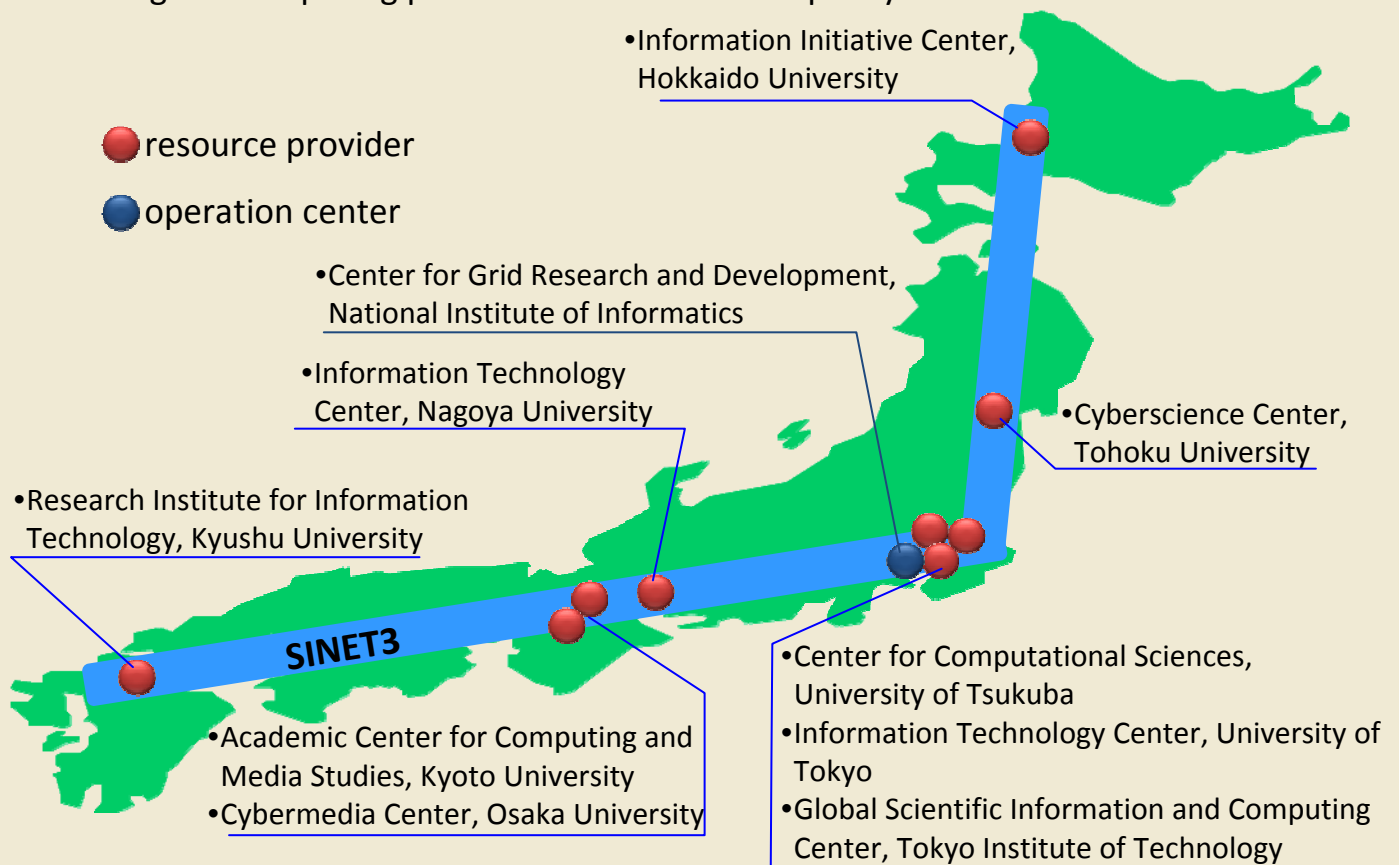


Academic Grid Infrastructure in Japan

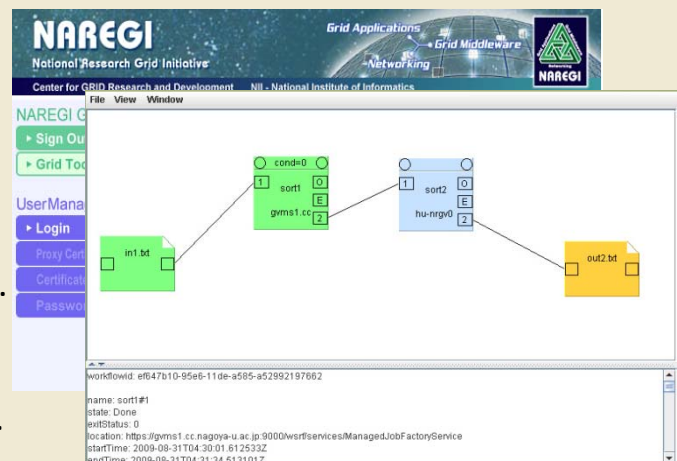
■ Overview

Computer centers at nine universities and National Institute of Informatics (NII) started pilot operation of an academic grid infrastructure in Japan. The computer centers play as resource providers offering their high-performance computer systems, and NII plays as an operation center (a helpdesk, VO hosting and a certificate authority) to coordinate grid operation collaborating with the computer centers. SINET3 is used to link high-performance computing systems in the computer centers. Researchers can run their scientific applications on the academic grid infrastructure utilizing the computing power and the network capacity.



■ Grid Middleware

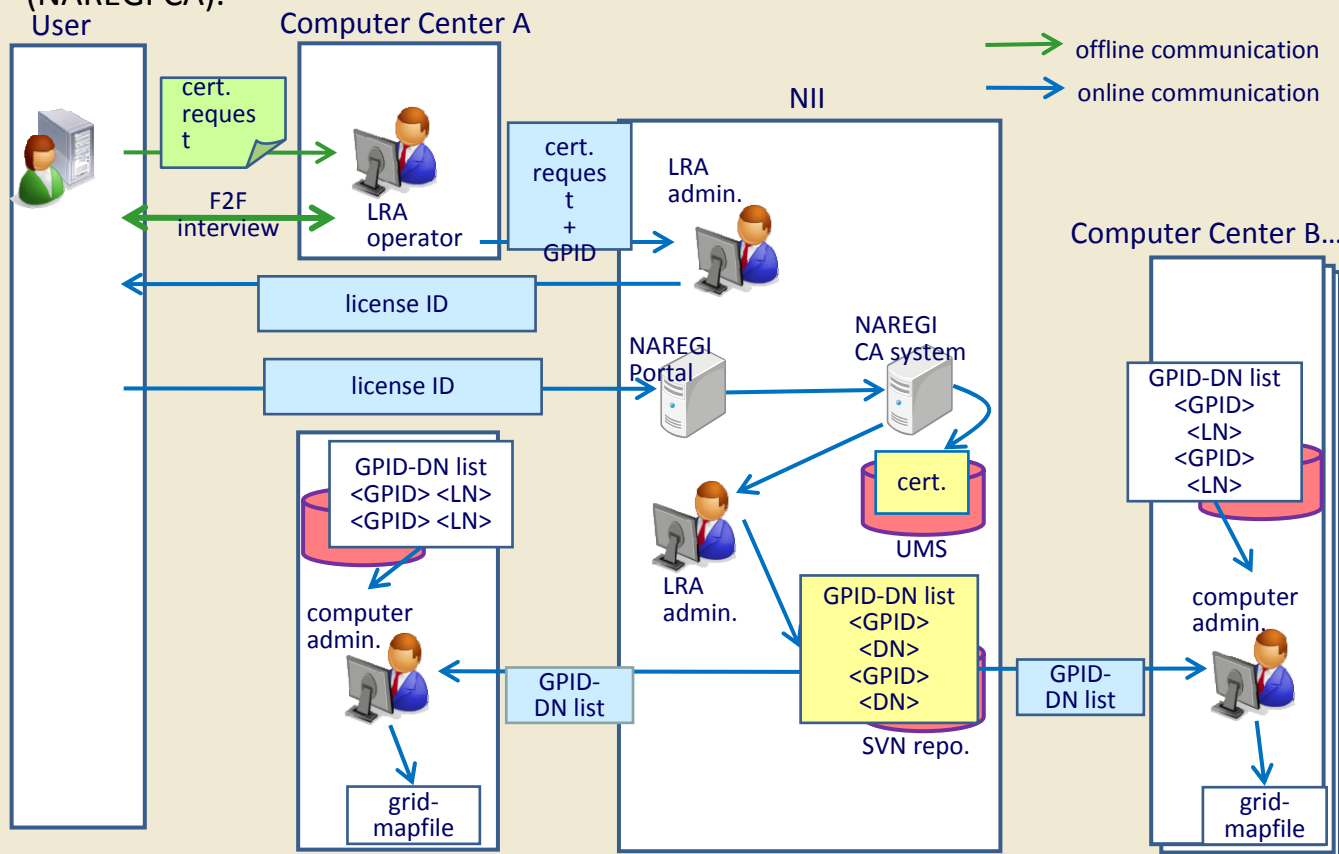
The NAREGI middleware integrates widely distributed computing and storage resources in the grid infrastructure as a virtualized single computing environment. The NAREGI middleware is developed as open source software and available at <http://middleware.naregi.org/Download/>.



Academic Grid Infrastructure in Japan

■ User Management

User Management is one of issues in grid operation. Computer centers have their own policies for user registration. PKI is now de facto standard of the user authorization method on the grid. User registration on the grid infrastructure is complicated and forces the user tedious procedures, i.e. the user needs to submit multiple application forms for accounts to multiple computer centers and apply the grid user certificate to a grid certificate authority (CA). Computer centers and NII collaborate to simplify the user registration process on the academic grid infrastructure. The user submits one application form for “the grid pack”, a set of accounts of computer centers and a grid user certificate. Then, the user accounts are created in computer centers and the grid user certificate is issued from CA in NII (NAREGI CA).



A procedure for issuing a user certificate and creating grid-mapfile

■ More Information: <http://www.naregi.org/>