28/01/2007

Short minutes
ICEPP Tokyo-LCG-France meeting
CCin2p3 - January 17th, 2007, 2.30-5.30 p.m.

Attendies: Tatsuo Kawamoto, Ikuo Ueda, Dominique Boutigny, Fabio Hernandez, Jérôme Bernier, Ghita Rahal, Fairouz Malek
Excused: Frédérique Chollet

Present Status of T1 FR-T2 Tokyo association after SC4 Tests:
-Lyon is reliable and is used intensively for pilot tests
- SC4 and CSC Tests have shown that the overall system works but needs furthers developments to improve the stability and the long term performance of the transfers. Developments are expected both from the experiment side as well as from the tools side, ie FTS, dCache, ….Precise monitoring is also an important issue.
- Long distance network response type:

- Usable bandwidth in the direction Lyon-Tokyo much slower than the other way due to more congestions --> asymmetric behaviour
- Ueda: We have tested and confirmed that Linux kernel 2.6 (SL4 is built with it) handles the network congestion much better than Linux kernel 2.4 and Solaris. If SL4 is installed on data servers (dCache in case of Lyon, DPM in case of Tokyo), we should be able to overcome the congestion problem.
- Fabio: Solaris is preferred from the file management point of view, and Lyon may choose it rather than SL4. We will have to find a way to overcome the congestion with it.
- Network: Both Lyon and Tokyo are limited at 1 Gbps at their entrance. The tests showed that we can reach this limit with SL4. Upgrade to 2 Gbps in Tokyo soon.
- Jerome has shown the comparisons in the performances on the bandwidth when comparing transfers with SL3, SL4 and Solaris. The test reports can be found at https://edms.in2p3.fr/document/I-009362
- Dominique has presented the upgrades foreseen for Lyon as they are needed also to satisfy the increasing needs of the T1-T2 traffic.
- Ueda (after the meeting): I forgot to mention at the meeting that we saw FTS problem during the SC4 tests. FTS should also be upgraded and should perform properly to fulfill our needs. Fabio (after the meeting): the hardware hosting the FTS server has been upgraded. New transfer tests are foreseen: they would allow us to verify that (at least some of) the observed problems in the previous data transfer exercises were related to the FTS server itself.

How to proceed from now on ?

- The network traffic asymmetry has been confirmed in November but it has to be understood. In particular, we need to identify how many bandwidth we really need between the two sites in each direction and verify that the current usable bandwidth is enough to satisfy these needs.
- If Tokyo feels that more tests should be planned, in addition to the already official planned tests, then this should be expressed soon. Lyon feels that more tests could be planned especially those concerning traffic and congestion due to Tokyo being a (far) distant site.
- Ueda: When SL4 is installed on data servers, we should test again the network performance, and then the data transfer using LCG/ATLAS tools.

- Ghita: We should do two levels of tests, as Ueda said; 1) basic technical level on network performance and 2) higher level using LCG/Atlas tools for overall performance such as multi-VO test. In the second tests we shall see bottlenecks in different places. The basic tests would be needed to understand them.
- See if RENATER(Research French Network Compagny) can provide some help for increasing the network speed .

Which types of data are interesting for French and Japanese?

- ATLAS High PT ESD data, if all accumulated in Lyon should be very useful, at least the first nominal year, 2008.
- A more deep study on this item should be considered (Ghita, Fairouz) as having all ESDs or part of them require more Bandwidth, more storage and more IO traffic.
- A possibility to **bring the Japanese resources in Lyon** and join them to the (private French) ATLAS T3 was raised. This possibility is actually considered as CERN is not happy to host them. Fairouz proposed to Tatsuo to talk of this possibility to the ATLAS French national representative (D. Fournier) at the next CB in February.

Accords de financement pour l'accueil de physiciens japonais

This item was discussed: It seems that the Computing scientists and engineers in Tokyo are too busy and could not be available in 2007. But since this is also an opportunity for a physicist with very good skills and interest in LHC computing, therefore, this might suits someone. Ueda seems to be interested. He will think of it.

More political Issues:

- Dominique talked of the high priority that IN2P3 is putting in Asia-France collaboration.
- He also reminded us of the FJPPL and the next collaboration meeting at KEK in May.
- Tokyo-KEK-Lyon collaboration could even give an opportunity to speed up the Network bandwidth increase as this possibility is a worldwide "good" visibility to RENATER.
- Dominique will visit KEK end of February or beginning of March. Tatsuo will try to organize a visit to Tokyo. Ueda will be there at that time so he will try to help for this visit too.