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Out of Boston

An Entrepreneur Has Quixotic Goal Of Wiring Rwanda

**Greg Wyler's Internet Outfit
Offers High-Tech Service
In War-Ravaged Country**

'A Booming Metropolis!'

By CHRISTOPHER RHOADS


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MOUNT KARISIMBI, Rwanda -- Greg Wyler, an American tech entrepreneur, dreams of bringing the Internet to this troubled country. There are a few hurdles. One is a battered communications tower atop this 14,787-foot volcanic peak. The air is too thin for helicopters to transport the several tons of equipment needed for repairs. Instead, it has to go by hand.



Greg Wyler

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One recent morning, as mist covered the mountain, a group of 20 Rwandans lugged a 1,300-pound

transformer with ropes and pulleys through deep mud. Rains had turned part of the trail into swamp. Mr. Wyler, 36 years old, was checking on their progress. He had recently hired a South African mountain-rescue company to advise on navigating the steeper sections.

"We are pushing the boundaries of technology here," Mr. Wyler said, as the muck oozed up around his knees.

Mr. Wyler's company, Terracom, expects the tower to start beaming services in the coming months, including, for the first time, cellphone coverage, Internet access and television. Rwanda is among the least-connected countries in the world. Mr. Wyler wants it to be the first completely wired African nation, with citizens paying \$80 a month for Terracom's Internet service.

Right now, Rwandans earn on average an annual income of about \$200. Outside Rwanda's major towns, few homes have power. Rwanda still bears the scars of the genocide that consumed this nation 12 years ago when ruling Hutus slaughtered more than 800,000 Tutsis in a 100-day period. The country's telecom minister, Albert Butare, supports Mr. Wyler's efforts but acknowledges the obvious.

"We've had to rebuild everything from nothing," Mr. Butare says. "So when people need shelter, water and energy, they ask, 'Do I really need a computer?'"

On a recent break-neck tour by Land Cruiser of Terracom's projects around the country, Mr. Wyler stopped at his northwest regional office where clothes salesman Edward Rugamba had come to get his phone line fixed.

SEE A PHOTO SLIDESHOW



Christopher Rhoads

Greg Wyler and the telecom tower his company is working on in Rwanda.

The 33-year-old Mr. Rugamba mentioned he'd once tried to start an Internet café. It folded after customers complained about the poor connections. On a whim, Mr. Wyler took Mr. Rugamba to see one of Terracom's new solar-powered towers, a journey that took an hour up a twisting, narrow dirt road. He wanted to persuade Mr. Rugamba to re-launch his café. "There are some damn good Java programmers out there!" Mr. Wyler shouted over the thick forest below.

On the ride back down the mountain, Mr. Wyler pitched his visitor the job of running regional sales for Terracom. The car zipped past barefoot children playing among goats.

"I need you on my team to show these guys how to use the Internet," he said. "We'll make this a booming metropolis!" Mr. Wyler put Mr. Rugamba in touch with Terracom's sales team, but hasn't learned if he accepted the offer.

Until three years ago, Mr. Wyler had never been to Africa. In the early part of the decade, he was investing in tech startups and real estate after making a fortune from a technology that cools computers.

In 1998, the 28-year-old Mr. Wyler sold his company, Silent Systems Inc., for about \$15 million.

Then a family tragedy intervened. In 2002, Mr. Wyler's parents were in the midst of an ugly divorce, rife with accusations of physical abuse, according to reports in the Boston Herald and Boston Globe. In October of that year, Mr. Wyler's mother, Susann, was murdered in the family's home near Boston. Widespread media coverage at the time identified Mr. Wyler's father, Geoffrey Wyler Sr., a prominent Boston lawyer, as a suspect. Local law authorities won't comment and to this day no one has been charged with the crime.

Geoffrey Wyler did not respond to calls seeking comment.

Around this time, at the wedding of a friend, Mr. Wyler met a Rwandan government official who invited him to visit the country. Eager for a new venture to occupy his time and mind, Mr. Wyler readily accepted and visited Rwanda that spring.

The government official was the chief-of-staff for President Paul Kagame, whom Mr. Wyler soon met. Mr. Kagame quizzed Mr. Wyler about a \$50-million government project to give schools Internet access via satellite. Mr. Wyler says he told the president the deal was overpriced and that satellite Internet access was slow and unreliable.

"I told him if he wanted real infrastructure, he needed fiber," recalls Mr. Wyler. Mr. Wyler drew Mr. Kagame a map showing how fiber cables connect much of the developed world and bypass Africa. The government scrapped the satellite deal. Mr. Kagame and other government officials urged Mr. Wyler to take on a project wiring 300 schools, which he accepted.



Rwanda has tried to forge connections to the global economy under the leadership of Mr. Kagame, the Tutsi military leader who led the army that defeated the genocidal Hutu government. His ultimate goal is to transform Rwanda into a Singapore-like hub for business and investment in east Africa. He has lured back from abroad several million Rwandans -- many with Western skills and education -- to help the country catch up with the modern world.

Yet government-owned phone monopolies throughout Africa have stifled competition, keeping innovation limited and prices high. Western companies and carriers have mostly shunned Africa, with its poverty, disease and instability. Recently, both France Télécom and Vivendi SA have scaled back their ambitions in the area.

Rwanda got its first dial-up connection in 1999 and, like most of the region, relied on expensive satellite links to access the Internet. When Mr. Wyler first visited, Rwanda counted just 22 broadband connections, each costing more than \$1,000 a month, which were used mostly by embassies and nongovernmental organizations. Even at those prices, the connections were faulty and slow.

Mr. Wyler glimpsed an opportunity. Most of the recent growth in Internet users has come from developing nations. The world-wide number has more than doubled in the past five years to one billion.

In December 2003, Mr. Wyler started his own Rwandan Internet service provider and named it Terracom. With about \$15 million, which came from his own funds and another investor, he began building a fiber network using the same technology that forms the U.S.'s Internet and data backbone.

Mr. Wyler says he is focusing on access first, profits later. He's starting with schools, institutions, and small businesses such as coffee cooperatives hoping to sell to U.S. coffee houses. Eventually, he'll get to individual consumers.

During 2004, Mr. Wyler hired 45 full-time workers and about 1,000 part-time laborers. They laid a 100-mile stretch of fiber in the ground from the capital Kigali southwest to Butare, the second-largest city and home of the country's biggest university. "We're on a mission here to see what happens when we drive prices down and quality up," says Mr. Wyler.

Last October, Mr. Wyler solved the problem of what to do with the country's telecom monopoly: He bought it. With a \$20-million bid, Mr. Wyler won an auction that privatized Rwandatel. The acquisition included an antiquated fixed-line phone network, about 25,000 customers and 530 employees.

Mr. Wyler was now running a bloated government monopoly with little technical knowledge and no idea how to compete. Rwandatel had no customer-service department and 12 employees whose sole job was to play on the company soccer team.

"It wasn't expected to turn out this way," says Mr. Wyler, who on some days relies on a steady consumption of Gummi bears that he brings with him from the U.S. "It just sort of happened." Mr. Wyler spends one week of every six in Rwanda and most of the remainder at the home near Boston he shares with his wife and young daughter.

Back in the Land Cruiser, Mr. Wyler checked emails on his laptop. Terracom offers wireless broadband access wherever its cellular network has coverage -- he says it currently covers about 60% of the population -- for \$60 a month, \$20 less than the company's regular Internet access offering. The wireless technology is similar to what **Verizon Inc.** and **Sprint Corp.** are rolling out in the U.S.

As Mr. Wyler answered email, the SUV careened around mountain roads lined with banana trees, and narrowly swerved past people on foot. One email came from Terracom's new head of DSL, a technology that turns basic phone lines into high-speed ones.

"There is something that I would like to tell you," wrote Christian Mulola, 25, a Rwandatel employee Mr. Wyler promoted to run DSL operations. "It is that I do not feel confident enough to handle the installation all alone."

Mr. Wyler ignored the email, having given his employee a pep talk months earlier. "Greg told me my work would seem like a mountain on the first day," Mr. Mulola recalls. "But that tomorrow it would seem like a hill, and then seem smaller and smaller after that." Mr. Wyler later received another message announcing that the job had been completed after all.

Next, Mr. Wyler visited Terracom's Internet café in Gisenyi, a dusty city in western Rwanda on the border with the Democratic Republic of Congo.

The café has 12 computers in wooden stalls but its Internet connection was down. The café is the main and perhaps only way for tens of thousands of residents here to access the Internet. Emile Munyandamusta, the Gisenyi manager, had not addressed the problem for about a day.

Mr. Wyler was furious. "Did you know about this?" he shouted. He explained through a translator that each minute the Internet café was closed Terracom was losing money. Startled, Mr. Munyandamusta made a call on his cellphone to check on the repair work. Mr. Wyler became further exasperated when he noticed Mr. Munyandamusta using a cellphone from a Terracom competitor, South Africa's MTN Group Ltd.

Mr. Wyler demanded the employee running the café email him the moment the problem was fixed, which happened the following day. On his way out the door, Mr. Wyler noticed the employee was wearing an MTN T-shirt. "We've got to get him a new shirt," Mr. Wyler said to his translator.

Terracom now has about 220 miles of fiber in the ground, bringing broadband to more than 150 locations, Mr. Wyler says. He wants to install another 700 miles of fiber during the next two years. The price of Internet access is still well beyond the reach of most Rwandans, but is a fraction of earlier offerings and for much higher speeds. In Terracom's Internet cafés, users pay 20 cents per 15 minutes.

Terracom's cellphone service, meanwhile, costs about a third of the rate offered by MTN. Mr. Wyler reckons he can reach more than a million customers within the next five years, offsetting the low margins with volume. By comparison, it took MTN eight years to win about 220,000 Rwandan customers.

In late July, Terracom, which Mr. Wyler says is now a "sustainable" business, merged with GV Telecom, a regional telecom company incorporated in the British Virgin Islands. The new company plans to extend Terracom's model of low-cost high tech throughout Nigeria, Kenya and Congo, Mr. Wyler says. Initially, Mr. Butare, the Rwandan telecom minister, denounced the deal in a news conference, stating that his office had not been consulted. He calmed down after Mr. Wyler called to explain he was not simply flipping the company for a quick profit.

Mr. Wyler says he has no intention of stepping down and will run strategy for the new company as well as its Rwandan operations.

One of Terracom's biggest tasks was making operational the Mount Karisimbi communications tower. The lush, mountainous area, where gorillas roam, has seen little but warfare since the 130-foot tower was built in 1989, initially to provide FM radio.

When the country plunged into civil war in 1990, Mr. Kagame's invading Tutsi army hunkered down here. The tower had never worked when the systematic killing of Tutsis by Hutus began four years later. The work crew left. When defeated Hutu militants fled across the border into Congo, they destroyed much of the equipment around the tower.

The tower, which sits in the northwest of the country, sat unused, surrounded by chunks of charred metal, covered in graffiti and the debris of war. The area remained in a communications blackout. Nearby airports couldn't even talk to pilots flying through the region.

About a year ago, the government asked Terracom to bring the tower to life. The company imported tons of telecom equipment from overseas and shipped it four hours by truck from Kigali to a grass airstrip near the mountain where mud huts dot the landscape.

From there, a military helicopter made more than 50 trips hauling equipment to a base camp at about 12,000 feet. Then, it was taken by hand to the top. One piece -- the 1,300 pound transformer -- took a week to haul to the summit.

To speed up the work, Mr. Wyler suggested having workers sleep and eat at the camp. For their downtime during the evenings, he suggested providing laptops.

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