Philippine Research, Education and Government Information Network (PREGINET)

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The Advanced Science & Technology Institute (ASTI)

- Established in January 1986 by virtue of *Executive Order No.128*
- One of the research and development (R&D) institutes of the Department of Science and Technology (DOST)
- Mandated to conduct scientific research and development in *Information and Communications Technologies (ICT)* and *Microelectronics*
- Committed towards contributing to the attainment of the following Major Final Outputs:
  a. Diffusion of knowledge and technologies
  b. Generation of new knowledge and technologies
  c. Development of human resources for the S&T sector
  d. Provision of quality S&T services

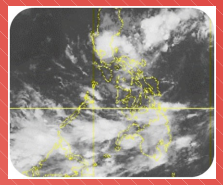
R&D Promotion

- Open Source Solutions
- Network & Wireless Technology
- Microelectronics
- Embedded Systems
- Web Technologies & Applications

Collaboration with Government, Academe, and Industry

FOCUS AREAS:
Education, e-Government, Enterprise Dev't., Environment

Collaborative Projects with Government Agencies



PAGASA Interactive Climate and Weather Information Network (PICWIN)

Establishment of the Philippine's Knowledge Center in Food and Nutrition (eNutrition) for FNRI

Tests, Analyses and Calibration Information System (TACIS) for DOST

The Philippine e-Library Project

Products and Services

Bayanihan

http://www.bayanihan.gov.ph

BluetoothTM Developer's Toolkit

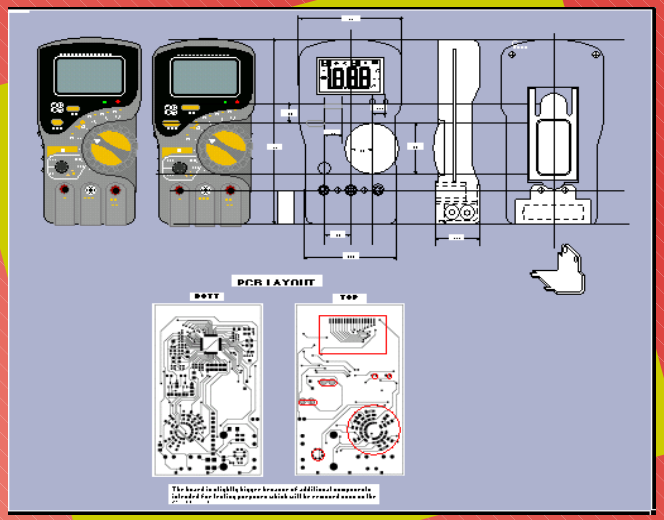
Bayanihan Linux – Linux distribution targeted for desktop users especially in government offices, schools and SMEs

Products and Services

PIC Microcontroller Starter Kit

GSM Data Terminal

Products and Services



Digital Multimeter

Joint undertaking with Yongden Technologies Corporation

Human Breastmilk Pasteurizer

Developed in cooperation with the Philippine Children's Medical Center

Products and Services

Science and Math Courseware Project:

Joint Project of ASTI and the Science Education Institute to produce interactive courseware modules for Grades 1 to 6 Science and Math subjects

Products and Services

Philippine Research, Education, & Gov't Information Network (PREGINET)

PREGINET

PREGINET provides value in 4 primary areas:

Direct **connectivity** to international RENs and Commodity Internet

Enhanced **communication** through its value-adding services (videocon, video-on-demand, voice over IP)

Access to local and foreign **content** and applications through the conduct of R&D and collaboration with other institutions

Facilitates the formation of user **communities** in agriculture, distance education, network technologies, disaster management, telemedicine, and bioinformatics

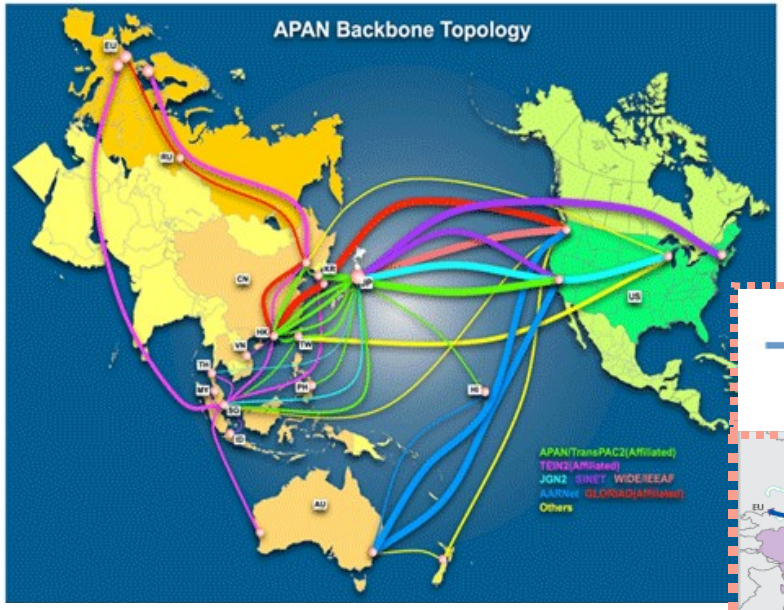
VALUE 1: CONNECTIVITY

What is PREGINET and how does it facilitate research collaboration?

- PREGINET is a nationwide broadband R&E network for interconnecting academic, research, and government institutions

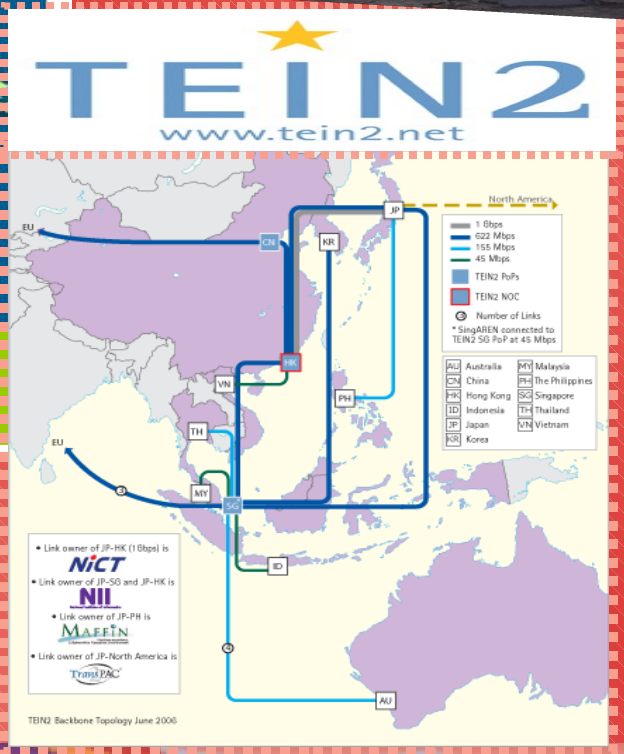
- Government-led initiative to establish a national research and education network (NREN) in the country

International Research Networks



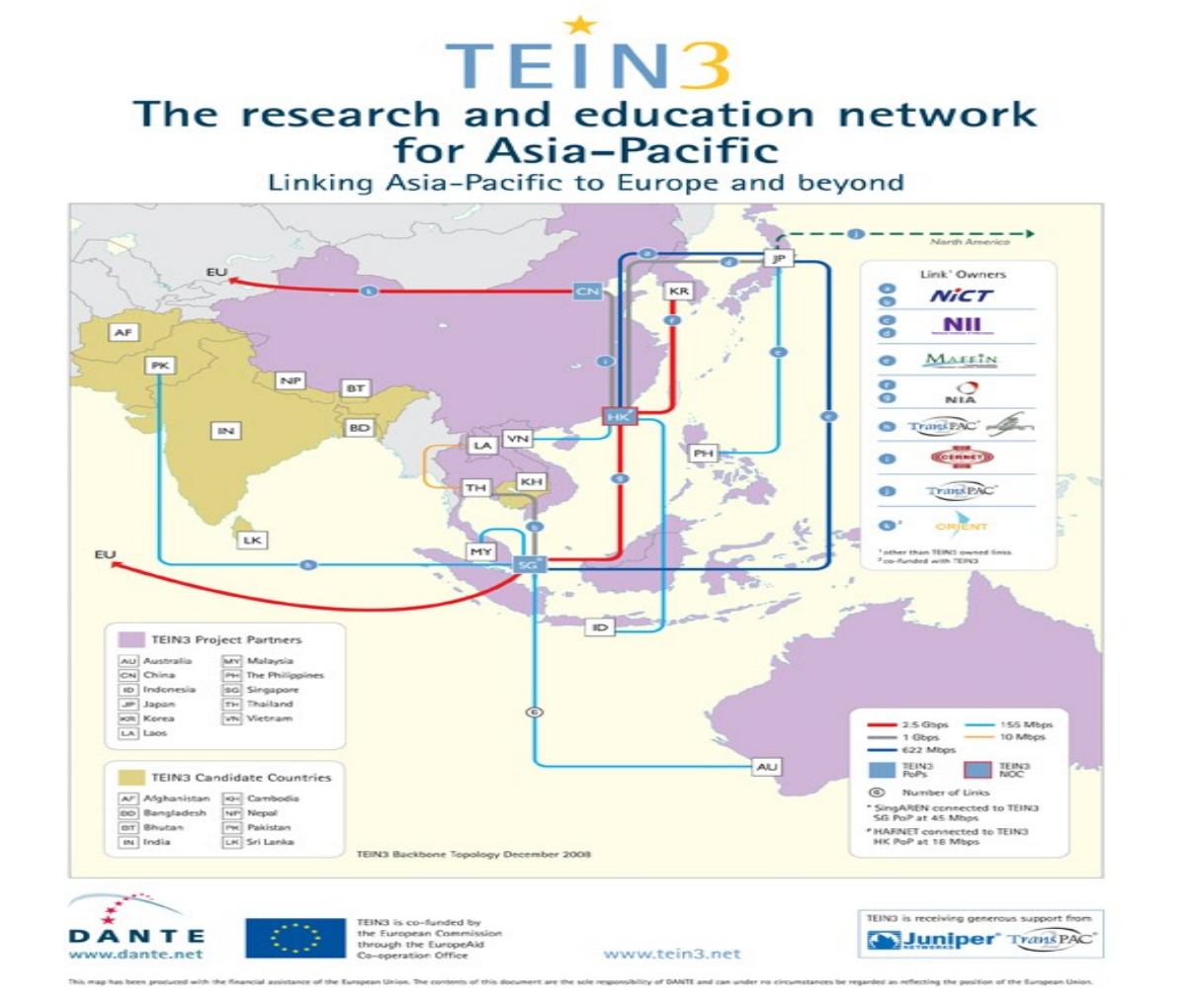
Asia-Pacific Advanced Network (APAN) < http://www.apan.net/>

Asian Internet Interconnection Initiatives (AI3) <http://www.ai3.net/>



PREGINET

International Research Networks



Collaborative Activities with Universities / Research Institutes

University of the Philippines – Philippine General Hospital

University of the Philippines – Diliman

University of the Philippines – Los Baños

International Rice Research institute

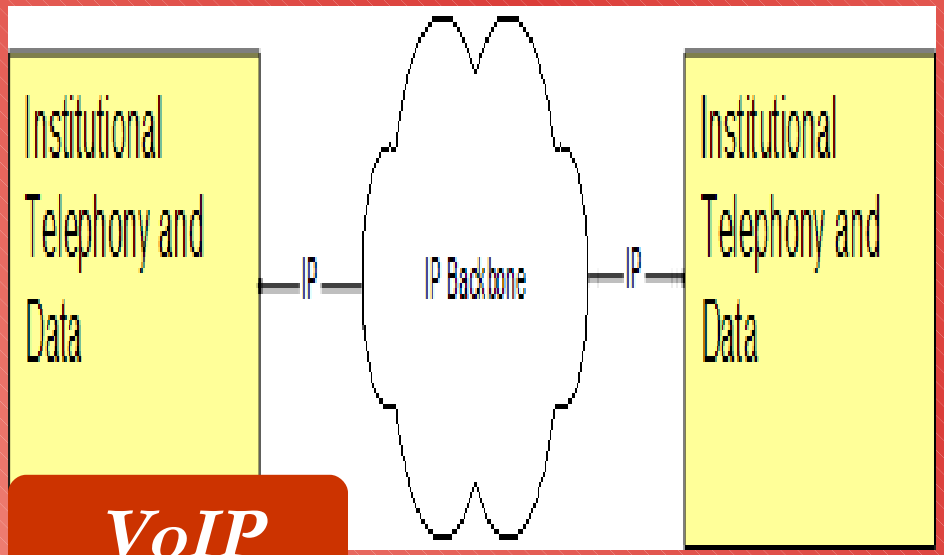
Recent Partners from the GOVERNMENT

House of Representatives

Court of Appeals

PREGINET Infrastructure

VALUE 2: COMMUNICATION

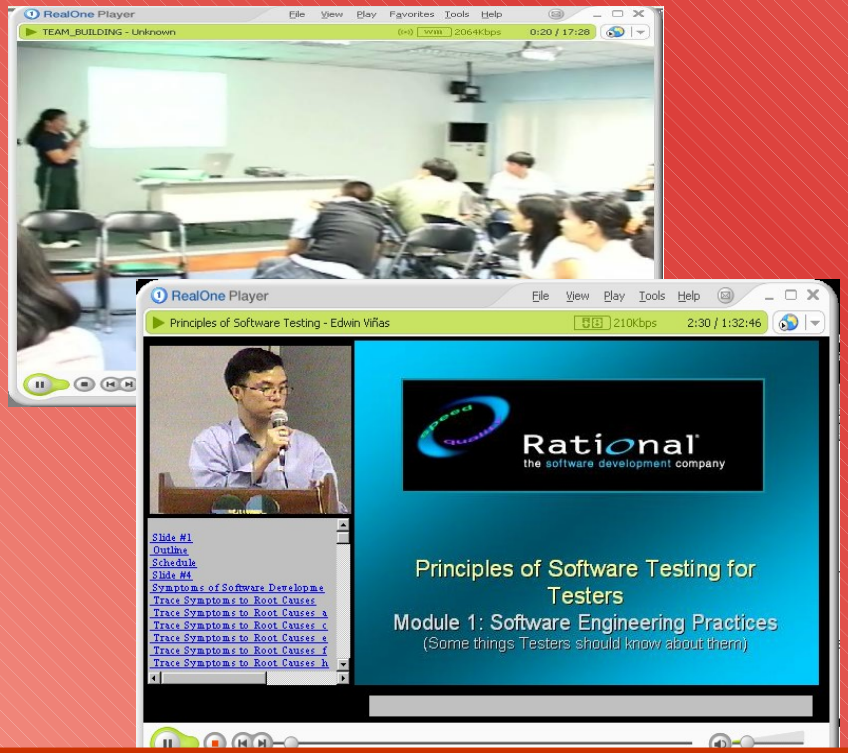


VoIP

VIDEOCONFERENCING

Value 2: COMMUNICATION (2)

ACCESS GRID



VIDEOSTREAMING

Value 3: CONTENT

- utilizes satellite based Internet

- conducts research and development of the necessary technology for IT human resource development in Asia while using the environments;

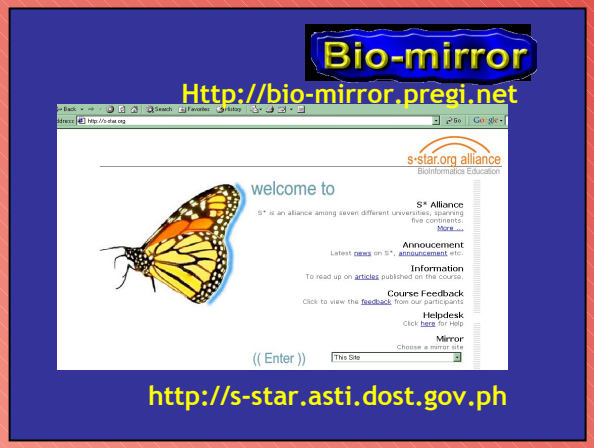
- deployed receive-only satellite earth stations at each partner site to share the distribution of live lectures from Japan as well as archived lectures.

Value 4: COMMUNITY

Agriculture

Distance Learning

Bioinformatics



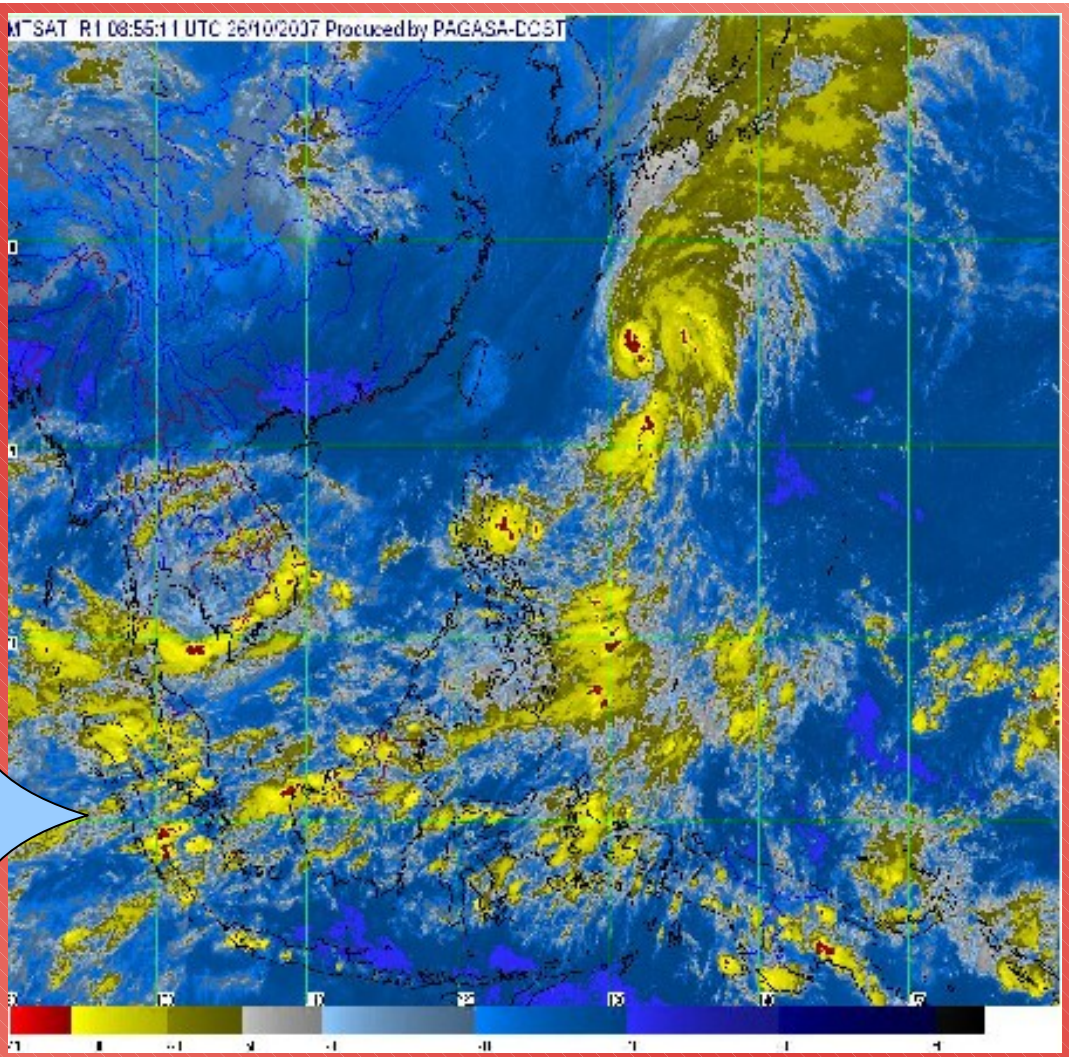
Disaster Management

Some of the collaborative researches/activities being conducted over the PREGINET network

PAGASA PICWIN Project

Utilizes PREGINET's APAN/TEIN 2 links to retrieve data from Germany's weather bureau (DND) twice a day, for use in its daily forecasting

Since 2005



PREGINET

Some of the collaborative researches/activities being conducted over the PREGINET network

2007

PGH Surgery Department telemedicine with Kyushu University in Japan, and other university hospitals in Australia, Korea, and Singapore

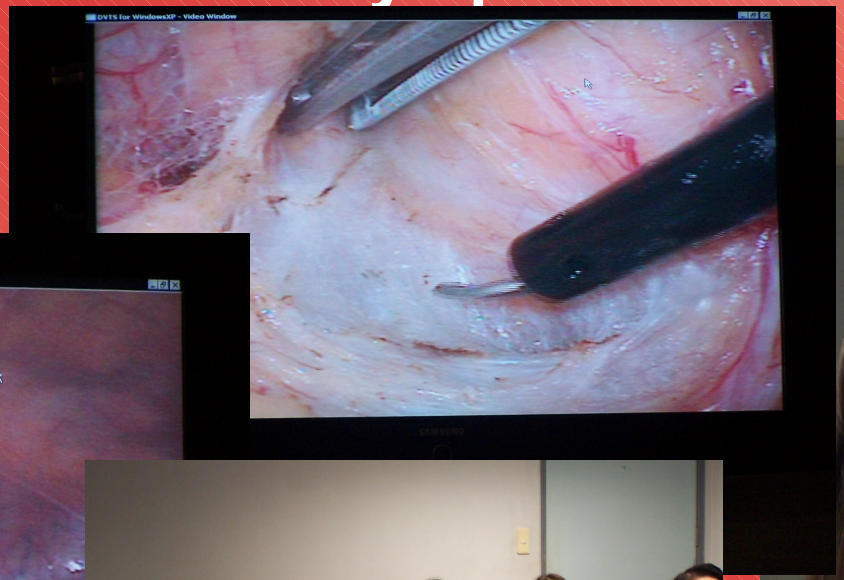
Broadcasts live and interactive telesurgery procedures/demos to many remotes sites in different countries

PREGINET

Some of the collaborative researches/activities being conducted over the PREGINET network

2008

2nd Asia Symposium on Telemedicine

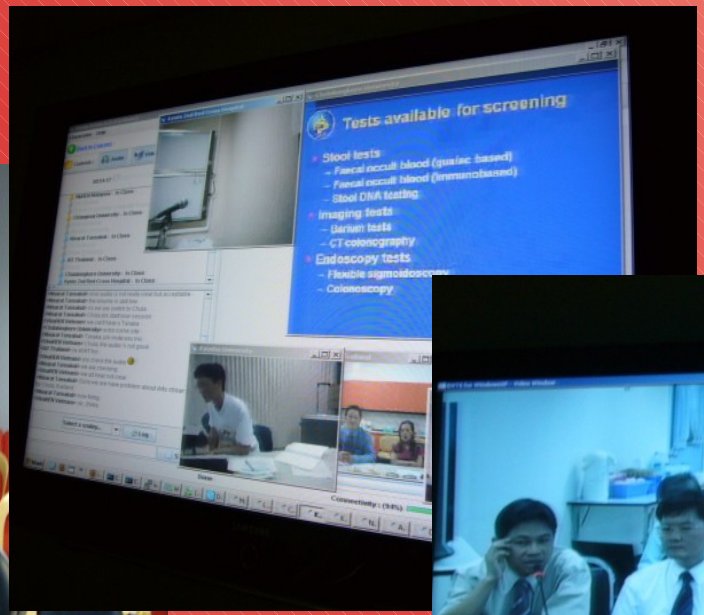


PREGINET

Some of the collaborative researches/activities being conducted over the PREGINET network

2008

CANALAVIST with Medical Working Group (UP Manila)



PREGINET

Some of the collaborative researches/activities being conducted over the PREGINET network

- International Rice Research Institute (IRRI)

Through the APAN link, holds virtual conferences and consultations with other CGIAR centers to facilitate leading-edge agricultural researches

SUMMARY

- PREGINET is the only research and education network in the country connecting to global research and education networks
- Provides value to partners in four areas: connectivity, communications, content, community
- Continuing to expand and grow

Thank you!!!