CASTOR SRM2.2

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RAL

Overview

- Status
- Differences to other SRMs
- Problems
- ToDo
- Spaces and service classes

Status (Implementation)

- End-point srm-v2.cern.ch now available
- All function have some implementation
    - May be NOT_SUPPORTED
    - May still not handle all possible permutations of options correctly
    - Still some bugs that are under investigation

Status (Reliability)

- **Reliability has been poor**
  - Move from development machine to managed machine caused headaches
- **But becoming more stable**
  - Early tests show latest release appears more stable (more consistent results on test page)
  - But more later

Status (other sites)

- CNAF
  - Installing and setting up
- RAL
  - Planned, but nothing yet
  - When I get time...
- Recommend using release 0.9-4 or later.
- Formal (public) releases will be announced
  - Method TBD

Differences

- NOTE!!!!
    - **<u>NOT</u>** Interoperability problems
- Space Reservation
    - Asynchronous and required human intervention
    - Space owned by VO – not user
- Pinning
    - Advisory

Differences

- **AbortFiles/AbortRequest**
  - Limited time to allow abort
  - CASTOR does not support aborting requests.
- **Suspend/Resume**
  - Not likely to be supported
  - Would have same restrictions as ABORT

Problems (solved)

- CGSI plug-in support for gsoap 2.7
  - Now seems stable
- Leaking database connections
  - Moved to new thread model
- Support for both VOMS and Grid map file
  - Caution – if your VO credentials and grid-map entry don't match, this is currently an error

Problems (remaining)

- **Backend instability**
  - Oracle problem?
  - Libstdc++ problem?
    - VERY ACTIVELY being looked at
  - Several workarounds to minimise effect
  - But will affect some PUT/GET/BoL/COPY requests
    - Never leaves 'in-progress' state

Concerns

- Many possible permutations of input parameters
    - Need tests to cover these
- Non-nominal case testing
    - Some done by developers of course
    - But need central test again

To Do

- ChangeSpaceForFiles
  - Waiting on CASTOR implementation
- Improved and Extended VOMS support
  - Support for roles
- DB Tools
  - Populating tables at installation
  - Currently manual and error-prone

Spaces and all that

- **Currently**
  - 1 SRM 'space' == 1 CASTOR 'service class'
  - Space is owned by a VO
    - Only people in that VO can write to it
    - No support for user spaces

More about Spaces

- Two ways of defining space
  - Retention Policy/Access Latency
    - User gets mapped to default pool for the combination
  - spaceToken
    - User gets mapped to specific service class
- Neither supplied in request
  - Mapped to a default service class
    - Default can be VO specific

Even More On Spaces

- **Support for multiple VOs in 1 space**
  - Currently not supported fully …
    - User would have to
      - Provide plain proxy
      - Not be mapped to pool account in grid-map file
  - … but can be if required
  - Not sure of urgency
    - CNAF and RAL need it for non-WLCG

The Future of Spaces

- VOMS role support
  - Restrict access based on Role as well as VO