

VDT-DCACHE



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OSG Storage Forum

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Focus

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- Changes in dCache Configuration/installation procedure in the VDT-dCache package

* New Tools available

dCache Info Service

OSG Community Toolkit

Core dCache Operations RPM

dCache Chronicle RPM

Installation Process

Old

New

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Download the tarball
Untar it
Read README/UPGRADE
file
Configure your dCache SE
Run site configuration script
`./config-node.pl`
This creates site-info.def
file
Run the install script
`./install.sh`

Download the tarball
Untar it
Read README/UPGRADE
file
Configure your dCache SE
Populate various key/value
pairs in siteinfo.conf

Run the install script
`./install.sh`

<http://vdt.cs.wisc.edu/software/dcache/server/>

OSG Storage Forum, Fermilab

Configuration

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siteinfo.conf (VDT_INSTALL_DIR/install)

Example:

```
# ++++++
# SECTION 1 - Some General Stuff
# You must fill in all values in this section
# ++++++
# File System Domain
# Example: fnal.gov
MY_DOMAIN="fnal.gov"
# Would you like java to be installed by the dcache install script?
# Options: yes or no
INSTALL_JDK="yes"
# Would you like to install/use Gratia dCache storage and transfer probes?
# Options: yes or no
INSTALL_DCACHE_GRATIA_PROBES="yes"
```

```
# ++++++
# Section 2 -dCache Nodes Configuration
# You need to specify Fully Qualified Host Names. example - gwdca04.fnal.gov
# ++++++
#Recommended distribution of services based on number of non-pool nodes
... (for 2,3,4 and >=5 number of nodes)

# It's mandatory that you specify these
# dCache Admin node
DCACHE_ADMIN="fgt5x5.fnal.gov"
# dCache SRM node
DCACHE_DOOR_SRM="fgt5x5.fnal.gov"
# dCache node running gPlazma
DCACHE_GPLAZMA="fgt5x5.fnal.gov"
```

```
# ++++++
# SECTION 3 - Gratia dCache storage and transfer probes
# Skip this section, if you do not want to use these probes
# ++++++
# Name of the storage element
# Example: FNAL_Gridworks
GRATIA_SITE_NAME="TEST"
# Name of the grid to which this Storage Element belongs
# Options: OSG-ITB or OSG or LOCAL
GRATIA_GRID_NAME=""
# Port used to connect to dCache Admin Interface
# Most Probably: 22223
GRATIA_ADMINSRV_PORT=""
# Login name to connect to dCache Admin Interface
# Most Probably: admin
GRATIA_ADMINSRV_LOGIN=""
```

Password to connect to dCache Admin Interface

Default: dickerelch

GRATIA_ADMINSRV_PASSWORD="dickerelch"

Would you like to send notification emails about Gratia probes

Options: yes or no

GRATIA_SEND_EMAIL="yes"

SKIP, if you chose 'no' to question above

Mail server that should be used to send emails

Example: smtp.fnal.gov

GRATIA_EMAIL_SRVHOST="smtp.fnal.gov"

SKIP, if you chose 'no' to question above

Sender's name under which you would like the emails to be sent

GRATIA_EMAIL_FROM="GratiaProbe"

SKIP, if you chose 'no' to question above

Single email address or a comma separated list of email addresses

to which you would like to send email. Skip, if you chose 'no' above

GRATIA_EMAIL_TO="neha@fnal.gov,tlevshin@fnal.gov"


```
#+++++
```

```
# Section 4 - "Core dCache Operations" and "dCache Chronicle" Utilities
```

```
# Skip, if you do not care what these are or what they do
```

```
#+++++
```

```
# Detailed Description of RPMS
```

```
...
```

```
# Core dCache Operations RPM
```

```
# Would you like to install/use this rpm?
```

```
# Options: yes or no
```

```
INSTALL_CORE_DCACHE_OPERATIONS_RPM="no"
```

```
# dCache Chronicle RPM
```

```
INSTALL_DCACHE_CHRONICLE_RPM="no"
```

Needs

JYTHON, PNFS mounted

Needs

Installation

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```
[root@fgt5x5 install]# ./install.py -h
```

```
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
```

```
+ This is the vdt-dcache installation script.It takes as +
```

```
+ input the siteinfo.conf file and installs software such +
```

```
+ as Postgres, PNFS, dCache, Gratia Probes etc. This +
```

```
+ script must be run as root, on each dCache node. +
```

Usage:

```
install.sh [-h] [-d]
```

where:

```
-d, --dryrun
```

Print what will be done, but don't run any commands

```
-h, --help
```

Print the help message

```
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
```

Upgrade...is simple 😊

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- ❑ Edit the existing “siteinfo.conf” file, if any new site customizations are required (If not, then no need to do anything)
- ❑ Run installation script

Why the change?

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- the interactive site configuration script was getting very unorganized as new software was added
- common configuration approach in OSG
- no extra overload on users – for fresh install or upgrade process (we are working on porting of old configuration file to new one)

dCache Info Service

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“A robust, best-effort, one-stop shop overview of the current status of a dCache instance for external consumption.

–Robust: the info service will continue to work independently of the rest of dCache.

–Best-effort: there may be delays in information being updated (1 minute order-of-magnitude).

–One-stop shop: you should be able to get all the information you require.”

Paul Millar @

DESY

Relevant Parameter in siteinfo.conf file:

dCache node running the Info Provider Service

DCACHE_INFO_PROVIDER="fgt5x5.fnal.gov" (an example)

- Information about entities such as pools, poolgroups, doors, domains, reservations etc.
- Information may be obtained
 - ▣ in raw xml format using `wget` <http://{ADMINNODE}:2288/info>
 - ▣ through the admin interface etc.
- More Information
[http://www.dcache.org/manuals/dCache info-20080813.pdf](http://www.dcache.org/manuals/dCache%20info-20080813.pdf)

OSG Community Toolkit

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- Core dCache Operation RPM
- dCache Chronicle RPM

...Details in Abhishek's Talk to follow

New Release

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- ❑ Will contain dCache server 1.9.3 rpm
- ❑ In testing phase at the moment