Berkeley SRM v2.2 Status Report

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Server functions

- **Following functions are on the way**
  - **srmBringOnline (will be done next week)**
    - **srmStatusOfBringOnline**
  - **srmChangeSpaceForFiles (later)**
    - **srmStatusOfChangeSpaceForFiles**
  - **srmExtendFileLifeTimeInSpace (later)**
- **All others implemented with almost all options**
  - **Get, Put, Copy (local and remote)**
  - **Space reservation functions**
  - **Directory functions**
  - **Informational functions (space, request, file level)**

Functions not supported

- srmSetPermission
- srmCheckPermission
- srmGetPermission

Space types supported

- **Retention Policy**
  - REPLICA, CUSTODIAL
- **Access Latency**
  - ONLINE, NEARLINE

- **Combinations currently supported**
  - REPLICA + ONLINE
  - CUSTODIAL + NEARLINE

srm-client

- **SRM v2.2 Client implementation**
  - **Functions are grouped in different commands**
    - **To get/put/copy files to and from SRM v2.2 : srm-copy**
    - **To reserve/release space : srm-space**
    - **To ls/mkdir/rmdir/rm: srm-dir**
    - **To abort/extend-lifetime/get-summary: srm-request**

srm-copy

- srmPrepareToGet
- srmPrepareToPut
- srmBringOnline
- srmCopy :
  - From SRM-local to SRM-local (like unix cp)
  - From remote (remote SRM or other file storage) to SRM-local
  - From SRM-local to remote (remote SRM or other file storage)
- srmReleaseFiles
- srmRemoveFiles
- srmPutDone
- srmStatusOf{Get,BringOnline,Put,Copy}Request
- 3rd party "copy" from source SRM to target SRM by client
  - srmPrepareToGet to the source SRM – get TURL
  - srmPrepareToPut to the target SRM – get TURL
  - Perform 3rd party gridftp from source TURL to target TURL – monitor file transfer
  - srmReleaseFiles to the source SRM
  - srmPutDone to the target SRM

srm-space

- srmReserveSpace
  - srmStatusOfReserveSpaceRequest
- srmReleaseSpace
- srmUpdateSpace
  - srmStatusOfUpdateSpaceRequest
- srmGetSpaceMetaData
- srmGetSpaceToken
- srmChangeSpaceForFiles
  - srmStatusOfChangeSpaceForFilesRequest
- srmExtendFileLifeTimeInSpace
- srmPurgeFromSpace

srm-dir

- srmMkdir
- srmRmdir
- srmRm
- srmMv
- srmLs
  - srmStatusOfLsRequest

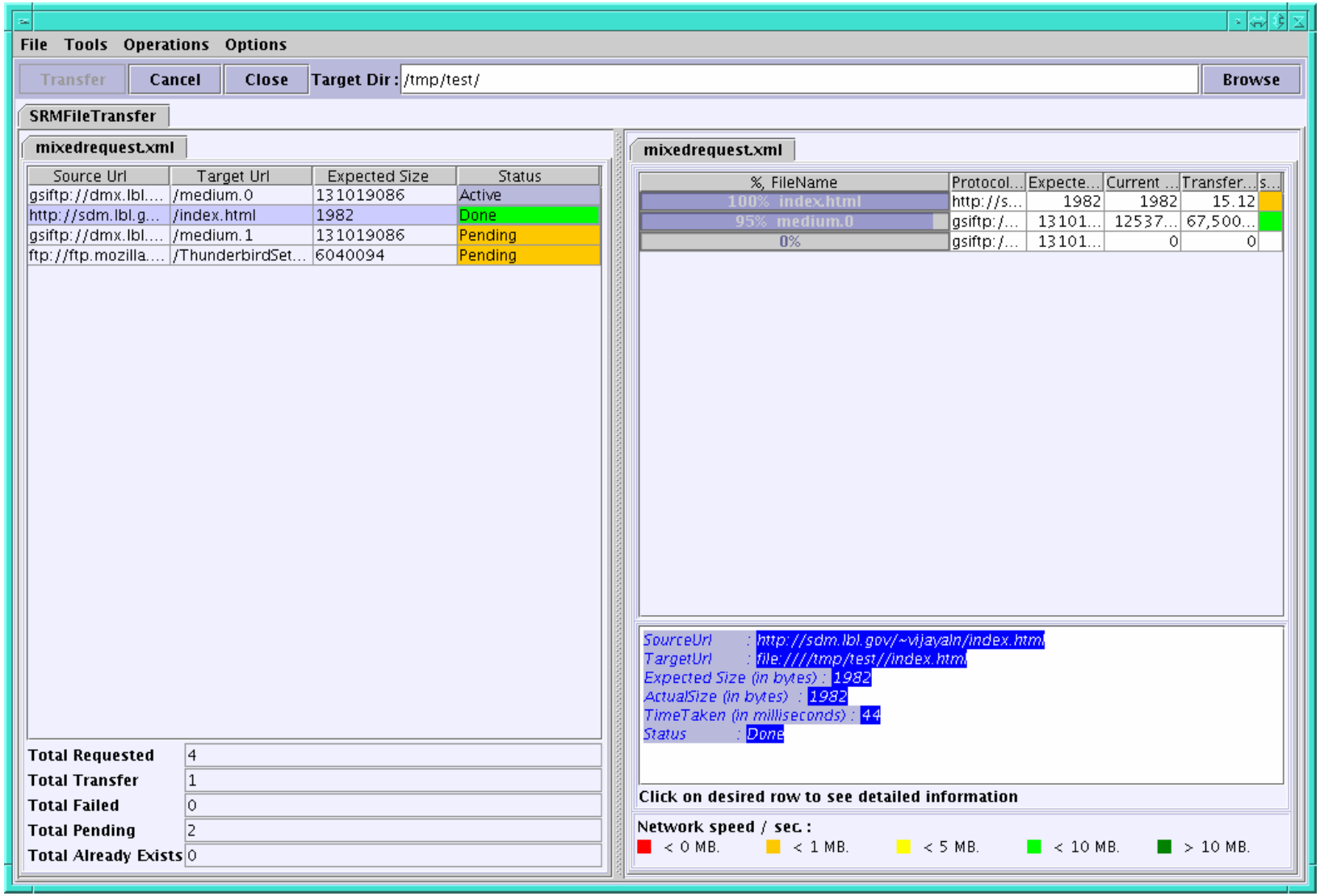
srm-request

- srmAbortRequest
- srmAbortFiles
- srmGetRequestSummary
- srmExtendFileLifeTime
- srmGetRequestTokens
- srmSuspendRequest
- srmResumeRequest

srm-info

- srmGetTransferProtocols
- srmPing

Example of Optional SRMClient GUI with file transfers



SRM-Tester

- **Independent implementation of SRM specification for the purpose of testing**
  - **Tests conformity of the SRM server interface according to the SRM spec v2.2**
  - **Tests compatibility and interoperability of the SRM servers according to the SRM spec**

- **More in the later talk**

SRM interop test result for v2.2 (8/25/2006)

Methods	CERN Castor	CERN DPM	FNAL dCache	RAL Castor	LBNL SRM
srmPing	Ok	Ok	Exception	Ok	Ok
srmPrepareToPut, srmStatusToPut, srmPutDone	N.A.	Ok	Ok	Ok	Ok
srmPrepareToGet, srmStatusToGet	Exception	Ok	Ok	Failed	Ok
SrmRelease	N.A.	Ok	Ok	N.A.	Ok
Mkdir	Ok	Ok	Ok	Ok	Ok
Rmdir	Ok	Ok	Ok	Ok	Ok
SrmMv	N.A.	Ok	Ok	Ok	Ok
SrmRm	N.A.	Ok	Ok	Ok	Ok
SrmLs	Exception	Exception	Ok	Exception	Ok
SrmReserveSpace	Failed	Ok	Ok	Failed	Ok
SrmReleaseSpace	N.A.	Ok	Ok	N.A.	Ok
SrmBringOnline, srmStatusOfBringOnlingRequest	N.A.	Ok	N.A.	N.A.	N.A.

Summary and deployment plans

- Berkeley SRM implementation (of v2.2) will be ready in Oct.
  - Srm-client and srm-tester will also be ready (in Oct.)
- SRM interop testing will be continuously conducted on daily bases until all SRM implementations are ready.
- Berkeley SRM for Disk and HPSS and srm-client tools will be deployed to Earth System Grid and STAR experiment.
- Berkeley SRM for Disk, SRM-Tester and srm-client will be packaged and distributed through VDT.