# Installation of the Gfarm file server and the client system

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We have participated in the JLDG [1], which is a data-grid infrastructure for Lattice QCD simulations using super-computers in Japan.

As a part of the JLDG project, we have installed one of the Gfarm file servers at RCNP. One large virtual file system is constructed by the servers of all joining sites which cooperate each other. These servers are connected each other with closed network supported by SINET-3 [2].

To access to this virtual file system, we provide the "client system". This client system mounts all file systems of super computer at RCNP by NFS. Users can login to the client system from their usual account, and uberftp (one of the GRIDftp) is available to GET and PUT files to the virtual file system.

In order to prepare a path for the Gfarm server to outside network when it is on the closed network, it is connected to DMZ only for this purpose named DMZ-SC. The client system is also connected to DMZ-SC because this client communicates with the server using GRID protocol which has bad affinity with a firewall.

For the client system, we prepared an order made PC (with Redhat Enterprise Linux WS 3.0 update9), and three common packages; Globus, JLDG_CA and uberftp were installed there. After the packages were distributed appropriately and the network connection to JLDG server was verified, we succeeded to access to Gfarm server with the certification through the VOMS user registration. We obtained the average speeds on PUT and GET files of 500 MB which were 95 MB/sec and 21 MB/sec, respectively.
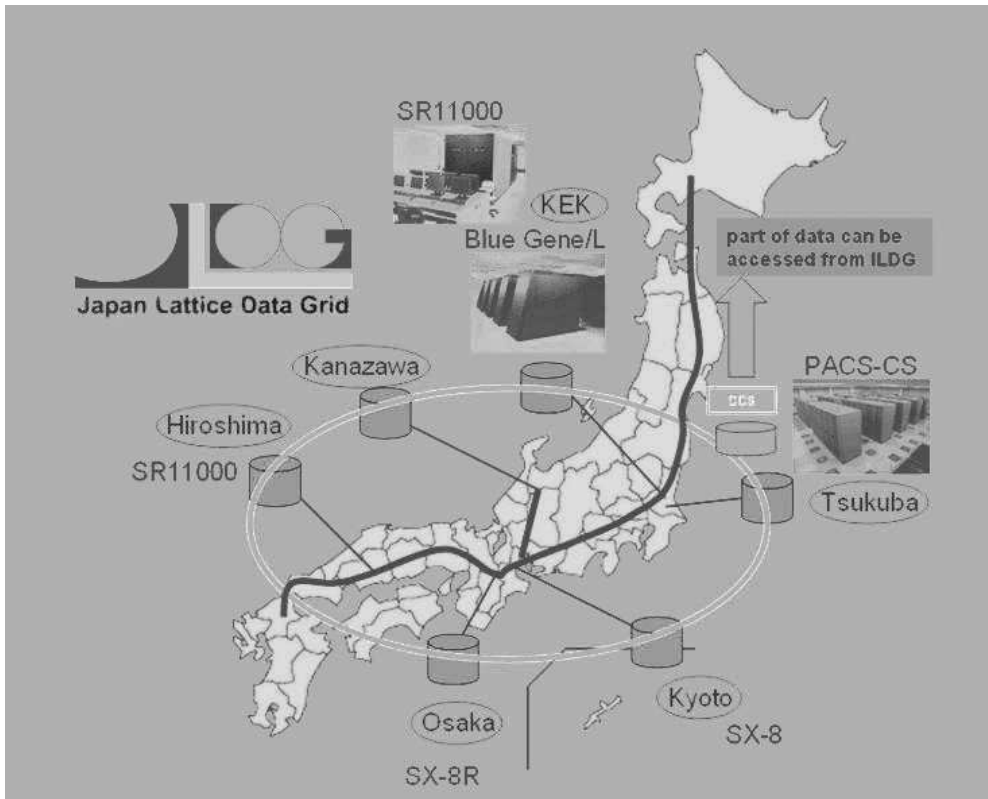


Figure 1: The organizational chart of JLDG.

# References

[1] http://www.jldg.org/

[2] http://www.sinet.ad.jp/?set_language=en

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