SRM 2.2: status of the implementations and GSSD

LCG

3rd April 2007

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Issues

- Network problems with ESNet.
  - Router in Chicago losing packets and causing transfers between CERN and FNAL to hang. Similar problems were seen with transfers between LBNL and FNAL.
  - An upgrade was performed by ESNet about 2 weeks ago. However, problems observed already 4 weeks ago and transfers appeared slowly deteriorating with time.
  - A fix was put in place by ESNet last Thursday. However, we still observe hanging transfers for the stress test endpoint at FNAL.
  - The dCache team at FNAL has been fully involved to understand the source of the problem. Huge debugging effort also at CERN (Maarten and Flavia). We asked if notifications about such problems are posted somewhere. A user-level monitoring tool is being put in place.
- Temporary problem: DPM ran out of VOLATILE space.
- CASTOR: until yesterday few instabilities to be fixed. From yesterday major instabilities (basic and usecase) due to Name Server and/or network intervention (back-end suspected).
- dCache: no improvements with usecase yet mostly due to the network problem investigations and preparation for 1.8beta release.

Testing Plan

- Plan for 1Q of 2007 :

  - **Phase 1: From 16 Dec 2006 until end of January 2007:**
    - Availability and Basic tests
    - Collect and analyze results, update page with status of endpoints: https://twiki.cern.ch/twiki/bin/view/SRMDev/ImplementationsProblems
    - Plot results per implementation: number of failures/number of tests executed for all SRM MoU methods.
    - Report results to WLCG MB.

  - **Phase 2: From beginning until end of February 2007:**
    - Perform tests on use-cases (GFAL/lcg-utils/FTS/experiment specific), boundary conditions and open issues in the spec that have been agreed on.
    - Plot results as for phase 1 and report to WLCG MB.

  - **Phase 3: From 1 March until "satisfaction" :**
    - Stress testing
    - Add more SRM 2.2 endpoints (some T1s ?)
    - Plot results as for phase 2 and report to WLCG MB.

Stress tests

- Started on the 22nd of March 2007.
    - Running manually once or twice a day.
- Yesterday we received from FIO 9 more machines to dedicate to stress tests.
    - Relocatable rpms created for test suite. Binaries linked statically to avoid installing dependencies.
        - Such rpms are being used by SAM. First attempts to integrate tests in SAM successful.
        - RPMs also used by CMS to develop PheDex usecases (with S2 libraries) for SAM
    - A mechanism is being put in place to run stress tests from all machines, collect results, aggregate and publish them.
- Not really possible at the moment to stress test CASTOR because of PutDone being too slow (it can kill the server). Next software version containing also the LSF plugin fix needed.
- dCache stress endpoint does not yet answer correctly to stress situations. We are working with Dmitry to improve the situation.
- DPM and BeStMan behaves well under stress with the resources we have at the moment.
- Some problems observed with StoRM. The developers have worked to improve the situation.

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Basic and Usecase test families

- Developing more tests to explicitly check for new scenarios
  - BringOnline for dCache and Castor (simulating the problems experienced by LHCb with dCache SRM v1.1)
  - AbortRequest/Files used by FTS to recover from errors and implement retries
  - Correct output parameters returned in special conditions (size, file locality, etc.) - CASTOR : on one occasion, srmStatusOfGetRequest operation returned an invalid file size (different from previously returned values).

- Tests executed as usual 5 times per day on endpoints that are usually not the same as the ones used for the stress tests.

Tests executed

Summary of S2 SRM v2.2 basic test - Sunday 18 March 2007 08:13p

SRM function	CERN CASTOR	FNAL DCACHE	CERN DPM	LBNL BeStMan	STORM
WLCG MoU SRM v2.2 methods					
Ping	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PrepareToPut	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
StatusOfPutRequest	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutDone	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PrepareToGet	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
StatusOfGetRequest	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
BringOnline	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
StatusOfBringOnlineRequest	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
AbortRequest	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
AbortFiles	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ReleaseFiles	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetRequestSummary	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetRequestTokens	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetTransferProtocols	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Ls	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Mkdir	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Rmdir	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Rm	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Mv	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ReserveSpace	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
StatusOfReserveSpaceRequest	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ReleaseSpace	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetSpaceTokens	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetSpaceMetaData	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ExtendFileLifeTime	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
WLCG MoU SRM v2.2 methods needed by end of 2007					
Copy	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
StatusOfCopyRequest	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ChangeSpaceForFiles	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
StatusOfChangeSpaceForFilesRequest	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log

Summary of S2 SRM v2.2 basic test - Tuesday 3 April 2007 03:45pm CEST

SRM function	CERN CASTOR	FNAL DCACHE	CERN DPM	LBNL BeStMan	STORM
WLCG MoU SRM v2.2 methods					
Ping	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PrepareToPut	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
StatusOfPutRequest	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutDone	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PrepareToGet	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
StatusOfGetRequest	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
BringOnline	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
StatusOfBringOnlineRequest	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
AbortRequest	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
AbortFiles	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ReleaseFiles	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetRequestSummary	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetRequestTokens	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetTransferProtocols	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Ls	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Mkdir	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Rmdir	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Rm	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Mv	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ReserveSpace	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
StatusOfReserveSpaceRequest	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ReleaseSpace	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetSpaceTokens	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetSpaceMetaData	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ExtendFileLifeTime	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log

Tests executed

Availability

Summary of S2 SRM v2.2 availability test - Sunday 18 March 2007 06:04pm CET

CERN CASTOR	FNAL DCACHE	CERN DPM	LBNL BeStMan	STORM
UP	UP	UP	UP	UP

Summary of S2 SRM v2.2 availability test - Tuesday 3 April 2007 03:04pm CEST

CERN CASTOR	FNAL DCACHE	CERN DPM	LBNL BeStMan	STORM
DOWN	UP	UP	UP	UP

Interoperability
Cross Copy

Summary of S2 SRM v2.2 cross test - Sunday 18 March 2007 07:06pm CET

In these tests the srmCopy function is exercised. This function should be implemented by all available Storage System by the end of the 3Q of 2007. dCache is required to implement this function as of now. Therefore, it is OK to have red columns for all SRM endpoints except for dCache. However, it is not OK to have red rows since this means that a file cannot be copied between SRMs with simple get and put operations.

SRM function	CERN CASTOR not needed	FNAL DCACHE	CERN DPM not needed	LBNL BeStMan	STORM
Copy Tests in PUSH mode					
CopyToCERNCASTOR	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
CopyToFNALDCACHE	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
CopyToCERNDPM	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
CopyToLBNLDRM	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
CopyToSTORM	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Copy Tests in PULL mode					
CopyFromCERNCASTOR	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
CopyFromFNALDCACHE	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
CopyFromCERNDPM	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
CopyFromLBNLDRM	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
CopyFromSTORM	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log

DRM short lifetime on default space

StoRM No Copy In pull mode

Summary of S2 SRM v2.2 cross test - Tuesday 3 April 2007 10:14am CEST

In these tests the srmCopy function is exercised. This function should be implemented by all available Storage System by the end of the 3Q of 2007. dCache is required to implement this function as of now. Therefore, it is OK to have red columns for all SRM endpoints except for dCache. However, it is not OK to have red rows since this means that a file cannot be copied between SRMs with simple get and put operations.

SRM function	CERN CASTOR not needed	FNAL DCACHE	CERN DPM not needed	LBNL BeStMan	STORM
Copy Tests in PUSH mode					
CopyToCERNCASTOR	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
CopyToFNALDCACHE	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
CopyToCERNDPM	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
CopyToLBNLDRM	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
CopyToSTORM	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Copy Tests in PULL mode					
CopyFromCERNCASTOR	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
CopyFromFNALDCACHE	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
CopyFromCERNDPM	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
CopyFromLBNLDRM	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
CopyFromSTORM	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log

Use Cases

Tests executed

Summary of S2 SRM v2.2 use-case test - Sunday 18 March 2007 08:36pm CET

SRM test	CERN CASTOR	FNAL DCACHE	CERN DPM	LBNL BeStMan	STORM
ExtendFileLifeTime	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
FileNames00	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
FileNames01	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetRemoved01	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetStatusPartialEx	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetStatusPartialNe	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
LsDirCountOffset	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
LsDirDetail	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
LsDirFull	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
LsFullDetail	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
LsNonExistent	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
LsTopDir	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Mkdir00	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
MvBeingPut	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
MvDirBeingPutInto1	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
MvDirBeingPutInto	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
MvDir	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
MvIntoDir	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
MvSameFile	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
OverwritePin	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Pin01	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Pin02	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Pin03	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PrepareToPutNEVER	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutGet01	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutGet0File1	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutGet0File	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutNearline	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutNoOverwrite	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutNoOverwriteTransf	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutOverwrite	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutOverwriteTransf	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutRemoved01	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutRemoved02	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutRemoved03	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutStatusPartialEx	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutStatusPartialNe	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ReleaseFiles	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ReserveSpace	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Rmdir01	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
RmdirBeingPutInto	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
RmdirBeingPutIntoTransf	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Space00	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Space01	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Space02	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Space03	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
TokenSensCase	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log

Summary of S2 SRM v2.2 use-case test - Tuesday 3 April 2007 12:46pm CEST

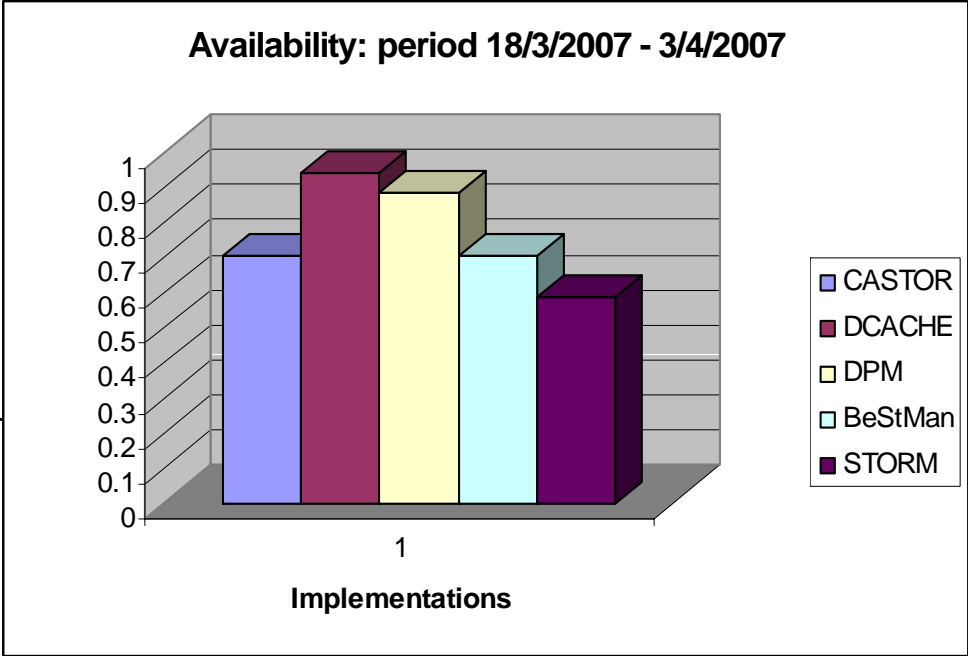| SRM test	CERN CASTOR	FNAL DCACHE	CERN DPM	LBNL BeStMan	STORM
ExtendFileLifeTime	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
FileNames00	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
FileNames01	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetRemoved01	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetStatusPartialEx	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetStatusPartialNe	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
LsDirCountOffset	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
LsDirDetail	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
LsDirFull	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
LsFullDetail	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
LsNonExistent	StdOut	StdOut Log	StdOut Log	StdOut Log	StdOut Log
LsTopDir	StdOut	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Mkdir00	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
MvBeingPut	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
MvDirBeingPutInto1	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
MvDirBeingPutInto	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
MvDir	StdOut	StdOut Log	StdOut Log	StdOut Log	StdOut Log
MvIntoDir	StdOut	StdOut Log	StdOut Log	StdOut Log	StdOut Log
MvSameFile	StdOut	StdOut Log	StdOut Log	StdOut Log	StdOut Log
OverwritePin	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Pin01	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Pin02	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Pin03	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PrepareToPutNEVER	StdOut	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutGet01	StdOut	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutGet0File1	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutGet0File	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutNearline	StdOut	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutNoOverwrite	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutNoOverwriteTransf	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutOverwrite	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutOverwriteTransf	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutRemoved01	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutRemoved02	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutRemoved03	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutStatusPartialEx	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutStatusPartialNe	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ReleaseFiles	StdOut	StdOut Log	StdOut Log	StdOut Log	StdOut Log
ReserveSpace	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Rmdir01	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
RmdirBeingPutInto	StdOut	StdOut Log	StdOut Log	StdOut Log	StdOut Log
RmdirBeingPutIntoTransf	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Space00	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Space01	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Space02	StdOut	StdOut Log	StdOut Log	StdOut Log	StdOut Log
Space03	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
TokenSensCase	StdOut	StdOut Log	StdOut Log	StdOut Log	StdOut Log

Tests executed

Stress Test

Summary of S2 SRM v2.2 stress test - Thursday 29 March 2007 12:49am CEST

SRM test	CERN CASTOR	FNAL DCACHE	CERN DPM	LBNL BeStMan	STORM
BringOnline	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetParallel	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
GetParallelTransf	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutGet01	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log
PutMany	StdOut	StdOut	StdOut	StdOut	StdOut
ReserveSpace	StdOut Log	StdOut Log	StdOut Log	StdOut Log	StdOut Log

Test results

Availability: period 18/3/2007 - 3/4/2007

Implementations

- CASTOR
- DCACHE
- DPM
- BeStMan
- STORM

Ping: Period 18/3/2007 - 3/4/2007

Implementations

- CASTOR
- DCACHE
- DPM
- BeStMan
- STORM

Test results

Basic - Period 18/3/2007 - 3/4/2007
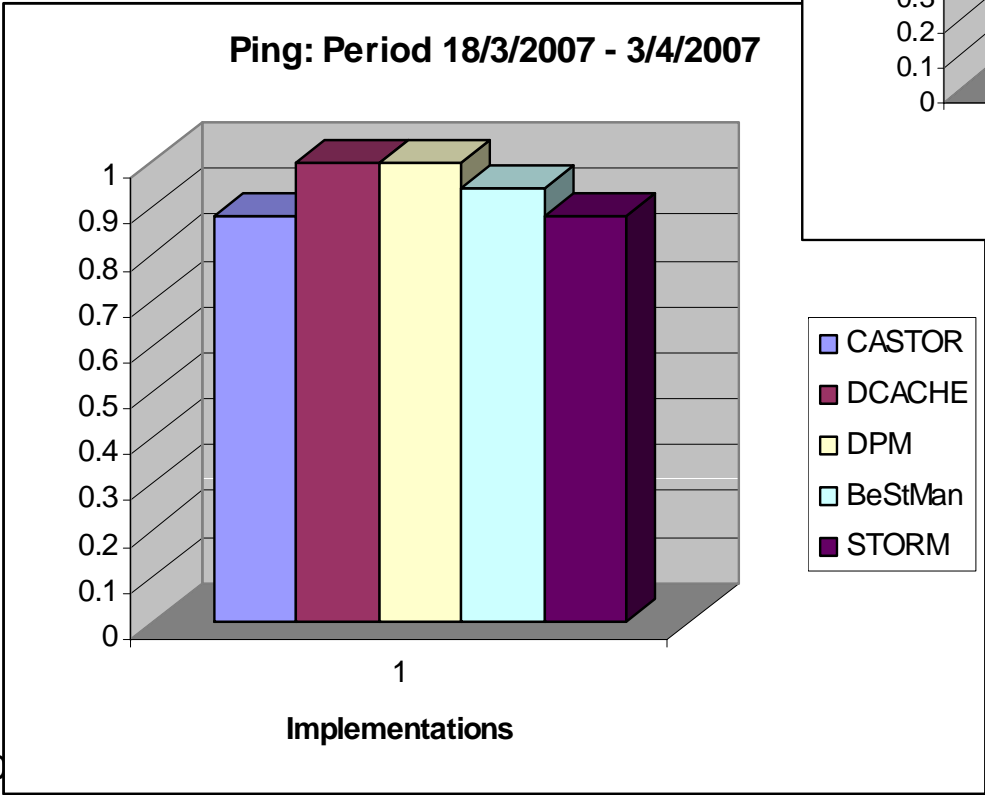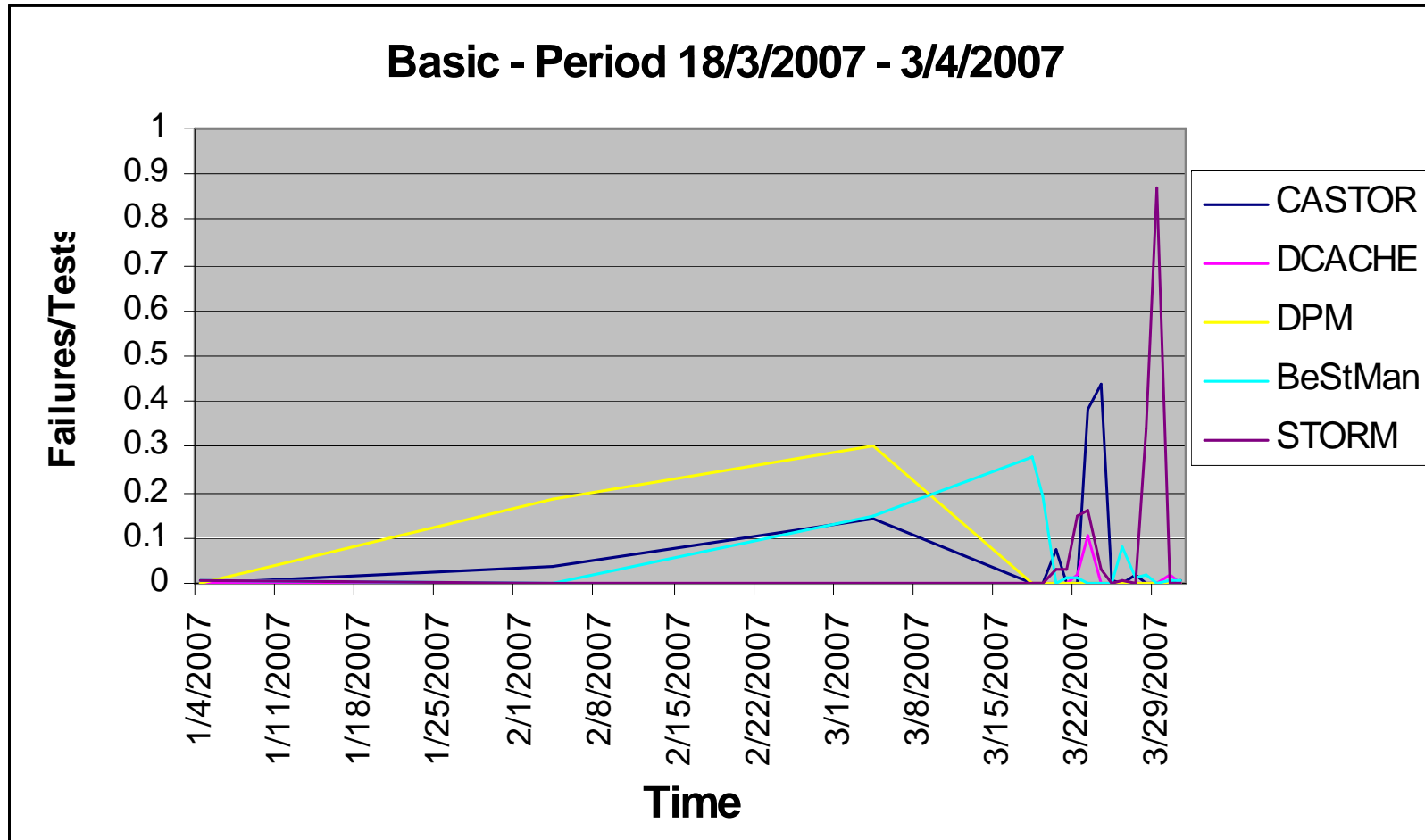
Test results
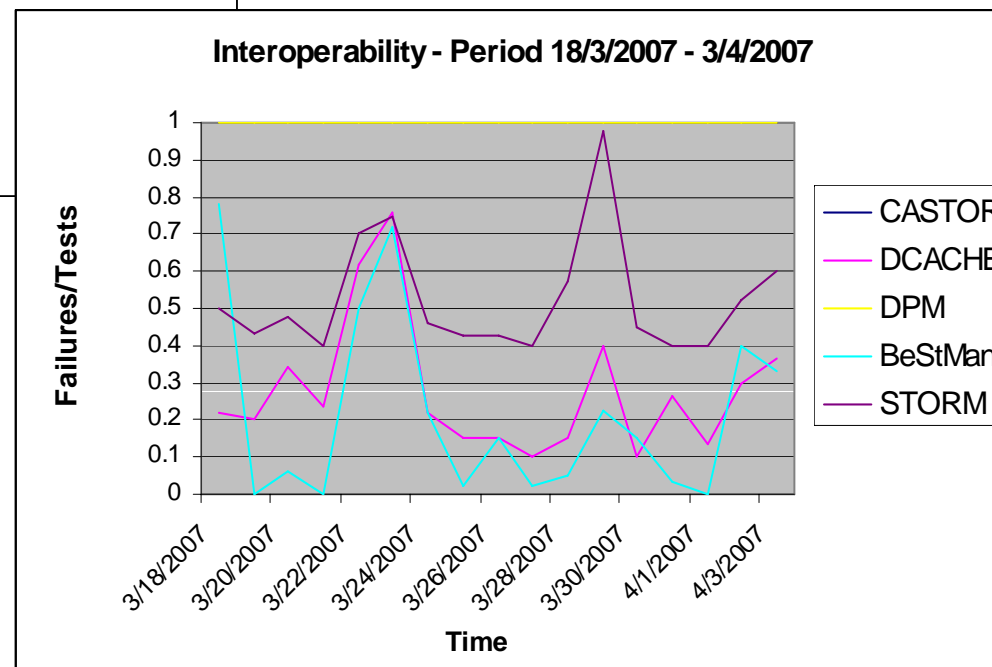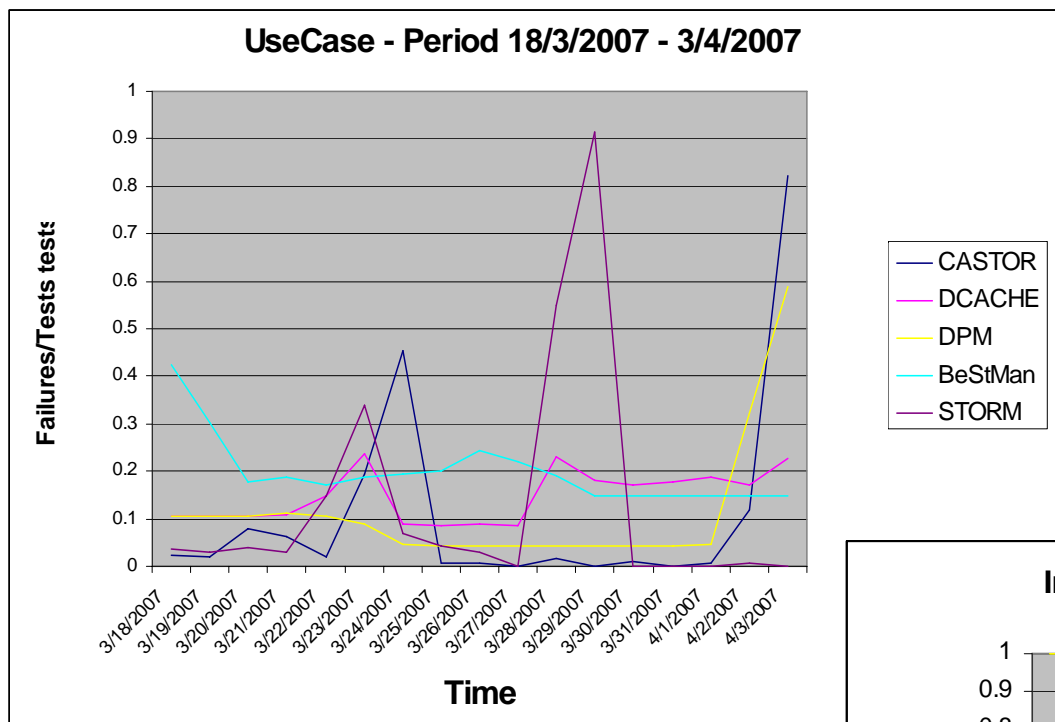
Available endpoints

- dCache
  - Stress and functionality endpoints available at FNAL with dCache 1.7 + development version of SRM
  - As of today, new endpoint available at DESY with dCache v1.8beta.
- CASTOR
  - Functionality and stress endpoints available at CERN
  - A stress test endpoint (c2itdc) with the new version of the CASTOR software (PutDone + LSF plugin fix) may be made available tomorrow
- DPM
  - New version (1.6.4) of DPM just released. 2 endpoints available at CERN. One used for functionality and stress testing.
  - Waiting for some UK site to install.
- StoRM
  - Only one endpoint available at CNAF used for functionality and stress tests.
  - A more robust endpoint is being made available for stress testing at CNAF.
  - Waiting for a wider deployment
- BeStMan
  - Only one endpoint available at LBNL user for both functionality and stress tests.

SRM clients tests

- GFAL/lcg-utils

  - Independent tests are being made by Mirco Ciriello (INFN) using the latest versions of the clients available on all endpoints.

  - Lcg-utils OK for all implementations but BeStMan (it requires delegated proxy not supported by lcg-utils).

  - Some problems with GFAL for all endpoints but DPM: under investigations.

  - Results are published on the SRMDev Twiki page:

    - https://twiki.cern.ch/twiki/bin/view/SRMDev

- FTS

  - Tests executed almost daily. Results reported on srm-tester mailing list and published on Twiki:

    - https://twiki.cern.ch/twiki/bin/view/SRMDev

  - Tests OK for all implementations but BeStMan. Some details need to be worked out.

  - More endpoints will be added soon.

Grid Storage System Deployment (GSSD)

- **Next face-to-face meeting at CERN on April 12, 2007**
  - SRM v1 to v2 migration plan
  - Experiments problems with Storage Services
  - Monitoring utilities
- **Parallel GSSD session during CMS off-line week**
  - Discussion of CMS input on Storage Classes and Tier-1s configuration
  - CMS GSSD Wiki pages are being updated (https://twiki.cern.ch/twiki/bin/view/LCG/GSSD)
- **Planning of activities and next face-to-face meetings**
  - On going
  - Major milestones discussed during July and September meetings.
  - US and ASIA need to be involved. We need to plan very well in advance.