

## A Bronx Tale

**Broadband TV concern hooks up the 'hood**

New York City is the epicenter of wealth creation in the world's richest nation. But along with its growing ranks of millionaires, the Big Apple still has huddled masses of have-nots. The South Bronx, an area of New York City that has, for decades, borne the brunt of crime, drugs, and poverty, is still a neighborhood emblematic of urban blight and evocative of the lot of the underclass everywhere.

But in an office building in the heart of the 'hood, on a bustling commercial thoroughfare lined with small grocery stores cheek by jowl with shops studded with large, hand-scrawled signs hawking the latest bargains on household goods and electronics, exists one of the city's original broadband franchises—and the industry's most unlikely success story. The company, Urban Communications Transport, which does business under the name Urban Telephone and Video, has been making a profit in an endeavor that has defeated not a few telecom industry giants [see photo, "Where Angels Fear to Tread"]. Urban Telephone offers the lineup of telecommunications services

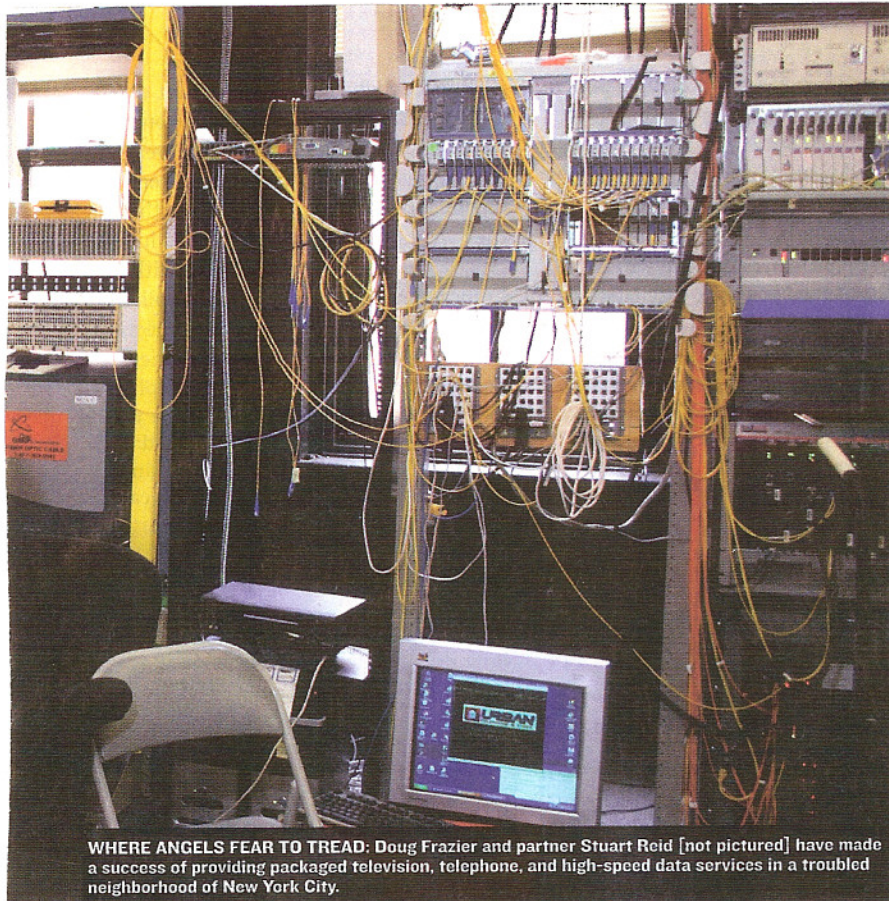
known as the triple play: cable TV, broadband Internet access, and Internet telephony. Customers can get 300 television channels, downstream data rates of up to 8 megabits per second, and Internet telephony with unlimited calling plans, and pay for it all on one bill. And these all-digital services come in on the same twisted copper pairs that once provided only plain old telephone service.

Urban Telephone's principals, Doug Frazier and Stuart Reid, are not your typical media moguls. This odd-couple pair of black men, both in their mid-fifties, have a from-the-ground-up knowledge of the services they offer. Frazier is a firebrand and born evangelist, whose musings about the company, the local community, and the industry remain conversational even as they take on the fevered cadence of a Sunday sermon.

The lower-key, statesmanlike Reid punctuates Frazier's reminiscences with key facts and bits of explanation. It's easy to see how Reid would hit just the right notes in boardrooms, while Frazier would be pitch-perfect explaining to the head of a household just what her

RANDI SILBERMAN





**WHERE ANGELS FEAR TO TREAD:** Doug Frazier and partner Stuart Reid [not pictured] have made a success of providing packaged television, telephone, and high-speed data services in a troubled neighborhood of New York City.

99 dollars per month will buy.

The company employs between 15 and 20 people, depending on the workload, but when two *IEEE Spectrum* editors visited its offices on a rainy July day, it was just Frazier and Reid who held court in the no-frills headquarters devoted mainly to the backroom IT equipment that is the guts of their business. They fielded calls and periodically stopped to troubleshoot their small but technically advanced broadband network while telling their remarkable story.

You would think a firm of this size would farm out some of its daily business chores to companies that are specialists. But Frazier and Reid insist on doing everything on their own. "It's not smart not to," Reid observes, citing the financial savings plus the long-term benefit of not being dependent on another organization. At one point, the duo recalls, they couldn't figure out how to get a caller ID number to show up on the television, even though both video and phone services came through the same digital set-top box. "Some guys wanted to come in and charge us a lot of money to do it. We basically got the books out and we did it all ourselves," Frazier remembers.

Over time they have become mas-

ters of all trades. With more than 300 channels on the network, they are obviously skilled at acquiring programming. They aggregate all the content in their office and then send the signals right to the basements of their customers' apartment buildings, through optical fiber cables they run under the asphalt-topped streets. Each basement has a network circuit that can transmit packets at a rate of at least 156 megabits per second; in a few of them, Urban Telephone installs 622-Mb/s circuits.

As operators of a telecommunications franchise, they know how to obtain city permits to go down through the manholes running under the streets, where the fiber is pulled through conduits and into the buildings. They are also capable of connecting the fiber to a device called a DSLAM, which splits the glass cables into multiple digital subscriber lines, each one going to a separate apartment. "If there's a spare [twisted copper] pair available, we use the spare pair," says Frazier. "If not, we'll run [a twisted-pair Ethernet cable called] CAT 5 up into the person's apartment."

And, oh, yes, they handle their own billing.

They decline to tell how many subscribers they have signed up so far.

WILL KINCAD/AP PHOTO



# NEWS

But they do say the company has connections in 53 apartment buildings in the neighborhood. Its biggest presence is at the Diego Beekman Houses, just a stone's throw from the office.

Diego Beekman is a cluster of about 40 apartment buildings that were once so dilapidated that the U.S. Department of Housing and Urban Development (HUD) took them over from absentee landlords. HUD cleaned them up, and a local not-for-profit organization, a community group, and the tenants came together and bought it back from HUD for a dollar. That partnership is purchasing computers and giving them, along with an initial free year of triple-play service, to the development's 1200 families. The only requirement is that they take a 3-hour class to learn basic computer skills and the basics of Internet connectivity.

Frazier and Reid went a step further, helping the Beekman partnership put together a learning center that's been open for about a year [see photo, "Bridging the Divide"]. The center, in a storefront on the grounds of the housing project, has about 20 workstations that use computers supplied by Per Scholas, a Bronx-based computer refurbisher and recycler that has provided over 30 000 reconditioned computers to low-income families in 25 U.S. states.

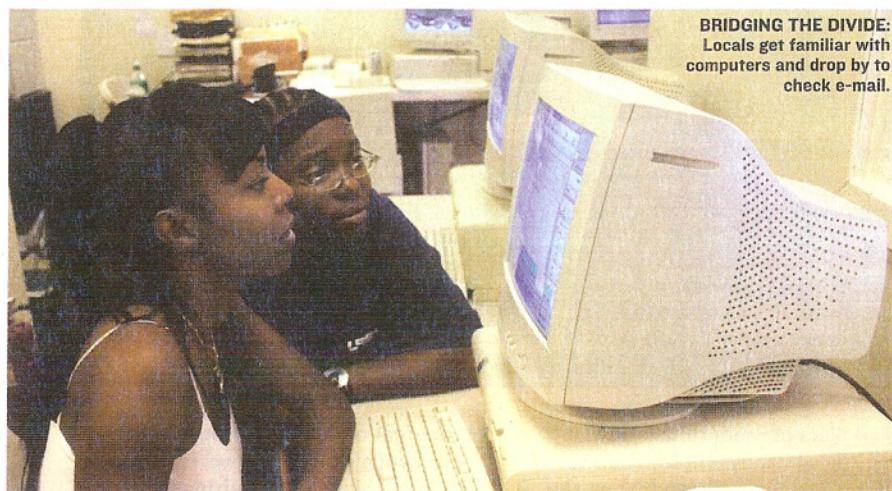
Frazier says the learning center fills a big void. "In poor inner-city neighborhoods, they ask these children to go to school and stand on line to use the Internet. Biggest city in the world, and you're asking a kid to stand on line to get on the Internet when he's got to go compete against other children who have [the Internet] in their house."

**FRAZIER AND REID** started out as phone technicians in the early 1970s after responding to a call from the local phone company. "They were actually driving through the streets in a big truck with a speaker on it trying to recruit people," Frazier recalls. Right off the street, they got an opportunity to work on the installation of the telephone network in the World Trade Center. After the AT&T breakup, they were on the team put together by the regional telephone company to test a new application: video over phone lines.

They learned enough so that by the early 1980s they were already running a side business as cable system installers in apartment buildings in the Bronx. Soon they decided to become cable operators

themselves. They got started with a pool of money from local investors totaling five figures, and then attracted capital from a black-owned venture capital firm, Syncom Management Company Inc., of Silver Spring, Md. That financial backing was enough to help Frazier and Reid win a contract from the New York City Housing Authority to install a cable TV network in one of the local housing projects. The contract for that building, which is visible from Urban Telephone's office, called for just one cable channel. When the project was completed in 1986, the tenants had access to a hundred. "And we did a couple

Running what was at that point essentially a cable system installation company kept the bills paid while the pair were poring over ideas for offering nascent broadband services. Among other things, they were the primary contractors in the city of Newark, N.J., and worked with Comcast in the late 1980s on the rollout of cable with a telephone return connection (letting customers order pay-per-view movies over the phone) in Philadelphia. "We did all the installations, all the wiring on every apartment building every day for six years, six days a week. That means that we got to learn a lot about the cable



of things that were unique at that time and still are unique, we think, for today," says Reid. One was to sell, rather than lease, set-top boxes, greatly reducing their own capital costs. And from the very beginning, they scrambled all of their channels with the exception of the over-the-air channels. "We had to show the [content providers] that we could secure the programming against piracy," recalls Reid.

Meanwhile, the city government had decided in 1993 to award competitive citywide broadband franchises that would allow franchisees to supply voice, video, and data over broadband. The city offered them to Time Warner, Cablevision, and a few other telecommunications heavyweights. But write-ups in the local press hailing Frazier and Reid as electronic Robin Hoods for providing cable service in the African-American community had raised the start-up's profile. "And [the city] said, 'Oh, let's bring these two jokers in here, too. Because obviously, by building a cable system in the basement of a housing project in an area that Cablevision, with 12 studios, said was impossible to do, they must know something,'" says Frazier. "So we got a franchise, too."

business and not kill ourselves [which is to say, not put their own money at risk], which is probably one of the main reasons why we're still here today."

As the industry began morphing in the 1990s with the advent of the World Wide Web, Frazier and Reid began looking for a new way to provide the services that were being dreamed up. "We heard about this company that was doing switched video over copper out in Kansas somewhere. And we went out there and said, 'Wow, this stuff works,'" Frazier remembers. They said to themselves that it was something that they ought to at least consider doing instead of cable.

Not long after Jim Barksdale, best known as the one-time head of Netscape Communications Corp., dreamed up the so-called full-service network on a napkin and got Time Warner and a few other companies to help him develop and test it, Urban Telephone and Video's investors began insisting that the company provide the triple play. It was offering video and could provide Internet access, but it had no way of offering telephone service.

As fate would have it, the partners read a magazine article one day about



Jeffrey Citron, chief executive of Vonage, with whom they'd had a past association. Vonage, based in Edison, N.J., is the leading U.S. provider of voice over Internet Protocol, or VoIP, telephone service. Calls are transmitted over customers' broadband Internet connections.

"So we called him up, and Jeffrey asks, 'What are you guys going to do?' " recalls Reid. "We said, 'Well, we're going to do voice over IP over copper.' He said, 'You can't do that.' And of course we had to show him that we weren't crazy and that we knew what we were doing." Urban Telephone, says Reid, later became Vonage's first wholesaler, reselling VoIP service under the Bronx company's own brand name.

Frazier explains how they were able to break down barriers that would have blocked the progress of most small minority-owned companies: "An old saying in this community is 'Don't talk about it, be about it.' And we realized long ago that once you begin to be about it, people will continue to let you be about it. So even though you've got something different or something new, if you've got the evidence that you aren't just talking about it, people are going to pay attention."

The pair, who say they are still driven by their frustration at most cable companies' unresponsiveness, have infused this be-about-it mentality into the way they run the network. As far as programming goes, Urban Telephone and Video caters to the diverse tastes of its subscribers. "If somebody asks us for something and we can figure out how to get it—you know, legally—we'll do it."

This includes Internet-streamed versions of foreign TV programs and radio broadcasts and service-oriented stuff that Frazier and Reid refer to as the "Out-the-Window" channel, a direct feed from a video camera mounted on a local apartment building that gives a bird's-eye view of the street so people can get a real-time glimpse of what the weather's like outside.

Asked about what it's been like to compete with giants such as Time Warner's cable outfit and Cablevision, Reid says, "New York City is so big and so dense that you don't have to be terribly successful to be terribly successful." If you can reach 15 to 20 percent of the market, you can turn a profit. "And we have found that you get 10 to 15 percent just by showing up, just by being a viable alternative to whoever's there already."

—WILLIE D. JONES,

WITH REPORTING BY STEVEN CHERRY