

Development of Wide-area Observation Monitoring System and Data Crawling System for Global Earth Observation

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This paper is to propose a cloud system for data-intensive science, which has been developed at NICT (National Institute of Information and Communications Technology), Japan. The NICT science cloud is one of the cloud systems for scientists who are going to carry out their research works.

The science cloud is not for simple uses. Many functions are expected to the science cloud; such as data standardization, data collection and crawling, large and distributed data storage system, security and reliability, database and meta-database, data stewardship, long-term data preservation, data rescue and preservation, data mining, parallel processing, data publication and provision, semantic web, 3D and 4D visualization, out-reach and in-reach, and capacity buildings.

In the present talk, we introduce two types of tools for global data collection (crawling) and data transfer. The former is to collect observation data files from a variety of data server public on the Internet. The latter is to manage observation systems at observatories over the world. Data file transfer, monitoring servers and networks and system recovery are easily carried out using this system.