

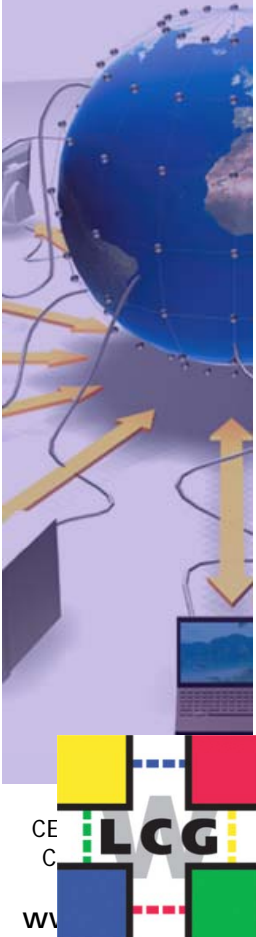
Status of the SRM 2.2 MoU extension

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Grid Deployment Board
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- **Protect spaces** from generic users
 - Restrict space release, **staging**, pool-to-pool copy
- **VOMS** awareness of SRM server
 - The **primary** FQAN in **proxy** should determine authorization
- **Space selection** for **read** operations
 - More control on pool usage
- **Release files** without knowing the ID of the request that staged them in
- **srmLs** should say in which spaces a file exists
- **srmGetSpaceMetaData** should return information about the used and available **space** in an SRM space
- Pass information to the SRM server to **optimize tape** usage
 - Essential to have a high efficiency in staging



CASTOR	Available , based on UID and GID
dCache	Protection against prestaging requests available by STEP09
DPM	Spaces can be write protected. Multiple FQANs can be authorized to write (from 1.7.0). Prestaging: not applicable.
StoRM	Space ACLs as defined in MoU (v.1.4-RCx, x \geq 4). FQAN pattern matching supported as recommended by EGEE (EGEE-III-JRA1_FQAN_wildcard_v1.0.doc)



CASTOR	Not available. Timescale not yet defined
dCache	Available. ACLs for file system operations available before STEP09
DPM	Available
StoRM	Available



CASTOR	Available
dCache	Not available. Could implement pool selection using the <i>TExtraInfo</i> input parameter
DPM	Not applicable
StoRM	Not applicable (files have a unique copy). Will be available with tape integration

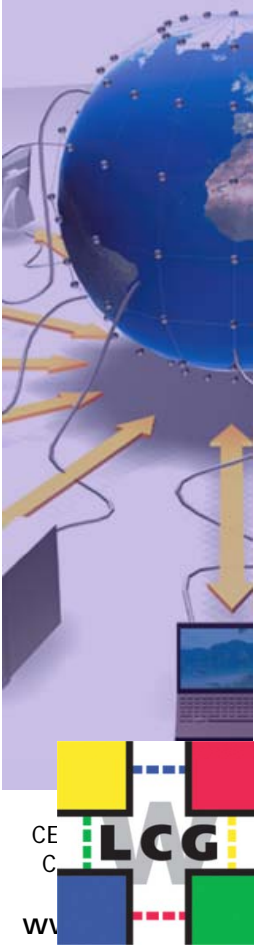


CASTOR	Supported, but srmReleaseFiles buggy (files still reported as pinned after), fixed in SRM 2.8
dCache	Supported from 1.9.3 (in preparation)
DPM	Supported from 1.7.0
StoRM	Supported



CASTOR	Not available
dCache	Not available (files can be in only one space token)
DPM	Available with 1.7.0
StoRM	Not available (files can be in only one space token)



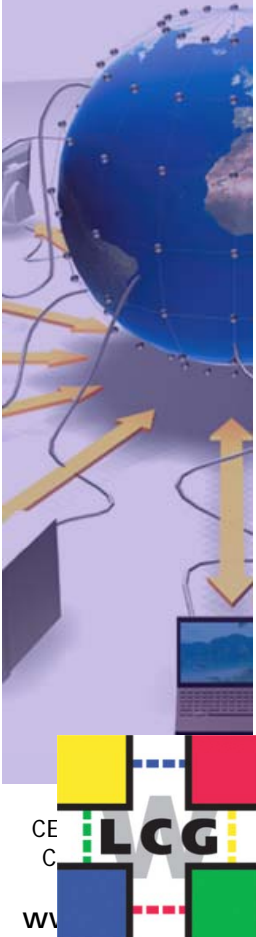


CASTOR	Available. It does not currently account for disk servers not in production. It will with CASTOR 2.1.8
dCache	Available
DPM	Available
StoRM	Available

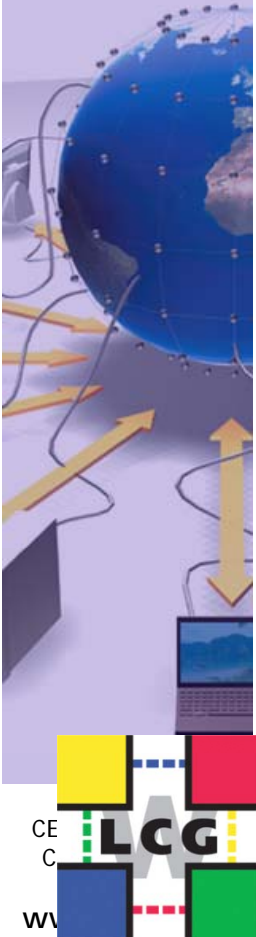
CASTOR	Not client-driven. Can map namespace regions or disk pools to tape pools
dCache	Not client-driven. Can pass space token to HSM interconnect scripts, and can map namespace regions to tape families
DPM	Not applicable
StoRM	Not applicable now. For integration with tape backend, foreseen to have automatic optimization



- CASTOR
 - Ls will return **checksum** from SRM 2.8 with CASTOR 2.1.8
 - Initially it will not work with files created via GridFTP in “internal” mode (CERN); if created via RFIO or via GridFTP in “external” mode (Tier-1’s) it will work
- dCache
 - Most effort on **stability** (**asynchronous** srmLs from 1.9.3)
 - effort to support **xrootd**: to be evaluated
 - Also working on **NFS 4.1** and **http** support
- DPM
 - **srmCopy** supported from 1.7.0
 - 1.7.1 (to be certified) stores file **checksum**
 - (http support already available)
- StoRM
 - Ls returns Adler32 **checksum** (v.1.4)
- All servers
 - Proper usage of **SRM_INTERNAL_ERROR** when server or backend is **busy**



- Clients (GFAL/lcg-util, FTS)
 - Will implement support for proper **retry** after an SRM_INTERNAL_ERROR by autumn
 - Support for **asynchronous srmLs** in CVS for GFAL, will come with the first patch for FTS 2.2
- lcg-util
 - Correctly manages the case when multiple space tokens match a space description
- FTS
 - Allows to specify space tokens, pin lifetime, file storage type and transfer parameters (to be certified)
- **SRM workshop**
 - To be held on May 18-20 at DESY



- Not available for 2009/2010 data taking
 - Client-driven tape optimization
 - VOMS support in CASTOR
 - Space selection in read operations in dCache
- Available for STEP09?
 - File checksum in srmLs in CASTOR: **yes, at CERN, with limitations. Yes, at Tier-1 sites, if they upgrade**
 - Prestaging and p2p copy protection in dCache: **foreseen**
 - Release files without request ID in dCache: **foreseen**
 - File ACLs in dCache: **foreseen**
 - Space ACLs in StoRM: **foreseen**
- Question: what is still really needed?
- Are there new requirements for SRM?

