

# SRMv2.2 experience

*Sophie Lemaître ([Sophie.Lemaître@cern.ch](mailto:Sophie.Lemaître@cern.ch))  
WLCG Workshop - 23<sup>rd</sup> January 2007*

- **Testing phase continues**
  - One test endpoint deployed for each server
    - *CASTOR, dCache, DPM*
    - *DRM, STORM*
- **Clients being written**
  - Specific SRMv2.2 test clients
    - **Flavia's tests:** [http://grid-deployment.web.cern.ch/grid-deployment/flavia/basic/s2\\_logs/](http://grid-deployment.web.cern.ch/grid-deployment/flavia/basic/s2_logs/)
    - **LBNL tests**
  - FTS, lcg\_util / GFAL
- **Daily problems reported**
- **Daily fixes made**

Flavia's tests

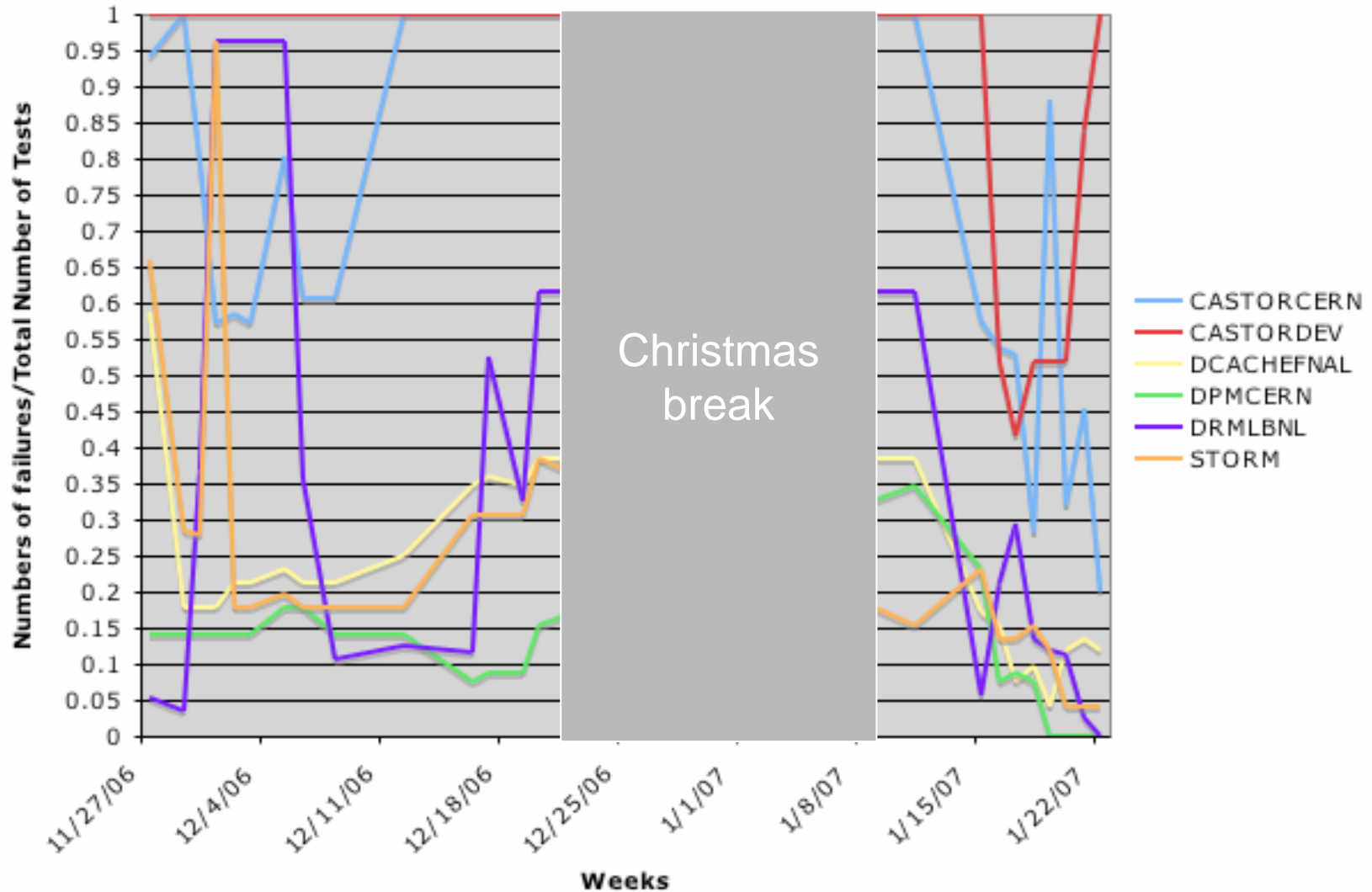
16 Nov. 2006  
05:42

SRM function	<u>CERN CASTOR</u>	<u>FNAL DCACHE</u>	<u>CERN DPM</u>	<u>LBNL DRM</u>	<u>STORM</u>
AbortFiles	StdOut Log	StdOut Log	StdOut Log	StdOut	StdOut Log
AbortRequest	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
BringOnline	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ChangeSpaceForFiles	StdOut Log	StdOut	StdOut Log	StdOut Log	StdOut Log
CheckPermission	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut
Copy	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ExtendFileLifeTimeInSpace	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ExtendFileLifeTime	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetPermission	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut
GetRequestSummary	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetRequestTokens	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetSpaceMetaData	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetSpaceTokens	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetTransferProtocols	StdOut Log	StdOut	StdOut Log	StdOut Log	StdOut Log
Ls	StdOut Log	StdOut	StdOut Log	StdOut	StdOut Log
Mkdir	StdOut Log	StdOut	StdOut Log	StdOut Log	StdOut Log
Mv	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Ping	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PrepareToGet	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PrepareToPut	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PurgeFromSpace	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutDone	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ReleaseFiles	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ReleaseSpace	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ReserveSpace	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ResumeRequest	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Rmdir	StdOut Log	StdOut	StdOut Log	StdOut Log	StdOut Log
Rm	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
SetPermission	StdOut Log	StdOut	StdOut Log	StdOut Log	StdOut Log
StatusOfBringOnlineRequest	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log

SRM function	<a href="#">CERN CASTOR</a>	<a href="#">CERN CASTORDEV</a>	<a href="#">FNAL DCACHE</a>	<a href="#">CERN DPM</a>	<a href="#">LBNL DRM</a>	<a href="#">STORM</a>
<b>WLCG MoU SRM v2.2 methods</b>						
Ping	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
PrepareToPut	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
StatusOfPutRequest	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
PutDone	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
PrepareToGet	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
StatusOfGetRequest	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
BringOnline	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
StatusOfBringOnlineRequest	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
AbortRequest	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
AbortFiles	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
ReleaseFiles	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
GetRequestSummary	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
GetRequestTokens	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
GetTransferProtocols	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
Ls	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
Mkdir	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
Rmdir	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
Rm	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
Mv	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
ReserveSpace	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
StatusOfReserveSpaceRequest	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
ReleaseSpace	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
GetSpaceTokens	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
GetSpaceMetaData	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>
ExtendFileLifeTime	<a href="#">StdOut Log</a>	<a href="#">StdOut</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>	<a href="#">StdOut Log</a>

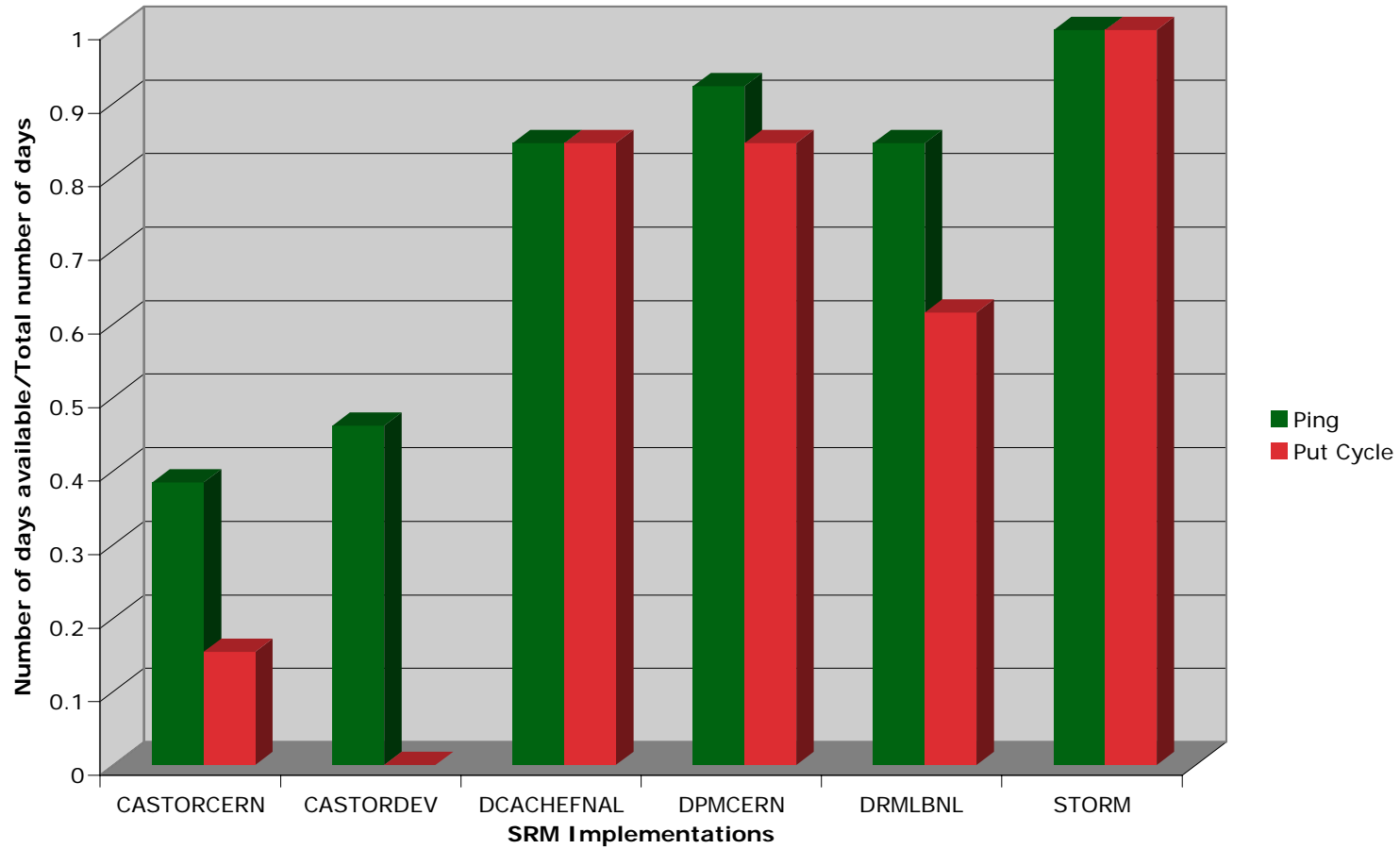
From Flavia Donno

MoU Basic Tests



From Flavia Donno

Ping vs. PutCycle



- **DPM SRMv2.2**
  - Very stable since August 2006
  - Good stability, reliability and availability
- **dCache SRMv2.2**
  - Good stability, reliability and availability
- **CASTOR SRMv2.2**
  - Some concerns about stability, reliability and availability
  - But improvements recently

- **Only basic tests**
  - On SRMv2.2 test endpoints
  - With no load
- **We need to test experiments use cases**
  - New problems are likely to appear
  - Still quite some work ahead !
- **We need to carry out stress tests**



- **FTS**
  - In final testing phase before release
    - Interoperability shown between dCache, DPM & STORM
    - CASTOR to be retested starting this week
  
- **lcg\_util – GFAL**
  - Development & testing in progress
    - Feedback given to servers teams

- **One spec but...**
  - 😊...different implementations
  - 😞...with different behaviors
- **Consistency between implementations has improved a lot**

- **For FTS and lcg\_util / GFAL**
  - SRMv1 will be the default until
    - SRMv2.2 is deployed in production
    - SRMv2.2 has proven to be stable
- **Site admins**
  - Have to run SRMv1 together with SRMv2.2 until SRMv2.2 stable

- **lcg\_util / GFAL**

- Get SRM type from the Information System
  - If space token specified by user and SRMv2.2 published, use SRMv2.2
  - Else if only SRMv2.2 published, use SRMv2.2
  - Else, use SRMv1

- **FTS**

- Default SRM version configurable per channel
- And possible policy
  - Ex1: always use SRMv2.2
  - Ex2: use SRMv2.2, only if no space token defined

- **Significant efforts made by**
  - Server teams
  - SRMv2.2 testers
  - Client teams
  
- **From all server teams**
  - Very high level of support
  - Prompt fixes

- **Big effort made**
  - Basic tests are ~OK now
- **Some concerns with stability and reliability covered before**
- **Months of work in front of us**
  - To make sure experiments use cases are OK
    - For all servers & clients
  - To provide an SRMv2.2 stable service
- **To be expected, given the nature of change**