

dCache post-1.9.7 configuration files

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Why?

# Advantages

- Single domain installation
- Multi door per host installation
- Single place to define all domains on a host

# Advantages

- No templates
- Per domain and per cell settings
- Single place to find default values
- Auto creation of pools

# The players

- etc/dcachel.conf
- etc/layouts/
- share/defaults/

# etc/dcache.conf

- The main configuration file
- Replaces dCacheSetup
- An empty file is valid – no template is needed
- Most of the old parameters work as before

# A few new properties

- `dcache.user`
- `dcache.namespace`
- `dcache.java.memory.heap`
- `dcache.java.memory.direct`
- `net.wan.port.min` / `net.wan.port.max`
- `net.lan.port.min` / `net.lan.port.max`

# Layouts

- Defines which domains to start
- Defines which services to put in a domain
- Allows for per domain and per service configuration
- stored in `etc/layouts/xxx.conf` with `dcache.layout=xxx` in `etc/dcache.conf`



```
messageBroker=none
```

```
[dCacheDomain]  
[dCacheDomain/admin]  
[dCacheDomain/broadcast]  
[dCacheDomain/poolmanager]  
[dCacheDomain/dummy-prestager]  
[dCacheDomain/loginbroker]  
[dCacheDomain/spacemanager]  
[dCacheDomain/pnfsmanager]  
[dCacheDomain/nfsv3]  
[dCacheDomain/cleaner]  
[dCacheDomain/acl]  
[dCacheDomain/dir]  
[dCacheDomain/gplazma]  
[dCacheDomain/gsi-pam]  
[dCacheDomain/pinmanager]  
[dCacheDomain/billing]  
[dCacheDomain/srm-loginbroker]  
[dCacheDomain/httpd]  
[dCacheDomain/topo]  
[dCacheDomain/info]
```

```
[dCacheDomain/pool]  
name=pool1  
path=/path/to/pool1
```

```
[dCacheDomain/pool]  
name=pool2  
path=/path/to/pool2
```

```
# [dCacheDomain/replica]  
[dCacheDomain/dcap]  
# [dCacheDomain/gsidcap]  
[dCacheDomain/gridftp]  
[dCacheDomain/srm]  
# [dCacheDomain/transfermanagers]  
# [dCacheDomain/xrootd]  
[dCacheDomain/webdav]
```

```
[dCacheDomain]
[dCacheDomain/poolmanager]
[dCacheDomain/dummy-prestager]
[dCacheDomain/broadcast]
[dCacheDomain/loginbroker]
[dCacheDomain/topo]

[adminDoorDomain]
[adminDoorDomain/admin]

[spacemanagerDomain]
[spacemanagerDomain/spacemanager]

[namespaceDomain]
[namespaceDomain/pnfsmanager]
[namespaceDomain/cleaner]
[namespaceDomain/acl]

[nfsDomain]
[nfsDomain/nfsv3]

[dirDomain]
[dirDomain/dir]

[infoDomain]
[infoDomain/info]
```

```
[dirDomain]
[dirDomain/dir]

[infoDomain]
[infoDomain/info]

[statisticsDomain]
[statisticsDomain/statistics]

[httpdDomain]
[httpdDomain/billing]
[httpdDomain/srm-loginbroker]
[httpdDomain/httpd]

[gPlazmaDomain]
[gPlazmaDomain/gplazma]

[utilityDomain]
[utilityDomain/gsi-pam]
[utilityDomain/pinmanager]

# [ ${host.name}Domain]
# [ ${host.name}Domain/pool]
# name=pool1
# path=/path/to/pool1
```

# Two doors

```
[gridftp- $\{host.name\}$ -1Domain]  
[gridftp- $\{host.name\}$ -1Domain/gridftp]  
port=2811  
cell.name=GFTP- $\{host.name\}$ -1
```

```
[gridftp- $\{host.name\}$ -2Domain]  
[gridftp- $\{host.name\}$ -2Domain/gridftp]  
port=2812  
cell.name=GFTP- $\{host.name\}$ -2
```

# Java heap size

etc/dcache.conf

```
dcache.java.memory.heap=512m  
dcache.java.memory.direct=128m
```

etc/layouts/myLayout.conf

```
[dCacheDomain]  
dcache.java.memory.heap=2048m  
dcache.java.memory.direct=0m
```

...

```
[utilityDomain]  
dcache.java.memory.heap=384m  
dcache.java.memory.direct=16m
```

# Per host layouts

```
etc/dcache.conf
```

```
dcache.layout=${host.name}
```

```
etc/layouts/host1.conf
```

```
[dCacheDomain]
```

```
[dCacheDomain/poolmanager]
```

```
etc/layouts/host2.conf
```

```
[gridftp-${host.name}-1Domain]
```

```
[gridftp-${host.name}-1Domain/gridftp]
```

# Pools

In your layout file:

```
[myPoolDomain/pool]  
name=pool1  
path=/san/pool1  
lfs=precious  
tags=hostname=${host.name}  
maxDiskSpace=2T
```

The pool structure is auto created on first startup!  
May be suppressed with something like

```
waitForFiles=${path}/data
```

If maxDiskSpace nor "set max disk space" is defined,  
then the pool is auto sized!

# Default values

- Taken from files in share/defaults/
- Don't modify them; the files will be overwritten on upgrade!
- A good source to learn about available properties

# We are not done... 1.9.8

- PoolManager.conf optional
- All tags are optional with Chimera
- More defaults in share/defaults/