.xml

Activity Id: 77ae8357-f927-4091-4b62-65519c7ee9e6

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a 77ae8357-f927-4091-4b62-65519c7ee9e6

status = Executing

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -t -a 77ae8357-f927-4091-4b62-65519c7ee9e6

Activity is being terminated.

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a 77ae8357-f927-4091-4b62-65519c7ee9e6

status = Executing

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a 77ae8357-f927-4091-4b62-65519c7ee9e6

status = Cancelled

## Specific QC – Underlying system information

[plgkopta@qcg-c7 jsdl-examples]$ cat sleep.xml

<?xml version="1.0" encoding="UTF-8"?>

<jsdl:JobDefinition

 xmlns:jsdl="http://schemas.ggf.org/jsdl/2005/11/jsdl"

 xmlns:jsdl-hpcpa="http://schemas.ggf.org/jsdl/2006/07/jsdl-hpcpa"

 xmlns:jsdl-qcg-comp-factory="http://schemas.qoscosgrid.org/comp/2011/04/jsdl/factory">

 <jsdl:JobDescription>

 <jsdl:JobIdentification>

 <jsdl:JobName>Sleep</jsdl:JobName>

 <jsdl:Description>sleep comment</jsdl:Description>

 </jsdl:JobIdentification>

 <jsdl:Application>

 <jsdl-hpcpa:HPCProfileApplication>

 <jsdl-hpcpa:Executable>/bin/sleep</jsdl-hpcpa:Executable>

 <jsdl-hpcpa:Argument>5m</jsdl-hpcpa:Argument>

 </jsdl-hpcpa:HPCProfileApplication>

 </jsdl:Application>

 </jsdl:JobDescription>

</jsdl:JobDefinition>

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -c -J sleep.xml

Activity Id: c1af8357-383f-4046-538c-b1d7824ecbd0

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a c1af8357-383f-4046-538c-b1d7824ecbd0

status = Queued

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a c1af8357-383f-4046-538c-b1d7824ecbd0

status = Executing

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -G | xmllint --format - | grep Sleep

 <qcm:Job cores="1" cpuTime="0:00:00" id="6307937.creamce.inula.man.poznan.pl" memUsage="2" name="Sleep" owner="plgkopta" queue="plgrid" startTime="2016-07-11T14:43:13Z" submissionTime="2016-07-11T14:40:01Z" qcm:cores="1" qcm:cpuTime="0:00:00" qcm:name="Sleep" qcm:id="6307937.creamce.inula.man.poznan.pl" qcm:memUsage="2" qcm:owner="plgkopta" qcm:queue="plgrid" qcm:startTime="2016-07-11T16:43:13" qcm:submissionTime="2016-07-11T16:40:01">

## Specific QC – Simple parallel job submission

[plgkopta@qcg-c7 jsdl-examples]$ cat par1.xml

<jsdl:JobDefinition

 xmlns:jsdl="http://schemas.ggf.org/jsdl/2005/11/jsdl"

 xmlns:jsdl-hpcpa="http://schemas.ggf.org/jsdl/2006/07/jsdl-hpcpa"

 xmlns:jsdl-qcg-comp-factory="http://schemas.qoscosgrid.org/comp/2011/04/jsdl/factory">

 <jsdl:JobDescription>

 <jsdl:JobIdentification>

 <jsdl:JobName>parallel1</jsdl:JobName>

 <jsdl:Description>parallel</jsdl:Description>

 </jsdl:JobIdentification>

 <jsdl:Application>

 <jsdl-hpcpa:HPCProfileApplication>

 <jsdl-hpcpa:Executable>/bin/sleep</jsdl-hpcpa:Executable>

 <jsdl-hpcpa:Argument>60s</jsdl-hpcpa:Argument>

 </jsdl-hpcpa:HPCProfileApplication>

 </jsdl:Application>

 <jsdl:Resources>

 <jsdl:TotalCPUCount>

 <jsdl:Exact>2</jsdl:Exact>

 </jsdl:TotalCPUCount>

 </jsdl:Resources>

 </jsdl:JobDescription>

</jsdl:JobDefinition>

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -c -J par1.xml

Activity Id: 19b28357-8f54-4019-5274-91e5ee485d46

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a 19b28357-8f54-4019-5274-91e5ee485d46

status = Queued

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a 19b28357-8f54-4019-5274-91e5ee485d46

status = Executing

[plgkopta@qcg-c7 jsdl-examples]$ qstat -u plgkopta

creamce.inula.man.poznan.pl:

 Req'd Req'd Elap

Job ID Username Queue Jobname SessID NDS TSK Memory Time S Time

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6307940.creamce.inula. plgkopta plgrid parallel1 -- 2 2 -- 72:00:00 R 00:00:19

[plgkopta@qcg-c7 jsdl-examples]$ qstat -f 6307940

Job Id: 6307940.creamce.inula.man.poznan.pl

 Job\_Name = parallel1

 Job\_Owner = plgkopta@qcg-c7.inula.man.poznan.pl

 job\_state = R

 queue = plgrid

 server = creamce.inula.man.poznan.pl

 Checkpoint = u

 ctime = Mon Jul 11 16:50:01 2016

 Error\_Path = qcg-c7.inula.man.poznan.pl:/home/plgrid/plgkopta/parallel1.e6

 307940

 exec\_host = h1/0+h3/8

 Keep\_Files = n

 mtime = Mon Jul 11 16:50:02 2016

 Output\_Path = qcg-c7.inula.man.poznan.pl:/home/plgrid/plgkopta/parallel1.o

 6307940

 Priority = 0

 qtime = Mon Jul 11 16:50:01 2016

 Resource\_List.nodect = 2

 Resource\_List.nodes = 2

 Resource\_List.walltime = 72:00:00

 Variable\_List = PBS\_O\_QUEUE=route,PBS\_O\_HOST=qcg-c7.inula.man.poznan.pl,

 QCG\_ACTIVITY\_ID=19b28357-8f54-4019-5274-91e5ee485d46,

 PBS\_O\_WORKDIR=/home/plgrid/plgkopta

 etime = Mon Jul 11 16:50:01 2016

 submit\_args = -l nodes=2

 start\_time = Mon Jul 11 16:50:02 2016

 Walltime.Remaining = 259175

 start\_count = 1

 submit\_host = qcg-c7.inula.man.poznan.pl

## Specific QC – Single machine parallel job submission

[plgkopta@qcg-c7 jsdl-examples]$ cat par2.xml

<jsdl:JobDefinition

 xmlns:jsdl="http://schemas.ggf.org/jsdl/2005/11/jsdl"

 xmlns:jsdl-hpcpa="http://schemas.ggf.org/jsdl/2006/07/jsdl-hpcpa"

 xmlns:jsdl-qcg-comp-factory="http://schemas.qoscosgrid.org/comp/2011/04/jsdl/factory">

 <jsdl:JobDescription>

 <jsdl:JobIdentification>

 <jsdl:JobName>parallel2</jsdl:JobName>

 <jsdl:Description>parallel</jsdl:Description>

 </jsdl:JobIdentification>

 <jsdl:Application>

 <jsdl-hpcpa:HPCProfileApplication>

 <jsdl-hpcpa:Executable>/bin/sleep</jsdl-hpcpa:Executable>

 <jsdl-hpcpa:Argument>60s</jsdl-hpcpa:Argument>

 </jsdl-hpcpa:HPCProfileApplication>

 </jsdl:Application>

 <jsdl:Resources>

 <jsdl:TotalResourceCount>

 <jsdl:Exact>1</jsdl:Exact>

 </jsdl:TotalResourceCount>

 <jsdl:IndividualCPUCount>

 <jsdl:Exact>2</jsdl:Exact>

 </jsdl:IndividualCPUCount>

 </jsdl:Resources>

 </jsdl:JobDescription>

</jsdl:JobDefinition>

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -c -J par2.xml

Activity Id: a8b28357-6242-408e-7683-21d287651621

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a a8b28357-6242-408e-7683-21d287651621

status = Queued

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a a8b28357-6242-408e-7683-21d287651621

status = Executing

[plgkopta@qcg-c7 jsdl-examples]$ qstat -u plgkopta

creamce.inula.man.poznan.pl:

 Req'd Req'd Elap

Job ID Username Queue Jobname SessID NDS TSK Memory Time S Time

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6307941.creamce.inula. plgkopta plgrid parallel2 4851 1 2 -- 72:00:00 R 00:00:13

[plgkopta@qcg-c7 jsdl-examples]$ qstat -f 6307941

Job Id: 6307941.creamce.inula.man.poznan.pl

 Job\_Name = parallel2

 Job\_Owner = plgkopta@qcg-c7.inula.man.poznan.pl

 job\_state = R

 queue = plgrid

 server = creamce.inula.man.poznan.pl

 Checkpoint = u

 ctime = Mon Jul 11 16:52:24 2016

 Error\_Path = qcg-c7.inula.man.poznan.pl:/home/plgrid/plgkopta/parallel2.e6

 307941

 exec\_host = h1/1+h1/0

 Keep\_Files = n

 mtime = Mon Jul 11 16:52:30 2016

 Output\_Path = qcg-c7.inula.man.poznan.pl:/home/plgrid/plgkopta/parallel2.o

 6307941

 Priority = 0

 qtime = Mon Jul 11 16:52:24 2016

 Resource\_List.nodect = 1

 Resource\_List.nodes = 1:ppn=2

 Resource\_List.walltime = 72:00:00

 session\_id = 4851

 Variable\_List = PBS\_O\_QUEUE=route,PBS\_O\_HOST=qcg-c7.inula.man.poznan.pl,

 QCG\_ACTIVITY\_ID=a8b28357-6242-408e-7683-21d287651621,

 PBS\_O\_WORKDIR=/home/plgrid/plgkopta

 etime = Mon Jul 11 16:52:24 2016

 submit\_args = -l nodes=1:ppn=2

 start\_time = Mon Jul 11 16:52:25 2016

 Walltime.Remaining = 259181

 start\_count = 1

 submit\_host = qcg-c7.inula.man.poznan.pl

## Specific QC – Multi-node multi-core parallel job submission

[plgkopta@qcg-c7 jsdl-examples]$ cat par3.xml

<jsdl:JobDefinition

 xmlns:jsdl="http://schemas.ggf.org/jsdl/2005/11/jsdl"

 xmlns:jsdl-hpcpa="http://schemas.ggf.org/jsdl/2006/07/jsdl-hpcpa"

 xmlns:jsdl-qcg-comp-factory="http://schemas.qoscosgrid.org/comp/2011/04/jsdl/factory">

 <jsdl:JobDescription>

 <jsdl:JobIdentification>

 <jsdl:JobName>parallel3</jsdl:JobName>

 <jsdl:Description>parallel</jsdl:Description>

 </jsdl:JobIdentification>

 <jsdl:Application>

 <jsdl-hpcpa:HPCProfileApplication>

 <jsdl-hpcpa:Executable>/bin/sleep</jsdl-hpcpa:Executable>

 <jsdl-hpcpa:Argument>60s</jsdl-hpcpa:Argument>

 </jsdl-hpcpa:HPCProfileApplication>

 </jsdl:Application>

 <jsdl:Resources>

 <jsdl:TotalResourceCount>

 <jsdl:Exact>2</jsdl:Exact>

 </jsdl:TotalResourceCount>

 <jsdl:IndividualCPUCount>

 <jsdl:Exact>2</jsdl:Exact>

 </jsdl:IndividualCPUCount>

 </jsdl:Resources>

 </jsdl:JobDescription>

</jsdl:JobDefinition>

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -c -J par3.xml

Activity Id: 1cb38357-e11c-40fd-44f2-6499d22bcf99

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a 1cb38357-e11c-40fd-44f2-6499d22bcf99

status = Queued

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a 1cb38357-e11c-40fd-44f2-6499d22bcf99

status = Executing

[plgkopta@qcg-c7 jsdl-examples]$ qstat -u plgkopta

creamce.inula.man.poznan.pl:

 Req'd Req'd Elap

Job ID Username Queue Jobname SessID NDS TSK Memory Time S Time

----------------------- ----------- -------- ---------------- ------ ----- ------ ------ --------- - ---------

6307943.creamce.inula. plgkopta plgrid parallel3 5389 2 4 -- 72:00:00 R 00:00:14

[plgkopta@qcg-c7 jsdl-examples]$ qstat -f 6307943

Job Id: 6307943.creamce.inula.man.poznan.pl

 Job\_Name = parallel3

 Job\_Owner = plgkopta@qcg-c7.inula.man.poznan.pl

 job\_state = R

 queue = plgrid

 server = creamce.inula.man.poznan.pl

 Checkpoint = u

 ctime = Mon Jul 11 16:54:20 2016

 Error\_Path = qcg-c7.inula.man.poznan.pl:/home/plgrid/plgkopta/parallel3.e6

 307943

 exec\_host = h1/1+h1/0+h3/9+h3/8

 Keep\_Files = n

 mtime = Mon Jul 11 16:54:26 2016

 Output\_Path = qcg-c7.inula.man.poznan.pl:/home/plgrid/plgkopta/parallel3.o

 6307943

 Priority = 0

 qtime = Mon Jul 11 16:54:20 2016

 Resource\_List.nodect = 2

 Resource\_List.nodes = 2:ppn=2

 Resource\_List.walltime = 72:00:00

 session\_id = 5389

 Variable\_List = PBS\_O\_QUEUE=route,PBS\_O\_HOST=qcg-c7.inula.man.poznan.pl,

 QCG\_ACTIVITY\_ID=1cb38357-e11c-40fd-44f2-6499d22bcf99,

 PBS\_O\_WORKDIR=/home/plgrid/plgkopta

 etime = Mon Jul 11 16:54:20 2016

 submit\_args = -l nodes=2:ppn=2

 start\_time = Mon Jul 11 16:54:21 2016

 Walltime.Remaining = 259180

 start\_count = 1

 submit\_host = qcg-c7.inula.man.poznan.pl

## Specific QC – Specific host parallel job submission

[plgkopta@qcg-c7 jsdl-examples]$ cat par4.xml

<jsdl:JobDefinition

 xmlns:jsdl="http://schemas.ggf.org/jsdl/2005/11/jsdl"

 xmlns:jsdl-hpcpa="http://schemas.ggf.org/jsdl/2006/07/jsdl-hpcpa"

 xmlns:jsdl-qcg-comp-factory="http://schemas.qoscosgrid.org/comp/2011/04/jsdl/factory">

 <jsdl:JobDescription>

 <jsdl:JobIdentification>

 <jsdl:JobName>parallel3</jsdl:JobName>

 <jsdl:Description>parallel</jsdl:Description>

 </jsdl:JobIdentification>

 <jsdl:Application>

 <jsdl-hpcpa:HPCProfileApplication>

 <jsdl-hpcpa:Executable>/bin/sleep</jsdl-hpcpa:Executable>

 <jsdl-hpcpa:Argument>60s</jsdl-hpcpa:Argument>

 </jsdl-hpcpa:HPCProfileApplication>

 </jsdl:Application>

 <jsdl:Resources>

 <jsdl-qcg-comp-factory:NativeSpecification>-l nodes=h27:ppn=2</jsdl-qcg-comp-factory:NativeSpecification>

 <jsdl:IndividualCPUTime xsi:type="jsdl:RangeValue\_Type">

 <jsdl:Exact xsi:type="jsdl:Exact\_Type">600.0</jsdl:Exact>

 </jsdl:IndividualCPUTime>

 <jsdl-qcg-comp-factory:Queue>plgrid-testing</jsdl-qcg-comp-factory:Queue>

 </jsdl:Resources>

 </jsdl:JobDescription>

</jsdl:JobDefinition>

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -c -J par4.xml

Activity Id: f6bb8357-f241-40c8-4b61-adc7ee766874

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a f6bb8357-f241-40c8-4b61-adc7ee766874

status = Executing

[plgkopta@qcg-c7 jsdl-examples]$ qstat -u plgkopta

creamce.inula.man.poznan.pl:

 Req'd Req'd Elap

Job ID Username Queue Jobname SessID NDS TSK Memory Time S Time

----------------------- ----------- -------- ---------------- ------ ----- ------ ------ --------- - ---------

6307965.creamce.inula. plgkopta plgrid-t parallel3 12834 1 0 -- 00:10:00 R 00:00:09

[plgkopta@qcg-c7 jsdl-examples]$ qstat -f 6307965

Job Id: 6307965.creamce.inula.man.poznan.pl

 Job\_Name = parallel3

 Job\_Owner = plgkopta@qcg-c7.inula.man.poznan.pl

 job\_state = R

 queue = plgrid-testing

 server = creamce.inula.man.poznan.pl

 Checkpoint = u

 ctime = Mon Jul 11 17:32:06 2016

 Error\_Path = qcg-c7.inula.man.poznan.pl:/home/plgrid/plgkopta/parallel3.e6

 307965

 exec\_host = h27/1+h27/0

 Keep\_Files = n

 mtime = Mon Jul 11 17:32:13 2016

 Output\_Path = qcg-c7.inula.man.poznan.pl:/home/plgrid/plgkopta/parallel3.o

 6307965

 Priority = 0

 qtime = Mon Jul 11 17:32:06 2016

 Resource\_List.nodect = 1

 Resource\_List.nodes = h27:ppn=2

 Resource\_List.walltime = 00:10:00

 session\_id = 12834

 Variable\_List = PBS\_O\_QUEUE=plgrid-testing,

 PBS\_O\_HOST=qcg-c7.inula.man.poznan.pl,

 QCG\_ACTIVITY\_ID=f6bb8357-f241-40c8-4b61-adc7ee766874,

 PBS\_O\_WORKDIR=/home/plgrid/plgkopta

 etime = Mon Jul 11 17:32:06 2016

 submit\_args = -l nodes=h27:ppn=2 -l walltime=600 -q plgrid-testing

 start\_time = Mon Jul 11 17:32:08 2016

 Walltime.Remaining = 583

 start\_count = 1

 submit\_host = qcg-c7.inula.man.poznan.pl

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a f6bb8357-f241-40c8-4b61-adc7ee766874

status = Finished (exit status = 0)

## Specific QC – Mpi-start single node parallel job submission

[plgkopta@qcg-c7 jsdl-examples]$ cat mpistart.xml

<jsdl:JobDefinition

 xmlns:jsdl="http://schemas.ggf.org/jsdl/2005/11/jsdl"

 xmlns:jsdl-hpcpa="http://schemas.ggf.org/jsdl/2006/07/jsdl-hpcpa"

 xmlns:jsdl-qcg-comp-factory="http://schemas.qoscosgrid.org/comp/2011/04/jsdl/factory">

 <jsdl:JobDescription>

 <jsdl:JobIdentification>

 <jsdl:JobName>mpistart</jsdl:JobName>

 <jsdl:Description>mpistart 1</jsdl:Description>

 </jsdl:JobIdentification>

 <jsdl:Application>

 <jsdl:ApplicationName>bash</jsdl:ApplicationName>

 <jsdl-hpcpa:HPCProfileApplication>

 <jsdl-hpcpa:Argument>mpistart.sh</jsdl-hpcpa:Argument>

 <jsdl-hpcpa:Output>mpistart.out</jsdl-hpcpa:Output>

 <jsdl-hpcpa:Error>mpistart.err</jsdl-hpcpa:Error>

 </jsdl-hpcpa:HPCProfileApplication>

 </jsdl:Application>

 <jsdl:Resources>

 <jsdl:IndividualCPUTime xsi:type="jsdl:RangeValue\_Type">

 <jsdl:Exact xsi:type="jsdl:Exact\_Type">600.0</jsdl:Exact>

 </jsdl:IndividualCPUTime>

 <jsdl:IndividualCPUCount>

 <jsdl:Exact>2</jsdl:Exact>

 </jsdl:IndividualCPUCount>

 </jsdl:Resources>

 <jsdl:DataStaging>

 <jsdl:FileName>mpistart.sh</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:Source>

 <jsdl:URI>mpistart.sh</jsdl:URI>

 </jsdl:Source>

 </jsdl:DataStaging>

 <jsdl:DataStaging>

 <jsdl:FileName>mpistart.out</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:DeleteOnTermination>true</jsdl:DeleteOnTermination>

 <jsdl:Target>

 <jsdl:URI>mpistart.staged.out</jsdl:URI>

 </jsdl:Target>

 </jsdl:DataStaging>

 <jsdl:DataStaging>

 <jsdl:FileName>mpistart.err</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:DeleteOnTermination>true</jsdl:DeleteOnTermination>

 <jsdl:Target>

 <jsdl:URI>mpistart.staged.err</jsdl:URI>

 </jsdl:Target>

 </jsdl:DataStaging>

 </jsdl:JobDescription>

</jsdl:JobDefinition>

[plgkopta@qcg-c7 jsdl-examples]$ cat mpistart.sh

#!/bin/bash

module load plgrid/tools/openmpi

sleep 30s

mpirun /bin/hostname --fqdn

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -i -J mpistart.xml

Staging file: mpistart.sh

All files staged in.

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -c -J mpistart.xml

Activity Id: bbb38357-fe4f-4081-48b9-5422b27e0f04

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a bbb38357-fe4f-4081-48b9-5422b27e0f04

status = Queued

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a bbb38357-fe4f-4081-48b9-5422b27e0f04

status = Executing

[plgkopta@qcg-c7 jsdl-examples]$ qstat -u plgkopta

creamce.inula.man.poznan.pl:

 Req'd Req'd Elap

Job ID Username Queue Jobname SessID NDS TSK Memory Time S Time

----------------------- ----------- -------- ---------------- ------ ----- ------ ------ --------- - ---------

6307944.creamce.inula. plgkopta plgrid mpistart 5984 1 2 -- 00:10:00 R 00:00:16

[plgkopta@qcg-c7 jsdl-examples]$ qstat -f 6307944

Job Id: 6307944.creamce.inula.man.poznan.pl

 Job\_Name = mpistart

 Job\_Owner = plgkopta@qcg-c7.inula.man.poznan.pl

 job\_state = R

 queue = plgrid

 server = creamce.inula.man.poznan.pl

 Checkpoint = u

 ctime = Mon Jul 11 16:56:59 2016

 Error\_Path = /home/plgrid/plgkopta/mpistart.err

 exec\_host = h1/1+h1/0

 Keep\_Files = n

 mtime = Mon Jul 11 16:57:05 2016

 Output\_Path = /home/plgrid/plgkopta/mpistart.out

 Priority = 0

 qtime = Mon Jul 11 16:56:59 2016

 Resource\_List.nodect = 1

 Resource\_List.nodes = 1:ppn=2

 Resource\_List.walltime = 00:10:00

 session\_id = 5984

 Variable\_List = PBS\_O\_QUEUE=route,PBS\_O\_HOST=qcg-c7.inula.man.poznan.pl,

 QCG\_ACTIVITY\_ID=bbb38357-fe4f-4081-48b9-5422b27e0f04,

 PBS\_O\_WORKDIR=/home/plgrid/plgkopta

 etime = Mon Jul 11 16:56:59 2016

 submit\_args = -l nodes=1:ppn=2 -l walltime=600

 start\_time = Mon Jul 11 16:57:00 2016

 Walltime.Remaining = 578

 start\_count = 1

 submit\_host = qcg-c7.inula.man.poznan.pl

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a bbb38357-fe4f-4081-48b9-5422b27e0f04

status = Finished (exit status = 0)

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -o -J mpistart.xml

File mpistart.staged.out staged out.

File mpistart.staged.err staged out.

All files staged out.

[plgkopta@qcg-c7 jsdl-examples]$ cat mpistart.staged.out

h1

h1

## Specific QC – Mpi-start multi-node parallel job submission

[plgkopta@qcg-c7 jsdl-examples]$ cat mpistart2.xml

<jsdl:JobDefinition

 xmlns:jsdl="http://schemas.ggf.org/jsdl/2005/11/jsdl"

 xmlns:jsdl-hpcpa="http://schemas.ggf.org/jsdl/2006/07/jsdl-hpcpa"

 xmlns:jsdl-qcg-comp-factory="http://schemas.qoscosgrid.org/comp/2011/04/jsdl/factory">

 <jsdl:JobDescription>

 <jsdl:JobIdentification>

 <jsdl:JobName>mpistart2</jsdl:JobName>

 <jsdl:Description>mpistart 2</jsdl:Description>

 </jsdl:JobIdentification>

 <jsdl:Application>

 <jsdl:ApplicationName>bash</jsdl:ApplicationName>

 <jsdl-hpcpa:HPCProfileApplication>

 <jsdl-hpcpa:Argument>mpistart.sh</jsdl-hpcpa:Argument>

 <jsdl-hpcpa:Output>mpistart.out</jsdl-hpcpa:Output>

 <jsdl-hpcpa:Error>mpistart.err</jsdl-hpcpa:Error>

 </jsdl-hpcpa:HPCProfileApplication>

 </jsdl:Application>

 <jsdl:Resources>

 <jsdl:TotalResourceCount>

 <jsdl:Exact>2</jsdl:Exact>

 </jsdl:TotalResourceCount>

 <jsdl:IndividualCPUCount>

 <jsdl:Exact>2</jsdl:Exact>

 </jsdl:IndividualCPUCount>

 </jsdl:Resources>

 <jsdl:DataStaging>

 <jsdl:FileName>mpistart.sh</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:Source>

 <jsdl:URI>mpistart2.sh</jsdl:URI>

 </jsdl:Source>

 </jsdl:DataStaging>

 <jsdl:DataStaging>

 <jsdl:FileName>mpihello.c</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:Source>

 <jsdl:URI>mpihello.c</jsdl:URI>

 </jsdl:Source>

 </jsdl:DataStaging>

 <jsdl:DataStaging>

 <jsdl:FileName>mpistart.out</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:DeleteOnTermination>true</jsdl:DeleteOnTermination>

 <jsdl:Target>

 <jsdl:URI>mpistart2.staged.out</jsdl:URI>

 </jsdl:Target>

 </jsdl:DataStaging>

 <jsdl:DataStaging>

 <jsdl:FileName>mpistart.err</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:DeleteOnTermination>true</jsdl:DeleteOnTermination>

 <jsdl:Target>

 <jsdl:URI>mpistart2.staged.err</jsdl:URI>

 </jsdl:Target>

 </jsdl:DataStaging>

 </jsdl:JobDescription>

</jsdl:JobDefinition>

[plgkopta@qcg-c7 jsdl-examples]$ cat mpistart2.sh

#!/bin/sh

module load plgrid/tools/openmpi

mpicc -Wall -o mpihello mpihello.c

mpirun ./mpihello

[plgkopta@qcg-c7 jsdl-examples]$ cat mpihello.c

#include <stdio.h>

#include <unistd.h>

#include <mpi.h>

int main(int argc, char \*\*argv) {

 int rank, size;

 char hostname[128];

 MPI\_Init(&argc, &argv);

 MPI\_Comm\_rank(MPI\_COMM\_WORLD, &rank);

 MPI\_Comm\_size(MPI\_COMM\_WORLD, &size);

 gethostname(hostname, sizeof(hostname));

 printf("%d/%d @ %s\n", rank, size, hostname);

 sleep(10);

 MPI\_Finalize();

 return 0;

}

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -i -J mpistart2.xml

Staging file: mpistart2.sh

Staging file: mpihello.c

All files staged in.

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -c -J mpistart2.xml

Activity Id: 9bb48357-4262-4051-585b-4f825a13cf0c

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a 9bb48357-4262-4051-585b-4f825a13cf0c

status = Queued

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a 9bb48357-4262-4051-585b-4f825a13cf0c

status = Executing

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a 9bb48357-4262-4051-585b-4f825a13cf0c

status = Finished (exit status = 0)

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -o -J mpistart2.xml

File mpistart2.staged.out staged out.

File mpistart2.staged.err staged out.

All files staged out.

[plgkopta@qcg-c7 jsdl-examples]$ cat mpistart2.staged.out

0/4 @ h1

1/4 @ h1

3/4 @ h3

2/4 @ h3

## Specific QC – Precompiled OpenMP job execution

[plgkopta@qcg-c7 jsdl-examples]$ cat omp1.xml

<jsdl:JobDefinition

 xmlns:jsdl="http://schemas.ggf.org/jsdl/2005/11/jsdl"

 xmlns:jsdl-hpcpa="http://schemas.ggf.org/jsdl/2006/07/jsdl-hpcpa"

 xmlns:jsdl-qcg-comp-factory="http://schemas.qoscosgrid.org/comp/2011/04/jsdl/factory">

 <jsdl:JobDescription>

 <jsdl:JobIdentification>

 <jsdl:JobName>omp1</jsdl:JobName>

 </jsdl:JobIdentification>

 <jsdl:Application>

 <jsdl:ApplicationName>bash</jsdl:ApplicationName>

 <jsdl-hpcpa:HPCProfileApplication>

 <jsdl-hpcpa:Argument>ompstart.sh</jsdl-hpcpa:Argument>

 <jsdl-hpcpa:Output>omp1.out</jsdl-hpcpa:Output>

 <jsdl-hpcpa:Error>omp1.err</jsdl-hpcpa:Error>

 <jsdl-hpcpa:Environment name="QCG\_COMP\_PROCESSES\_MAP">1</jsdl-hpcpa:Environment>

 </jsdl-hpcpa:HPCProfileApplication>

 </jsdl:Application>

 <jsdl:Resources>

 <jsdl:IndividualCPUCount>

 <jsdl:Exact>2</jsdl:Exact>

 </jsdl:IndividualCPUCount>

 </jsdl:Resources>

 <jsdl:DataStaging>

 <jsdl:FileName>ompstart.sh</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:Source>

 <jsdl:URI>ompstart.sh</jsdl:URI>

 </jsdl:Source>

 </jsdl:DataStaging>

 <jsdl:DataStaging>

 <jsdl:FileName>omphello</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:Source>

 <jsdl:URI>omphello</jsdl:URI>

 </jsdl:Source>

 </jsdl:DataStaging>

 <jsdl:DataStaging>

 <jsdl:FileName>omp1.err</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:DeleteOnTermination>true</jsdl:DeleteOnTermination>

 <jsdl:Target>

 <jsdl:URI>omp1.staged.err</jsdl:URI>

 </jsdl:Target>

 </jsdl:DataStaging>

 <jsdl:DataStaging>

 <jsdl:FileName>omp1.out</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:DeleteOnTermination>true</jsdl:DeleteOnTermination>

 <jsdl:Target>

 <jsdl:URI>omp1.staged.out</jsdl:URI>

 </jsdl:Target>

 </jsdl:DataStaging>

 </jsdl:JobDescription>

</jsdl:JobDefinition>

[plgkopta@qcg-c7 jsdl-examples]$ cat ompstart.sh

#!/bin/bash

sleep 30s

chmod 700 ./omphello

./omphello

[plgkopta@qcg-c7 jsdl-examples]$ cat omphello.c

#include <stdio.h>

#include <unistd.h>

#include <omp.h>

int main(int argc, char \*\*argv) {

#pragma omp parallel

 printf("%d/%d thread\n", omp\_get\_thread\_num(), omp\_get\_num\_threads());

 return 0;

}

[plgkopta@qcg-c7 jsdl-examples]$ gcc -Wall -fopenmp -o omphello omphello.c

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -i -J omp1.xml

Staging file: ompstart.sh

Staging file: omphello

All files staged in.

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -c -J omp1.xml

Activity Id: 4bb58357-ad0e-4035-7877-443b0d5b2f62

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a 4bb58357-ad0e-4035-7877-443b0d5b2f62

status = Queued

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a 4bb58357-ad0e-4035-7877-443b0d5b2f62

status = Executing

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a 4bb58357-ad0e-4035-7877-443b0d5b2f62

status = Finished (exit status = 0)

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -o -J omp1.xml

File omp1.staged.err staged out.

File omp1.staged.out staged out.

All files staged out.

[plgkopta@qcg-c7 jsdl-examples]$ cat omp1.staged.out

0/2 thread

1/2 thread

## Specific QC – OpenMP job execution from source

[plgkopta@qcg-c7 jsdl-examples]$ cat omp2.xml

<jsdl:JobDefinition

 xmlns:jsdl="http://schemas.ggf.org/jsdl/2005/11/jsdl"

 xmlns:jsdl-hpcpa="http://schemas.ggf.org/jsdl/2006/07/jsdl-hpcpa"

 xmlns:jsdl-qcg-comp-factory="http://schemas.qoscosgrid.org/comp/2011/04/jsdl/factory">

 <jsdl:JobDescription>

 <jsdl:JobIdentification>

 <jsdl:JobName>omp2</jsdl:JobName>

 </jsdl:JobIdentification>

 <jsdl:Application>

 <jsdl:ApplicationName>bash</jsdl:ApplicationName>

 <jsdl-hpcpa:HPCProfileApplication>

 <jsdl-hpcpa:Argument>ompstart.sh</jsdl-hpcpa:Argument>

 <jsdl-hpcpa:Output>omp2.out</jsdl-hpcpa:Output>

 <jsdl-hpcpa:Error>omp2.err</jsdl-hpcpa:Error>

 <jsdl-hpcpa:Environment name="QCG\_COMP\_PROCESSES\_MAP">1</jsdl-hpcpa:Environment>

 </jsdl-hpcpa:HPCProfileApplication>

 </jsdl:Application>

 <jsdl:Resources>

 <jsdl:IndividualCPUTime xsi:type="jsdl:RangeValue\_Type">

 <jsdl:Exact xsi:type="jsdl:Exact\_Type">600.0</jsdl:Exact>

 </jsdl:IndividualCPUTime>

 <jsdl:IndividualCPUCount>

 <jsdl:Exact>2</jsdl:Exact>

 </jsdl:IndividualCPUCount>

 <jsdl-qcg-comp-factory:Queue>plgrid-testing</jsdl-qcg-comp-factory:Queue>

 </jsdl:Resources>

 <jsdl:DataStaging>

 <jsdl:FileName>ompstart.sh</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:Source>

 <jsdl:URI>ompstart2.sh</jsdl:URI>

 </jsdl:Source>

 </jsdl:DataStaging>

 <jsdl:DataStaging>

 <jsdl:FileName>omphello.c</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:Source>

 <jsdl:URI>omphello.c</jsdl:URI>

 </jsdl:Source>

 </jsdl:DataStaging>

 <jsdl:DataStaging>

 <jsdl:FileName>omp2.err</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:DeleteOnTermination>true</jsdl:DeleteOnTermination>

 <jsdl:Target>

 <jsdl:URI>omp2.staged.err</jsdl:URI>

 </jsdl:Target>

 </jsdl:DataStaging>

 <jsdl:DataStaging>

 <jsdl:FileName>omp2.out</jsdl:FileName>

 <jsdl:CreationFlag>overwrite</jsdl:CreationFlag>

 <jsdl:DeleteOnTermination>true</jsdl:DeleteOnTermination>

 <jsdl:Target>

 <jsdl:URI>omp2.staged.out</jsdl:URI>

 </jsdl:Target>

 </jsdl:DataStaging>

 </jsdl:JobDescription>

</jsdl:JobDefinition>

[plgkopta@qcg-c7 jsdl-examples]$ cat ompstart2.sh

#!/bin/bash

module load plgrid/tools/gcc

sleep 30s

gcc -Wall -fopenmp -o omphello omphello.c

./omphello

[plgkopta@qcg-c7 jsdl-examples]$ cat omphello.c

#include <stdio.h>

#include <unistd.h>

#include <omp.h>

int main(int argc, char \*\*argv) {

#pragma omp parallel

 printf("%d/%d thread\n", omp\_get\_thread\_num(), omp\_get\_num\_threads());

 return 0;

}

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -i -J omp2.xml

Staging file: ompstart2.sh

Staging file: omphello.c

All files staged in.

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -c -J omp2.xml

Activity Id: f1b58357-7e1b-40f2-41d0-ac5e7a5edd08

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a f1b58357-7e1b-40f2-41d0-ac5e7a5edd08

status = Queued

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a f1b58357-7e1b-40f2-41d0-ac5e7a5edd08

status = Executing

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -s -a f1b58357-7e1b-40f2-41d0-ac5e7a5edd08

status = Finished (exit status = 0)

[plgkopta@qcg-c7 jsdl-examples]$ qcg-comp -o -J omp2.xml

File omp2.staged.err staged out.

File omp2.staged.out staged out.

All files staged out.

[plgkopta@qcg-c7 jsdl-examples]$ cat omp2.staged.out

0/2 thread

1/2 thread

1. **OK, WARN, FAIL, NA (Not Applicable) or NT (Not Tested)** [↑](#footnote-ref-1)
2. **OK, WARN, FAIL, NA (Not Applicable) or NT (Not Tested)** [↑](#footnote-ref-2)