# Connecting The Police Stations in Karnataka

In 1999, the State Crime Record Bureau (SCRB) in Karnataka --- which is the repository of all data related to crime in the state --- undertook a project to deploy a wide area network (WAN) across the state. S.K. Balaraman, DGIP of the bureau, talks of how it entailed connecting 840 police stations, 234 circle offices, 118 sub-divisional police offices, 28 district police offices and the three commissionerates in Bangalore, Hubli-Dharwad and Mysore onto one network. The WAN project demanded a change in day-to-day work processes at police stations across Karnataka, as the personnel would now have to use a computerized interface to report crime. Towards this end, the deployment of the Crime Criminal Information System (CCIS), developed by the National Crime Record Bureau (NCRB), had begun as far back as the 1970s. But having the infrastructure in place, which has involved an investment of Rs 45 crore, would have been futile unless it was going to be used effectively.

Balaraman, who has overseen the process at SCRB since 2000, explains how that particular challenge was met --- and why the WAN was seen as a model IT implementation at the 37th All India Police Science Congress in June.

*CIO: Training police personnel across the state must have been a mind-boggling process. When and how did SCRB begin the IT training program?*

*S.K. BALARAMAN:* The process began in 1999. We identified three police constables to be trained from each police station across the state, which is a huge number: close to 6,000 personnel from the constabulary. The officers in the district headquarters were more familiar with the IT requirements as these offices had computers. We trained the constables in batches by organizing three-day sessions at the SCRB office and the training center of the Directorate of Information Technology in Bangalore.

We also set up training centers at the district police offices (DPO), a railway police office and at the three commissionerates. These had the training accessories and software installed, apart from a dedicated server and five thin-clients to train 10 persons at a time.

*How receptive were police personnel to the transition?*

It is hard to generalize. For example, we have had cases of inspectors in parts of Karnataka who bring learnings even from their homes to the police station --- they see how their children optimize their use of computers and discuss this at police stations. Such personnel have been keen to learn more about technology even after our training programs. The constabulary has also been very happy about the change.

We now have to focus on how the mid-level officers adapt, learn and understand computers because that wasn't part of their police training when they passed out. The results are positive. In fact, we have now given training institutes like Karnataka Police Academy and police training schools the necessary infrastructure

and software, so that computers become a part of the police training program itself.

*What sparked off the use of computers in police stations in rural areas? How did it start?*

Over the years, we have had a wireless wing that also takes care of the teleprinter network to communicate messages from one control room to another. In December 2004, we were asked to start using the e-mail facility. It meant passing on the same messages at lower costs. We began by directing police stations to use the computer to report cases, just as they had been using typewriters.

*Coming to the WAN installation, hasn't a 62 kbps leased-line link proved insufficient for such a large deployment?

*Yes, the need for more bandwidth has gone up. As of now, we have a dial-up network that uses existing telephone lines at the police stations, circle offices and sub-divisional police offices. The network is used by all our control rooms, and to send messages like routine communications and daily police station reports to district headquarters.

Most of this data (the average file is rarely more than 300 KB) are sent as text and photo attachments. So, we have problems, say, when we have a photo to be sent to all police stations.

Currently, we are experimenting with higher bandwidth on a virtual private network. And we plan to scale it up when we deploy a comprehensive software program, which will encompass all arms and functions of the police from law and order to motor transport and finance. This program is being developed by Wipro; it's too early for me
to give details about when it will be implemented.
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What were the challenges SCRB faced when it put forth the WAN proposal?*

Our objective was to put a computer in each police station because it would help us in ensuring total connectivity. The idea was welcomed by the state technical advisory panel, and we got funding support from the modernization committee: a modernization-of-police grant from the Centre. From 2000 onwards, the investment in phases has been about Rs 45 crore.

Implementation began in 2003. Each police station already had a phone. And the starting point was to connect all district headquarters between themselves. The infrastructure we put in place then was enough for transfer of small files. By then, each police station also had the NCRB's Crime Criminal Information System (CCIS) software to register cases and the collation-collection of crime data. (The computerization program in Karnataka had started as far back as the 1970s.) We also started giving hardware in phases, before investing in training of personnel.

Today, last-mile connectivity is our big challenge --- we want to connect police stations in the most remote areas. Some police stations in the these parts have to make an STD call to their district headquarters to hook onto the intranet. The challenge is how to connect the remote police stations with the taluk headquarters.

*Tell us more about the CCIS, and how WAN is being used for data transfer.*

We have about 95 lakh records in the state's servers on the back of Crime Criminal Information System. With the WAN, each district can now access and have its own records --- we have a store-and-forward system, whereby the cases are recorded in the respective police station, and then forwarded.

All records are registered on computers first, instead of being handwritten or typed. In the long run, we can access this data and also ensure that it's not tampered. This data typically consists of (FIRs) first information reports, crime details forms, arrest/court surrender forms, charge sheet forms, court disposal forms, etcetera.

*To what extent are the benefits of technology visible?*

Recently, all newspapers in Bangalore carried the photo of a wanted criminal. That picture had been digitally created by the SCRB's portrait building system based on the inputs of the victim. It's possible to do something like this at every police station throughout the state. And with the WAN in place, it's easier to transmit such information with more efficiency and to more police stations at limited costs.

Inter-district cases can be cracked that much faster. It has also made record verification possible across the entire state. We can also scan important documents to ensure they are not tampered with.