

Case Study: The Cellular Telephone Business Model a World Away in Uganda, Africa

By Tom Sheridan

In February, I had the opportunity to travel to Uganda, Africa for two weeks to work on an expansion of an elementary school in Lukaya and to provide support in repairing a solar powered water system in a neighboring village called Kalungi. It was a wonderful, life-changing experience and a remarkable privilege to be able to go there. While on the trip, I saw the business of cellular telephones and wireless Internet in a completely new light. In an industry that more typically thrives on the confusion of an endless array of feature phones, complicated plans, contracts, bewildering line item charges and often poor customer service levels, I must ask, is “confusion” the best brand building approach?



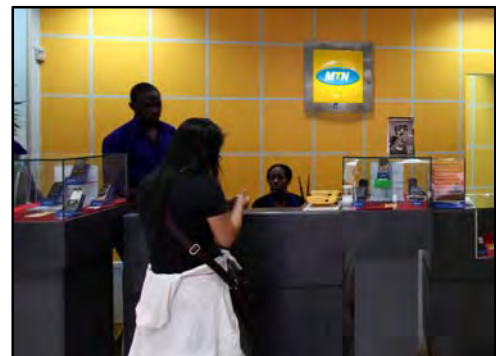
Well Constructed Cell Towers
Appear Curiously Out-of-Place

In Uganda, cellular rules are all different. In fact, they’re deceptively simple. It’s fascinating to me how the business of cellular communications has evolved so well there in less than ten years. Excepting Kampala its capital, there are few *wired* telephone lines. I don’t remember seeing wired phones except in the hotels, and I’m not so sure you could even make outside calls with them. Cellular phones however have really caught on and the networks there are “3G” and reliable.

I cannot think of many businesses that could be started in Uganda that could charge enough to make a profit and recoup the original investment within a reasonable time. Uganda is most definitely a third world country, as it is in the bottom fifth of economic output per capita in the world. Average income per person is around \$100 a month, so little disposable income remains for having a phone.

Historically, I would imagine telephones weren’t needed much outside of the major populated areas. For most Ugandans, their world was quite local.

In Uganda, cell phones are not registered to people, only to the networks. Phones are plentiful and you can easily buy them “reconditioned” or you can purchase a new one from a number of phone stores in Kampala. For service, a SIM card (a small computer chip) which costs 3,000 Shillings, about \$1.50 US, is required. That activates the phone, provides a phone number, and the first five minutes of airtime. Additional airtime can be purchased in increments of as little as 200 Shillings, about ten cents. Except for the phone itself, all costs are



MTN Phone Store I visited in Kampala, Uganda

included in the airtime charges as there is *never* a bill or a contract required. SIM cards can be interchanged between phones so your number and contact list can be “ported” to another phone in seconds.

Airtime cards are sold everywhere and the commission to the seller is just a couple of percent of the purchase price. They are about the size of a credit card and come sealed in a plastic wrapper. Open it and scratch away a strip on the back of the card to reveal an activation code. Airtime is added to your number by texting the code in a free message to the carrier. A reply with your new balance comes back instantly.

Receiving calls and text messages on cell phones is always free. As long as one has a working phone with a SIM card, they can be received without charge. That is the one aspect of their business model that supported strong market penetration and encouraged cell phone use at the outset. However, all calls originated are timed, and the calling phone is charged for the airtime used. By North American standards, calls are not expensive (about ten cents a minute), but when the average worker earns just a few dollars a day, making calls is a luxury. Most are quick exchanges of information and last just a minute or two. After each call made, a text is received providing the cost of the call in Shillings and the remaining balance. Pricing seemed to be variable, with some calls costing more than others for no obvious reason. Calls made during weekday hours are more expensive than calls at night and on weekends.



People Enjoy Their Phones

Since there are no plans or contracts of any kind required, there is no central phone directory or public registration of numbers. You cannot call “directory assistance,” as there is none. But there are about five competing cellular companies in Uganda with overlapping territories. Each company has a color, much like a team color. While there, I used “MTN” as my provider, the “yellow” team. If one calls a phone on another provider’s network the calls are typically charged at a premium, much like a roaming charge. In fact, there are even “two SIM card” phones available so that networks can be switched on the fly to help keep call charges more affordable.



Samsung “Solar Guru” Phone.
Photo Samsung Corp.

Electrical power is irregular and frequently unavailable, and many Ugandan’s live without electricity altogether, so recharging of phones is often an issue. There are generator powered “recharging stations” available in the towns. Samsung recently came out with a “solar powered” phone, which is the model I purchased for about \$50. Every hour of solar charging provides about ten minutes of talk time. That is not much, but enough to power the phone in an emergency. It was more of a novelty than a necessity for me. I ended up giving it in like-new condition to one of the teachers at the school. Suffice it to say it was a most welcomed gift.

In the towns and villages, most storefronts need painting, but paint is expensive. Capitalizing on this, the cellular companies (particularly MTN) will send a worker and offer to paint it in their company color for free and emblazon it with their logo – so you see MTN just about everywhere. Where else can you buy nearly free billboard-size advertizing for the cost of paint and a few dollars in labor? No permits are required either.



Painted Storefronts were Everywhere

Wireless Internet is a different story. “High speed” bandwidth costs a fortune or is unavailable. I purchased a wireless USB modem and a SIM card for about \$90 and added a month of service (minimum \$45) to get a whopping 238K of connection speed. The actual speed was slower than the most primitive dial-up connection I’ve ever used. In the pioneer days of AOL, access was frequently busy, but once you got on it was good enough for basic tasks. My experience with wireless Internet in Uganda made my AOL experience ten years ago look appealing.

Getting online was easy but once “authenticated,” the initial connection speed lasted just a few seconds. More often than not, sending a small file attachment (50K) would time out and fail. Connecting to an SMTP or POP server here in the States to send and receive e-mail was tedious, time-consuming, and usually failed as well. Before wireless Internet became available, “Internet Cafes” provided computers and Internet service where one would literally spend an entire day to do some basic e-mailing. Not surprisingly, they charge by the minute, too. Cafes are still around but the bandwidth has improved enough that a connection there can actually be productive now. Can you imagine a dozen or more computers simultaneously connected to the equivalent of a sporadic dial-up connection? That is what access was like before wireless Internet.



Fiber Optic Cable being Installed in Lukaya, Uganda

The big news is that fiber is coming to much of Africa. My understanding is that the continent has had a growing bandwidth bottleneck getting traffic to and from the rest of the world. New fiber has been installed on the ocean floor and that fiber is now being extended across the continent. In fact, fiber was being buried in



All Cable is being Installed using Manual Labor

conduit along the main road in Lukaya while I was there. Because labor is plentiful, Ugandans are installing it in a ditch across Uganda, dug entirely by hand. These laborers are paid 17,000 shillings a day (about \$8) to dig a section of ditch 1 foot wide by 4

feet deep by ten feet long. This is about a day's work and is considered good pay for "temporary work." Digging is backbreaking work in the hot sun, yet the dedication to task of the laborers is remarkable.

My guess is that this fiber will be connected to the cellular infrastructure shortly, and since the 3G network is already in place, a quantum leap in Internet connection speeds and overall reliability will occur soon. Most of the 33 million Ugandans don't have computers (or even the electrical power for them), so I don't see this affecting the average person greatly in the near term. But I do see the commercial economy in Uganda and throughout Africa "blossoming" in the next five years. Labor is plentiful and raw materials seemingly abound, but being connected to the rest of the world has lagged behind most other places. I do believe Internet will benefit the business community and spur foreign investment once better systems are in place. To wit: I did not use my credit cards once on the entire trip. Credit cards are not accepted anywhere, as the banking infrastructure does not yet exist.



"Make that Call" Phone Kiosk

There is beauty in the simplicity of a "cash society" and participating in a diverse local business community comprised of small specialty shops and services. This is a pleasure not easily found elsewhere. The headmaster of the school, a young gifted teacher, did not know about the Golden Arches or Wal-Mart. Why would he? Those giants would wreck havoc on the local economy and I do not believe there is nearly enough wealth to spark that kind of development anytime soon.

Cellular is a corporate anomaly in the Third World. No doubt, these companies invested tidy sums to build out their networks, and they have become a part of the daily lives of perhaps the majority of Ugandans by now. It's become a big business. Yet, for most, communication by telephone

didn't exist ten years ago. SMS text messaging is also commonplace and each one costs 140 Shillings, about seven cents. Most phones I saw were more basic than the smartphones typical of Western business. Voice and text messaging worked consistently well. People there like their phones and use them.

Undoubtedly, reliable communications and improving Internet have added economic value to the local economies throughout Uganda even though the steady stream of Shillings spent on airtime disappears, perhaps for good. Despite their remarkable market penetration and apparent success, the cellular companies remain an automated industrial complex, a world away from the labor of the masses still digging in the trenches.



One Simple Plan:
All Prepaid Calling