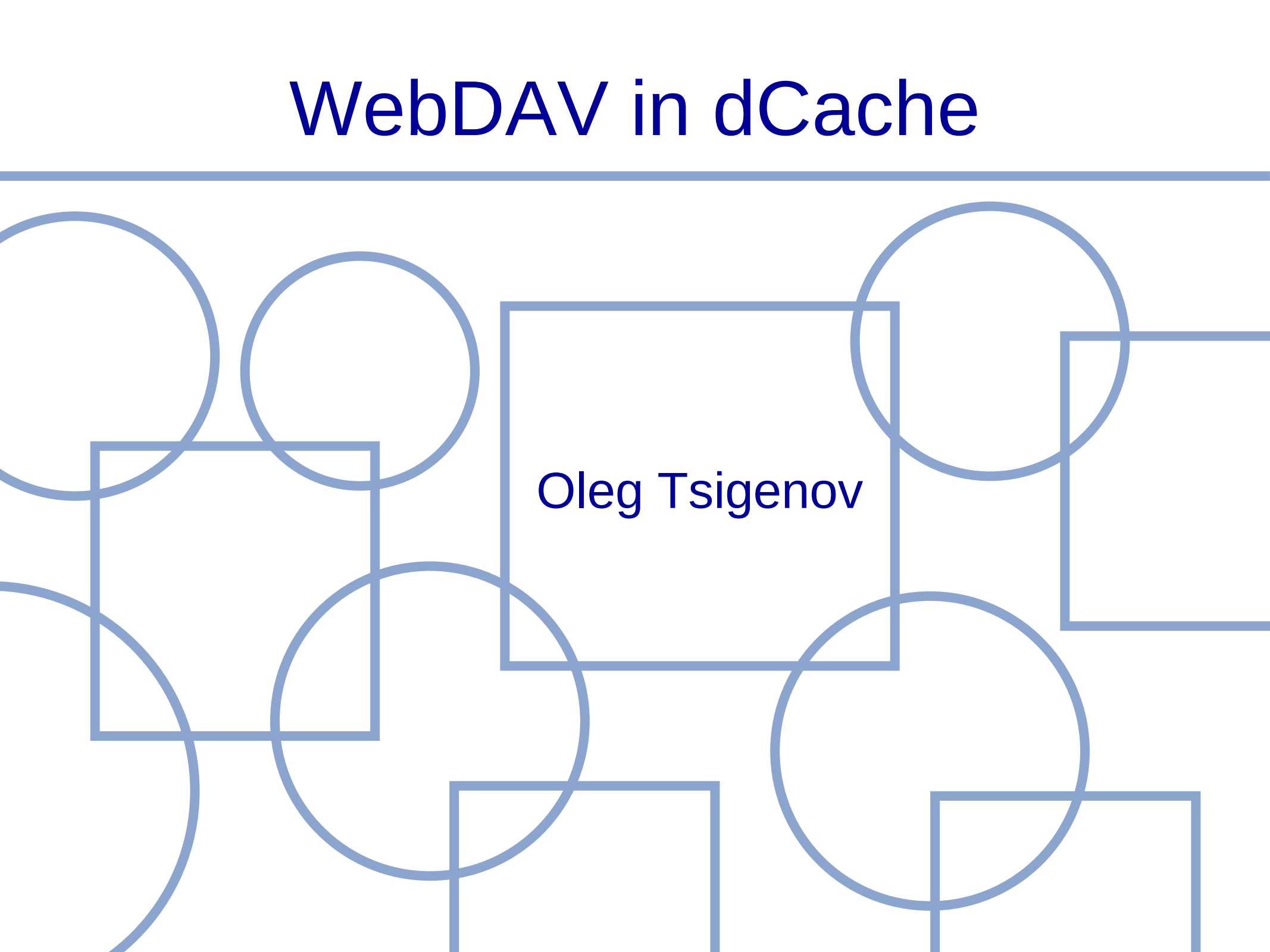


WebDAV in dCache



Oleg Tsigenov

Outlook



- WebDAV introduction
 - What is WebDAV
 - WebDAV in dCache
- Server configuration
- WebDAV clients for different platforms
- Discussion

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 “service”
- 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

WebDAV on T2_DE_RWTH



Address:

webdavs:\\grid-webdav.physik.rwth-aachen.de:2880/

Rootdir mapped on

.cms\\store\\user

Authorization:

CA

Access :

READONLY

Note: the webdav on dCache billing logs only available on dCache server version 1.9.12-2 or higher.

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 to :

`$DCACHE_HOME/opt/d-cache/etc/dcachelconf`

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	Native client	Shared Folder	davfs2	nautilus	dolphin	web browser
OS	any where Firefox runs	most	* nix	MAC OS X	Windows *	*nix	GNOME	KDE	(Firefox, IE)
X.509	yes	yes	yes	no	yes	yes	no	N/A	yes
GIU	yes	no	no	yes	yes	no	yes	yes	yes
command line	no	yes	yes	yes	no	yes	no	no	no
redirection	yes	no	no	yes	yes	no	no	yes	yes

WebDAV clients



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



WebDAV clients (example) lftp

Details in hands-on session during dCache Göttingen workshop:

<http://trac.dcache.org/projects/dcache/wiki/WebDAV%20Hands%20on>

Decrypt user key :

```
#openssl rsa -in .globus/userkey.pem -out .globus/tmpkey.pem
```

Edit *.lftp/rc* :

```
set ssl:check-hostname true
set ssl:ca-file /etc/grid-
security/certificates/NorduGrid.pem
set ssl:key-file /home/maswan/.globus/tmpkey.pem
set ssl:cert-file /home/maswan/.globus/usercert.pem
set ssl:verify-certificate true
```

thanks to :Mattias Wadenstein

Links:



dCache

<http://dcache.org/>

WebDAV

<http://webdav.org/>



Discussion

- So far ReadOnly mode.
- Access protections only possible globally dcms vs. cms
- User level protection (CA based) under development, but not available this year
 - Enable ro or rw at RWTH ?
 - Plans of DESY for CMS dCache instance ?
 - When to announce to FSP-CMS ?