



TEIN2

Frequently Asked Questions – August 2006

What is TEIN2?

TEIN2 (Trans-Eurasia Information Network) is the first large-scale research and education network for the Asia-Pacific region. It connects regional researchers with their counterparts in Europe via direct links to Europe's GÉANT2 network, providing the Asia-Pacific countries with a gateway for global research collaboration. Operating at speeds of up to 1Gbps it connects ten countries in the region.

How is TEIN2 funded?

TEIN2 is co-funded by €10 million from the European Union's EuropeAid Programme, and contributions from the connected partners. Additional support for TEIN2 has been provided by Japan, Korea, Singapore and Australia.

How many users are connected to the TEIN2 network?

TEIN2 currently supports a community in excess of 30 million users in 10 countries. Its direct links to Europe's GÉANT2 network create a potential user base of more than 60 million.

How does TEIN2 reflect the objectives of the ASEM initiative?

TEIN2 is an ASEM success story, addressing the themes of the ASEM initiative and its overall objective of strengthening links between Europe and Asia. TEIN2 fosters regional cohesion and development, enhances international collaboration and bridges the digital divide. TEIN2 supports the European Union's strategy for promoting global research networking connectivity.

What are the origins of TEIN2?

TEIN2 represents a significant development of the Trans-Eurasia Information Network (TEIN) initiative, which was an outcome of the Asia-Europe Meeting (ASEM) Summit in 2000 to improve research networking between Europe and Asia-Pacific. Through TEIN the first Europe-Asia link dedicated for research and education was established in December 2001, with a connection between RENATER in France and KISDI in South Korea. Demand for increased capacity has driven the development of regional connections. TEIN2 now links ten countries to each other and to Europe.

Why do we need TEIN2?

TEIN2 promotes digital inclusion in Asia-Pacific. Some countries, such as Japan and Korea have highly developed research networks. Other networks, like those of Vietnam and Thailand are still in their infancy. TEIN2 promotes regional cohesion, creating more equal access to cutting-edge network resources. It acts as a catalyst by stimulating the development of research networking in the developing countries. In addition, many of today's global challenges require global collaboration to tackle issues such as climate change, avian influenza and HIV/AIDS. TEIN2 fully integrates Asian researchers into the Global Information Society.

How is TEIN2 organised?

TEIN2 is a network of networks. It provides international connectivity between national networks in the region. Each National Research and Education Network (NREN) provides connectivity to universities and research centres in their country. TEIN2 connects partner NRENs across the continent to create an integrated Asian research community.

How is the TEIN2 network constructed?

TEIN2 operates at speeds of up to 1Gbps. Regional connectivity extends from three network hubs in Beijing, Singapore and Hong Kong to connect ten countries. It provides two direct routes to Europe, an overland route from Beijing to Copenhagen and a submarine route between Singapore and Frankfurt. Routing equipment at the TEIN2 hubs is sponsored by Juniper Networks.

Does TEIN2 interconnect with other world regions?

TEIN2 has fast, direct connections to Europe and the GÉANT2 network, meaning Asian researchers no longer have to go via the US to reach Europe. GÉANT2's connections to other world regions include Latin America, the Mediterranean and the Middle East and create a global gateway for research collaboration. In addition connectivity to North America is provided via the TransPAC2 network, which is making bandwidth available for the TEIN2 partners.

How does TEIN2 represent value for money?

TEIN2 has been brought into service quickly and efficiently, using an established European model for research networking. Without TEIN2, many partners could not secure cost-effective access to high bandwidth capacities. The cohesive approach to international connectivity offers significant savings compared to deploying multiple connections between individual Asian partners and Europe. TEIN2 is managed by DANTE, who have experience in building research and education networks around the world, on behalf of the European Commission.

Who are the project partners?

The TEIN2 project partners are the research networking organisation DANTE, the European Commission, and National Research and Education Networks (NRENs) in Europe and Asia. The Asian partners are China, Indonesia, Japan, Korea, Malaysia, the Philippines, Singapore, Thailand and Vietnam; Australia and TransPAC2 are also actively participating. The European partners are RENATER, SURFnet and UKERNA, the NRENs of France, the Netherlands and the United Kingdom respectively.

How long will TEIN2 run?

Initiated in 2004, TEIN2 is scheduled to run until 2008.

What plans are in place for life after TEIN2?

The project partners are currently looking at the feasibility of extending the project beyond 2008, to build on the achievements of TEIN2, and address the question of sustainability. Developments include upgrading bandwidth capacity and extending the geographical reach of TEIN2. Other countries in the region including Laos and Cambodia have already expressed an interest in joining the TEIN2 community, with plans in place for Laos to join TEIN2 by the end of 2006.

What applications will use this network?

Any type of not-for-profit research and education activity can use the network. TEIN2's applications include supporting disaster warning systems, telemedicine, e-learning and radio astronomy. Many of the applications supported by TEIN2 are of high societal impact, bringing direct benefit to the general population. With more than 30 million potential users, the applications of the network are almost limitless.

How successful do you think the TEIN2 network will be?

TEIN2 has already created the first large-scale research and education network for Asia-Pacific, and has been brought into service quickly and efficiently. With many research disciplines already embracing the new connectivity, increased usage of the network is expected, as well as extending TEIN2 to other countries in the region. Creating closer working relationships with Europe will build international research communities to tackle issues of global importance.

Why should researchers use TEIN2?

TEIN2 is reserved solely for the purpose of supporting research and education. It delivers high bandwidth connections which are free from the congestion of commercial internet traffic.