



Enabling Grids for E-scienceE

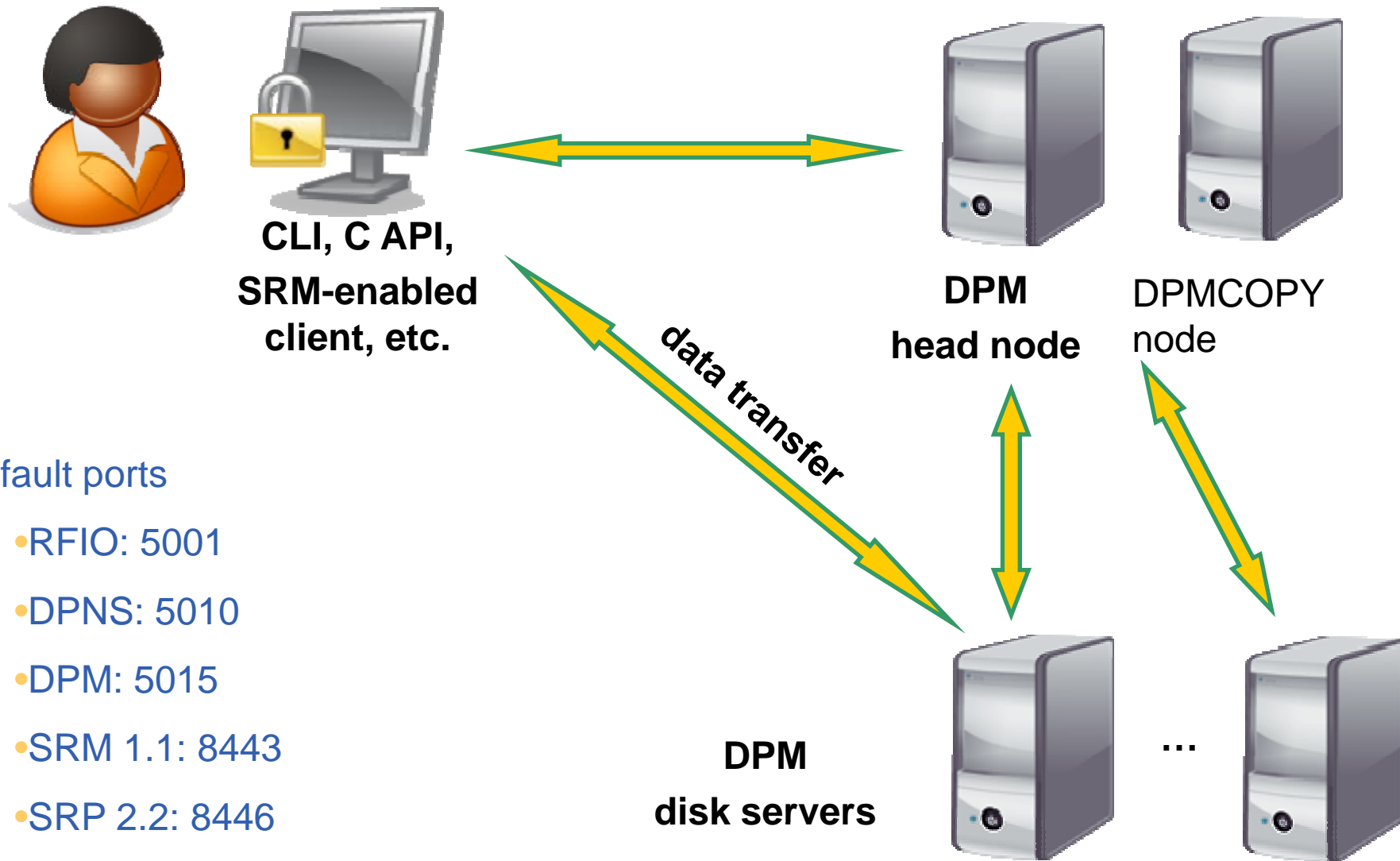
SRM 2.2 in DPM

Jean-Philippe Baud

*SRM2.2 Deployment Workshop
13 November 2007*



- **DPM architecture**
- **Current status**
 - Methods defined in MoU
 - Other methods
- **Methods to be implemented**
- **Administrator interface**
- **Information providers**



• Default ports

- RFIO: 5001
- DPNS: 5010
- DPM: 5015
- SRM 1.1: 8443
- SRP 2.2: 8446

- **Provides support for all methods defined in the MoU except srmCopy and srmChangeSpaceForFiles**
- **Other supported methods:**
 - srmUpdateSpace, srmPurgeFromSpace
 - srmSetPermission, srmCheckPermission, srmGetPermission
 - srmExtendFileLifeTimeInSpace
- **Non-MoU supported options:**
 - Volatile files
 - Dynamic Space Reservation
 - Recursive Ls and Rmdir
- **Full VOMS support**

- **Retention policies**
 - Given quality of disks, admin defines quality of service
 - Replica, Output, Custodial
- **Access latency**
 - Online, Nearline
 - Nearline will be used for BIOMED DICOM integration
- **File storage type**
 - Volatile, Permanent
- **File pinning**
 - Set TURL lifetime (`srmPrepareToGet`, `srmPrepareToPut`)
 - Set file lifetime in space (`srmBringOnline`)

- **DPM 1.6.7 under certification**
- **Available on SLC3, SLC4 32 and 64 bits**
- **DPM 1.7.0 will be available mid December**

- **Methods to be implemented by end 2007**
 - srmCopy
 - srmChangeSpaceForFiles
- **Plan for 2008**
 - srmReleaseFiles without request token
 - Streaming mode
 - Integration with LCAS (black listing of users)
- **Methods not planned**
 - srmSuspendRequest
 - srmResumeRequest

- **Basic tests ok**
- **Cross tests not ok (no srmCopy yet)**
- **Use case tests ok**
- **Stress tests ok (when run)**
- **gfal/lcg_util tests ok**

- **Space tokens are honored in PrepareToPut**
- **Space tokens are ignored in PrepareToGet/BringOnline for files already online**
- **Space tokens will be honored for PrepareToGet/BringOnline when bringing a nearline file to online**
- **Disk pool definitions:**
 - Disk pools can offer the same type of Retention Policies as srmReserveSpace: Replica, Output and Custodial. Default is Replica.
 - Pool space type should normally be set to '-' (hyphen) to say any
- **srmReserveSpace can be given a better Retention Policy than requested**

- **Disk pools can be dedicated to a list of groups (VOMS FQAN)**
- **Spaces can be dedicated to a user (DN) or to a single group (VOMS FQAN)**
- **Files can be stored without specifying a space token (compatibility with SRM v1)**

- **How to statically allocate a space to a given VO?**
 - `dpm-reservespace –gspace n –group g –lifetime l –poolname p –ret_policy r –token_desc t`
 - For example:
`dpm-reservespace –gspace 1T –group atlas –lifetime Inf \
--poolname atlas_pool –ret_policy R –token_desc atlas_esd`

- **Static Information Provider**
 - Production version not yet available
- **Dynamic Information Provider**
 - Thanks to Graeme Stewart