



**Asia-Pacific Telecommunity**

**APT Ministerial Conference on  
Broadband and ICT Development  
1-2 July 2004, Bangkok, Thailand**

*Asia-Pacific Broadband Summit*

**BANGKOK AGENDA  
FOR  
BROADBAND AND ICT DEVELOPMENT  
IN THE ASIA-PACIFIC REGION**

# Contents

	Page
<b>Preamble</b>	3
A. Raising Awareness, Capacity Building and HRD	5
B. Creating an Enabling Environment to Encourage Broadband and ICT Investment	6
C. Improving Access and Encouraging Broadband and ICT Usage	7
D. Increasing Confidence and Security for Broadband and ICT Usage	9
E. Strengthening International Cooperation	9
<b>List of Actions</b>	11
A. Raising Awareness, Capacity Building and HRD	11
B. Creating an Enabling Environment to Encourage Broadband and ICT Investment	12
C. Improving Access and Encouraging Broadband and ICT Usage	13
D. Increasing Confidence and Security for Broadband and ICT Usage	14
E. Strengthening International Cooperation	15

## **Preamble**

*Ministers responsible for communications and information from the Member Countries of the Asia-Pacific Telecommunity met at Bangkok for the Asia Pacific Ministerial Conference on Broadband and ICT Development on the 1<sup>st</sup> and 2<sup>nd</sup> of July 2004, to consider an agenda for development that will harness technology for the benefit of the people in the region.*

*With its great diversity of culture, huge population and vibrant economies and as one of the emerging world's largest telecommunications markets, the Asia-Pacific region has the potential to become an ICT hub of the world, with a well-developed information and communication network and applications. As a result of the increased flow of information, domestic, intra-regional and inter-regional economic activities will lead to sustainable development and improvement in the quality of life for the people of the region.*

*The APT Bangkok Agenda for Broadband and ICT Development reaffirms our commitment to WSIS Geneva 2003 Declaration of Principles and Plan of Action which recognize ICT infrastructure as central in achieving the goal of digital inclusion and looks forward to an environment in which broadband and ICTs can accelerate the social and economic development of the Asia-Pacific region. The implementation of the Bangkok Agenda will require the effective participation through cooperation and partnerships among governments and all other stakeholders including network operators, national and foreign investors, ICT suppliers, users of broadband and ICT, APT and other relevant international organizations.*

This conference confirms the need for action at the National, Sub-regional and Regional level for:

- A. Raising Awareness, Capacity Building and HRD
- B. Creating an Enabling Environment to Encourage Broadband and ICT Investment
- C. Improving Access and Encouraging Broadband and ICT Usage
- D. Increasing Confidence and Security for Broadband and ICT Usage
- E. Strengthening International Cooperation

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## **A. Raising Awareness, Capacity Building and HRD**

For generating a healthy economy, access to information is vital. Broadband technology has the power to deliver information at a fast pace and is rapidly playing a major role in government, economic, social and cultural activities. Although some Member Countries of APT have moved quickly to enhance broadband access and applications, for a large section of the community in the APT region, broadband services are not yet available and hence, the benefits that this technology brings to them are not fully realized.

Human resource development and capacity building in ICT are vital for the diffusion of broadband and ICT in the Asia-Pacific region. Due to the large population and a high rate of illiteracy in some areas, the challenge of HRD and capacity building is formidable. A key role for APT is to continue its support to Member Countries with expert missions, training programs and other activities to promote HRD and capacity building in the region.

While the process of bringing the people to the classroom should be further accelerated, in order to meet the high volume of skilled people required, HRD strategies must bring the classroom to the people especially in the least developed areas of the region. New strategies are required to assist Member Countries in the development of a pool of experts that will be needed.

With increasing availability of on-line training resources, APT will need to be alert to opportunities to harness the very medium we are endeavoring to create. Training courses from Member Countries and locally generated courses should be made available where appropriate to Member Countries using off and on line approaches. A careful evaluation of the effectiveness of the various methodologies is required. It is also important to ensure

that focusing educational resources on the use of technologies not readily available to the less developed Member Countries does not disadvantage them.

## **B. Creating an Enabling Environment to Encourage Broadband and ICT Investment**

Governments need to provide the necessary policy and regulatory environment for encouraging investment, for ensuring fair competition and for promoting universal access, encouraging the business sector to play a more active role in the development of network infrastructure in unserved and underserved areas.

The development of network infrastructure including broadband infrastructure requires quality leadership. A sound policy, regulatory and institutional framework, is required to build confidence for the major investments needed for broadband network development, giving due consideration to the requirement of service providers and end users for appropriate content, technology support and confidence in network security.

Governments should also promote dialogue among network operators, suppliers and major users to identify opportunities for extending network infrastructure in unserved and underserved areas and for enhancing the capability of existing networks to deliver broadband services. A range of technology options are already available to meet demand and are being developed for the delivery of broadband and ICT services. With falling equipment prices and new technology options, it is possible to develop infrastructure at a lower cost than previously. Global and regional interoperable standards would also be beneficial.

Rapid advances in radio technology call for a greater emphasis on the efficient utilization of spectrum. This in turn can be assisted by regional cooperation, facilitated by APT.

### **C. Improving Access and Encouraging Broadband and ICT Usage**

The utilization of ICT products and services are crucial for economic and social development of each country in Asia-Pacific region.

Our region with all its diversity of cultures and geography has many areas that are remote and currently unserved and underserved by telecommunications services as many isolated communities have relatively small populations, low income levels and limited access to electric power supplies.

Although the need to provide universal and affordable access has been fully recognized and has been accorded a high priority by many Member Countries, yet in some cases the extension of networks has been slow. Some Member Countries have been successful in developing effective market based approaches to extending the reach of networks. However, even where the market is able to work effectively, some areas will remain underserved due to a lack of supporting facilities and financial resources. Governments therefore need to continue to support universal service arrangements.

Delivery of practical applications of “e-services” through broadband will sharply increase the traffic and bring the prices down and will provide further incentive to develop the network infrastructure. The development of e-services including broadband access in rural areas should also be encouraged.

With social and economic development, increasingly ubiquitous broadband access will benefit society through enabling the delivery of more convenient and efficient services including e-government, e-commerce, e-education and e-health.

Member Countries have also seen a huge uptake of wireless and satellite technologies and innovative applications of mobile services.

Satellite and other network technologies are able to provide services to rural areas. However, greater emphasis should be laid on research and development to develop appropriate cost effective broadband technologies for rural applications.

The Asia-Pacific region has the potential to become the largest market and the world manufacturing hub for telecommunication and ICT related equipment. This can be supported by strengthening collaboration in R&D, software development, content development, standardization, technology transfer and competitive supply of services.

Both broadband and narrowband technologies require connectivity as part of a global network, rather than as isolated information and communication islands.

Special measures will be needed to ensure the connectivity and the flow of information transcending language and other barriers. At the same time, attention should be paid to the creation of content in local languages by use of appropriate software and other tools.



## **D. Increasing Confidence and Security for Broadband and ICT Usage**

It is prerequisite for the development of the Information Society to enhance confidence and security in the networks. Guarding people from cyber attack and spam mail, protection of personal information and privacy should be priorities in building a network infrastructure. Further, in order to achieve economic benefits from e-commerce, governments should be aware of needs to ensure legal environment for facilitating implementation of e-commerce and preventing cyber crimes over e-commerce. Additionally, appropriate protection should be ensured for intellectual property rights for contents traded over the networks. The issues of confidence and security in the networks, most of which are interconnected by the Internet transcending geographical borders, require to be dealt with at the international level. Thus, cooperative activities among Member Countries as well as between APT and other regional or international organizations are desirable.

## **E. Strengthening International Cooperation**

Regional and international cooperation can help countries in using ICTs as an effective development tool, in line with individual country development plans and priorities. One of the strengths of APT is in the diversity of its Member Countries and the key to harnessing this strength is cooperation between Member Countries. Those countries that have already implemented broadband networks and innovative ICT applications can assist Member Countries who are now at the initial stage of implementation programmes through information sharing, training and other related activities.

Harmonized standards will facilitate the manufacture and supply of hardware and software throughout the region, with economic advantages flowing also to Member Countries that are not in a position to manufacture their own hardware.

APT as the prime regional telecommunications organization in the Asia-Pacific region could play a pivotal role in facilitating international cooperation among Member Countries, and effective collaboration with other international organizations.

Considering the geographical challenges, vulnerability to environmental hazards, relative isolation, small market size and other disadvantages, special attention should be paid to the needs of the Small Island Countries, Land-locked Least Developed Countries and other LDCs.

Member Countries take the opportunity of the Bangkok Agenda to reaffirm our support for the WSIS Declaration of Principles and Plan of Action.

The Conference recommends the attached list of actions for implementation of this Agenda; however, APT should continue to ensure that activities are regularly reviewed and rationalised where necessary to ensure the most effective use of available resources.

# LIST OF ACTIONS

## A. Raising Awareness, Capacity Building and HRD

- Member Countries should raise awareness of broadband and ICT applications and promote partnerships among government, industry and the community, through appropriate programs, policies and structures.
- Greater emphasis needs to be placed on HRD and capacity building by Member Countries at various levels.
- Member Countries should promote the use of broadband and ICT where appropriate for addressing illiteracy and improving technical skills.
- APT training courses, workshops and other related programmes for promoting HRD and capacity building should be further augmented to meet the growing requirement of Member Countries. APT should organize workshops on training techniques with special focus on e-learning applications. APT should consider the extended use of e-learning in its programs which support APT's HRD activities.
- APT should regularly update and circulate a database of training programmes and development activities in the region as a mechanism to assist Member Countries in matching training opportunities to their needs.
- APT should capitalize on the Young Professionals and Students Forum to provide opportunities for students and young professionals in the region to conduct projects on ICT development.

## **B. Creating an Enabling Environment to Encourage Broadband and ICT Investment**

- To attract investment, policy and regulatory issues including licensing, interconnection, pricing, competitive safeguards, universal service obligations and trade liberalization must be addressed, with policy initiatives and capacity building to strengthen regulatory frameworks and support good regulatory practice.
- Transparent and investment friendly policies need to be promoted for the development of broadband and ICT infrastructure. Governments should play a catalytic role in encouraging the participation of financial institutions in the development of broadband networks and services including by way of offering appropriate incentives.
- Existing APT activities in conjunction with Member Countries could be further tailored to enhance investor confidence through sound policy and regulatory measures, standardisation and business promotion.
- APT should assist Member Countries in finalising technical specifications for Internet Gateway Exchanges and provide a platform for facilitating the interconnection and interoperability of networks.
- Member Countries should cooperate in developing the framework for commercial international Internet connection agreements. Such a framework should encourage ICT investment by taking into account the exchange of value between networks.
- Where appropriate, Member Countries should encourage operators to prepare plans for migrating to IPv6 networks.
- APT should conduct appropriate and effective studies on the use of innovative technologies to facilitate delivery of

affordable broadband delivery on existing networks, enhancing the quality of existing networks and minimizing the costs for rural broadband applications.

- Spectrum requirements for new wireless systems with higher regional demands should be identified through APT. APT should contribute to ensure that spectrum be allocated for the new systems in international allocations within the ITU Radio Regulations as soon as possible.
- Usage of the available spectrum for new radiocommunication systems by Member Countries should be harmonized.

### **C. Improving Access and Encouraging Broadband and ICT Usage**

- National broadband policies should focus on improving access, enhancing ICT uses and creating more job opportunities.
- Member Countries should promote discussion on the development and use of affordable ubiquitous broadband.
- APT will support Member Countries developing transparent funding models for the promotion of universal services, appropriate for a multi vendor, commercial environment. APT should promote sharing best practice transparent funding models.
- APT should assist Member Countries to exchange information on such issues for ensuring access to underserved communities.
- APT should promote applications for overcoming language barriers to information flows in the region, paying special attention to the region's rich cultural and

linguistic diversity. In addition, it should encourage development of various applications that help the disabled, senior citizens and others to access information easily.

- Member Countries should consider measures to make broadband access more affordable in remote and rural areas.
- Member Countries should consider ways to encourage R&D and private sector contributions in ICT activities.
- APT should assist Member Countries to collaborate and exchange information and to build partnerships amongst national/regional stakeholders, by providing forums on e-applications and successful business models.
- APT programmes should promote the development of ubiquitous broadband delivery technologies for the benefit of Member Countries. R&D activities for the realization of the ubiquitous network should be strengthened further by harmonization amongst Member Countries.
- APT should enhance activities to promote standardization in Asia Pacific Region, in particular, to actively submit common/joint proposal to ITU by reflecting well the opinion and needs of the region.

#### **D. Increasing Confidence and Security for Broadband and ICT Usage**

- APT should raise awareness about the significance of information security and personal information protection, provide guidelines for effective mutual assistance efforts in conjunctions with international best practices and promote self-regulatory activities in the Asia-pacific region.

- Information exchange should include sharing of security information being undertaken in other regional and international organizations covering issues such as National CERTs (Computer Emergency and Response Team) and ISACs (Information Sharing and Analysis Centres).
- R&D activities including public individual certification system should be enhanced in collaboration with all sectors including government, private sector and academia.
- APT should cooperate with other regional or international organizations in order to ensure information security and personal information protection in the Asia-Pacific region in particular for the least developed countries.
- APT should gather information on available sources of network security expertise.
- APT should encourage the exchange of information on anti-spam policies and practices.

## **E. Strengthening International Cooperation**

- APT should provide opportunities for Member Countries at the regional level for information sharing and exchange of views with an aim to promote broadband and ICT development. APT, where appropriate and in conjunction with the needs of Member Countries, will tailor practical programs on broadband and ICT Development with a particular emphasis on needs of Small Island Countries (SICs), Landlocked Least Developed Countries (LLDCs), and other LDCs.

- APT should continue to cooperate with the UN, the ITU and other international and regional organizations to implement WSIS Declaration of Principles and Plan of Action at the regional level.