

Data exchange between KEK and France

Types of data we use

At the moment we use the following types of data:

- Documents (notes, presentations, ...)
- Images (photos,...)
- Code
- Database
- Compton data
- Live info (eg: during data taking)
- Web pages (external info)

How we exchange them

We share these data by the following means:

- Documents (notes, presentations, ...) Email + web
- Images (photos,...) Email
- Code File copy (no versioning)
- Database Dump + file copy + restore
- Compton data File copy
- Live info (eg: during data taking) Live copy
- Web pages (external info) Spip (single user?)

Constraints

- LAL computing environment is very restrictive.
- There are 2 network layers at KEK
- Managing a server open to the web to keep it safe can be time consuming.

Possible solutions: docs + images

- Use a shared directory mirrored between KEK and LAL.
Problem: Not everybody at LAL has access to the same systems (eg Linux) and those outside LAL do not have access at all.
- Use a virtual directory (eg Dropbox, SVN or google docs)
Dropbox: Probably the easiest; Free up to 2 Gb, \$10/month after
Google docs: Free but need to use online interface
- Shared webspace:
Need a web server

Possible solutions: code + dtb

- Code: ideally we should use a versioning software to allow concurrent development.
LAL created a SVN repository for us yesterday.
Alternative solution: web server
- Database:
 - We could sync the KEK database to an online database (eg: free.fr) and then sync it to LAL
 - Or we could use a shared web server
 - Or we could continue to transfer the server between KEK and LAL as we do now (but this limits the number of users)

Data

- The current solution at the moment (data sync from KEK to LAL) is probably the most reasonable.
- However we have already generated >200Gb of data and will probably reach a Tb before the summer.
- Data analysis is slow because of network transfer.
- We probably need a file server with a fast transfer rate to the data analysis computer (both at LAL and at KEK)
- We probably need a NAS (Network Attached Storage) at LAL (we could buy the same than at KEK).

Network storage

- If/when we will have a Network disk (NAS) at KEK and at LAL we could use it to store a “shared” directory where we would have all the important files.
=> but this will not give access to these files to people outside LAL and KEK
- In all cases we need to organise the shared directory to make it easy for everyone to find what they need.

Web + live data

- At the moment we have some web space at LAL (spip) and we use some space on my server (talks, live data...)
- LAL could provide us with “TRAC” which includes a wiki.
- We could take a free webpage for the project (eg: free.fr) or use a dedicated web server (cost 15€/month)
- A dedicated web server gives us more flexibility but at a cost. It could be used as a shared directory for all types of files.

Web server

- A dedicated web server could solve most problems (shared directory, code sharing, database, web and live data).
- However this has a cost and will require someone to manage it.

Questions

- Shall we quickly buy one Network storage solution to be tested at LAL before being sent to KEK? (and then buy a second one for LAL)
- Do we want a web server?
- Google docs, dropbox or shared directory?
- Code: SVN
- Database: free solution or web server?
- How important is it to have live data?