



## Meeting the Challenge: Delivering Digital Access in Rural Africa

### How Inveneo is Developing a Network of In-Country Partners to Expand ICT Access

In 2006, the Clinton Global Initiative Conference challenged donors, corporations, governments, and non-profit organizations to find innovative, non-partisan solutions to global poverty and to make specific commitments to help implement these solutions. Inveneo is meeting the CGI challenge with a boots-on-the-ground program to identify and train in-country experts to help scale access to information and communications technology (ICT) for poor and underserved communities.

A year later, the Inveneo Certified ICT Partner Program (ICIP) is now launching in six Sub-Saharan African countries with tangible and impressive results. Our goal is to expand this program across the continent in 2008 and then beyond Africa in 2009.

#### The Situation

Access to modern, relevant, and sustainable technologies can improve life for the rural poor in simple and profound ways that we, in the developed world, take for granted. Information and communications technologies (ICTs) can save lives by improving health care; increasing farmer incomes through better pricing information; and offering a better future for children by improving education.

Unfortunately, even as the productive use of ICTs has surged ahead in the developed world, many poor and rural communities in the developing world are falling further and further behind. More than two billion of the world's poorest people live in rural areas in developing countries where access to modern ICTs – or even a simple phone – is limited or non-existent.

One important cause of unequal access to ICTs is the historical lack of appropriate technologies. Currently available off-the-shelf systems are unsuited to the specific challenges posed by these environments. In most situations, the lack of electricity com-

bined with high levels of dust and humidity render off-the-shelf computing systems useless. At the same time, most custom solutions are not affordable, easily replicable, or sustainable.

To meet this challenge, Inveneo provides ICT systems (hardware/software/power) for organizations - including NGOs, local governments, and private enterprises that provide vital services to rural and remote communities. Inveneo's systems integrate key technologies from both well-known companies (e.g., AMD) and innovative start-ups, to create highly affordable, functional and sustainable turnkey solutions.

Inveneo's first solution, the Inveneo Communication System, provides ultra-low-power computing, telephony (VoIP), Internet access, and local-area broadband wireless (WiFi) networking in rural and remote communities that lack reliable electricity and/or affordable telecommunications. This system is cost-effectively powered by solar, partial grid with battery back-up or any other alternative power source.



Inveneo Certified ICT Partner, Norbert Okec (in the red and white shirt) at a site survey in an Internally Displaced Persons (IDP) camp near Gulu in northern Uganda.

Since March of 2006, Inveneo has completed or initiated more than 35 projects using the Inveneo Communication System or a customized solution in 12 Sub-Saharan countries. These projects serve a range of organizations delivering much needed educational initiatives, economic development programs, microfinance services, relief efforts, and rural Internet cafes.

As a result of these programs, approximately 75 communities and a quarter million individuals now benefit—directly or indirectly—from access to sustainable ICTs. Our goal is to serve thousands of rural and remote communities by the end of 2009.

**But suitable and relevant technology is not enough.** Information and communications technologies are only truly sustainable when they are affordable and can be serviced and supported locally. The lack of in-country ICT professionals with the skills and training to install and support rural solutions is a key obstacle to achieving widespread information access, particularly in developing countries where the percentage of the overall population living rural and remote communities is as high as 70 percent.

As recently as early 2007, Inveneo was providing both installation and support services for the majority of its clients. This approach

increased total project costs and imposed substantial turnaround times for servicing even relatively minor problems.

Although highly skilled and motivated ICT professionals exist in many countries, these entrepreneurs generally lack focused training around rural solutions, access to sustainable and affordable equipment, and a strong support network.

**The Solution:  
Inveneo's ICT Partner Training Program**

In early 2006, Inveneo initiated a pilot project in Uganda to meet this challenge. We set out to recruit, train, and certify a handful

of Ugandan ICT partners in the design, installation and support of rural ICT solutions and to provide them with the technical and business support they need to help accelerate ICT access among rural communities.

This pilot was a success and, in January of 2007, the pilot project became the Inveneo Certified ICT Partner (ICIP) program. With early financial backing from Advanced Micro Devices (AMD) through its 50x15 initiative (<http://50x15.amd.com/en-us/partners.aspx>), Cisco Systems, Inc., and several individuals, Inveneo has built the core components of a program that can scale worldwide, including an appropriate recruiting and selection mechanism, high-impact curriculum, certification processes, and ongoing partner-support and management systems.

Every part of ICIP is designed to deliver rapid results on the ground:

- Program participants are existing ICT professionals—talented small-business entrepreneurs with 2 to 20 employees on average. This accelerates the partner company's (and Inveneo's) ability to provide immediate support for new projects.
- Working in partnership with the Center to Bridge the Digital Divide (CBDD) at Washington State University (<http://cbdd.wsu.edu/>), and USAID, Inveneo has developed a high-impact, open source ICIP curriculum focusing on the design, deployment and support of rural ICT systems. This training, currently being deployed in key program countries, covers five key solution areas: IT networking, long-distance wireless (WiFi) networking, Linux/Open Source desktop and network management, VoIP system design, and alternative power solutions.
- Instruction is classroom-based as well as hands-on. The first week involves classroom-based training covering

theory, problem-solving, and specific technology solutions. Options in the five key solution areas listed above are covered. This week is then followed by student/partner participation in an actual solution deployment. This approach helps to ensure that program graduates have high confidence in their own ability and are fully prepared to install and support these systems upon completion and certification.

- The training is offered free of charge to qualified ICT entrepreneurs. Participant's sole required commitment is the time they invest (approximately 2 to 4 weeks). Once certified, partners receive discounts on equipment, plus technical and business support (such as proposal templates and project pricing models), along with ongoing training in the latest rural ICTs.

#### **ICIP Rollout**

With ICIP's core elements in place, Inveneo and its partners are now implementing the program selectively in those Sub-Saharan African countries where there is high demand from entrepreneurs and organizations, where regulations and local government are supportive of rural ICT initiatives, and/or where Inveneo has a strong presence. In 2008, depending on budgets, ICIP will be expanded to include African countries that meet key program criteria.

ICIP is currently most active in East Africa. As of September 2007, Inveneo has certified 22 ICIP partners in Uganda, Rwanda, Kenya, Guinea-Bissau, South Africa, Tanzania, Cameroon, Nigeria, and Mali. Our goal for 2008 is to have more than 50 partners in 10 to 15 countries by the year's end.

#### **Program Benefits**

The ICIP program benefits participants as well as the communities and constituencies they serve. Organizations serving rural and remote communities benefit from lower total costs, improved support, and access to ICTs that increase their capacity to serve.

The program reduces average system installation and support costs by as much as 70 to 80 percent and overall project costs by as much as 60 percent, through a combination of lower local-labor fees and the elimination of Inveneo travel costs from the US. Local support also decreases service response times and improves overall service levels, thus lowering overall project risks for clients.

Another program objective is to provide economic opportunity for ICIP partners. Inveneo estimates that certified partners can generate more than \$2,000/month in incremental revenues. This income constitutes a major benefit in countries where many people live on less than \$1 per day. As partner businesses grow, they are able to hire additional staff, including college graduates from African universities and secondary schools, thus improving the employment and economic conditions in that country.

Finally, as a not-for-profit social enterprise with a business model that combines economic sustainability with ambitious social objectives, the ICIP program is crucial to Inveneo's ability to achieve its social impact goals. Inveneo benefits directly from this program as the growth of the in-country channel helps scale and support rural access to ICTs.

Those organizations and individuals that are supporting this effort—including AMD, Cisco Systems, Lottomatica, and the Center to Bridge the Digital Divide—share both our impact goals and our interest in a more established and professional channel through which currently marginalized communities can be served. Most important, thousands of rural communities and millions of individuals will benefit from access to sustainable ICT tools for the first time.

## Why ICIP is Important

At the 2006 Clinton Global Initiative Conference, President Clinton declared that “intelligence and motivation are equally distributed around the world, but opportunity is not.”

This is evident in the expanded opportunities that much of the world has realized as a result of improved ICTs. The technology necessary to level the playing field is now available, in the form of affordable, functional, and sustainable tools that are appropriate for the developing world. Still, billions of people who live in rural and remote communities are falling further and further behind.

Inveneo believes that combining relevant and affordable technologies with realistic programs to make these tools sustainable on the ground will help distribute information and communication—and consequently opportunity—more equally.

The ICIP program represents a critical component of Inveneo’s work to help achieve these goals. Inveneo is currently seeking partners and supporters to enable us to expand the ICIP program to more entrepreneurs and countries around the world. Please contact us for more information. We welcome your support.



Join James Wire (center) and LinuxSolutions as an Inveneo Certified ICT Partner.

## About Inveneo

Inveneo is a non-profit social enterprise whose mission is to get the tools of information and communications technology into the hands of organizations and people who need them most—those in remote and rural communities in the developing world.

For more than two billion people living in these communities, gaining access to ICTs—either directly or via service organizations—can transform their lives in simple yet profound ways. Access to ICT can help save lives (through rural health care), provide better economic opportunities (for farmers and entrepreneurs) and provide a better future for children (through better education).

Together with our partners, Inveneo has supplied gear to or completed more than 65 projects in 14 countries. These projects serve schools, economic development groups, telecenters, micro-finance programs, and relief camps in more than 145 communities, reaching over 375,000 people directly or indirectly with life-changing ICTs.



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### Partners and Supporters

