

# WebDAV in dCache

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# Outlook



- **WebDAV introduction**
  - What is WebDAV
  - WebDAV in dCache
- **Server configuration**
- **WebDAV clients for different platforms**
- **Small demonstration**

# What is WebDAV



## WebDAV

### Web-based Distributed Authoring and Versioning

- a major extension to HTTP
- provides web-based network file system (allows browsing, upload and download, renaming, moving, copying and deleting files)
- standard, developed by the Internet Engineering Task Force (IETF)
- is supported by all major Operation Systems
- support in the operating system's native file management clients
- Easy to use

# WebDAV in dCache



- provides easy integration between local storage, network drive and grid storage
- implemented as a dCache "cell"
- third-party GUI access to the data stored on dCache
- allows you to browse directories on a remote dCache instance and down/upload files on it
- HTTPS with X.509 Certificate Authorization
- is easy to set up

# Server configuration



basic configuration:

*`$DCACHE_HOME/etc/layouts/pool.conf`* :

```
..  
[ ${host.name} Domain ]  
[ ${host.name} Domain ] /webdav ]  
...
```

all default WebDAV settings stored in:

*`$DCACHE_HOME/share/defaults/webdav.properties`*

do not edit this file . Your changes will be lost after upgrade !!!

write new **non default** parameters in :

*`$DCACHE_HOME/opt/d-cache/etc/dcachel.conf`*

# Server configuration -examples



World writable (scratch)

```
$DCACHE_HOME/opt/d-cache/etc/dcache.conf
..
webdavAnonymousAccess=FULL
webdav.overwrite=true
webdavRootPath=/pnfs/data/store/temp/
webdavWantClientAuth=false
..
```

X509 (CA)

```
$DCACHE_HOME/opt/d-cache/etc/dcache.conf
..
webdavAnonymousAccess=NONE
webdavRootPath=/pnfs/data/store/user/
webdavProtocol=https
webdavWantClientAuth=true
webdavNeedClientAuth=true
..
```

# WebDAV File Access clients



## Native operation system:

Apple: Mac OS X webdavfs & iDisk

Microsoft: Windows Web Folders

\*nix: Nautilus (GNOME project, Eazel)

## Browser plugin:

Trail Mix for Firefox

## Third party (freeware and not) :

Wind River Software: WebDrive

Goliath (Mac, open source)

# WebDAV clients



	TrailMix	curl	cadaver	davlib	Shared Folder	davfs2	nautilus	dolphin	web browser
<b>OS</b>	any where Firefox runs	most	* nix	MAC OS X	Windows *	*nix	GNOME	KDE	(Firefox, IE)
<b>X.509</b>	yes	yes	yes	no	yes	yes	no	N/A	yes
<b>GIU</b>	yes	no	no	yes	yes	no	yes	yes	yes
<b>command line</b>	no	yes	yes	yes	no	yes	no	no	no
<b>redirection</b>	yes	no	no	yes	yes	no	no	yes	yes



# WebDAV clients



	Notes
TrailMix	+ can upload folders - no multiple selection - no drag&drop
curl	- command line CA
cadaver	- wrong size by files >2 GB
davlib	no write without a certificate (needs Stunnel)
davfs2	+ could be mounted in local FS
nautilus	- no CA
web browser	- read only

# Links:



*dCache*

*<http://dcache.org/>*

*WebDAV*

*<http://webdav.org/>*