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# Configuration and hardware of sites belonging to data federation

Please copy the following questions and fill the answers under the label corresponding to your storage system:

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cms\_site\_name:  
storage technology and version:  
xrootd server version:  
how many xrootd server are installed?  
usage of xrootd proxy?  
usage of xrootd manager (cmsd)?  
head node hardware description  
is there load-balancing and fail over?  
network interfaces of headnode and servers:  
bandwidth from xrootd head node and outside:  
are there limitations in the number of allowed accesses to the system (number of queries)?  
is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink?  
are you serving multiple VO s with your xrootd setup:  
are you registered in the AAA monitoring system?  
other key parameters we are missing?:  
(for dpm sites) have you already followed the configuration suggested in <https://svnweb.cern.ch/trac/lcgdm/wiki/Dpm/Admin/TuningHints>?  
(for dcache sites) have you already followed the configuration suggested in [https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To\\_improve\\_performance\\_of\\_dcache?](https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To_improve_performance_of_dcache?) or other twiki (which?)

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## castor

## dcache

### T2\_FI\_HIP

More... Close

cms\_site\_name: T2\_FI\_HIP  
storage technology and version: dcache-2.15  
xrootd server version: 4.4  
how many xrootd server are installed? 2  
usage of xrootd proxy? yes  
usage of xrootd manager (cmsd)? yes  
head node hardware description: virtual machines. 2 cores 4800MB RAM  
is there load-balancing and fail over? no  
network interfaces of headnode and servers: 2x1Gb shared  
bandwidth from xrootd head node and outside: 2x1Gb shared  
are there limitations in the number of allowed accesses to the system (number of queries)? 2 workers and 4 workerthreads  
is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink? tfc  
are you serving multiple VO s with your xrootd setup: no  
are you registered in the AAA monitoring system? yes  
other key parameters we are missing?:  
(for dcache sites) have you already followed the configuration suggested in

[https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To\\_improve\\_performance\\_of\\_dcache?](https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To_improve_performance_of_dcache?)  
or other twiki (which?) yes

## T2\_DE\_RWTH

More... Close

cms\_site\_name: T2\_DE\_RWTH

storage technology and version: dcache 2.6.28-1 (on SL 6)

xrootd server version: xrootd-3.3.1-1.2.osg.el5 (on SL 5, OS upgrade to SL 6 planed for the near future)

how many xrootd server are installed? 1

usage of xrootd proxy? no

usage of xrootd manager (cmsd)? yes

head node hardware description xrootd server: 8 cores, 16 GB RAM; dcache head node: 8 cores, 16 GB RAM

is there load-balancing and fail over? no

network interfaces of headnode and servers: port channels with 2\*1 Gb/s

bandwidth from xrootd head node and outside: port channel with 2\*1 Gb/s

are there limitations in the number of allowed accesses to the system (number of queries)? dCache xrootd

door with maximum 1000 threads, 100 or 500 parallel active transfers per dCache pool depending on the pool

is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink? TFC

are you serving multiple VO s with your xrootd setup: no

are you registered in the AAA monitoring system? yes

other key parameters we are missing?: dates of tests are not indicated in the plots (if the dates of the attachments correspond to the dates of tests, the measurements were done during a phase of massive reorganisation of the whole dCache system), xrootd CMS TFC plugin (xrootd-cmstfc-1.5.1-6.osg.el5) on

xrootd server, authenticated access to dCache xrootd door (xrootdPlugins=gplazma:gsi,authz:cms-tfc)

(for dpm sites) have you already followed the configuration suggested in

<https://svnweb.cern.ch/trac/lcgdm/wiki/Dpm/Admin/TuningHints>? not applicable

(for dcache sites) have you already followed the configuration suggested in

[https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To\\_improve\\_performance\\_of\\_dcache?](https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To_improve_performance_of_dcache?)

or other twiki (which?) yes: no parameter "cms.dfs" in configuration, java heap space 4 GB

## T2\_DE\_DESY

More... Close

cms\_site\_name: T2\_DE\_DESY

storage technology and version: dCache 2.8.4 (on SL6)

xrootd server version: 3.3.6 (SL6)

how many xrootd server are installed? 2

usage of xrootd proxy? no

usage of xrootd manager (cmsd)? yes

head node hardware description xrootd site redirectors: Virtual machines: 4CPUs @2.5GHz, 8GB; dCache doors&heads physical machines

is there load-balancing and fail over? Yes, two xrootd site redirectors, xrootd doors behind a loadbalanced DNS alias

network interfaces of headnode and servers: Mix of 10Gb and 1Gb

bandwidth from xrootd head node and outside: xrootd site redirector 1Gb, site has 2x10Gb

are there limitations in the number of allowed accesses to the system (number of queries)? Number of parallel movers limited to 200 per pool

is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink? TFC

are you serving multiple VO s with your xrootd setup: No, ATLAS has own redirector and dCache

are you registered in the AAA monitoring system? No detailed monitoring yet

other key parameters we are missing?: xrootd CMS TFC plugin on xrootd site redirector, authenticated access to dCache xrootd doors (xrootdPlugins=gplazma:gsi,authz:cms-tfc)

(for dpm sites) have you already followed the configuration suggested in

<https://svnweb.cern.ch/trac/lcgdm/wiki/Dpm/Admin/TuningHints>? not applicable  
(for dcache sites) have you already followed the configuration suggested in  
[https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To\\_improve\\_performance\\_of\\_dcache?](https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To_improve_performance_of_dcache?)  
or other twiki (which?) yes: no parameter "cms.dfs" in configuration, java heap space 4GB (or more)

## T2\_IT\_LEGNARO

More... Close

cms\_site\_name: T2\_IT\_LEGNARO

storage technology and version: dCache 2.6.33 (ns=Chimera)

xrootd server version: xrootd-3.3.1-1.2.osg.el5 on SL5

how many xrootd server are installed? one

usage of xrootd proxy? no

usage of xrootd manager (cmsd)? yes

head node hardware description : Virtual Machine configured with 4 vcores and 4 GB RAM

is there load-balancing and fail over? no

network interfaces of headnode and servers: headnode 1Gb/s, dcache pool servers 10Gb/s

bandwidth from xrootd head node and outside: 1 Gb/s

are there limitations in the number of allowed accesses to the system (number of queries)? max 1000 thread on xrootd door, the limit of active transfers on the pools varies (200-500 per server)

is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink? symlink

are you serving multiple VO s with your xrootd setup: CMS only

are you registered in the AAA monitoring system? yes

other key parameters we are missing?:

(for dcache sites) have you already followed the configuration suggested in

[https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To\\_improve\\_performance\\_of\\_dcache?](https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To_improve_performance_of_dcache?)  
or other twiki (which?) yes: no parameter "cms.dfs" in configuration, java heap space already set to 2 GB

## T3\_CH\_PSI

More... Close

cms\_site\_name: T3\_CH\_PSI

storage technology and version: dCache 2.6.33 (ns=Chimera)

xrootd server version: xrootd-3.3.6-1.slc6.x86\_64

how many xrootd server are installed? one

usage of xrootd proxy? no, we use <https://twiki.cern.ch/twiki/bin/view/Main/DcacheXrootd>

usage of xrootd manager (cmsd)? yes

head node hardware description : a simple VMWare VM, 8GB RAM, 4 vcores

is there load-balancing and fail over? no, but the VM will be quickly and automatically restarted if the host where is running will fail

network interfaces of headnode and servers: headnode VM uses one 100Mbit/s ; the 11 dCache pool servers have 4\*1Gbit/s in LACP trunk while 2 dCache pool servers have a 10Gbit/s.

bandwidth from xrootd head node and outside: 100Mbit/s

are there limitations in the number of allowed accesses to the system (number of queries)? we allow two parallel xrootd requests per single dCache pool server, the other xrootd requests get queued waiting for one of those two slots.

is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink? N/A

are you serving multiple VO s with your xrootd setup: no, just CMS

are you registered in the AAA monitoring system? yes

other key parameters we are missing?: if that matters the dCache xrootd door authenticates and authorizes each xrootd request by xrootdPlugins=gplazma:gsi,authz:cms-tfc ; no anonymous access

(for dpm sites) have you already followed the configuration suggested in

<https://svnweb.cern.ch/trac/lcgdm/wiki/Dpm/Admin/TuningHints>? N/A

(for dcache sites) have you already followed the configuration suggested in

[https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To\\_improve\\_performance\\_of\\_dcachel](https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To_improve_performance_of_dcachel)  
or other twiki (which?) yes

## T1\_DE\_KIT

More... Close

storage version: dCache 2.6.34

xrootd server version: xrootd-3.3.6-1.1.osg31.el6.x86\_64

how many xrootd server are installed: 1

usage of xrootd proxy: no

usage of xrootd manager (cmsd): yes

head node hardware description: xrootd server: VMWare VM, 2GB RAM, 1 vcpu

is there load-balancing and fail over: no

network interfaces of headnode and servers: The dCache pools all have a 10 GE interface.

bandwidth from xrootd head node and outside: Bandwidth for xrootd manager is irrelevant, since no data is tunneled through it (not a proxy).

are there limitations in the number of allowed accesses to the system (number of queries)? There are no restrictions for contacting either xrootd manager or dCache, but active transfers are limited to a certain number (right now its 25 per dCache pool), any more are queued.

is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink?: TFC

are you serving multiple VO s with your xrootd setup: no, yes (potentially)!

are you registered in the AAA monitoring system? yes

other key parameters we are missing?:

(for dcachel sites) have you already followed the configuration suggested in

[https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To\\_improve\\_performance\\_of\\_dcachel](https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To_improve_performance_of_dcachel)  
or other twiki (which?): Don't know any recommendations. This TWiki tells us nothing new.

## T1\_ES\_PIC

More... Close

storage version: dCache 2.6.31 for the dcachel xrootd doors

xrootd server version: xrootd-3.3.6-1.1.osg31.el6.x86\_64

how many xrootd server are installed: 2

usage of xrootd proxy: no

usage of xrootd manager (cmsd): yes

head node hardware description: xrootd server: 2 VMs, 2 cores, 2 GB of RAM and 20 GB disk space each

is there load-balancing and fail over: yes, both between xrootd local servers and xrootd dcachel doors

network interfaces of headnode and servers: The dCache pools all have a 10 GE interface.

bandwidth from xrootd head node and outside: Bandwidth for xrootd manager is irrelevant, since no data is tunneled through it (not a proxy).

are there limitations in the number of allowed accesses to the system (number of queries)? There are no restrictions for contacting either xrootd manager or dCache. Simultaneous active transfers are currently limited to 500 per dCache pool.

is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink?: TFC

are you serving multiple VO s with your xrootd setup: yes, ATLAS, but with on different disk pools and dcachel doors. Interference only possible at the level of network.

are you registered in the AAA monitoring system? yes

other key parameters we are missing?:

(for dcachel sites) have you already followed the configuration suggested in

[https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To\\_improve\\_performance\\_of\\_dcachel](https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To_improve_performance_of_dcachel)  
or other twiki (which?): Yes.

## T1\_FR\_CCIN2P3

More... Close

cms\_site\_name: T1\_FR\_CCIN2P3

storage technology and version: dCache, version 2.6.34 on core servers, 2.6.36 on pool servers.

xrootd server version: 3.3.6 running on SL6.5.

how many xrootd server are installed? One single server for both CMS T1 & T2 used as a xrootd proxy server.

usage of xrootd proxy? Yes

usage of xrootd manager (cmsd)? Yes

head node hardware description:

is there load-balancing and fail over? No

network interfaces of headnode and servers: 2x1Gb/s (bonded links)

bandwidth from xrootd head node and outside:

are there limitations in the number of allowed accesses to the system (number of queries)? No (only restricted by the bandwidth available on the server).

is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink? TFC

are you serving multiple VO s with your xrootd setup: No

are you registered in the AAA monitoring system? Yes

other key parameters we are missing?: Shared installation for both T1\_FR\_CCIN2P3 and T2\_FR\_CCIN2P3

have you already followed the configuration suggested in

[https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To\\_improve\\_performance\\_of\\_dcach](https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To_improve_performance_of_dcach)?

or other twiki (which?): <https://twiki.cern.ch/twiki/bin/view/Main/DcacheXrootdOld>

Yes.

## T2\_FR\_CCIN2P3

More... Close

cms\_site\_name: T1\_FR\_CCIN2P3 storage technology and version: dCache, version 2.6.34 on core servers, 2.6.36 on pool servers.

xrootd server version: 3.3.6 running on SL6.5.

how many xrootd server are installed? One single server for both CMS T1 & T2 used as a xrootd proxy server.

usage of xrootd proxy? Yes

usage of xrootd manager (cmsd)? Yes

head node hardware description:

is there load-balancing and fail over? No

network interfaces of headnode and servers: 2x1Gb/s (bonded links)

bandwidth from xrootd head node and outside:

are there limitations in the number of allowed accesses to the system (number of queries)? No (only restricted by the bandwidth available on the server).

is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink? TFC

are you serving multiple VO s with your xrootd setup: No

are you registered in the AAA monitoring system? Yes

other key parameters we are missing?: Shared installation for both T1\_FR\_CCIN2P3 and T2\_FR\_CCIN2P3

have you already followed the configuration suggested in

[https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To\\_improve\\_performance\\_of\\_dcach](https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To_improve_performance_of_dcach)?

or other twiki (which?): <https://twiki.cern.ch/twiki/bin/view/Main/DcacheXrootdOld>

Yes.

## T2\_ES\_CIAMAT

More... Close

cms\_site\_name: T2\_ES\_CIAMAT

## Sites\_setup < Main < TWiki

storage technology and version: dcache-2.6.31-1 (on SL 5)  
xrootd server version: Federation host: xrootd-3.3.1-1.2.osg.el6.x86\_64 (on SL 6) DCache door: native code (dcache-2.6.31-1)  
how many xrootd server are installed? 1 federation host. 1 door (planning to increase to 2). But there are xrootd movers on every dCache pool (37 servers currently)  
usage of xrootd proxy? No  
usage of xrootd manager (cmsd)? Yes  
head node hardware description Federation host: Virtual Machine, 2 cores, 8 GB RAM. DCache door (also pool): 16 cores, 12 GB RAM  
is there load-balancing and fail over? No (planning to have when second door is installed)  
network interfaces of headnode and servers: Federation host (shared with other VMs): up to 1 x 10 Gbps. Door: 2 x 1 Gbps. Pools: 2/3 x 1 Gbps  
bandwidth from xrootd head node and outside: Federation host: 1 Gbps. Door: 2 Gbps. Pools: 2/3 Gbps  
are there limitations in the number of allowed accesses to the system (number of queries)? dCache xrootd door with maximum 10 threads (planning to increase this value)  
is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink? TFC  
are you serving multiple VO's with your xrootd setup? No  
are you registered in the AAA monitoring system? Yes  
other key parameters we are missing?: xrootd CMS TFC plugin (xrootd-cmstfc-1.5.1-6.osg.el6.x86\_64) on federation host, GSI-authenticated access to dCache xrootd door  
(for dpm sites) have you already followed the configuration suggested in <https://svnweb.cern.ch/trac/lcgdm/wiki/Dpm/Admin/TuningHints>? Not applicable  
(for dcache sites) have you already followed the configuration suggested in [https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To\\_improve\\_performance\\_of\\_dcache?](https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To_improve_performance_of_dcache?) or other twiki (which?) Not really but settings are not so bad. No parameter "cms.dfs" in configuration; java heap space 1 GB; max xrootd movers is 5

## T2\_CH\_CSCS

More... Close

cms\_site\_name: T2\_CH\_CSCS  
storage technology and version: dCache 2.6.27  
xrootd server version: 3.3.1  
how many xrootd server are installed? 1  
usage of xrootd proxy? Yes  
usage of xrootd manager (cmsd)? Yes  
head node hardware description: dCache: 2x IBM M4, 2x E5-2643 (3.3Ghz), 64GB RAM, 600GB local disk (RAID 1 SAS), xrootd: KVM 2x 2.6 GHz CPU, 12GB RAM  
is there load-balancing and fail over? dCache cells are split between the two headnodes, no load-balancing or failover  
network interfaces of headnode and servers: Mellanox QDR Infiniband bridged to 20Gb/s uplink  
bandwidth from xrootd head node and outside: 10Gb shared vNIC  
are there limitations in the number of allowed accesses to the system (number of queries)? Yes limits of 2000 or 400 threads in xrootd  
is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink? Not currently implemented due to bug in dCache which broke symlinks in /pnfs, will be fixed in upcoming downtime by upgrading dCache  
are you serving multiple VO s with your xrootd setup: Only CMS, ATLAS is working on this  
are you registered in the AAA monitoring system? yes  
other key parameters we are missing?: N/A  
(for dpm sites) have you already followed the configuration suggested in <https://svnweb.cern.ch/trac/lcgdm/wiki/Dpm/Admin/TuningHints>? N/A (for dcache sites) have you already followed the configuration suggested in [https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To\\_improve\\_performance\\_of\\_dcache?](https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To_improve_performance_of_dcache?)

or other twiki (which?) No, movers and JVM heap sizes are tuned as per required based upon production load.

## T1\_RU\_JINR

More... Close

storage version: dCache 2.6.34

xrootd server version: xrootd-3.3.6-1.1.osg31.el6.x86\_64

how many xrootd server are installed: 1

usage of xrootd proxy: no

usage of xrootd manager (cmsd): yes

head node hardware description: xrootd door: 1 VM, 4GB RAM, 3 vcpu; xrootd server: 1 VM, 2GB RAM, 2 vcpu

is there load-balancing and fail over: no

network interfaces of headnode and servers: The dCache pools all have a 10 GE interface.

bandwidth from xrootd head node and outside: Bandwidth for xrootd server and manager is irrelevant, since no data is tunneled through it.

are there limitations in the number of allowed accesses to the system (number of queries)? There are no restrictions for contacting either xrootd manager or dCache, but active transfers are limited to a certain number, right now its 500-1000 per dCache pool.

is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink?: TFC

are you serving multiple VO s with your xrootd setup: no

are you registered in the AAA monitoring system? yes

other key parameters we are missing?:

(for dcache sites) have you already followed the configuration suggested in

[https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To\\_improve\\_performance\\_of\\_dcache?](https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To_improve_performance_of_dcache?)

or other twiki (which?): yes.

## T2\_RU\_JINR

More... Close

storage version: dCache 2.6.34

xrootd server version: xrootd-3.3.6-1.1.osg31.el6.x86\_64

how many xrootd server are installed: 1

usage of xrootd proxy: no

usage of xrootd manager (cmsd): yes

head node hardware description: xrootd door: 1 VM, 2GB RAM, 2 vcpu; xrootd server: 1 VM, 2GB RAM, 2 vcpu

is there load-balancing and fail over: no

network interfaces of headnode and servers: The dCache pools all have a 2x1GbE trunk.

bandwidth from xrootd head node and outside: Bandwidth for xrootd server and manager is irrelevant, since no data is tunneled through it (not a proxy).

are there limitations in the number of allowed accesses to the system (number of queries)? There are no restrictions for contacting either xrootd manager or dCache, but active transfers are limited to a certain number, right now its 500 per dCache pool.

is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink?: TFC

are you serving multiple VO s with your xrootd setup: yes

are you registered in the AAA monitoring system? yes

other key parameters we are missing?:

(for dcache sites) have you already followed the configuration suggested in

[https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To\\_improve\\_performance\\_of\\_dcache?](https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To_improve_performance_of_dcache?)

or other twiki (which?): yes.

## T2\_KR\_KNU

More... Close

cms\_site\_name: T2\_KR\_KNU

storage technology and version: dCache 2.6.34 (SL6)

xrootd server version: xrootd 3.3.6-1.1 (SL6)

how many xrootd server are installed? 1

usage of xrootd proxy? no

usage of xrootd manager (cmsd)? yes

head node hardware description dcache head node: 8 cores, 24 GB RAM

is there load-balancing and fail over? no

network interfaces of headnode and servers: headnode: 10Gbps, dcache pool servers: 1~10Gbps

bandwidth from xrootd head node and outside: Bandwidth for xrootd manager is irrelevant, since no data is tunneled through it (not a proxy).

are there limitations in the number of allowed accesses to the system (number of queries)? There are no restrictions for contacting either xrootd manager or dCache. but active transfers are limited to 500 ~ 1000 per dCache pool.

is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink? symlink

are you serving multiple VO s with your xrootd setup: no

are you registered in the AAA monitoring system? yes

other key parameters we are missing?:

(for dcache sites) have you already followed the configuration suggested in

[https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To\\_improve\\_performance\\_of\\_dcache?](https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To_improve_performance_of_dcache?)

or other twiki (which?) yes: no parameter "cms.dfs" in configuration, java heap space 2 GB

## dpm

### T2\_FR\_GRIF\_LLNR

More... Close

cms\_site\_name: T2\_FR\_GRIF\_LLNR

storage technology and version: dpm v1.8.8-4 (on SL 6)

xrootd server version: xrootd v3.3.6-1 (on SL 6)

how many xrootd server are installed? 1 xrootd head node and 19 disk servers

usage of xrootd proxy? no

usage of xrootd manager (cmsd)? yes

head node hardware description xrootd and dpm are collocated on the same server: server: 4 cores (Intel E5506), 8 GB RAM

is there load-balancing and fail over? no

network interfaces of headnode and servers: 10 Gb Ethernet

bandwidth from xrootd head node and outside: 10 Gb/s

are there limitations in the number of allowed accesses to the system (number of queries)? NB\_XTHREADS parameters and system limits have been re-configured to fit the suggestions in the Tuning wiki.

is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink? TFC

are you serving multiple VO s with your xrootd setup: yes

are you registered in the AAA monitoring system? yes

other key parameters we are missing?:

(for dpm sites) have you already followed the configuration suggested in

<https://svnweb.cern.ch/trac/lcgdm/wiki/Dpm/Admin/TuningHints>? yes, implementing changes on the 15/10/2014

(for dcache sites) have you already followed the configuration suggested in

[https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To\\_improve\\_performance\\_of\\_dcache?](https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To_improve_performance_of_dcache?)

or other twiki (which?) not applicable

## T2\_FR\_IPHC

More... Close

cms\_site\_name: T2\_FR\_IPHC

storage technology and version: dpm v1.8.8-4 (on SL 6)

xrootd server version: xrootd v3.3.6-1 (on SL 6)

how many xrootd server are installed? 1 xrootd head node and 10 disk servers

usage of xrootd proxy? no

usage of xrootd manager (cmsd)? yes

head node hardware description xrootd and dpm are collocated on the same server: server: 8 cores (E5640), 12 GB RAM

is there load-balancing and fail over? no

network interfaces of headnode and servers: 10 Gb Ethernet

bandwidth from xrootd head node and outside: 10 Gb/s

are there limitations in the number of allowed accesses to the system (number of queries)? FTHREADS and STHREADS are set as described on the Dpm/Admin/TuningHints page and we have the following parameters in security/limits.conf: "dpmmgr soft nproc unlimited"

is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink? TFC

are you serving multiple VO s with your xrootd setup: no

are you registered in the AAA monitoring system? yes

other key parameters we are missing?: We are using the DPM/XRootD plugin

(for dpm sites) have you already followed the configuration suggested in

<https://svnweb.cern.ch/trac/lcgdm/wiki/Dpm/Admin/TuningHints>? yes (the services have been restarted, but not the systems)

(for dcache sites) have you already followed the configuration suggested in

[https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To\\_improve\\_performance\\_of\\_dcache?](https://twiki.cern.ch/twiki/bin/view/Main/CmsXrootdOpenFileTests#To_improve_performance_of_dcache?)

or other twiki (which?) not applicable

## T2\_AT\_Vienna

More... Close

cms\_site\_name: T2\_AT\_Vienna

storage technology and version: dpm v1.8.8-4 (on SL 6)

xrootd server version: xrootd v3.3.6-1 (on SL 6)

how many xrootd server are installed? 1 xrootd head node and 10 disk servers

usage of xrootd proxy? no

usage of xrootd manager (cmsd)? yes

head node hardware description xrootd and dpm are collocated on the same server: server: 8 cores (Intel Xeon L5240), 16 GB RAM

is there load-balancing and fail over? no

network interfaces of headnode and servers: 1 Gb Ethernet on head, most of the data 10 Gb

bandwidth from xrootd head node and outside: Outside 10 Gb/s

are there limitations in the number of allowed accesses to the system (number of queries)? FTHREADS and STHREADS are set as described on the Dpm/Admin/TuningHints page and we have the following parameters in security/limits.conf: "dpmmgr soft nproc unlimited"

is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink? TFC

are you serving multiple VO s with your xrootd setup: yes

are you registered in the AAA monitoring system? yes

other key parameters we are missing?: We are using the DPM/XRootD plugin

(for dpm sites) have you already followed the configuration suggested in

<https://svnweb.cern.ch/trac/lcgdm/wiki/Dpm/Admin/TuningHints>? yes (the services have been restarted, but not the systems)

## storm

### T2\_IT\_Pisa

More... Close

cms\_site\_name: T2\_IT\_Pisa

storage technology and version: storm 1.11.4 (on sl6)

xrootd server version: xrootd.3.3.4-1 on sl6

how many xrootd server are installed? 2

usage of xrootd proxy? no

usage of xrootd manager (cmsd)? no

head node hardware description no head node

is there load-balancing and fail over? yes

network interfaces of headnode and servers: each server has a 10 Gbit/s connection

bandwidth from xrootd head node and outside: each server has a 10 Gbit/s connection

are there limitations in the number of allowed accesses to the system (number of queries)? thread number set to 4096 per server

is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink? TFC

are you serving multiple VO s with your xrootd setup: no

are you registered in the AAA monitoring system? yes

other key parameters we are missing?:

### T2\_ES\_IFCA

More... Close

cms\_site\_name: T2\_ES\_IFCA

storage technology and version: storm 1.11.3 (on sl6)/GPFS 3.5

xrootd server version: xrootd.3.3.6-1 on sl6

how many xrootd server are installed? 8

usage of xrootd proxy? no

usage of xrootd manager (cmsd)? no

head node hardware description no head node

is there load-balancing and fail over? yes

network interfaces of headnode and servers: each server has shared 10 Gbit/s connection

bandwidth from xrootd head node and outside: each server has shared 10 Gbit/s connection

are there limitations in the number of allowed accesses to the system (number of queries)? thread number set to 1024 per server

is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink? TFC

are you serving multiple VO s with your xrootd setup: no

are you registered in the AAA monitoring system? yes

other key parameters we are missing?:

## Hadoop/BeSTMan

### T2\_US\_Purdue

More... Close

cms\_site\_name: T2\_US\_Purdue

storage technology and version: Hadoop 2.0: hadoop-2.0.0+545-1.cdh4.1.1.p0.20.osg32.el6.x86\_64

xrootd server version: Xrootd 3.3.6: xrootd-3.3.6-1.1.osg32.el6.x86\_64

how many xrootd server are installed?: 90

usage of xrootd proxy?: No

usage of xrootd manager (cmsd)?: Yes

head node hardware description: 16-cores, AMD Opteron(tm) Processor 4280, 16 GB RAM

is there load-balancing and fail over?: No  
network interfaces of headnode and servers: 10G  
bandwidth from xrootd head node and outside: head node is 10G, WAN is 100G  
are there limitations in the number of allowed accesses to the system (number of queries)?: Number of open files is limited to 61440  
is the access to /store/test/xrootd/\$SITENAME dir done using TFC or symlink?: TFC  
are you serving multiple VOs with your xrootd setup: No  
are you registered in the AAA monitoring system?: Yes  
other key parameters we are missing?: Site is using RHEL6.5 as OS on all the nodes. Implemented following kernel tweaks.  
1. Disabled transparent Huge Pages Compaction: 'echo never > /sys/kernel/mm/redhat\_transparent\_hugepage/defrag'  
2. Changed value of vfs\_cache\_pressure from 100 to 10: 'echo 10 > /proc/sys/vm/vfs\_cache\_pressure'

## LStore/BeStMan

## Lustre/BeSTMan

-- FedericaFanzago - 22 Sep 2014

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This topic: Main > Sites\_setup

Topic revision: r23 - 2016-10-11 - JohanHenrikGuldmyr



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