

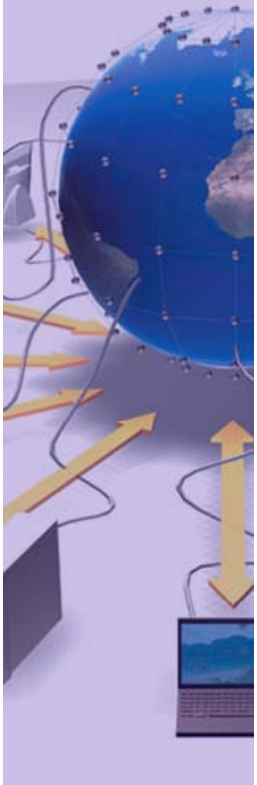
# Storageware

*Flavia Donno*

*CERN*

*WLCG Collaboration Workshop  
CERN, 13-14 November 2008*

- Detailed status report already available
  - Pre-GDB (dCache, DPM, StoRM)  
<http://indico.cern.ch/conferenceDisplay.py?confId=20247>
  - WLCG workshop (CASTOR)  
<http://indico.cern.ch/materialDisplay.py?contribId=13&sessionId=1&materialId=slides&confId=32660>
- Summary of the recommended versions and features available now or in the near future

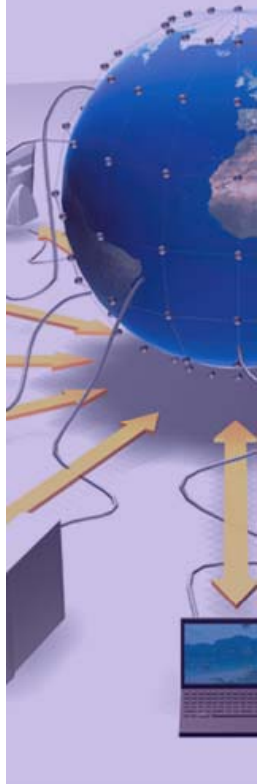


- The release currently in production is:
  - CASTOR Core: 2.1.7-21
  - CASTOR SRM v2.2: 1.3-28 on SLC3

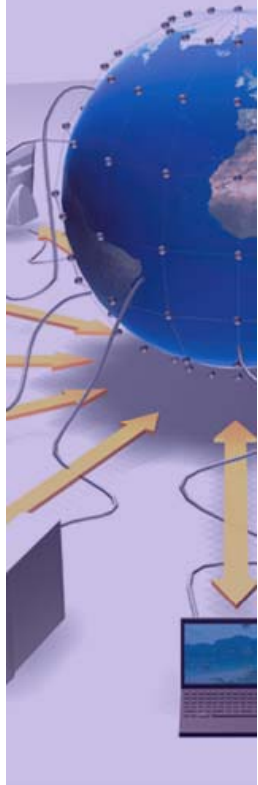
The recommended release is:

- CASTOR Core: 2.1.7-22 (released this week)
- CASTOR SRM v2.2: 2.7-8 on SLC4  
(srmCopy, srmPurgeFromSpace, more robust)

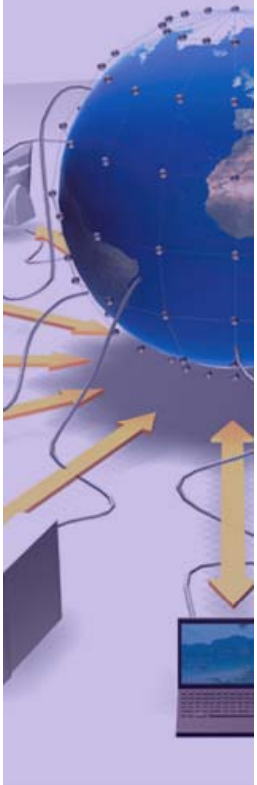
The next version of CASTOR, 2.1.8, is being considered for deployment at CERN for the experiment production instances.



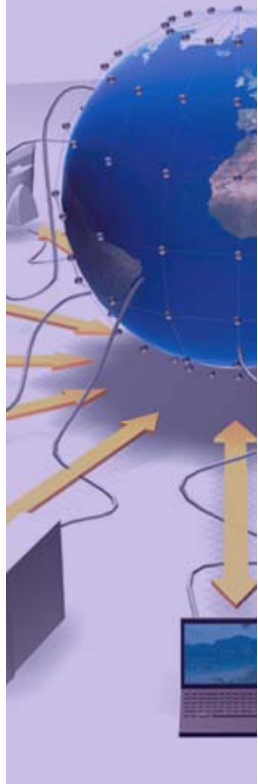
- Recommended release is 1.9.0
  - It is a low risk upgrade from 1.8.0
  - Sites are recommended to install Fast PNFS
- 1.9.n (n $\geq$ 1) contains the actual new features
  - New pool code (November) – Copy and Draining Manager
  - PinManager (December, January)
  - gPlazma
  - Tape protection (MoU)
  - srmReleaseFiles based on FQAN (MoU)
  - Space Token protection (MoU)
  - New information providers
  - ACLs (January)
  - NFS v4.1
  - Bug Fixes (gsiDcap, UNAVAILABLE Files, etc.)



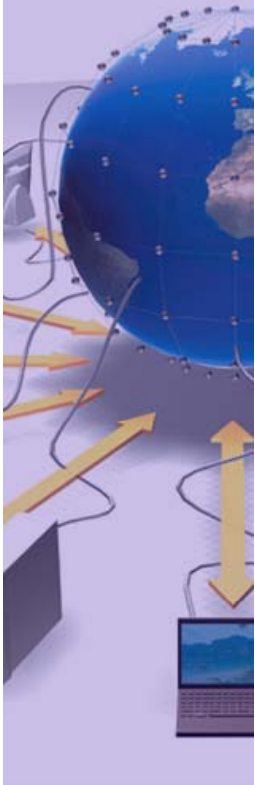
- Catalogue synchronization
- Better information providers for installed capacity
- Glue 2.0
- Fast Pnfs to Chimera migration tool
- For more info, please refer to the pre-GDB presentation.



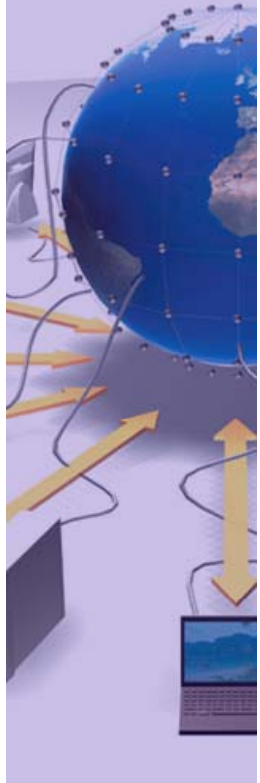
- V.1.6.11-3 is the last stable release on SLC4 (August 2008)
- V. 1.7.0 currently in certification
  - srmCopy
  - Write permission to spaces limited to multiple groups (MoU)
  - srmReleaseFiles based on FQAN (MoU)
  - srmLs can return a list of spaces a given file is in
  - New dpm-listspace command needed for information providers (installed capacity)
  - DPM retains space token when the admin drains a file from a filesystem



- Added ADLER32 and CRC32 supported checksum in the gridftp CKSM command
- New nameserver APIs to set and retrieve checksum
- SURL cleanup after expiry or abort
- Improved internal logging for space capacity updates
- New DB schema
  - YAIM makes an automatic update



- More friendly python interface
- Enhance xrootd support (authentication)
- Quota system
- Further checksum support
- Monitoring interface
- Tool for consistency check and repair
- Enhance filesystem selection
- NFS v4.1
- Resource limits
- Compliance with gLite logging recommendations





- V 1.3.20-04 currently in production
  - Support for SL4
  - YAIM configuration
  - Filesystem drivers
    - PosixFS – Lustre, EXT3, etc.
      - ACL enforcing through setf/getfacl
    - GPFS v3.x
    - XFS
- V1.4 new major release (December 2008)
  - Compliant with MoU short term plan
  - GSOAP 2.7
  - Separation of Synch and Asynch srm call
  - Improved configuration
  - New authorization mechanism for SA
  - GridFTP load balancer
  - Improved support for different filesystems
  - Storage Area size not enforced at filesystem level

