eGovernance
IT makes citizenship convenient

Information technology has transformed citizen services in India, way beyond the governance's expectations. In 1970, the government of India established the department of Electronics,   with a view to leverage the rising use of electronics in government   affairs- and making it, so to speak, more technology oriented. But the focus on Information Technology came to fore only after the National Center for Informatics came up in 1977. This was the beginning of the end of pen pushing manual paperwork for the government sector.

However, by the 1980s, technology adoption only meant that some levels of officers in government offices had computers! Though this brought the ability of some storage, retrieval and processing, in one word, data processing, it wasn't really a proper leveraging of IT for governance. By the early 1990s, the ICT capacities were increasing, and with the help of NIC, many government office started tracking files, monitoring programs, payrolls and generating reports etc.

Increasing connectivity, the rising use of internet and information technology lead to a number of IT initiatives at various levels which governments - both state and central would initiate. Many of these were public-private partnership projects and most of them, over the last 15 years, have shown great promise and made the life of the common Indian much better.

We take a look at some interesting implementations that have made the life of the average Indian citizen richer by technology.

I

In 2007, Gujarat state faced acute energy shortage- the state had the installed capacity to produce only 9247 MV against the peak demand of 10605 MW, which needed an installed generation capacity of 12476 MW, effectively facing a deficit of 3229 MW. Added to that, by 2012 the demand would rise to 14031 MW, which could be met only with an installed capacity of 16507 MW. So the deficit figure over the next 5 years would touch 7360 MW. The state, hence decided to set up Bhavnagar Energy Company Ltd. (BECL) during the XI Plan in 2007.

To have such a big jump in generation capacities, there would be a number of processes that would need monitoring. Hence, BECL decided to automate the management f the power generation projects. As Nayab Husain Pathan, erstwhile Senior Manager I.T. BECL said, "We at BECL wanted to have a business management application that would allow us to have an integrated scenario for covering all the business processes. We wanted to improve the response time, manage data flow effectively and enable better decision making."

Besides, the application needed to be scalable, capable of 360 degrees integration and following best practices in implementation, deployment as well as running. These were, actually the criterion based on which SAP's ERP was selected to do the job, over custom built options.

The biggest challenge the team faced was during the implementation process, as Nayab Hussain Pathan says, "Change management and the availability of the core team members was an issue, but as we had people with rich experience working on the project all the issues got resolved quickly."

The implementation took merely 5 months. SAP 6.0 was implemented in a phased manner at BECL - headquarters in Gandhinagar and the power generation sites at Padva, Bhavnagar, across the core functional areas of finance and control, project systems, materials management, to name a few.

The SAP ERP solution at BECL has made the whole process of managing the generation projects very efficient with all data and process in a transparent view for all levels of management. This has, in the process, assured better database management and improvement in operational efficiency, leading to reduction in overall costs. The transparency of the processes has also lead to some informed, insightful decisions for the plans of meeting the current energy requirements of the state and beyond!

Says Siddharth Gupta, Head Strategic Industries (Public Services, Public Utility and Public Sector Undertakings) - SAP, "Bhavnagar Energy Company Ltd (BECL) was able to successfully address the growing demand of power generation in the state of Gujarat with SAP ERP. This also resulted in increased efficiency that BECL witnessed with digitization of their operations. The deployment at BECL resonates the simplicity and scalability of SAP solutions and is a revolutionary project because of the speed and efficiency at which it was implemented."

"For the speedy implementation of SAP in Bhavnagar Energy Company Ltd. (BECL) we received the SAP Ace Award 2013 special award in the Utilities - Generation category," adds Pathan.

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Erstwhile Senior Manager I.T. BECL

II

In a bid to make banking available to the rural areas of the country, the Ministry of Finance's financial inclusion program mandated the setting up of ATMs for each and every branch across rural India, housed in a settlement with a population of less than

flung geos to be able to draw money, access the subsidies in their accounts, comfortably.

Says Mr. Prakash Joshi - Chief Operating Officer (COO) of Electronic Payment and Services, "At least one machine had to be deployed in each branch. Urban areas were almost covered, but in rural areas there were no ATMs at all. So, all banks wanted to put machines

from Cash pick up points. Initially, the density of the ATMs was not healthy enough for banks to keep infrastructure, but with deployments and gradual acceptance f the ATM usage by citizens, everything fell into place.

Once the ATMs were in place (sometimes inside the branches, for lack of space), adoption was quick. Remembers Joshi, "We

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> Chief Operating Officer (COO) of
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2000 people. Electronic Payment System took up the job, with support from the MoF and successfully deployed over 5000 ATMs for rural branches of 24 PSU and nationalised banks, in 2 years. Out of these, the first 1000 was deployed within a month of project kickoff in March 2013.

But let us start at the beginning.

The PM's financial inclusion plan- a bank account for every household, under the Jan Dhan Yojana, needed technology as an ally to succeed. Rural banking needed functionalities that would make it easy for the citizens of far

in those areas to meet target of the government mandate."

EPS had the challenge of not only the technology deployment but also the educating of the rural folk in their use. This would also mean areas with often no electricity, definitely no network and no cash branch for many hundred miles. Solar powered systems were used to generate power for the ATMs; networks were created by putting up VSAT antennae. Also, cash depletion in ATMs in rural pockets was observed, but EPS overcame this challenge by enabling Cash replenishment Agencies in these areas, within the radius of 150 kms

found the adaptability was excellent, and afterwards the rate of transactions was excellent, sometimes even higher than urban areas. The people in those areas had something new to look at; they could never imagine this kind of transactions- so the activity was driven by the novelty factor. "It was this novelty factor and the efforts on education in banking operation that contributed to the success of the project."

Today, after the 5000 ATMs have been deployed across the state of Maharashtra, the number of transactions per day is touching 80-90. This has brought to the rural areas the best of Jan Dhan objectives.

III

One of the earliest Public sector companies in India, in 1954, Bharat Electronics was set up to cater to the specialized electronic needs of the Indian Defence services. Growing over the decades, BEL had a turnover of Rs.6, 174.23 crores in 2013-14, BEL. Today they employ India's best engineering talent, designing and manufacturing over 350 state-of-the-art products and systems, predominantly for the defence forces.

All it lacked was an efficient data lifecycle management system that could eliminate unsightly bulky paper files and records, and streamline their data and records into a paperless environment. "Thanks to the innovative use of IT at Bharat Electronics Limited (BEL), the bulky paper files at BEL have been replaced by paperless files, which get processed through the File Lifecycle Management (FLM) system," says R. Sankarasubramanian, AGM-ISCO Bharat Electronics.

The IT partner in this initiative was SAP, and way back in 2005, SAP ERP integration was done at BEL to make it the leader in office automation in government offices.

In a step forward, in 2013, BEL decided to digitize the complete process of file creation, movement, approval and record keeping, and that meant more than 70,000 files created annually.

As most of the attachments were available in SAP modules, a customised File Lifecycle Management (FLM) system that can be easily integrated with other SAP modules was set up. With active participation from BEL, the project was completed in April 2014 and the new system was inaugurated in August 2014.

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> AGM- ISCO Bharat Electronics

paperless organization in a phased manner," says R. Sankarasubramanian. "While providing the requirements to SAP for designing and implementing the layout and landscape of FLM, we kept in mind that simplicity and ease of operation were going to be the prime factors for consideration as this application. This is because the system was meant to be used across ranks starting from junior executives to Director."

The biggest challenge, he adds, was building in all features, ensuring confidentiality and credibility while meeting all the audit and vigilance requirements, and also delivering an end-product that was simple enough to be used by anyone – in essence, changing a six decade old work culture.

"Various agencies like audit, vigilance and Ministry of Defence had to monitor and audit the system to ensure that the implementation was foolproof. Meeting the requirements of these agencies is critical for any system to be established in the organization," he says. "Within a year of implementation, more than 23,000 files have been created and approved in the FLM system. There is no time lost in file collection, movement and delivery. In fact, it is reduced to zero. The file can be tracked and traced by anyone and from anywhere."

All audits across BEL's pan India office can now be done at a centralized location with no requirement of record rooms and other infrastructure to preserve the

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S K SHARMA,
Chairman and Managing Director, BEL

files, saving real estate as well as manpower. Greater accountability, compliance with statutory requirements and standardisation across the organization are some of the add-on benefits.

Speaking on the efficacy of the implementation, S K Sharma, Chairman and Managing Director, BEL, said, "With SAP File Lifecycle Management, we have increased our productivity, improved transparency across all lines of business, and enabled faster decision making."

Adds Siddharth Gupta, Head Strategic Industries (Public Services, Public Utility and Public Sector Undertakings) - SAP, "By opting for SAP File Lifecycle Management, BEL took a move towards digitization- a norm of business in today's day and age which enabled them to stand apart from the age old perception of government institutions. The solution caters to the core prerequisites of having a paperless office with optimum efficiency and transparent as well as centralized operations."

IV

The National e-Governance Plan (NeGP), has identified State Data Centres (SDC) to be the key-support in e-Government initiatives and businesses for delivering services to the citizens with greater reliability, availability and serviceability.

Despite sincere intentions, the state government of Madhya Pradesh did not have the core IT infrastructure and could not offer a central data repository and interoperability within the various other data centres. This was greatly hampering the initiation of required e-Governance initiatives. So there was a dire need to set up a state data centre in order to boost government operations internally, as well as to provide a central repository of the state, secure data storage, secured network infrastructure for electronic transfer of sensitive data and payments, online delivery of services to reduce cost of communication between government departments at different locations, citizen information/services portal, disaster recovery, remote management and service integration etc.

In order to meet the design objectives of reliability, availability, scalability, serviceability and also backup, redundancy, survivability

and disaster management, the DoIT of MP government appointed MP State Electronics Development Corporation as the nodal agency for implementation, where HCL Infotech was the data centre operator. The scope of work included the Managed Security Services, Rack Space Optimization, 24X7X365 Server and Network Monitoring Services, Storage Administration and Backup Services and Help Desk and Facility Management Services. HCL hosted 109 co-hosting user applications and 29 co-location users in a record time of two years. The data center was designed for tier 2 compliance (compliance at design level, having a direct impact on availability incidence), with some modules in tier III level. Apart from hosting, HCL is providing managed services hosting, backup, security, storage as a service, cloud as a service and a virtual platform as well. Work started in 2010 and got over in Dec 2012.

Why HCL?

"Most other organisations focus on applications- our strong area is IT infra management solutions," says C. T. Bhadran, Vice President & Vertical Head, Government & Defence, HCL Infotech Limited, "We have a huge pool of resources, and we have been doing this for 30 years. So we know the challenges and that is what has helped us to get

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There were challenges galore, "the basic infrastructure required in terms of power, the mental change management, and skill transfer were not easy things to do," adds C T Bhadran.

With the SDC in place, the MP government has been able to provide co-hosting of several G2C applications such as MP e-District, e-Nagarpalika, MPOnline etc. SDC has significantly brought down the direct cost of operation and management. The MP e-District application hosted on the state data centre connects 9,381 block level kiosks for rendering 107 government services. This project helps in generation of revenues for kiosk owners and government for service provision. MP government's PPP venture MP online handles more than 15000 e-transactions daily through this portal. Several big initiatives run by the government for the welfare of citizens such as, MP Treasury, MP Transport, MP Forest, MP Tourism, Commercial Tax Department, MP SWAN, Bhopal Municipal Corporation, UIDAI based state specific citizens' data hub SRDH etc. are also hosted in the state data centre.

The huge benefits they see, has pushed HCL to build up capacity of 43 rack spaces at server area to be extended up to 72 racks .

"One of the biggest advantages- the reduction in operational costs for varying departments- because this was being used as a common data center from which we could roll out various projects, reducing CAPEX and OPEX over a period of time," says Bhadran, "centralised data also made sure we need less number of people required for multiple projects. This also allows for better Operational control, which is always beneficial compared to attacking multiple problems form different locations. For eGovernance initiatives, any incremental functionality can be rolled out in no time."

Adds Hari Ranjan Rao, the erstwhile Managing Director, Madhya Pradesh State Electronics Development Corporation, and the supporting force behind this project, "We recognise the excellent contribution made by HCL Infotech in Design, Build and Establishment of MP State Data Centre."

By Kanika Goswami

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> The Erstwhile Managing Director, Madhya Pradesh State Electronics Development Corporation

How eGovernance Took Root in India

1970	Department of Electronics established by Government of India
1977	National Informatics Centre (NIC) established
1987	National Informatics Center India network (NICNET)set up
1998	National Task Force on Information Technology and Software Development constituted in May
1999	Union Ministry of Information Technology created
2000	A 12-point minimum agenda for e-Governance was identified by Government of India for implementation in all the Union Government Ministries/Departments
2006	Government of India formally launched its National e-Governance Plan (NeGP)
From 1994-95 onwards	Union Ministry of Rural Development selected 8 districts in 8 States for a pilot project on Computerization of Land Records, which was 100% centrally-sponsored, and was implemented in collaboration with the NIC.
2000	Gyandoot project launched
2001	Bhoomi land project launched
2002	Akshaya - Friends (Kerala) launched
2003	Government of Andhra Pradesh introduced the e-Procurement project
2006	The Ministry of Corporate Affairs has implemented the MCA 21 Mission Mode Project under the NeGP in September
2006	Lokvani - Uttar Pradesh launched
2007	Khajane project in Karnataka
2011	eSeva launched
2015	Smartgov project in Andhra Pradesh