

'Telecom czar' focuses on his next big thing

After implementing several programs in India, Pitroda develops 'wallet' mobile phone

By Mike Hughlett
Tribune staff reporter

In the U.S., Sam Pitroda leads a small, suburban Chicago company that is aiming to make it big with a "wallet" phone—a device that makes calls and pays for stuff electronically.

In India, Pitroda is big—in a Bill Gates sort of way—regaled with titles like "technology guru" and "telecom czar." When the nation's current prime minister created a commission to help overhaul India's education system, he picked Pitroda to lead it.

For decades, Pitroda has had one foot firmly planted in India, his native land, and another in the Chicago area, where he has been living. In the 1980s, he parlayed his success in the telecom business here—along with a jumbo dose of chutzpah—into a plum but controversial government gig in India: reforming that country's backward telephone system. Eventually, he won a post in Rajiv Gandhi's government.

After Gandhi was assassinated in 1991, Pitroda returned to the Chicago area to again focus on business. Today, his Oakbrook Terrace-based firm, C-Sam Inc., has developed a wire-

less payment technology that is being used by, among other clients, cell phone giant Motorola Inc.

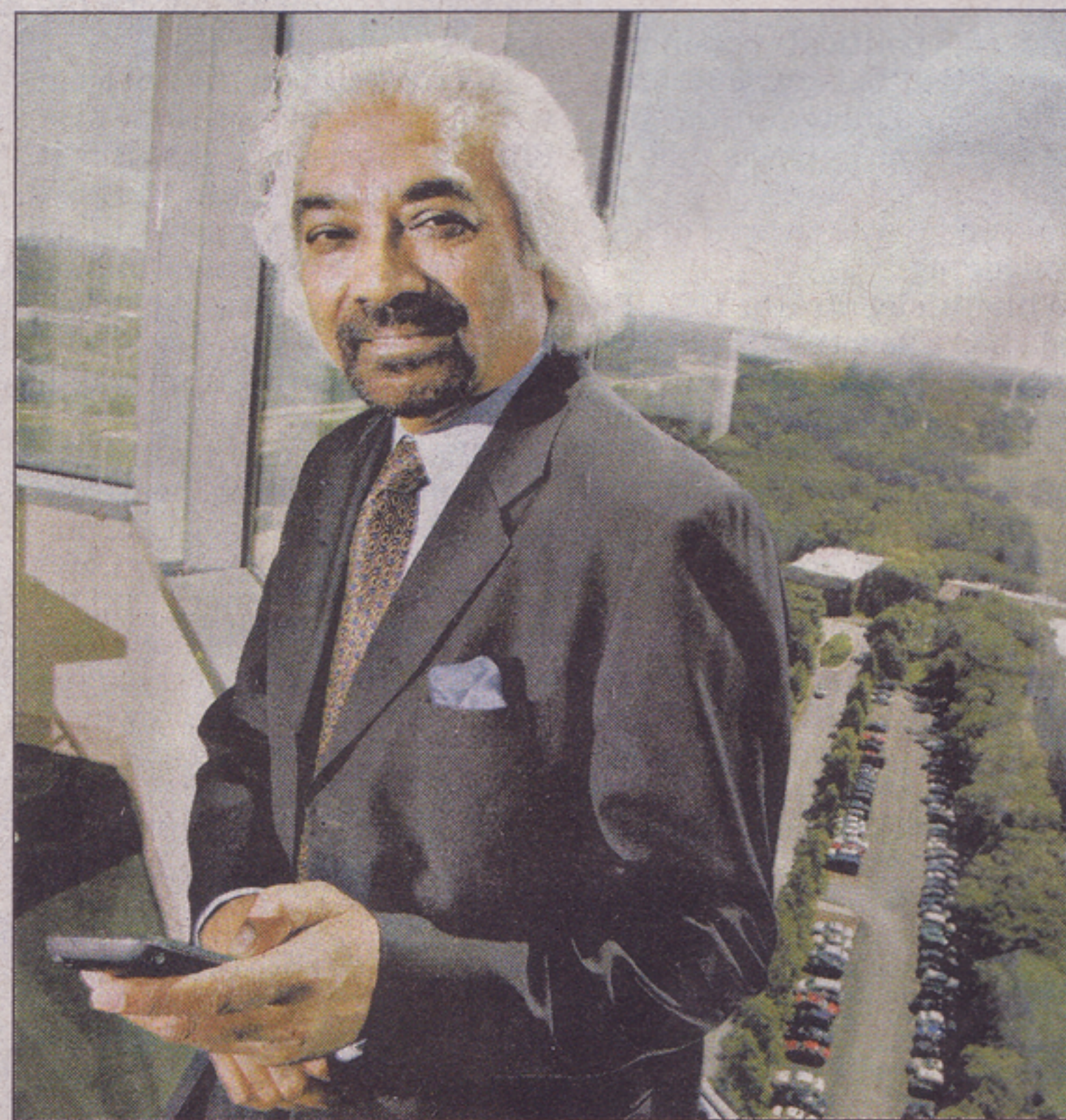
But the 65-year-old—who has no plans of retiring—still treks to India every two months, staying for two weeks to work on the National Knowledge Commission. It's his main intellectual passion these days. "The next big thing is really to focus on knowledge," he said.

Pitroda, whose given name is Satyanarayan, has a track record as a next-big-thing kind of guy.

After getting a master's degree in physics in India in the early 1960s, he decided to come to the United States. "I read one day that President Kennedy had decided to take a man to the moon. I got excited about it and said, 'This the place to be.'"

He landed in Chicago at the Illinois Institute of Technology, where he got a master's degree in electrical engineering. He went to work at GTE designing phone switches, earning the first of several dozen patents. Then, in the mid-1970s, he started a switching equipment firm.

It was a success, and he eventually sold his stake, making him independently wealthy. Pitroda decided to find something "more interesting" to do, he said, and found it while vacationing in India in the early 1980s, when it took him several hours to place a phone call to the United States.



Tribune photo by Antonio Perez

Sam Pitroda

Age: 65

Industry: Telecommunications

Current business: Chairman of Oakbrook Terrace-based C-Sam Inc., a mobile phone software firm.

Other activities: Head of India's National Knowledge Commission, which was appointed by that country's prime minister to

reform education.

Past government service:

Driving force in India behind a key government-funded telecom operation from 1984 to 1987. An official in Rajiv Gandhi's government in late 1980s.

Education: Master's degree in physics from an Indian university; master's in electrical engineering from Illinois Institute of Technology.

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PITRODA: Honored for rural access to phones

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His next big thing: Improve India's phone system. He had an idea, a big one. Develop a modern digital switching system, particularly for India's phone-starved rural areas, by relying on Indian technologists, not Western companies.

Putting such an idea into action would require an audience with then Prime Minister Indira Gandhi—a very tall order for an expatriate who had become a U.S. citizen.

To think such a meeting was even possible, "you have to be really arrogant or ignorant," Pitroda said. "If I knew all the things I know now about Indian government, I wouldn't have done it. It would have been too frightening."

He got the meeting and met Indira Gandhi's son Rajiv too. "We were the same age and we clicked," Pitroda said of Rajiv.

After an extensive background check, Pitroda got what he wanted: the Centre for the Development of Telematics, or C-DOT, launched in 1984.

Funded by the government, C-

'This is where my family is. This is my home. The U.S. has given me all the tools I need to do what I do.'

—Sam Pitroda, founder and CEO of C-Sam Inc.

DOT employed more than 400 engineers by 1986. Pitroda was its principal adviser, a post that paid one rupee per year but catapulted him into the lime-light in India.

The Economist, a major British magazine, featured Pitroda in a 1987 profile headlined "Sam, Sam the Switching Man," describing him as "the Indian with the long hair and the manner of an American superbrat." That same year, England's leading business newspaper, the Financial Times, called him "India's best known and controversial technologist."

He was controversial partly because of his brusque style but also because his plans were audacious. Still, by most accounts, C-DOT delivered. It developed a small, digital exchange for rural areas, a type of system virtually unavailable from big Western telecom companies.

From 1984 through 1987, Pitroda commuted between India and the United States, where his family lived. But Rajiv Gandhi, who succeeded his mother after she was assassinated, asked him to become technology minister in his government.

It was a "minister of state" po-

sition, requiring Pitroda to move to India and give up his U.S. citizenship—"a most painful decision," Pitroda said. Eventually, Gandhi also would name Pitroda to head a commission that oversaw Indian's vast state-owned telecom industry.

As part of Gandhi's cabinet, Pitroda rolled out another idea that would cement his legacy. He enlisted thousands of would-be entrepreneurs in small towns to operate public telephones.

Rolling out coin-operated phones would have been too costly. So Pitroda began deploying ordinary phones in bazaars, cafes, pharmacies and the like. The proprietors would take the money for the calls and get a small commission on them, and the phones—advertised via a yellow sign—would draw in customers.

Pitroda "took the telephone to the villages," said J.V. Lakshmana Rao, managing editor of India Tribune, a newspaper in Chicago. "If there is a telephone in a village, it is there because of his forethought."

Although the program improved rural Indians' access to telephones, it is cell phones that have vastly improved the rural population's connection to the outside world.



Sam Pitroda, founder and CEO of C-Sam Inc., developed a mobile phone that also has purchasing power.

Tribune photo by Antonio Perez

He was at home watching his wife write checks and asked her how much time she spent on the task. The answer: about 8 hours a month. His thought: "There must be an easier way to do it."

So Pitroda began researching wireless payment systems. By the mid 1990s, he had scored his first patents in the area, and by 1998 had incorporated C-Sam. The company's "OneWallet" software helps create electronic credit and debit cards that are stored inside mobile phones.

A phone equipped with a technology like C-Sam's—and a special chip—can be used to buy stuff. The device is swiped against an electronic reader, which debits or credits an account through a secure radio signal.

The wireless payment market is in its nascent stage, and C-Sam is one of several firms battling to sell wallet phone software. But "they are one of the companies that seems to have some traction," said Bruce Cundiff, an analyst with Javelin Strategy & Research, which tracks the payments industry.

Schaumburg-based Motorola is licensing C-Sam's technology for its "M-Wallet" payment platform, which underwent a major trial this year with Riverwoods-based Discover Financial Services. "We were very pleased from a technology point of view," said Navin Mehta, vice president of services in Motorola's networks division.

C-Sam employs about 130 people, most of whom are software writers in India. It does \$2 million to \$3 million in annual sales, Pitroda said.

Pitroda delegates day-to-day work to the company's chief operating officer. That gives him plenty of time for the National Knowledge Commission, a group created in 2005 by Indian Prime Minister Manmohan Singh amid mounting worries of mediocrity in India's educational system.

"It's a very high-power group," said Rafiq Dossani, a senior research scholar at Stanford University who has studied India's technology sector. "Very high-level people sit on the knowledge commission. It's the best India can offer."

The commission has not been without controversy, like past Pitroda efforts in India. But it has been busy. Within the past year, it released a report calling for a major overhaul of India's educational system, including increasing the number of its public universities from 350 to 1,500 in 2015.

Although Pitroda is still deeply immersed in India, he has no plans to move back permanently. "This is where my family is. This is my home," said Pitroda, although he is not a U.S. citizen. "The U.S. has given me all the tools I need to do what I do."

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