

Cracking the code

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In 1985, there was no Microsoft or Apple in India. There was DCM-Tandy. Indigenous computer manufacturer DCM and Tandy Computers, famous for its TRS-80, were spearheading the personal computer revolution alongside companies such as Apple.

There was also Ram Sewak Sharma, then a 30-year-old bureaucrat stationed as the district magistrate of Bihar's crime-hotbed Begusarai.

He was also a proud, and probably one of the first few owners of a DCM-Tandy.

"I have always combined my interest in computing with my work," says Sharma, recalling his early days in the civil service, when we meet at his plush office in Electronics Niketan, one among the maze of central government offices in south-central Delhi. Now at the fag end of his career, as the Secretary of the Department of Electronics and Information Technology (DeitY), he is the man in charge of the 'digital revolution' that the new government wants to infuse into the State apparatus.

Back in Begusarai, Sharma had — in the company of his IIT-Kanpur batchmate, the then district superintendent of police — solved nearly two dozen cases involving stolen firearms, within a month. Even the State's Inspector General of Police was intrigued enough to travel to the remote district to see for himself "how the hell we did it".

"I basically used an Operating System called CP/M to input all data about lost firearms across the state as well as recovered firearms," says Sharma. "After that, it was just a matter of the algorithms matching those numbers, and the results showed up instantaneously. It was a bigger task to explain how we did it than actually solving the thefts."

Another system Sharma helped innovate, attendance.gov.in, is now the *sarkari* workforce's worst nightmare and a potentially useful tool for public accountability. It tracks, in real time, the entry and exit of nearly 50,000 staff in 150 central government organisations; in the next few months, this live attendance tracker will be deployed in every central government office in the country.

For the love of math

"I have always been passionate about maths, especially pure mathematics. In fact, I left my studies in Allahabad to join IIT-Kanpur to do research in mathematics," says Sharma.

Growing up in Hamirpura, Uttar Pradesh, Sharma, the son of a farmer, cycled 10km to school every day. After graduating in 1976, he cleared the UPSC exam in his first attempt to join the civil service.

"Sharma helped innovate attendance.gov.in, sarkari workforce's worst nightmare"

Secretary of DeitY is the 31st position he has taken up in his bureaucratic career. During his stint in Jharkhand, he always held the additional responsibility for information technology. He even took a

mid-career break to pursue an MSc in Computer Science in California in 2000. “I traded my Ambassador for a cycle, took a backpack and attended classes.

Everyone else was 25 years younger than me, but it was a great learning experience,” he says. Before his deputation to the Centre from Jharkhand, he was transferred nine times in the span of six years.

Coding success

“Wherever I went, I had a reputation for being good at programming,” says Sharma. Throughout his career, he has juggled his bureaucratic duties to create programmes to improve efficiency in every department he has been in — from programmes to automate the serving of court summons, for filing public grievances and tracking transfers of government teachers, to the attendance system he first introduced in Jharkhand and, of course, the Aadhar system.

The Unique Identification Authority of India (UIDAI) project, of which Aadhar is a part, was what brought Sharma back to Delhi. “Usually you shift and occupy a chair that someone else had. In UIDAI, there was no chair. In fact, there was only one room, which Nandan Nilekani occupied. I asked him, ‘where do I sit, boss?’ He said: ‘Why don’t we sit together.’

Even though we were a part of the government, for the first few months we were a start-up in the truest sense.”

From UIDAI, Sharma went back to Jharkhand and created the attendance system. The success of the system is borne out by the fact that the government agreed to introduce a five-day working week as day-to-day efficiency peaked.

With a new government at the Centre, he was summoned to head DeitY and has since successfully replicated the attendance project. The dot-Bharat domains, a system to track paramilitary forces, and the use of Aadhar in the public distribution system are among the host of projects spearheaded by him. While he has only a little time left in his tenure, Sharma is sure he will continue to work on data analytics even after retirement.

“There is a lot of digital data collected now, but not put to any use... we need to create a big data analytics framework. The future lies in number crunching.”