



CADC VOSpace 2.0

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- operational ~ 2010-08
- mainly used by project groups to collaborate



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- development started 2010-04
- operational ~ 2010-08
- mainly used by project groups to collaborate
 - group-based access control critical
 - usage is heavy (~6 months):
 - ~8.5TB stored
 - ~18TB uploaded
 - 340TB downloaded!



CADC VOspace 2.0

- recently released feature: moveNode
- currently working on:
 - LinkNode
 - pullToVoSpace, pushFromVoSpace, copyNode
 - getNode options: detail, uri, limit (w/ defaults)
- implementation: 80% open source
 - java, RDBMS (tested: Sybase, PostgreSQL) + internal archive storage system

<http://opencadc.googlecode.com/>



- owner can always read/write
 - group-read property = <URI to a group> (RO)
 - group-write property = <URI to a group> (RW)
 - public-read property = <boolean>

read permission	access node metadata
	negotiate transfer from VOSpace
	traverse a container in a path
write permission	on ContainerNode to create child nodes
	on DataNode to negotiate transfer to VOSpace



authorization

- issue: ownership and permissions
 - owner of top-level container asks for an allocation
 - they use group-write property to let collaborators put data, but creator is the owner
 - top-level owner cannot see things in their “space”



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- decided:
 - owner of the top-level (allocation) is like “root”, always has irrevocable permissions
 - revocation still nice: remove user from group, blocked at higher level container
 - do not lose metadata of who created node(s)



authorization: move and copy

- copy requires read permission on source, write permission at destination
 - decided to avoid partial success: check for read permission on all nodes under the source
 - fail or complete
- move requires write permission on the parent container of the target and write permission at destination
 - avoid partial move: check for write (delete) permission on all effected nodes
 - fail or complete



- FUSE filesystem driver for VOSpace-2.0
 - implemented in python
 - user can mount a vospace container node

```
vofsmount  
vos://cadc.nrc.ca~vospace/pdowler myvos
```
 - proof of concept: more or less works
 - not ready for general use: many assumptions and hard-coded things (like service URL, resource names, authentication handling, etc)

WILL NOT WORK FOR YOU!!!



- FUSE filesystem driver for VOSpace-2.0
 - current timestamp node property is vague
<ivo://ivoa.net/vospace/core#date>

mtime	last data modification	/vospace/core#mtime
ctime	last status change	/vospace/core#ctime
birthtime	creation time	/vospace/core#btime

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