APPLICATION OF DATA GRID TECHNOLOGY FOR SHARING SCIENCE OUTREACH RESOURCES IN CHINA¹

Zhang Zuli, He Hongbo, Xiao Yun

Computer Network Information Center, Chinese Academy of Science, 100190, Beijing, China zzl@cnic.cn

Along with the rapid development of science outreach practices in China, a large number of digital science outreach resources have been accumulated in various research institutes and organizations. However, the efficiency in the use and sharing of these resources is still low, unable to meet the increasing demand from the general public. This paper describes the advantages of data grid platform applied to peer-to-peer network environment and proposes the data grid architecture of science outreach resources. "China Science Outreach Resource Grid" has been built based on the grid middleware, with its organizational structure and service system composed of backbone grid resource node, dynamic resource node, grid service node and grid portal. This data grid architecture eventually integrates geographically distributed storage systems as a whole, and forms a manageable distributed resource sharing model. This paper argues that the implementation of "China Science Outreach Resource Grid" brings a simple and effective idea and a feasible way to build and share trans-regional and socialized science outreach resources.

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