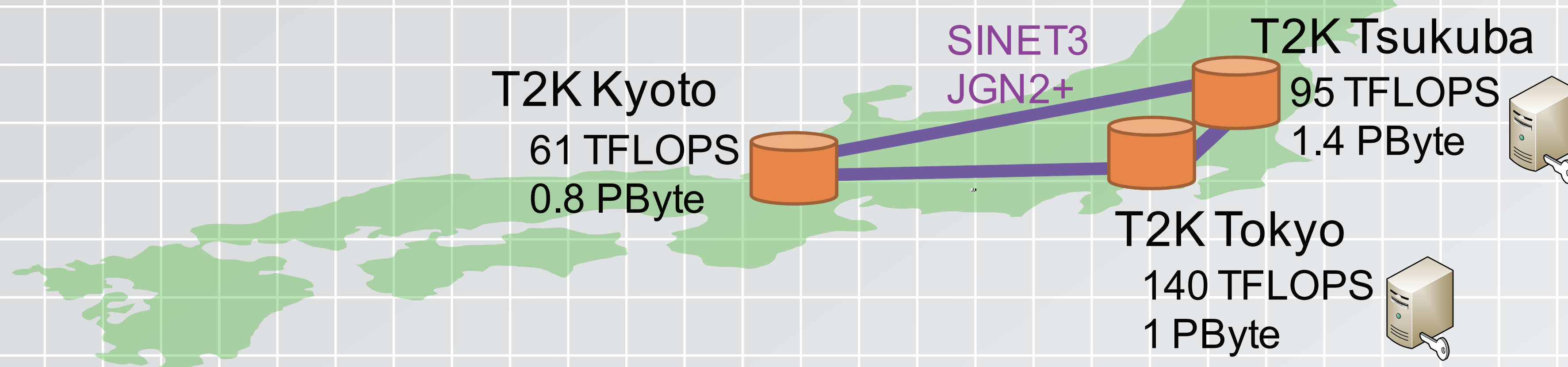Open Supercomputer

T2K Open Supercomputer System: T2K Grid

T2K Grid Overview

T2K Grid is network and software infrastructure to facilitate collaboration of research and production towards seamless use of three T2K Open Supercomputers. Features include
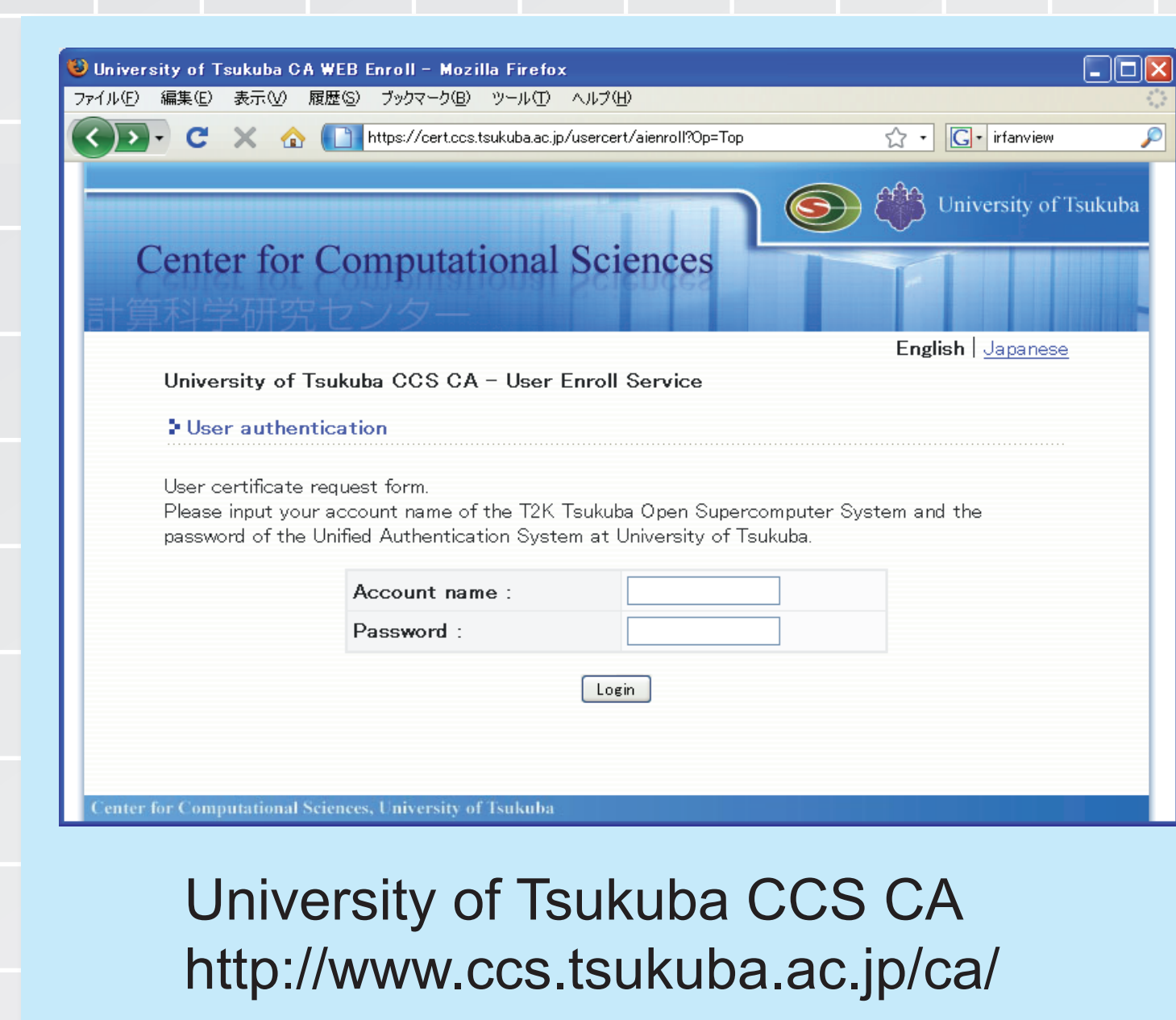
- 10Gbps connection using SINET3 and JGN2+
- Univ. Tsukuba CCS CA and Univ. Tokyo ITC CA
- Production use and promotion of Grid Research

SINET3
JGN2+

T2K Kyoto
61 TFLOPS
0.8 PByte

T2K Tsukuba
95 TFLOPS
1.4 PByte

T2K Tokyo
140 TFLOPS
1 PByte

Certificate Authority

T2K Certificate Authority is operated by Center for Computational Sciences, University of Tsukuba and Information Technology Center, University of Tokyo.

- User certificate can be issued by a few clicks for every account holder

University of Tsukuba CCS CA
http://www.ccs.tsukuba.ac.jp/ca/

Grid Software

Basic and de facto standard Grid service is operated by T2K Open Supercomputers.

- GSISSH
- GridFTP
- Virtual Organization Membership Service
- NAREGI-CA
- Gfarm Grid File System

the globus toolkit
www.globustoolkit.org

NAREGI

GRID DATA FARM

CS research is promoted for more advance Grid software including workflow tool, metascheduler and science portal.

Gfarm Grid File System

http://sf.net/projects/gfarm/

It is a global shared file system that can be mounted by T2K Open Supercomputers. Users can access the same shared file system at each site, and do not need to copy files and maintain consistency among them any more.

- Currently 1.1 PByte capacity

T2K Tsukuba
800 TByte

T2K Kyoto
8 GByte

T2K Tokyo
300 TByte