



Co-Prosperity of Asia and Europe through Digital Silk Road



Introduction of the TEIN4 Project and the TEIN*CC

24 May 2013

**Molly Yap
TEIN*Cooperation Center**



1 **TEIN Project**

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5 **2012/2013 TEIN4 Activities**

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	TEIN1	TEIN2	TEIN3	TEIN4
Projects Period	'00.10~'06.01	'04.01~'08.12	'08.01~'12.09	'12.04~'16.03
Partners	Korea- France	10 countries (ASIA)	18 countries (ASIA)	More 21 countries (ASIA)
Management Authority	KISDI/RENATER	DANTE(Europe)	DANTE(Europe)	TEIN*CC(ASIA)
Network Capacity	2M ~ 155Mbps	45M ~ 622Mbps	10M ~ 2.5Gbps	10M ~ 10Gbps

❖ **TEIN2 Partners (10) :**

- **Beneficiary(6) : China, Indonesia, Malaysia, Philippines, Thailand, Vietnam**
- **Non-Beneficiary(4) : Korea, Japan, Australia , Singapore**

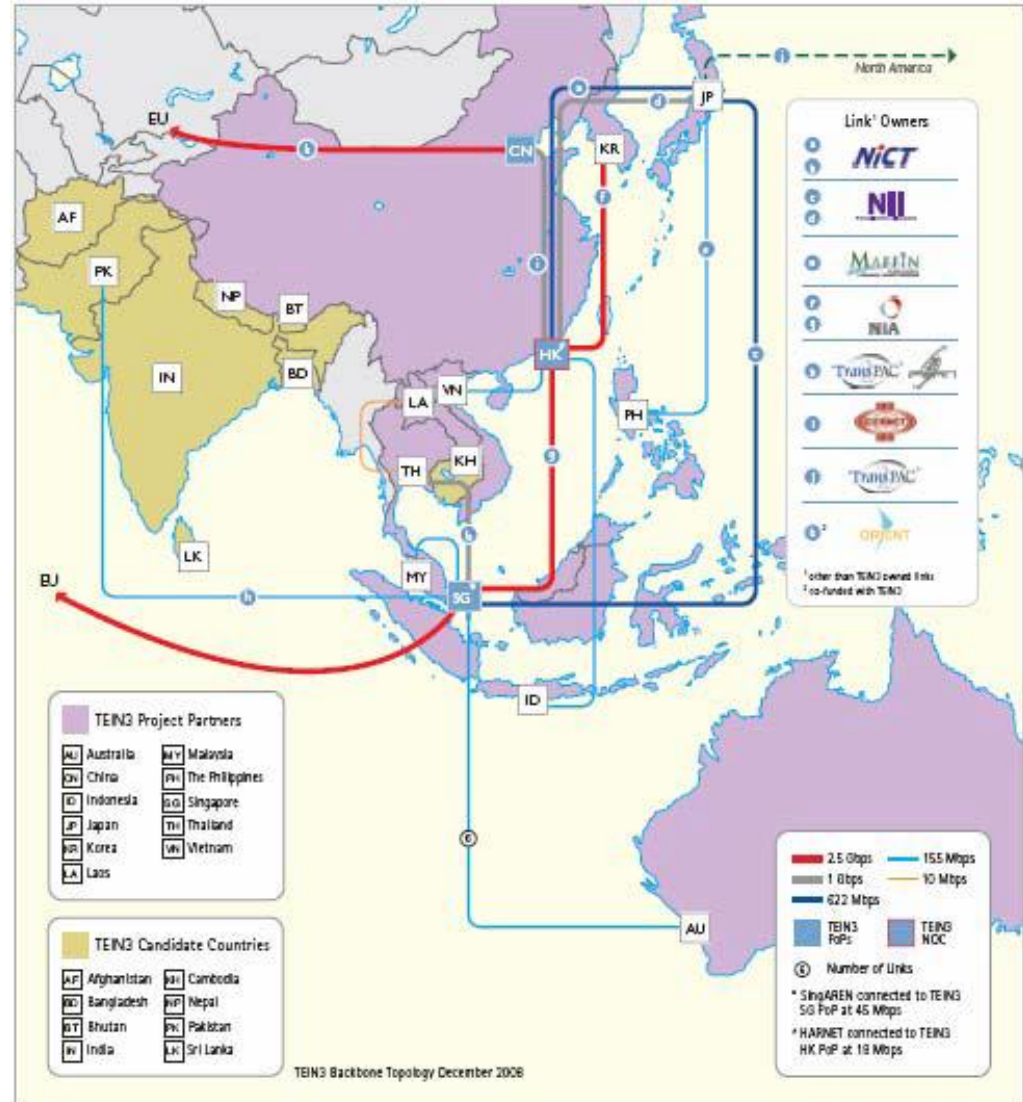
❖ **TEIN3 Partners (18) :**

- **Beneficiary (13) : Bangladesh, Bhutan, Cambodia, India, Indonesia, Laos, Malaysia, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, Vietnam**
- **Non-Beneficiary (5) : Korea, Japan, Australia , Singapore, China**



Network Infra

- ❖ Construction of Research & Education Network in Asia-Pacific Region (18 countries)
- ❖ High speed links up to 2.5Gbps connecting Asia countries to Europe, connecting Asia countries to Asia countries





Key Applications: TEIN3 success stories

- ❖ Natural disaster warning and post-crisis support
- ❖ E-Learning/E-Culture
- ❖ Tele-medicine(surgical training)
- ❖ Super Computing/Radio Astronomy
- ❖ Crop research
- ❖ Earth Science

TEIN3 saves lives

TEIN3 allows accurate typhoon forecasting and life-saving weather warnings through timely transfer of meteorological data from Germany to the Philippines.

The third generation of the Trans-Eurasia Information Network (TEIN3) provides a dedicated high-capacity Internet for over 45 million researchers and academics in 18 countries across Asia-Pacific.

DANTE www.dante.net

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the research and education network for asia-pacific

TEIN3 tackles wildfires

TEIN3 helps get the right information to the right people to detect dangerous hotspots and track active wildfires in Indonesia

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TEIN3 trains doctors

Surgeons at their hospitals to learn medical techniques from world experts through interactive remote training.

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TEIN3 fights hunger

grow crops with greater yields and efficiency by allowing researchers to test new varieties and analyse growing conditions faster.

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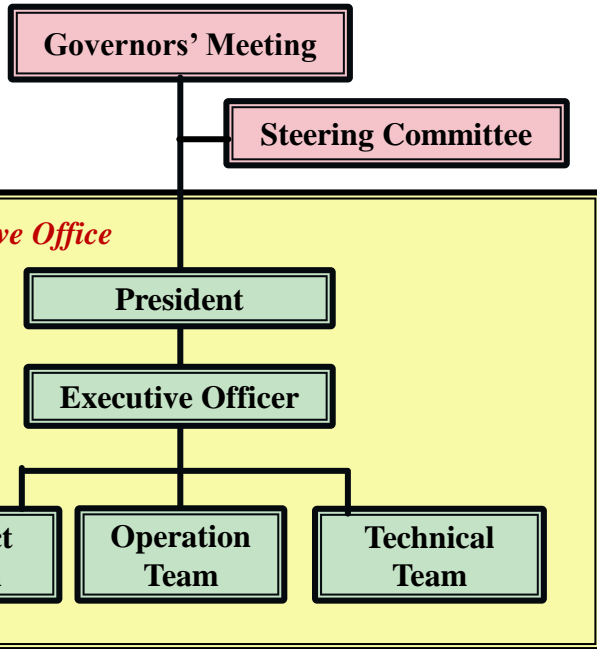
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TEIN*Cooperation Center



- ❖ At the ASEM8 Summit in Brussels on Oct. 2010, **Leaders endorsed TEIN4 and the establishment of the TEIN* Cooperation Center** in its Chair's Statement.
- ❖ TEIN*Cooperation Center was established on Aug. 2011 in Seoul, Korea. It is a non-profit Foundation governed by the Korean Law.
- ❖ Supports from EC, Korean Government and Seoul City
 - TEIN4 program (8M Euro/48months) funding by the EC
 - Operational costs supported by KCC
 - TEIN*CC office and its facilities donated by Seoul City
- ❖ **TEIN4 Contract signed between EC and TEIN*CC on April 2012**
- ❖ TEIN*CC Opening Ceremony in Seoul (May 2012)

- ❖ **TEIN*CC's Specific Goals**
 - Develop dedicated high-speed internet links
 - Promote Collaboration among Asia and Europe
 - Promote MDG relevant User Applications
 - Enhance and develop Human Capacity



2013 KOREN FORUM WORKSHOP



TEIN4 Objective and Activities



TEIN4 Objective

To contribute to the **Millennium Development Goals (MDGs)** by establishing dedicated high-capacity internet links between Research and Education (R&E) organisations in the Asia-Pacific region and Europe, enabling and promoting collaborative research on applications of broad societal benefit.

Global Cooperation

To enhance Asia-Europe cooperation by expanding participants

Bridge digital divide

To encourage balanced development in Asia region with HRD program

Promotion

Global test-bed for brand-new technologies and services

Network

To upgrade network capacities and strengthening internet service qualities



MILLENNIUM DEVELOPMENT GOALS	
	End Poverty and Hunger
	Universal Education
	Gender Equality
	Child Health
	Maternal Health
	Combat HIV/AIDS
	Environmental Sustainability
	Global Partnership



❖ WP1 - Network Procurement and Commercial Management

- Conducting TEIN network tender, TEIN NOC tender
- Sourcing TEIN network equipment
- Reviewing NOC performance & overseeing the TEIN NOC
- Conducting feasibility studies

❖ WP2 - Promoting and Supporting Applications

- Developing a portfolio of target applications areas for TEIN support
- Developing tools and technical support to facilitate application deployment on TEIN
- Setting up a TEIN user support group for partners to co-ordinate applications support and share best practice
- Dissemination activities

❖ WP3 - Enhancing Human Capacity and International Collaboration

- Commissioning and delivering customized training courses on network engineering and operations
- Providing funding support, subject to budget availability, for beneficiaries' staff capacity development
- Assessing needs for non-technical training by beneficiary partners
- Enhancing the cooperation with other parties in facilitating R&E developments in Asia.



❖ **Beneficiary partners (13 countries)**

Bangladesh : University Grants Commission (UGC)

Bhutan : Department of Information Technology and Telecom (DIT&T)

Cambodia : Institute of Technology of Cambodia (ITC)

India : National Knowledge Network (NKN), Education and Research Network (ERNet)

Indonesia : Institute Teknologi Bandung (ITB)/INHERENT

Laos : Lao Education and Research Network (LERNet)

Malaysia : Malaysian Research and Education Network (MYREN)

Nepal : Nepal Research and Education Network (NREN)

Pakistan : Pakistan Education and Research Network (PERN)

Philippines : Advanced Science and Technology Institute (ASTI)

Sri Lanka : Lanka Education and Research Network (LEARN)

Thailand : Thailand Research Education Network Association (ThaiREN)

Vietnam : National Agency for Science and Technology Information (NASATI)

❖ **Non-Beneficiary partners (6 countries)**

Australia : Australia, Academic and Research Network (AARNet)

China : China Education and Research Network (CERNET),
China Science & Technology Network (CSTNet)

Hong Kong : Hong Kong Academic and Research Network (HARNet)

Japan : National Institute of Information and Communications (NICT),
National Institute of Informatics (NII),

Ministry of Agriculture, Forestry and Fisheries Research Network (MAFFIN)

Korea : National Information Society Agency (NIA)

Singapore : Singapore Advanced Research & Education Network (SingAREN)



Feasibility Studies for Myanmar and Mongolia

- ❖ ongoing discussions with Myanmar
- ❖ a feasibility study is ongoing with Mongolia

Memorandum of Understanding (MoUs)

TEIN*CC signed MoUs with:

- ❖ Pacific Wave – 13 January 2013
- ❖ Internet2 – 16 January 2013
- ❖ CAREN – 17 April 2013



Conditions of Understanding (CoU)

TEIN*CC signed CoU with:

- ❖ TransPAC3 – 13 January 2013





TEIN 4 Application Workshops

Completed Workshops

- ❖ “Promote Cloud and Applications in TEIN4 Network” – Vietnam (December 2012)
- ❖ “OF@TEIN SDN-enabled Testbed” - Malaysia (February 2013)

Upcoming Workshops

- ❖ “Cloud Computing Technical Application Workshop” – Cambodia (August 2013)
- ❖ “Glacial Lake Monitoring And Information Exchange Using TEIN Network” - Nepal (September 2013)



**“Call for Proposals – Application Workshops on TEIN4 Network”
– 2nd Phase
was announced on
the TEIN website on 9 May 2013**



TEIN 4 HRD Training

- ❖ “Network Monitoring and Management Workshop” – Thailand (5 – 9 November 2012)
- ❖ “Network Security Workshop” – Thailand (19 – 22 November 2012)
- ❖ **currently doing a survey with partners on their HRD training needs**



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Network

- ❖ The most comprehensive R&E Network
 - to expand Asian participants, to connect with other regions.

Cooperation

- ❖ Dedication on Internet development based on Global cooperation
 - Close cooperation with APAN, FP7, GENI etc.

Participants

- ❖ Enhancing Human Capacity
 - Supporting IT HRD program, Seminars and Workshop.



Thank you for your attention !

www.teincc.org

mollyyap@teincc.org