



What India Knows About Building Fiber Networks

By Steven S. Ross ■ *Editor-in-Chief*

As this is written, I'm midway through a two-week trip to southern India. I'm here to teach my annual course in computer-based analytic journalism at the Asian College of Journalism in Chennai. I've also taken the opportunity to check out the exploding capabilities of India's telecommunications market, visit with old friends, and do some initial scouting for a new business a family member wishes to set up. Fortunately, India has more fiber laid than just about any other country. It isn't FTTH, but it supports a lot of mobile and even cable backhaul.

It matters. I could not, in fact, have made the trip this year unless I could keep in touch daily with other staff members at *Broadband Properties*. We have a monthly magazine to publish, and the deadlines are hard taskmasters. There's email, of course. And my mobile phone is GSM tri-band, usable almost everywhere. My GSM signal here in India is almost always stronger than it is at home.

A GSM call from India while roaming on my T-Mobile account costs about \$3 a minute. Using a local calling card or SIM cuts that considerably, but the cost is still high for casual use. Enter VoIP. I carried my Vonage-supplied Linksys VoIP router to India and hooked it up to the college's broadband network. Within minutes, I was on the phone to my wife, who excused the lateness (with the 10.5 hour time difference, my early-morning call from India was received at midnight in the US). The voice quality was as clear as glass, with only the slightest hint of latency – a hint that few would notice.

Eyeing the equipment, which included a jerry-rigged voltage transformer because the Linksys box is not supplied with a 220-volt-aware power supply, Murali Krishna noted that it would have been illegal in India a year ago. He should know. He's Deputy General Manager for business development at BSNL in Chennai. BSNL is India's national phone company. It's no longer a monopoly but it is

100 percent government owned, for the time being.

Lessons from India

BSNL is investing in more technology, as fast as possible. The week I arrived, it announced new capacity for 4 million mobile lines in the south India region alone. Other Indian mobile phone providers are doing the same, with some twists. One, a subsidiary of the giant \$18 billion Tata Group, has made a deal with Ericsson, which installs and leases back its equipment, liquidating the lease in five years. Tata spends no money up front.

Another, Bharti, may be the most capital-efficient phone company on Earth. In 2004 it outsourced its entire network to Ericsson, Nokia and Siemens (the three-year deal was for over \$700 million). Its IT department had already been outsourced to IBM (\$750 million, 10 years) and its customer service department was outsourced the week before I arrived.

How is Bharti doing? Profit of \$330 million on \$1.8 billion for the fiscal year ending March 31. It is India's largest mobile provider, with almost a quarter of the market. It doubled its customer base last year by adding 6 million subscribers, while actually increasing its market share slightly. A call on its AirTel network costs 1 rupee a minute (about 2 cents). Half of that, at the margin, is pure profit.

Indian companies are also investing in WiFi and WiMAX. The country is Internet-conscious enough so that a vendor offers free WiFi at Chennai's international airport – an amenity usually lacking in the United States.

Helping Business

Nokia is building a new phone plant in Chennai, as you might expect. But what about, say, smaller businesses? Thanks to VoIP (at zero cost for my calls to the US) and the exchange of jpeg images via email for her to approve, my family member is closer

to starting a business. If all goes well, it will create one job in India, and one or two in the US. That's a single small example of how broadband infrastructure can create wealth.

A constant refrain in the United States is that CLECs (who lease space on others' networks), private cable operators, and even ILECs (non-Bell telcos) are losing access to capital. Our own reporting has shown that they have made up for it in part by partnering with developers (more on that, next month when we cover independent telcos in greater detail). It seems clear that if they falter, especially in the wake of the Brand X decision and rising interest rates, the big equipment vendors will step in with lease plans and workouts, as they do in India. CLECs, in other words, may become ILECs in greater numbers than is the case now. And PCOs will be able to afford network upgrades, installing fiber to add more channels, video on demand, VoIP and data.

Outsourcing works both ways. India provides cheap labor, but is also a customer for non-so-cheap equipment. To match India (whose stockholder companies are, by the way, far more profitable and capital-efficient than China's), we have to keep investing in broadband, too.

What if we don't? I talked with Kancha Ilaiah, head of the political science department at Osmania University in Hyderabad and a leader of the Indian lower-caste ("untouchable") civil rights movement. He recently returned from the United States, and complained about our high phone costs. On the other hand, he said, he stayed with his niece and her newborn for awhile. He had great praise for "the really amazing diaper technology in America."

What business do we really want to be in?



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