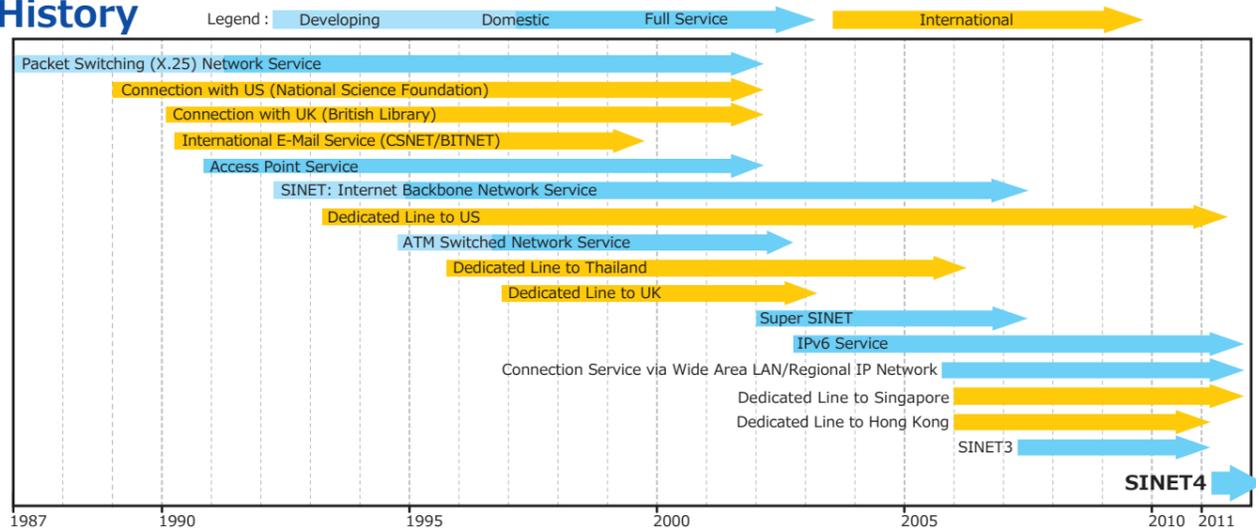


History



SINET Promotion Office

The SINET Promotion Office was established in October 2007 in order to promote the use of SINET. It provides consulting on the advanced use of the network, user support, and training and promotion regarding network services, and also carries out an educational campaign. If you experience any trouble or find something you do not understand, please contact us for assistance.

[Main activities in fiscal 2011]

- Held presentations on SINET services in Fukuoka, Kanazawa, Sapporo, Kyoto, Hiroshima, Nagoya, and Tokyo
- Provided advice on usage (E-mail/Phone responses; Visitors received and Visits made)
- Consulting on shift and connection to SINET4

[Please direct queries to]

SINET Promotion Office
Academic Infrastructure Division
Tel: +81-3-4212-2269 Fax: +81-3-4212-2270
E-mail: support@sinet.ad.jp

Services

User consultation/response

Consulting on the use of network services



Interviews/surveys on user requests

Solicitation of comments and requests for SINET



Troubleshooting of performance-related problems

Support for network service usage problems and performance improvements



Technology promotion and educational campaign (lectures and technological exchanges)

Presentations on using SINET, educational campaign, case examples of SINET promotion, creation of documentation, and publication of information on the Web



Academic Information Infrastructure Open Forum

The Open Forum was launched in June 2009 as a framework for enhancing collaboration and information exchange among universities and research institutions in order to strengthen the Cyber Science Infrastructure (CSI), which supports the growth and development of academic research and education.

[Main activities in fiscal 2011]

- Exchanges of CSI-related information and technology
- Taking steps to further increase the speed of access lines for SINET4
- Studies to address the increasing need for cloud-based services for scientists
- Held presentations on Academic Information Infrastructure Open Forum 2011

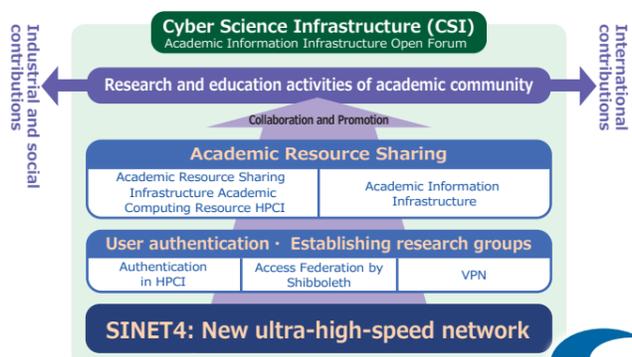
[Please direct queries to]

Academic Infrastructure Division
Cyber Science Infrastructure Development Department
Tel: +81-3-4212-2262 Fax: +81-3-4212-2270
E-mail: openforum@nii.ac.jp



Cyber Science Infrastructure (CSI)

The National Institute of Informatics (NII) is promoting the development of the Cyber Science Infrastructure (CSI) through cooperation with universities and other organizations. CSI supports Japan's academic research and educational activities and strengthen international competitiveness. SINET plays an important role as the core component of CSI.



Inter-University Research Institute Corporation
Research Organization of Information and Systems
National Institute of Informatics

NII

2-1-2 Hitotsubashi, Chiyoda-ku, Tokyo 101-8430 URL <http://www.nii.ac.jp/>

SINET Team, Academic Infrastructure Division
TEL: +81-3-4212-2255, FAX: +81-3-4212-2270 E-mail: support@sinet.ad.jp
URL <http://www.sinet.ad.jp/>



2012.04



Science Information NETWORK 4

The Science Information Network (SINET) is an information and communication network connecting universities and research institutions throughout Japan via nationwide connection points (nodes). It is designed to promote research and education as well as the circulation of scientific information among universities, research institutions, and similar entities. SINET is also connected to research networks such as Internet2 in the U.S. and GÉANT2 in Europe to facilitate dissemination of research information and collaborations over networks.

SINET4 began operations in April 2011, and it replaces the previous SINET3. SINET4 plays an important role as the core component of the Cyber Science Infrastructure (CSI).

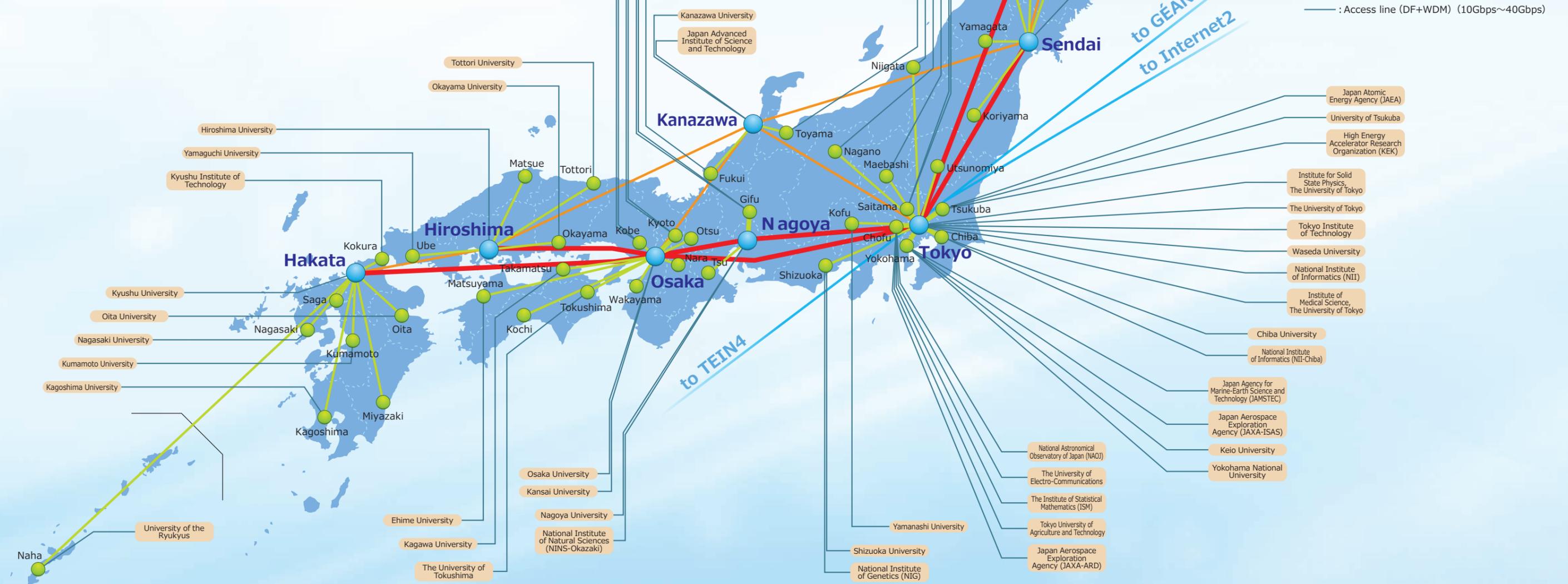
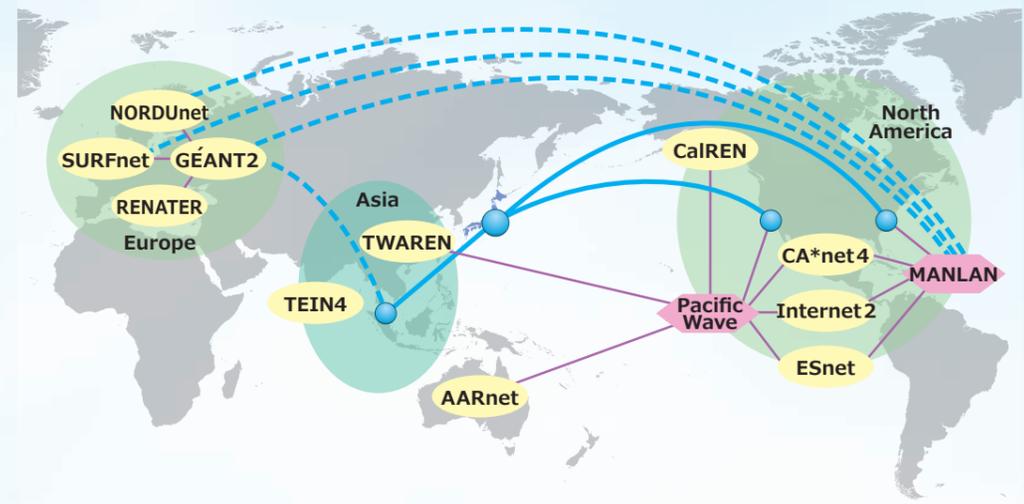
2012-2013

Pamphlet

Network Topology of SINET4

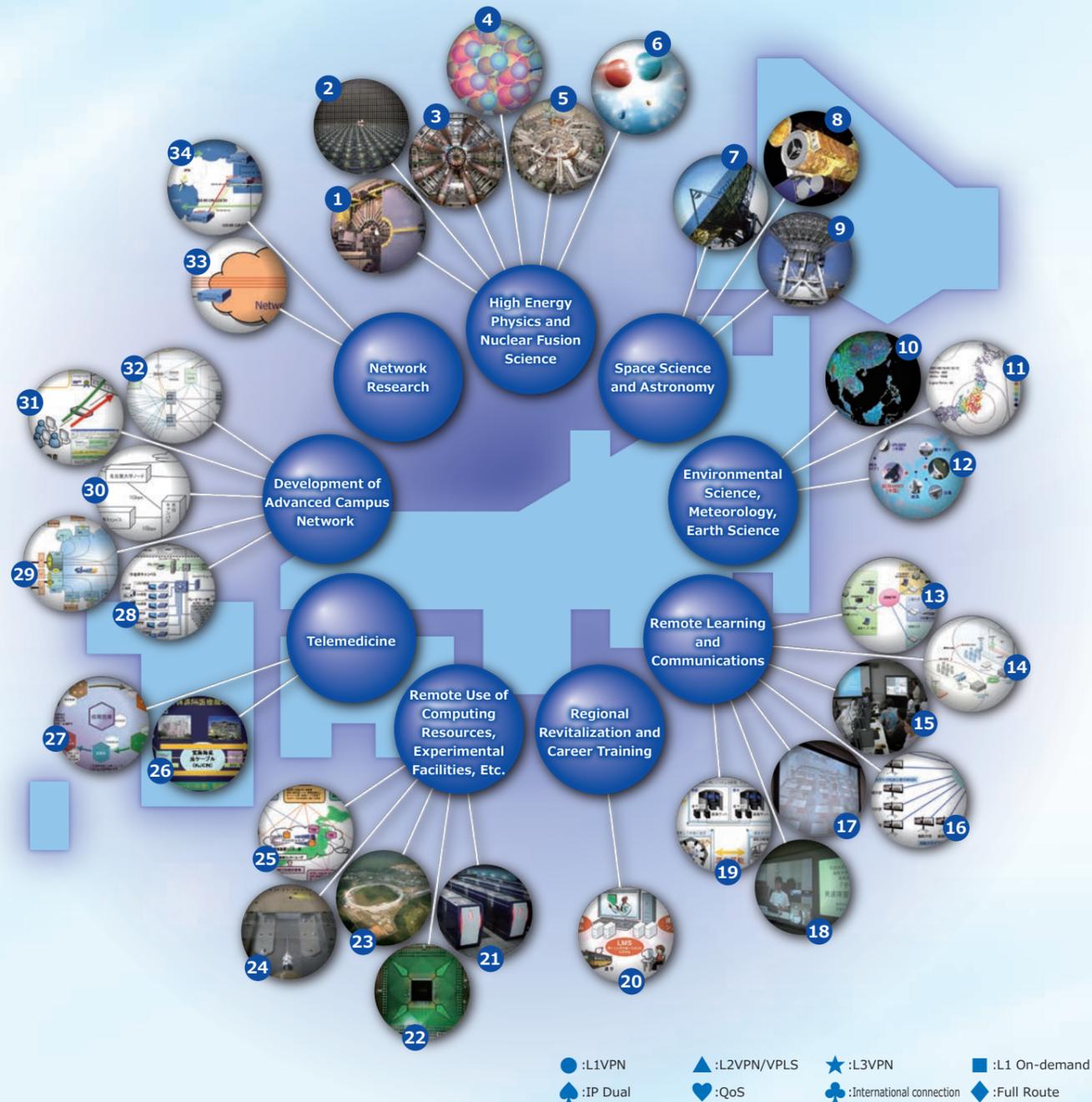
SINET4 positions all nodes in data centers, and is configured so that it has redundant backbones and high-speed reroute functions, producing greater network resistance against disaster and failures. It also features broadband connections to academic research networks worldwide. Consequently, SINET4 provides a stable, high-speed connection environment to approximately 700 universities and research institutions in Japan.

International network collaboration



Application examples using SINET

SINET has been utilized as scientific information infrastructure essential for scientific research and education in a broad array of areas in Japan. For details of case studies using SINET, please visit the SINET website.
<http://www.sinet.ad.jp/case-examples/>



High Energy Physics and Nuclear Fusion Science

- 01** ★♣ The "Belle Experiment": A Major Contribution to Confirmation of the Theory of Kobayashi and Maskawa, Nobel Laureates in Physics
Institutions: High Energy Accelerator Research Organization (KEK), Tohoku University, Tokyo Institute of Technology, The University of Tokyo, Nagoya University, Osaka University, Etc.
- 02** ▲★ Neutrino Research
Institutions: Kamioka Observatory (ICRR, The University of Tokyo), J-PARC, domestic and overseas researchers
- 03** ♣ Distributed analysis of enormous amounts of data produced by the LHC accelerator
Institutions: The University of Tokyo, High Energy Accelerator Research Organization (KEK), University of Tsukuba, Waseda University, Tokyo Institute of Technology, Tokyo Metropolitan University, Nagoya University, Kyoto University, Kyoto University of Education, Shinshu University, Okayama University, Hiroshima Institute of University, Nagasaki Institute of Applied Science, CERN, Etc.

- 04** ★ Lattice QCD Simulation in Research on Hadron Physics and the Standard Model of Elementary Particles
Institutions: University of Tsukuba, High Energy Accelerator Research Organization (KEK), Kyoto University, Osaka University, Hiroshima University, Kanazawa University
- 05** ▲★ Nuclear Fusion Research for a Clean Future Energy
Institutions: National Institute for Fusion Science (NIFS), University of Tsukuba, Kyushu University
- 06** ★ LEPS experiments to study the properties of hadrons using a laser-electron-photon beamline
Institutions: Osaka University, Japan Synchrotron Radiation Research Institute

Space Science and Astronomy

- 07** ★♣ Optically Connected VLBI Observation Using SINET L1 On-demand Service
Institutions: National Astronomical Observatory of Japan (NAOJ), Hokkaido University, Yamaguchi University, National Institute for Fusion Science (NIFS), High Energy Accelerator Research Organization (KEK)
- 08** ☐ Studying the Sun with the Solar Observation Satellite Hinode
Institutions: Institute of Space and Astronautical Science (ISAS), NAOJ, and solar physics researchers worldwide
- 09** ▲ The VERA Project: Mapping our galaxy in 3D-kinematics
Institutions: Kagoshima University, National Astronomical Observatory of Japan

Environmental Science, Meteorology, Earth Science

- 10** ▲ Receipt, Processing, Archiving, and Dissemination of Satellite Data
Institutions: Chiba University (Center for Environmental Remote Sensing)
- 11** ▲ Building and Operation of the Japan Data Exchange Network (JDXnet) for Earthquake Observation Data
Institutions: The University of Tokyo, Hokkaido University, Hiroaki University, Tohoku University, Kyoto University, Nagoya University, Hiroshima University, Kyushu University, Nagasaki University, Japan Agency for Marine-Earth Science and Technology
- 12** ♣ International Sharing of Extra-Large Volumes of Data from VLBI Observations
Institutions: Geospatial Information Authority of Japan and observatories worldwide

Remote Learning and Communications

- 13** ▲ HD Remote Lecture to Promote Screening of Congenital Heart Disease
Institutions: Kanagawa Children's Medical Center
- 14** ▲ Use of HD Interactive Remote Lectures and IPv6 for Training in the Healthcare Information Field
Institutions: Yokohama National University, Yokohama City University
- 15** ♣ International Remote Lectures Using SINET
Institutions: University of the Ryukyus, Keio University, the Academic Arm of the United Nations, University of Hawai'i, University of the South Pacific, Asian Institute of Technology, National University of Samoa
- 16** ▲ Remote Lecture System Linking 18 UGAS Universities across Japan
Institutions: Tokyo University of Agriculture and Technology, Iwate University, Hiroaki University, Gifu University, Tottori University, Ehime University, Kagoshima University, Saga University, Utsunomiya University, Yamagata University, Obihiro University of Agriculture and Veterinary Medicine, Etc.
- 17** ▲ Interactive Remote Learning System Linking the National Universities of Three Hokuriku Prefectures
Institutions: Kanazawa University, University of Toyama, University of Fukui, Japan Advanced Institute of Science and Technology
- 18** ▲ Interactive Remote Learning in Special Support Education
Institutions: Ehime University, Tottori University
- 19** ☐ Studying the t-Room room-sharing communication system
Institutions: Doshisha University

Regional Revitalization and Career Training

- 20** ★♣ Developing the Human Resources to Build a Better Shikoku Based on the Collective Results of the "Knowledge of Shikoku" Project
Institutions: Kagawa University, The University of Tokushima, Naruto University of Education, Ehime University, Kochi University, Shikoku University, Tokushima Bunri University, Kochi University of Technology

Remote Use of Computing Resources, Experimental Facilities, Etc.

- 21** ▲♣ Connecting the Earth Simulator supercomputer to SINET
Institutions: Japan Agency for Marine-Earth Science and Technology
- 22** ▲♣ Using SINET to provide computing resources and to facilitate smooth campus relocation
Institutions: The Institute of Statistical Mathematics
- 23** ♣ Measurement of X-ray Diffraction Intensity using remote operation
Institutions: Japan Synchrotron Radiation Research Institute
- 24** ▼ Remote Control System with Haptic Feedback
Institutions: Toyohashi University of Technology, Hakodate National College of Technology
- 25** ★ The Renkei Project: A study of resource coordination techniques for the formation of research communities
Institutions: Tokyo Institute of Technology

Telemedicine

- 26** ▲♣ Promoting International Telemedicine Using Academic Networks
Institutions: Kyushu University, universities in Asia
- 27** ☐ Promoting fetal medicine in Japan and Asian region utilizing SINET
Institutions: National Center for Child Health and Development

Development of Advanced Campus Network

- 28** ▲ Cloud Mail Using SINET L2VPN Service
Institutions: Tokyo University of Agriculture and Technology, Information Media Center
- 29** ▲ Campus Network 'UTnet' Utilizing SINET for External Connection
Institutions: Information Technology Center, The University of Tokyo
- 30** ▲ Campus Network 'MEINET' Using L2VPN Service
Institutions: Meijo University
- 31** ♣ Construction and operation of a web authentication system for a campus network (HINET2007)
Institutions: Hiroshima University
- 32** ▲ L2VPN connection between Tsukuba and Tokyo Campus
Institutions: University of Tsukuba,

Network Research

- 33** ☐ Use of SINET L1 On-demand Service to Evaluate iSCSI-APT Performance
Institutions: Osaka University, Hokkaido University, Kyushu University
- 34** ◆ Global Load Balancing Experiments Using the SINET Full Route Provision Service
Institutions: Kyushu University, Kyushu Sangyo University