

# "BIOMETRIC IS ONE OF THE OLDEST IDENTIFICATION TECHNOLOGIES"



**Ravi S Saxena**  
Additional Chief Secretary,  
Department of Science &  
Technology, Govt. of Gujarat, in an  
exclusive interview with egov

**T**ell us about your vision for the state's IT department.

Gujarat State's IT department has to eventually become the anchor department for change management. It is because the entire document management, workflow as well as delivery of services to citizens have to be done electronically by each department. The business process re-engineer-

ing to achieve the above goals is also a part of the NEGP. We are planning an IT Investment Region (ITIR), and developing a new policy for setting up the Electronics Manufacturing Clusters (EMCs), following the policies declared by the Government of India.

**How would you rate Gujarat's response to e-Governance?**

Gujarat has always been at the forefront in e-Governance. We set up Gujarat State Wide Area Network (GSWAN) way back in 2001. Today this is the only end to end IP-based network across the state and the largest in this part of the country. It covers almost 35000 nodes. We have almost 50,000 mail addresses on our Exchange Server in the active directory format. All districts and talukas in Gujarat are covered vertically and horizontally with the same network. The state has a robust State Data Centre. Then there is eGram, a VSAT network that covers all villages of Gujarat through broadband and makes it easier for state government to provide e-Governance solutions to the citizens. The state is in the process of setting up SSDG and MSDG. Almost every state government's department has been advised to deploy ERP kind of applications with GIS basis because we are very strong in GIS. In fact the Gujarat State Geospatial Data Infrastructure has been appreciated at all levels and even by the Planning Commission of India.

**In today's scenario where there is a big boom in IT, what are the main challenges being faced by the officials in the position of IT secretary?**

The major challenge before the IT Secretary in any state is to transfer knowledge and information to other departments about the latest developments in the field of Information Technology, particularly with relevance to e-Governance. Apart from information, it is also the responsibility of IT secretary to have a unified database, accessible through a common robust infrastructure, which is functioning round-the-clock without problem. We have, in Gujarat, evolved a structure of policies which has come a long way to help us in taking the integrated vision of deployment of e-Governance in the State Government. This is achieved by way of setting up IT committees in each department that in turn are closely monitored by the IT department.

**Many government departments and schemes have started using biometrics for identification of beneficiaries and users. What kind of systems do you think are best suited for biometric identification?**

Biometric is one of the oldest identification technologies existing in the country. Indians have been authenticating documents ink and thumbprint for a long time. However, with the advancement in technology, the ink is replaced by electronic and optical identifiers. We have found that when it comes to ensuring end to end delivery of benefits with transparency, Biometrics Identification and Integrated

Applications works well. Gujarat has experimented with Biometric Identification system in various applications like Public Distribution System, gArvi – vehicle registration system, eDhara – Land Records, Student teacher attendance, City Survey and many more. We are even planning to have it integrated with our Home Department Security Application.

**Do you think biometric systems are more secure than other physical and identity card based systems of verification?**

Physical and identity card based systems of verification are very primary level technologies. These days, barcodes and QR codes are becoming common in all sectors including retail. However, biometric system is are much more secure. They provide a better system of identification. UIDAI is a good example of an initiative that utilises Biometric Technologies in the best possible way. Once we are in a position to make our applications UIDAI-compliant, we will be in a better position to understand the challenges and advantages.

**Should more biometric solutions be made available to our police forces for quick and accurate processing of individuals and detection of suspects?**

Biometric has Physiological and Behavioural Technology Aspects. Both have many dimensions of individual identification per se. Forensics laboratories are already utilising these solutions but simple applications integrated with devices which can provide intelligence to conventional way of detecting the suspects should be available to crime detection forces in critical and sensitive regions of the country.

**Tell us about the State Data Centres that have already been built in your state or are in the process of being built.**

Gujarat is the first state to go for a State Data Centre project in 2008 along with 3 mini data centre setups. Gujarat SDC is based on a best of breed solution, which makes up the core compute, storage, security, management infrastructure with consolidation and optimisation as a major part of operations maintaining 99.991 percent average uptime. Today these data centres act as a convergence point between open unsecured domain and sensitive government environment. Moreover, they enable departments to host their services/applications on a common infrastructure which ensures efficient management and optimum resources utilisation.

**These days we are having the issue of malicious content on the Internet. In your opinion what are the best ways of tackling this problem?**

Cyber attacks and malicious content are the big challenge areas when it comes to security of Sensitive Government Data. CERT-in reported that more than 1400 Indian Websites were defaced and nearly 300 websites were compromised with malicious content during January 2012. Proactive measures, preventive Mechanism, Quick Response Features with Internet Facility Policy should be deployed along with latest OS/Network patch updates for tackling these problems caused by intruders. Moreover, it is advisable to have State Web Cell for centralised monitoring of the web content and security measures. [egov.gov](http://egov.gov)

## IT SECRETARY SHOULD NEITHER BE TECHNO-PHOBIC NOR TRY TO BE TECHNOLOGY AGNOSTIC



### Yudhvir Malik

Principal Secretary, Department of Electronics and Information Technology, Government of Haryana

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**ell us about the new initiatives that your department is taking to foster the growth of IT industry in Haryana.**

Gurgaon is already a well established hub of the IT industry in the country. After taking industry input, we have recently revised our industrial policy and made several special provisions to promote IT and IT enabled services industry. We are currently engaged with NASSCOM to take the next step forward and look at the feasibility of expanding the outreach of IT industry at locations beyond Gurgaon.

As regards the IT Education is concerned, the Education Department in setting up computer labs in all the 64 Govt. Colleges and more than

2600 selected Schools. The Education Department also agreed to train the young boys and girls in the schools in use of Open Source Software. This is the single largest impact area as far as the IT Education is concerned.

Some of the initiatives that we are working on are:-

1. establishing a private cloud in our State Data Center while we explore the possibilities of leveraging other government-owned public cloud infrastructure;
2. establishing an e-Governance Integration Platform;
3. creating an Information Security Management Office;
4. creating a Citizen-centric Services Delivery Organisation that all our departments can leverage and present a unified and friendly facet to our citizens.

### **What are the main challenges being faced by the officials in the position of IT Secretary?**

The first and foremost challenge for any IT Secretary is to meet the gap between expectations and capacity. Even when we outsource a bulk of our projects, the skill sets required to manage complex projects is a critical need that we will need on a continuing basis. Not all of it can be given out to external consultants; certainly not forever. So we need a sustainable mix of external input and internal capacity building. This is not an easy task, given the current constraints of government HR management. Nearly every other challenge can be managed better, if we have the right amount of the right talent.

### **Many government departments and schemes have started using biometrics for identification of beneficiaries and users. What kind of systems do you think are best suited for biometric identification?**

In Haryana, biometrics is one of the methods available for dependable identification. Recent guidelines issued in the context of the use of Aadhaar as Proof of Identity and Proof of Address reflects our thinking in this matter. We feel that ease of use is a very important consideration to ensure widespread adoption and hassle-free services delivery. Any system that is intrusive or time-consuming is unsuitable. This means that at this time, we can only use single finger scans and facial photograph-based

manual matching for biometric identification. In the future, increased technology adoption as well as industry's R&D efforts could make other options as acceptable.

### **Are people in the state expressing satisfaction with the quality of e-Governance services that they are having access to?**

The people of Haryana are among the most rights-aware and politically active people you will find in the country. As a result, we do get encouraging response to any initiative that impacts them positively. As a matter of fact, there has always been a gap between what we deliver and their expectations.

### **Do you think biometric systems are more secure than other physical and identity card based systems of verification?**

Biometric systems are definitely more dependable (for identification) than other forms. These systems can co-exist with identity card systems (e.g., Smart Cards) – to that extent they are not mutually exclusive. The key differentiator here is the vastly increased certainty with which iden-

## **“THE FIRST AND FOREMOST CHALLENGE FOR ANY IT SECRETARY IS TO MEET THE GAP BETWEEN EXPECTATIONS AND CAPACITY”**

tity can be verified; not increased or decreased security. Biometrics as well as non-biometrics systems will both need adequate measures to ensure security.

### **Should more biometric solutions be made available to our police forces for quick and accurate processing of individuals and detection of suspects?**

Yes, given the importance of biometrics in forensics, it is important to make biometrics solutions available to the police forces. Of course, this does not mean that the police can or will treat every citizen as a suspect. Even with current advances of biometric technologies, it is most inefficient to do population-wide brute-force biometrics searches. So the emphasis

would be to build the next generation of specialized crime and criminal databases that will address a vast majority of the police needs.

### **Please tell us about the State Data Centres that have already been built in your state or are in the process of being built.**

So far, we have been using the NIC-HSU Data Centre. It is still operational for a good many of our projects. The State Data Centre is also ready. It is a 4000 sqft Data Centre built as per the NeGP & DIT guidelines. We are strongly encouraging all departments and projects to use this facility instead of building their own. The Commercial Taxes, the PDS as well as the Transport Department projects will be among the first big users of this facility.

### **In your opinion what kind of experiences and sensibilities as an administrator, must an IT Secretary bring to his job?**

The IT department is not very different from other departments in the sense that an IT secretary should have the “domain knowledge” or the aptitude to gain it on the job. The big difference

though is that the technologies evolve much more rapidly than other areas. This means that the IT secretary must be willing to work in a dynamically changing environment, with more uncertainty than is usual. With IT, the balance between being a pioneer (with the attendant risks) and taking a well-trodden path is far more delicate one. A certain amount of willingness to try new ideas – perhaps in a controlled risk environment is a necessity if one wants to take lead. Whereas in other departments, it may be alright to take a fail-safe approach every single time, with the IT department, for certain projects it may be necessary to adopt a safe-to-fail approach; i.e., acknowledging and accepting that failure may be one of the outcomes and managing the risk accordingly. For this, it is important for an IT secretary to neither be techno-phobic nor try to be technology agnostic. 