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The Wi-Fi opportunity for developing nations

On June 26th, W2i, the Wireless Internet Institute and the United Nations Information and Communication Technologies Task Force joined forces to organize the Wireless Internet Opportunities for Developing Nations conference at UN Headquarters in New York City. There were representatives of developing nations with leading technology vendors, carriers, investors, regulators, entrepreneurs and field practitioners from around the world.

The event drew more than 200 participants including practitioners, government regulators, international development experts, academics, NGOs and private sector technology experts to explore solutions for successful deployment of wireless Internet in the developing world. Participants included IBM, Intel, Agere, the World Bank, MIT Media Lab, the Wi-Fi Alliance and a number of leading wireless internet stakeholders.

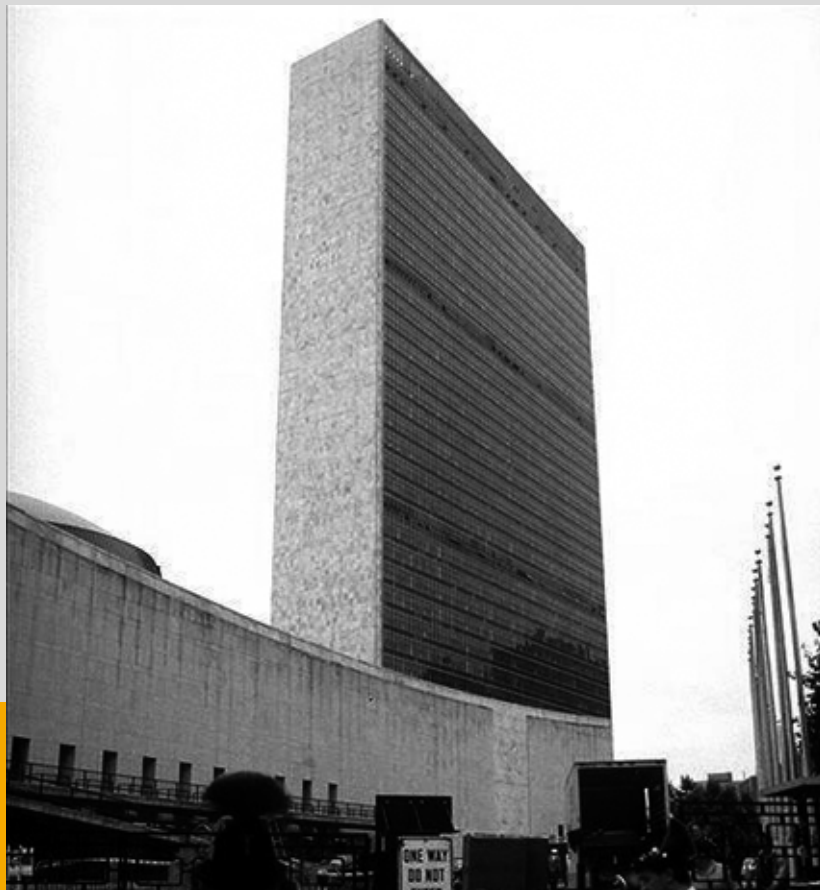
The conference featured plenary sessions and structured brainstorming work-

shops to establish strategies necessary to overcome existing obstacles and develop environments favourable to the broad deployment of WiFi infrastructures.

The conference was opened by Talal Abu-Ghazaleh, Vice Chairman of the ICT Task Force and Chief Executive Officer of TAG International, who delivered an opening statement from Secretary-General Kofi Annan: "We urgently need to reach a clear understanding of wireless Internet's development potential, identify the obstacles, and develop a realistic plan of action that would bring together all stakeholders – governments, the private sector, civil society – in a coherent, synergistic and sustainable endeavor", he said. "This conference offers a valuable forum for doing just that."

Mr. Abu-Ghazaleh added: "Our meeting today is a concrete step for positive bridge-building across the digital divide. We will discuss ways and means of mobilizing support for the objective of attaining the Millennium Development Goals with the use of ICTs."

One concrete suggestion, proposed by Amir Dossal, Executive Director of the United Nations Fund for International Partnerships, was to consider launching an "Adopt a Hot Spot" campaign, to enable individuals to contribute to bridging the divide. That would make available the necessary pipelines for providing technical assistance, especially to schools and hospitals, in areas such as education, health and environment.



UN Headquarters, New York, conference venue

"We are pleased to participate in the General Secretary's call to action", said Patrick Gelsinger, Chief Technology Officer at Intel Corporation who gave the keynote address. "We believe an aggressive embrace of Wi-Fi and emerging wireless technologies and progressive telecom policies in unlicensed and unregulated spectrum and products will enable emerging nations to not only close the digital divide, but leap ahead."

Professor Alex Pentland of MIT, founder of Media Lab Asia said "WiFi technology, combined with the recent de-licensing of radio-spectrum for spread-spectrum packet based communications in India, provides attractive economics to supply wideband connectivity to sparsely populated communities, where existing wireless cellular solutions are not commercially viable." The conference provided a platform to understand the regulatory experiments undertaken in India and apply and propagate them in other geographies.

Concluding the conference, Sarbuland Khan, Director, Division for Economic and Social Council Support and Coordination, Department of Economic and Social Affairs, said "With wireless internet applications having the potential to achieve access at low cost, we have heard today a call for us to think outside the box and devise sustainable models, which combine market expansion with social responsibility, enabling us to leapfrog the technology hurdles and improve the quality of life in the developing world. I am pleased to announce that the Secretary-General's ICT Task Force, together with the Wireless Internet Institute, will be looking into the innovative suggestions you have put forward as we develop a road map for action".

The conclusions served as a blueprint for future national consensus building programs, spectrum policies reform and new infrastructure deployment. The event illustrated how private organizations like w2i can, within the framework of ICT Task Force, foster public-private partnerships. This initiative raised awareness of the potential of WiFi as an economic development tool for underserved populations. ■

Wi Fi around the world

Wireless Fidelity (WiFi) allows laptops, desktops, mobiles and handhelds Internet access without telephone connections, wires or cables. It is based on an 802.11 standard where the Internet is beamed through the unlicensed radio waves segment. WiFi allows the user to access the Internet anywhere within the broadcast range of a 'hotspot', a point which radiates the bandwidth over a radius of a few hundred feet. There are many projects going on worldwide using WiFi technology for development. Few of them are discussed here, in brief.

1. **Xixuaú-Xipariná Ecological Reserve, Brazil** This project aims to bring solar power and broadband wireless Internet access to the isolated Xixuaú-Xipariná Ecological Reserve in the heart of Brazil's Amazon rainforest. Local Caboclo Indians can now obtain high-quality education without leaving the Reserve. Opportunities can be pursued for eco-tourism, and e-commerce involving local handicrafts. Better healthcare can be secured through Internet-enabled telemedicine.
2. **Saint-Louis Regional Community Resource Center, Senegal** Under a model project in rural Northern Senegal, wireless internet access was provided to a multi-function community resource center (CRC) to train the rural population of 7,000 to use the computer and develop IT skills.
3. **Javelin, Ghana** This case study describes a solution that was built to serve the rural community where there is no telecommunication infrastructure but can also be used for urban areas. Javelin (an acronym for Just Another Very Easy Link Into the 'Net) was created, owned and sponsored by Arrow Network Systems (www.arrownetworks.net), which is a local private infrastructure company that has the equipment manufacturer, Racom s.r.o. (www.racom.cz), of the Czech Republic, as a shareholder.
4. **Daknet, India** The case study outlines a migration path towards universal broadband connectivity motivated by the design of a store-and-forward wireless network. In rural Karnataka data is transported through the access point, which automatically and wirelessly collects and delivers data from each 'kiosk' on the network. It argues that this migration path offers a means of introducing digital connectivity and affordability even in poor rural areas.
5. **Egerton University, Kenya** This case study facilitates Internet connectivity to Egerton University students and to Maasai people. It will train local community to use IT to advance social and economic goals, develop new curricular offerings and distance education courses and assist local community to undertake development activities. ■

Source: www.w2i.org