



Infrastructure

India Seeks Access to The Broadband Highway

▶ The government tries to turn cable TV into a digital network

▶ "You have to speak to between 10 and 20 agencies" before laying fiber

Visitors to India quickly experience firsthand the country's notoriously inadequate infrastructure: the crumbling roads, sprawling shantytowns, and frequent power outages. Just as big a drag on India's economy is a problem that's not so easy to spot—the country's Internet infrastructure.

In a nation of more than 1.1 billion people, almost everyone on the Internet has to tolerate downloading data at the sluggish rate of 256 kilobytes per second. Of the country's 100 million Internet users, just 12.5 million have broadband, compared with 450 million households in China. It's no coincidence that India has no local search engine or e-commerce companies that can rival the scale of China's **Baidu**, **Tencent**, and **Alibaba**.

The government in New Delhi is now launching its latest campaign to close India's Internet gap with China. According to a new, far-reaching telecom policy released in October, Prime Minister Manmohan Singh's ruling coalition wants to boost the number of broadband connections more than tenfold, to 175 million, by 2017. As if that weren't ambitious enough, the government aims to have broadband access for 600 million by 2020.

The new policy also aims to transform the countryside by linking India's vast hinterland to the Net. Singh's policymakers want to provide broad-



band to all of India's *panchayats*, or village-level governments, by 2014. Right now there are only 260,000 broadband connections in rural India, home to 800 million people. If successful, the program "will have an enormous impact on the economy," says N.R. Bhanumurthy, an economist at the National Institute of Public Finance and Policy in New Delhi.

Indian authorities have talked before about their digital vision. The government declared 2007 to be "the year of broadband." Four years later, Indian broadband can't even deliver download speeds of 4 megabytes per second, generally considered the standard in the U.S. for broadband. The international average is more like 5.6 mbps. Laying fiber for faster Internet connections is tough, given the country's bureaucracy. "Right-of-way policies are just con-

vulsed," says Kunal Bajaj, director for India at Analysys Mason, the London consulting and market research firm. "You have to speak to between 10 and 20 different agencies for every route." Mason says it can take six months to get permission to put down a cable, and at \$60,000 to \$70,000 per kilometer the cost is prohibitive.

This time policymakers may break the logjam by focusing on an industry that already has wires going into about 90 million Indian homes: the cable TV business. Most of those homes have analog connections that don't allow cable operators to deliver Internet services along with their programming.

However, Singh's government is now pressuring cable operators in Mumbai, New Delhi, Kolkata, and Chennai to make their networks digital by the middle of next year, a very tough deadline. Operators in the rest of India will have to follow within five years. Once TV subscribers have digital set-top boxes in their homes, they'll be able to use their cable TV to get broadband Internet access. The goal is to create a "digital pipe" to the household, says Deepak Mathur, the Singapore-based head of India sales for satellite operator **SES**, which beams programming from U.S. channels such as HBO Asia and News Corp.'s Star TV to Indian pay-TV operators.

To make it easier for local cable operators to raise the money they need to improve their digital infrastructure, Singh wants to ease restrictions on

Quoted

"In the U.S., the Fed has virtually nationalized the yield curve. It has manhandled the structure of rates and yields. The Swiss National Bank is expanding its balance sheet at astonishing speed. The world over, there is immense money printing."

—James Grant, publisher, *Grant's Interest Rate Observer*



Zhong with the locations of his pharmacy chain in Wenzhou



foreign investment, raising the limit on foreign ownership from the current 49 percent to 74 percent. The Telecom Regulatory Authority of India has also recommended offering tax breaks to cable operators so they can invest the savings into digitizing their networks.

Not everyone is convinced Singh's government has the determination to push through its plans. Upgrading India's cable network won't happen on the cheap. The total cost of additional investments in equipment by companies is expected to be about \$10 billion, according to Jawahar Goel, former president of the Indian Broadcasting Foundation and managing director of satellite TV operator Dish TV.

Forcing subscribers to get digital set-top boxes will also drive up the cost of cable television. Goel expects local politicians will do their best to slow down the digitalization project. "State governments will say, 'No, no, we can't implement [the new policy], we're not ready,'" he says.

Other industry executives, though, say India's government is taking the right steps. "Once you get digital cable into the home, there are all kinds of applications that can ride on it," says John Medeiros, Hong Kong-based

director of regulatory affairs for the Casbaa, Asia's pay-TV industry's trade group. Medeiros is hopeful Indians will soon be using their cable TV lines to download videos and get the sort of fast Internet access consumers in many other parts of Asia take for granted. Digitalization of the cable TV system, he says, "is a wonderful first step." —Bruce Einhorn, with Unni Krishnan

The bottom line India's plan to use cable TV networks to build broadband faces bureaucratic obstacles and will cost billions.

other creditors, Zhong says. Unable to borrow at low rates from state banks, which make few loans to private companies, he'd borrowed 30 million yuan (\$4.7 million) from private-or informal-lenders and loan sharks at rates as high as 7 percent a month.

Wenzhou's 400,000 or so businesses are facing hardship as black-market interest rates jump and state-owned banks tighten credit to rein in inflation. According to Zhou Dewen, head of a small business association, 90 bosses in situations similar to Zhong's have fled Wenzhou since April and two have killed themselves. After an October visit to the city by Premier Wen Jiabao, national and local leaders said they would offer small companies easier access to bank loans, put a cap on informal lending rates, and crack down on loan sharks. Zhong is still in trouble. "I am under huge pressure," he says, sitting in a warehouse with fast-depleting stocks of medicine.

Wenzhou was the first city in China to widely embrace private enterprise in the early 1980s. As businesses tapped families and neighbors for loans, the local authorities took a lenient view of this private lending, according to Huang Yasheng, an associate professor at the Massachusetts Institute of Technology's Sloan School of Management. Zhong relied on such lenders to build Blue Sky Pharmacy into a chain of 27 shops in three years. Zhong, a doctor from a mountain village, first

Credit

In China, a Debtor Fights to Stay Afloat

- ▶ Pharmacist Zhong Maojin runs afoul of the informal loan network
- ▶ "If you like, you can cut off one of my fingers instead"

Hours after a creditor and his gang of tattooed thugs had hustled Zhong Maojin into a coffee shop in Wenzhou, he still refused to yield to their demands. They wanted to take over one of the pharmacies in a chain he'd built by borrowing from informal lenders. "If you like, you can cut off one of my fingers instead," Zhong, 42, says he told them.

Giving up the store would have made it impossible to pay back 130

74
PERCENT

Proposed new limit on foreign ownership in India's cable operators