



June 28-29, 2010
Kampala, Uganda

Summary Report

The two-day **East Africa ICT and Higher Education Symposium 2010**, was held in Kampala, Uganda, June 28-29, 2010. The venue of the event was the Munyonyo Speke Resort Conference Centre. The organizing partners included Verizon Communications, the Internet Society (ISOC), the Uganda Communications Commission (UCC) and Uganda Martyrs University (UMU). Additional sponsorship and support was also provided by AT&T, Ericsson, Google, INTELSAT, Motorola, Qualcomm and Seacom.

This ground-breaking, multistakeholder event brought together representatives from five East African governments, universities, industry, non-governmental organizations (NGOs), and other ICT experts. The Symposium was planned to coincide with the arrival of high capacity broadband to the East Africa region, thereby making it timely as the ICT sector moves toward national regional and international connectivity and as universities in the region ready themselves to take full advantage of arriving broadband connectivity. Approximately 200 participants attended this non-commercial event, including 60 university/higher education representatives; 30 operators; 33 East African government representatives; and, 16 participants from the U.S. government

In addition to substantive and focused discussions of roundtables and break-out sessions, the Symposium participants had the opportunity to hear from a number of special keynote speakers, representing different stakeholder groups from both the region as well as from the United States.

The Symposium commenced with opening remarks from a host of distinguished representatives, starting with warm words of welcome from **Patrick Mwesigwa**, the acting CEO of the Uganda Communications Commission (UCC). Mr. Mwesigwa set the scene, noting the arrival of new undersea cables to the shores of East Africa for the first time, and highlighted the steps taken by UCC to liberalize the telecommunications regulations of Uganda. New guidelines based on simpler, technology neutral, licensing requirements as well as greater regional collaboration, are leading to greater competition

and lower prices. This, in turn, is fueling increased investor confidence in Uganda and across the region.

Lynn St. Amour, the President of the Internet Society, noted the critical role that connectivity and infrastructure plays in the building of the knowledge society. Established in 1992 by pioneers of the Internet, ISOC is a global organization engaged on a host of important Internet issues that are driving global change and regional development. Universities, in collaborative partnerships with government and private industry, have played a central role in the development of the Internet from its earliest days and continue to serve as key anchor points for spreading the benefits of connectivity to society. In addition to igniting the potential of youth, who in-turn will shape the knowledge society of tomorrow, university connectivity is critical to ensuring that education, academic, and research opportunities keep pace with a changing world.

Kathryn Brown, Verizon's Senior Vice President for Public Policy Development and Corporate Responsibility, underlined the importance Verizon continues to place on connecting U.S. communities across fiber optic and advanced wireless platforms. Verizon connects the planet with high-speed Internet backbone and provides IT and communications services to large enterprise customers with a network that reaches over 140 countries. This reach is now extending to East Africa and laying the foundation for the required knowledge and skills in the 21st century.

Speaking on behalf of the Chairperson of the Uganda Vice Chancellors' Forum, **Dr. Ahmad Sengendo** (Rector, Islamic University of Uganda), highlighted both the resource and facilities challenges faced by universities in the region, as well as the great promise of ICTs. The later is expected to bring much needed increased bandwidth to students and staff for more reliable connectivity at reduced costs. It will have a central role in training teachers and providing opportunities for distance learning as well as lifelong learning. He expressed his high hopes that the Symposium will help this process move forward.

Philip Aloo, representing The Inter-University Council for East Africa, noted the key importance of the new undersea cables and the buildout of regional and national communications infrastructures. Such infrastructure is essential if universities are to accomplish their mandate: the education of the global individual. As part of this effort, universities are now carefully considering the best ways to use the new communications capabilities, and exchanging views with colleagues across the region and across the continent. The multistakeholder approach is key for the future, as each stakeholder group must remain fully engaged.

Sami Al Basheer, the Director of the ITU telecommunication Development Bureau, speaking on behalf of the Secretary General and all elected officials of the ITU, noted the ITU's ongoing commitment to connect the world's population. While great strides are being made in connecting people around the world, three-quarters of the globe's inhabitants have no access to the Internet. In making sure that not only are people connected, but that they also know how to use the new technologies available to them, will help to ensure that the digital divide does not become the knowledge divide. The

Symposium is taking place at a historical juncture for East African education, and the ITU is proud to be able to participate in the important discussions at the Symposium.

In providing the first keynote address, The Honorable **Geraldine Namirembe Bitamizire**, Uganda Minister of Education and Sports, welcomed all the participants on behalf of the Government of Uganda. The minister noted the timeliness of the meeting, as information technology is transforming the economy to a knowledge-based economy. While great strides have been made, challenges remain, including improved capacity building, the integration of curricula into ICT-based technology, and harmonizing available technologies among universities. She underlined her hope that the Symposium could serve as an inter-sectoral framework that can be built upon in the months and years to come. In this way, new ideas and new approaches can help reach the 2015 goal of education for all.

The first Roundtable, entitled “**Connecting Institutions of Higher Education-The Road to the East Africa Knowledge Society**”, considered the implications of international broadband arriving in East Africa. The universities across the region are gearing up to take advantage of the new broadband capabilities that will help provide the infrastructure on the journey to the “African knowledge society”. Undersea cables as well as fiber and wireless broadband infrastructures will help propel the region forward. Wireless devices were seen as a key element of the rapidly evolving ecosystem, which includes hardware, software, and a number of network platforms. To pull all this together, a strong dose of political will was seen as essential.

In her keynote presentation, U.S. Under Secretary for Public Diplomacy and Public Affairs, **Judith McHale** characterized the arrival of the new undersea cables to East Africa as providing a pathway to a new and dynamic future for the region. A future where young citizens will be able to develop groundbreaking applications and programs to help solve some of the world’s most pressing problems. In order to get there, however, a clear and consistent regulatory environment is essential in order to attract the needed investments. In addition, a regional approach is critical because of the trans-border nature of information flows today, as is the development of new and innovative local content. In order to make this happen – and as quickly as possible – public and private partnerships need to be developed. The multistakeholder Symposium is the right venue to begin discussions on all of these efforts.

The Honorable **Samuel Poghiso**, Kenya Minister for Information and Communications, noted that the importance of this pioneering Symposium was that it provided the opportunity for greater collaboration among the various stakeholders. A follow-up event will be organized in Kenya in 2011 in order to continue the conversations started at the present meeting. This was seen as an important next step in this ongoing “African conversation”. (The opportunity for participants to reconvene in 2011 in Kenya and report back on progress was a frequent reference during the Symposium.) Only in this way can we meet the challenges that we face. Among these are the costs of connectivity, low ICT literacy levels, and the development of local content. The future looks bright,

noted the Minister, as the region takes advantage of advanced new technologies as well as the introduction of the right policies to support the effort.

Following the keynote addresses, **Roundtables 2 and 3** took up key policy and regulatory issues. These dealt with the vision for broadband deployment and the regulator as partner with the academic, industry and research communities. The roundtables addressed the challenges that exist in each country and of the region itself. These include the availability of low-cost and reliable access to broadband by universities and having the right policies in place to encourage investment and growth of these networks. There was broad agreement that the role of the regulator was key in making this happen within the new ecosystem. The competition between delivery platforms and end-user devices, together with ongoing discussions with National Research and Education Networks (NRENs) and operators are opening up new opportunities for connectivity and empowerment of the university communities throughout the region.

Roundtable 4 addressed the importance of bandwidth availability and affordability to universities and higher education, as they seek to transform their management, curricula and interaction with students. As the optical fiber connectivity is expanded in the region, the participants noted the importance of making the African Internet more than just a “read only” experience. To do so, it was acknowledged that universities need to refine their vision of integrating offerings with the new bandwidth availability. Key developments in the United States were outlined, where efforts to connect schools are having profound implications on the way students learn within the Internet ecosystem. The forming of partnerships, including full support from universities, was seen as a vital step forward. As universities take a leadership role, ever more competitive, private sector driven long-haul networks are coming online and providing alternatives to universities. This is presenting universities with new opportunities as well as challenges in making key decisions.

Roundtable 5 continued the conversation on how high-speed capacity can be scaled to meet the needs of each institution. Participants noted that connectivity is not an end in itself, but should be seen as a means to accomplishing broader education and research goals. Without a vision of what could be achieved, perceived capacity “needs” will be underestimated. Overcoming this will require an ongoing process of awareness raising, training, and information exchange, as well as fostering strong ICT champions within university leadership. It was noted National Research and Education Networks (NRENs) are playing a key role in institutional capacity building, promoting collaboration, and managing connectivity costs. Discussions between NRENs and commercial service providers (including submarine cable service providers) are pointing to new possibilities in digital connectivity. It was also noted in this Roundtable that multistakeholder and multi-disciplinary collaboration is essential to addressing higher education connectivity challenges, as well as the implementation of successful e-education programs.

Following the roundtables, the Symposium broke into **two parallel breakout sessions**. **Session “A”** focused on “e-readiness” and the importance of recognizing ICT as a strategic priority for transforming the learning process in higher education. The

importance of aligning ICT strategy with the university vision was underscored. This, in turn, will help to develop a roadmap in order to identify key areas for improvement. In addition to promoting greater investment in ICT tools and campus networks, a strategic focus on capacity building for faculty and administration was seen as an essential component in improving e-readiness. It was also noted that meeting the challenges of e-readiness and producing graduates with up-to-date skills will require partnerships among academia, ICT product and service providers, governments, and the broader business community. In this way, universities will have a leading position in helping to chart the course forward for both their own institutions and providing key support for economic growth. All of this would be greatly aided by having the right regulatory and investment policies in each country in the region.

Session “B” looked at creating an enabling environment of East African connectivity. Issues such as rural connectivity, gender mainstreaming, spectrum, quality of service and affordable access for universities and research institutions were discussed. Underlining all of these issues was the recognized need to create appropriate conditions for the infrastructure to be put in place. The technologies need to be married to the right policies and regulatory frameworks operating in competitive markets. A number of participants provided updates on revised and updated telecommunication legislation from around the region.

In a special keynote address to the Symposium, Dr. **Phillip Clay**, Chancellor of the Massachusetts Institute of Technology (MIT), highlighted the transformative power of broadband technology. He traced the growth of literacy in the United States from 1900 to the present day and the seminal decision to create integrated institutions. These institutions are now shaping our collective futures and creating the next generation of leaders. They are also encouraging students to become engaged, to take action, to channel their passion. All of this is supported by the rise of the “global universities”, such as MIT. The Chancellor also noted that one-third of MIT students were born outside of the U.S., and about one-quarter are foreign students. They collaborate on research projects all over the world, use open courseware, and offer education to students who may not otherwise have access to world class facilities. In taking this course young, talented people are attracted to teaching, helping to mitigate against the “brain drain” from the African continent. Bandwidth is one of the tools to be used not just for connectivity, but also in creating local content in and for East Africa.

In wrapping up two days of discussions, the moderators of each roundtable and breakout sessions shared their most important conclusions and observations with the participants. It was noted that we are living in a new information ecosystem that has multiple moving components. The last two days focused on many of these components. It was noted that the multistakeholder approach ensured the success of the Symposium. Many participants commented that the interaction between diverse group of stakeholders promoted a unique investigation of issues from multiple points of view, and generated a more holistic understanding of how to take advantage of the opportunities and address the challenges. In addition, the discussions also underlined the necessity of public-private partnerships. The key role of the regulator in creating the appropriate environment for

network investments was widely acknowledged. These partnerships, operating amidst forward-looking regulations, will provide the necessary leadership for the region to move forward. Challenges were also acknowledged in the need to digitize information, revising curricula to meet future needs, training the next-generation ICT literate academics, and improving access to information through the regional, national and academic broadband networks. All stakeholders need to be part of the policy process in order to be able to react to a rapidly changing world. This is the right strategy at the right time for the East African region.

Finally, in closing the Symposium, the Honorable **Nelson Gagawala Wambuzi**, Uganda Minister of State for Trade, thanked on his own behalf and that of the Honorable H.E. Agrey Awori, Minister of Information and Communication Technology, the participants for the timely Symposium. For the first time, the 130 million people living in East Africa will be able to travel and work freely in the new common market. Broadband will be an important enabler and will help to transform the region forever. The transformation coming in its wake will change how people communicate and create. It will aid the development of economies and bring the rural populations into the discussions for the first time. The clock is ticking and the world is changing fast. East Africa will change with it. All are welcome to join us in this great effort. The Symposium was declared closed.

For more information, including the full program, bios of key participants and selected keynote presentations, please go the Symposium website:

<http://www.eastafricasymposium.org>