

CC-IN2P3 needs and wishes

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- Data access to the Kanga files.
- Size of the Kanga files.
- Data distribution tools.
- Bookkeeping (data, jobs).
- Transition to the new format.

Data access to the Kanga files

The new model for file serving:

- Compatibility with the Sun platform (more than 20 Objy servers to be recycled: cost lots of money).
- Dynamic staging (HPSS): has proven to work well (up to 6000 staging requests per day for Objy => ~ 3 TB from tape to disk in one day).
- Possibility to interface the new servers with HPSS using RFIO.
- Dynamic load balancing (no attachment of the Kanga files to a given server as we had with Objy?).

Size of the Kanga files

- Must fit with HPSS performances limitations (file size should be greater than 100 MB, or else use of a filesystem like XFS for example).
- Also important for file transfer from Slac to Lyon: in order to use the bandwidth in the most efficient way, the bigger they are, the better it is.
- Needs to have an estimate of the overall volume foreseen for the new format (=> needed by HPSS and for the estimate of the disk volume and number of servers required).

Data distribution tools, bookkeeping

Data distribution:

- Choice between SRB and RLS ? When ?

Bookkeeping:

- Features of the actual SkimTools package are good:
 - Mirroring capability of the database: convenient and very straightforward to use.
 - Flag indicating presence/absence of a given collection at IN2P3.
- **IMPORTANT:** possibility to update easily the bookkeeping database from Tier A or C center.
- Jobs bookkeeping system should remain independent of the batch system used (e.g.: BQS in Lyon).

Transition to the new format

- Schedule for the transition needed in order to react quickly wrt to the bidding procedure to buy new servers (quite a long process). Allows us to react quickly when a new server arrives (assign it to Objy or Kanga services).
- Dynamic load balancing on Objy servers needed: would greatly help us in order to do a smooth transition when turning one by one the Objy servers into Kanga servers (avoid lots of disruption of the Objy services).

Conclusion

IN2P3 current data model based on:

- HPSS.
- Dynamic staging.

Therefore:

- Size of the files: very important criteria (>100 MB at least).
- « AMS like » file serving mechanism seems to be the best solution for us (flexibility: use of RFIO, control on the HPSS activity...).