



**Asia-Pacific
Economic Cooperation**

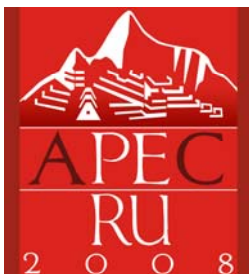
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Agenda Item: 4a

Draft Report on Industry Roundtable

Purpose: Consideration

Submitted by: INTUG



Liberalization Steering Group (LSG) Meeting

Lima, Peru

15-16 October 2008

Draft

APECTel 38, Lima Peru, October 2008

Industry Futures Roundtable

8.30am-12 midday, Monday 13 October

Theme: "Innovative Uses of Rural Connectivity by End Users."

This Roundtable highlighted various benefits offered through rural connectivity, including at the individual, community, organizational, and national levels.

Welcome

Introduction of the session Chair

Mr. Ernie Newman, INTUG

Mr Ernie Newman of INTUG extended a warm welcome to delegates, and explained INTUG's role in developing the agenda for the Roundtable sessions. The Roundtable is designed to involve industry in the work of APEC TEL, and to help strengthen government's understanding of emerging technological issues.

Chair introductory remarks

Mrs. Patricia Carreño Ferre, General Director, General Directorate of Regulation and International Affairs in Communications, MTC Peru

The Workshop Chair, Mrs. Patricia Carreño Ferre, welcomed delegates, and discussed priorities for the workshop.

Rural Communities

Case study, rural banking – how technology helped to set up a basic mobile banking network that brings banking inclusion to remote areas of the country and contributes to extend the benefits of Peru's Juntos programme –

Manuel Coral and Ivana Kriznic, British Telecom

Manuel Coral and Ivana Kriznic presented an overview of a mobile banking network linking Peru's Juntos Program, designed to provide financial support to the very poor to support health and nutrition goals, with Banco de la Nación, which is tasked with dispensing the funds. BT LATAM Peru was tasked to design, implement and operate a low-cost and highly available solution for a fully mobile banking.

Criteria included: a (a) secure network that was (b) essentially automatic, offering (c) full mobility; that was (d) readily available to those who needed it; and (e) operated at low-cost. The network was designed and managed in Peru.

Case study, rural telemedicine: University-based province-wide coverage with 2-way radio (VHF and WiFi) providing voice and data exchanges in the Amazon and in the Andes to support primary health care activities and stimulate learning opportunities for health personnel

Dr. Humberto Guerra, UPCH, and Eng. David Chávez, PUCP, Lima, Peru

Dr. Humberto Guerra, UPCH, and Eng. David Chávez, PUCP outlined an initiative supporting rural education and distance learning, focusing on rural telemedicine. The Hispano-American Health Link offers university-based province-wide coverage via 2-way radio, thus providing voice and data exchanges in the Amazon and in the Andes, to support primary health care, and the training of health care personnel.

Case study, health - Alerta: Electronic disease surveillance for rapid detection of potential outbreaks in rural settings

Dr. Ernesto Gozzer, Voxiva

Dr. Gozzer discussed the project, which developed following a malaria outbreak in a very remote region which, due to difficulties in surveillance, they were unable to detect, or address, in time. This program is now being rolled out in a variety of locations, including: Colombia, Ecuador, Venezuela, Kenya, Tanzania, etc.

He reflected on the importance of capacity-building, and reminded the audience that end-users are focused on achieving their goals, and not on the nuances of the technology.

Questions and discussion on first three sessions

- Peru: *For BT: where is the technology hub located, and how do the Peruvian government and the Banco de la Nacion monitor compliance with service requirements?* Internet access is key for Banco de la Nacion, and the engineers tasked with monitoring the program are based here in Peru.
- Chinese Taipei: *The documents are very useful, and the speakers should be encouraged to post their documents on the meeting website.* The Chair confirmed that this will take place?
- Peru: *Does the "Juntos program" offer any capacity-building, and are there any costs associated with this?* BT's involvement focuses on the infrastructure,

Economics

Case study, management of dairy production: Re:Generation – effluent monitoring and management.

Bridget Hawkins, MediaLab, New Zealand

The Farmgate Programme focuses on developing solutions to benefit farmers, the supply chain, exporters and retailers. The study focuses on **animal traceability** and **environmental monitoring**. The work supports increasingly large farms combined with strengthened environmental regulations. A system of sensor networks stationed across the farm monitor soil moisture and temperature, rainfall, wind and air, etc.

Development of innovative uses of ICT in Latin America – an update from Regulatel

Jorge Bossio, OSIPTEL - Peru

Jorge Bossio presented the outcomes of a universal service study conducted for Regulatel which sought to review and assess current and planned universal access programs, estimate market efficiency and universal access gaps, and the public sector investment/subsidy required to reduce the universal access gap; it also sought to identify new business models and provide concrete policy recommendations for universal access programs, finally the study wanted to share the experience of Latin America, knowing that the region initiate many of the first generation universal access programs that are currently being implemented as models in developing regions.

The key recommendations included a clear definition of the objectives of the funds, and a clear regulatory framework to solve the dilemma between private investment and public policies and objectives, but also the roles of the institutions and all the stakeholders involved in the process.

The report stressed that there is a need for a redefinition of the concepts and goals of universal access and universal service programs; a need to speed up, simplify and diversify how the funds are being used; and a need for legal, regulatory and institutional reforms to empower the funds' administration as a way to improve their capacity to commit their goals. The market efficiency gap for mobile telephony service that was found by the study was much lower than initially expected. The cost of providing public subsidies to address the remaining cellular market access gap would be higher than the per unit costs of the first generation of universal access programs.

The study found that the private sector could provide mobile service on a commercial basis to cover on average more than 75% of the population in most latin american countries but a few could only have cellular or mobile

coverage below 60%. Expansion of cellular networks into these may not be feasible in the near-future without additional regulatory or financial incentives.

Current access to the Internet is similar to cellular coverage. The coverage of broadband networks is comparable to that of telephone service in the early 1990s, and there remains a very large access gap. Costs, and therefore, the required subsidies, climb exponentially as universal access programs try to reach smaller and smaller towns.

New generation Universal Service Funds were suggested. The objectives that were categorized as “universal access” goals during the first generation should now be re-categorized as two distinct concepts. universal geographic coverage, and universal community access.

In Peru Universal Access is guaranteed by means of the Investment in Telecommunications Fund (FITEL) created to finance the supply of telecommunications services in rural areas, and places considered to be of special social interest. The new administration of FITEL has three large projects that focus on the provision of Internet access and multiservices using broadband networks.

The existing inequality and exclusion refers to the population’s different characteristics in reference to culture, language, education, age and gender. Given that the Digital Gap is an expression of the Social Gap, it cannot be approached only from an ICT perspective.

The globalization of the telecommunications companies’ operations, and search for economies of scale both by operators and producers, drive developing countries towards the adoption of new technologies in urban areas even when there is no service readily available for the “older technologies” among the entire population. This poses both a risk and an opportunity: the risk of widening the gap between those who do and those who don't have access to telecommunications services, while presenting the opportunity for the excluded populations to “leapfrog” several stages of development. For this to occur, there is need of stronger coordination of public policy to promote competition, the expansion of services, and the fight against poverty.

In the same way, the access policy must take into account, not only the coordination with other sectors in charge of the deployment of infrastructure (highways, roads, energy, water, and sanitation), but also with the sectors that maintain closer contact with the development of human capabilities and the development of appropriate content.

**Rural Connectivity for Socio Economic Benefit for End Users -
:Challenges & opportunities for Indonesia’s Case.**

*Mr. Daniswara Pandina, Specialist Business Incubation Analysis of PT
Telkomsel.*

Mr Daniswara Panida gave a presentation about the challenges of getting connectivity to the scattered population of Indonesia, where 50% of villages are still unconnected due to the many issues including the widely-dispersed population, the numerous islands, and lack of power supply. He spoke of the importance of finding the right technology, the need to justify operators' investment, and the challenge of justifying the direct social and economic benefit to rural village communities.

Mr Daniswara spoke of the Merah Putih programme announced in July 2008 by Telkomsel to increase rural connectivity. This is complementary to the programme run by the Indonesian government, and will include up to 13,000 sites using 2G mobile technology.

Questions and discussion

- Japan: *Hases the Farmgate Program already been implemented? What stage is it at?* A prototype has been in place on a farm for approximately a year, and they intend to roll it out over the next year.
- Canada: *To what extent buy in from farmers regarding the Farmgate Programme?*

Panel discussion – Implications of these issues for regulators and policy makers

Sebastian Bellagamba, Internet Society; and Ernie Newman, INTUG

Sebastian Bellagamba

- ISOC focuses on the open development, evolution, and use of the Internet. The IETF produces the protocols (IP, http, POP, etc.) relating to the Internet.
- The Roundtable this morning illustrated the potential of what the Internet can be for people. "Connectivity" and "access" were previously used interchangeably, but this morning was demonstrative of why they are ultimately different. One focuses on having the technology present, but the other focuses on its potential to transform people's lives.
- An open Internet allows applications to be produced that enhance people's lives.
- Mr. Bellagamba noted that decisions against the end-to-end principle of the Internet, and against openness, will reduce innovation.
- Mr. Bellagamba posed three questions to the audience for consideration:
 - *How do we maintain and improve upon the user-defined experience that has driven the overwhelming success of the Internet while encouraging investment and Innovation , new services, new content, and other benefits yet unforeseen?*
 - *As the Internet also becomes a significant medium for the provision and consumption of content, how can its fundamental interactivity be preserved so that its use as a tool for human creativity remains*

as compelling as ever? How does the user remain a user as well as a consumer?

- *Will the Internet of the future be accessible and open as a result of new investment, new networks and new business models or will the new networks be closed, tiered and exclusive, carrying only certain content to certain subscribers?*
- Ernie Newman highlighted four issues:
 - Three or four common themes re: uses of connectivity in rural areas. These include: health, education, and economic development.
 - Presentations today focused of very specific issue areas, each the tip of an iceberg. We are really at the beginning of seeing a huge explosion in seeing a number of innovative ways to use technology going forward.
 - He hoped the Tel would continue to monitor not only the connectivity, but the economic and social uses to which it was being applied. This in turn would help to assist the business case of operators and ensure ongoing investment.
 - He noted that the greatest benefit of this technology in the long term will be its ability to eliminate distance as a factor in communication, so it stands to reason that the more isolated a country or region, the more it stands to benefit.

Chair's closing remarks and session wrap up by INTUG

The Chair, Mrs. Patricia Carreño Ferre, thanked all the speakers and participants and closed the session. Ernie Newman of INTUG thanked the Chair for her assistance and expressed the appreciation of INTUG to all participants.