

Case Study

Work Flow Automation System in Andhra Pradesh Secretariat

Background

The State Government is a repository of a wealth of information and knowledge and public interest lies in the efficient management of this information and knowledge. Decision-making and policy formulation processes within the Secretariat involve receipt and dispatch of a large number of communications apart from holding, maintaining and processing large volumes of data. .

The Andhra Pradesh Secretariat is organized into 33 departments that are further divided into wings and sections. A large volume of communications is generated at the Secretariat everyday (average 2,515 pages perday). Files related to establishment, proposals from 64 Government departments, citizen requests are processed on a regular basis. Information flow in the form of physical files from one Government officer to another is massive. Files are often opened indiscriminately. On an average 15,000 files are opened every fortnight.

A study was undertaken by the IT & C department of the AP government in 2000 to assess the functioning of the Secretariat and the impact of efforts of computerization within the Secretariat. This subsequently led to the design of a comprehensive Secretariat Knowledge & Information Managements System (SKIMS)

SKIMS (was later termed as Smartgov) was designed to make the functioning of the Secretariat more efficient and productive through effective use of ICT. It aimed to increase employee productivity, manage data, information and knowledge more efficiently within the secretariat, exploit the power of the network to advance towards a paperless and knowledge-led governance.

Salient features of the application:

- It was based on a two-tier architecture consisting of the Central Information System (CIS) and the Departmental Information Systems (DIS).
- The creation, numbering and closure of files was proposed to be handled centrally for the entire Secretariat. Certain aspects of security, access permissions etc., were also proposed to be managed centrally.
- Common applications useful to all the departments such as pay roll, leave, audit, monitoring of plan schemes, etc.were proposed to be developed and implemented as part of the CIS.
- The business in the Secretariat was to be classified into various subjects and each assigned with a code and a weightage in terms of its importance. The system was designed to regulate the file movement in such a manner that work

was attended to on a priority basis in order to ensure that important work would get precedence over routine work.

- Concepts like knowledge bank, workflow automation and electronic files were incorporated.
- The flow of information between field departments and the Secretariat was also proposed to be handled electronically. The project design and implementation incorporated suitable security features.

Early 2001, the project was awarded to Tata Consultancy Services (TCS). The project was implemented by TCS and AP Government with an IPR equity of 20:80. Government entered into an agreement with Tata Consultancy Services (TCS) for System Study, Design, Development, Installation and Implementation of SKIMS. An amount of Rs.1.00 crore was sanctioned for software development and the amount on achieving the milestones prescribed in the agreement was subsequently released to M/s Tata Consultancy Services in instalments. The AP - IT & C department was leading the overall implementation of the project.

In the manual system, incoming correspondence was entered into a register, then sorted accordingly to dealing assistants and moved physically. In the new electronic system, in case of hard copy, the document was scanned into the system. The system automatically generated a number for the file and send this file to the mailbox of the concerned section officer.

The drafting procedure was completely electronic. The user simply had to click on the note file link and enter the notes under the pre-defined note file headings. By scrolling back and forth, it was easy to see the history of the comments, i.e. the date and time of entry of comments alongwith the commenter's profile.

Implementation

A team of 30 core technology specialists from TCS were trained at the Government MCRHRD Institute on all secretariat office procedures, explaining manual and business rules at length. In addition, several brainstorming sessions were held with the IT Secretary. For each department, executive sponsors were identified from amongst senior civil servants to provide strategic direction. Department champions were identified from amongst middle-level officers. Data Processing Officers (DPO) were appointed to provide support during the implementation. One DPO was identified for every five sections in each department.

A Government Order, G.O. was issued for constituting a Project Team:

GOVERNMENT OF ANDHRA PRADESH

ABSTRACT

Secretariat Knowledge and Information Management System (SKIMS)-
Constitution of a Project Team in IT&C Dept.- Orders-Issued.
INFORMATION TECHNOLOGY & COMMUNICATIONS DEPARTMENT
G.O.Ms. No. 7 Dt. 10-07-2000

Read the following:

G. O. Ms. No. 20, Fin &Plg (Plg. IT&C) Department, dated 30-3-2000

ORDER:

1. Government has decided to undertake the implementation of Secretariat Knowledge and Information Management System (SKIMS) in the State Secretariat. Government has accorded administrative approval for the implementation of SKIMS and has constituted a Project Implementation Committee in the G.O. read above. This Committee is responsible for the overall supervision of the project, approval of the strategy, components and project timeframe, the request for proposals, evaluation of offers from bidders and entrustment of work to an IT Company for the implementation of SKIMS project.

2. In order to support the project needs in the areas of bid evaluation, contract management, validating the functional specifications, coordination with all the Secretariat Departments and various other functions related to implementation of SKIMS Project, it has already been decided to position a project team in the IT&C Department.

3. Government after carefully considering the above, hereby constitutes a Project Team consisting of the following:

S. No	Designation	No.of Posts	To be drawn/recruited from
1	Additional/Joint/Deputy Secretary	One	Secretariat
2	Asst. Secretary / Deputy Director	One	Secretariat
3	Section Officers	Two	Secretariat
4	Stenographers	Three	Open Market
5	Officer on Special Duty	One	A senior consultant corresponding to GM/DGM/PSA, of APTS Ltd. to be drawn from open market
6	System Analyst	One	APTS Ltd.
7	Senior Programmer	One	APTS Ltd.

4. The posts sanctioned above, will come into being as and when the G.A. (S.U) Department in respect of posts at Sl. Nos. 1, 2 and 3, APTS Ltd., in respect of other categories, fill in the respective posts. The posts will carry the scale of pay as applicable to the respective cadres of Secretariat. The G.A.(S.U) Dept. will ensure to nominate such of the employees who have the right skills, experience and attitude suitable to work in a newly emerging field like Information Technology and Communications.

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5. All other categories of posts will be filled in by A.P.T.S. Ltd., duly deputing candidates to the extent available, and in other cases, by drafting from open market to work purely on contract basis for a period of one year, or till the task assigned is completed, whichever is earlier. Employees drawn on deputation from A.P.T.S. Ltd. will draw the pay and allowances as admissible to them otherwise in A.P.T.S. Ltd. Contract fee or the consolidated pay will be determined commensurate with the qualifications and experience of the candidates appointed on contract basis.
6. The pay and allowances, or the contract fee, will be met from the overall provision for the SKIMS Project in the IT&C Department.
7. This order issues with the concurrence of Finance & Planning (FW) Department vide their U.O No. 4385/PFS/2000 Dt. 4-07-2000.
8. Copy of this order is also available on the Internet and can be accessed at the address- <http://apts.gov.in/apgos>

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRAPRADESH)
J.SATYANARAYANA
SECRETARY TO GOVERNMENT

To, All the Members of the SKIMS Project Implementation Committee
The Secretary G.A(AR&T) Dept
The Secretary G.A(S.U) Dept
The Managing Director, A.P.T.S. Ltd.,
The A.P. Public Service Commission
The Finance & Planning (FW-EBS.2/BG) Dept
The Accountant General (A&E), AP, Hyderabad
The Accountant General (Audit), AP, Hyderabad
The Director of Treasuries & Accounts, Hyderabad
The Pay & Accounts Officer, Hyderabad
The Dy. PAO, Secretariat Branch, Hyderabad
The Resident Audit Officer, O/o PAO, Hyderabad
All the Spl. Chief Secretaries/ Prl Secretaries/ Secretaries to Government
Copy to the P.S. to the C.S/ Secy., IT&C/ Spl. Secy. to CM
SF/Spare

//FORWARDED BY ORDER//
SECTION OFFICER

Users were involved in early stages of the system design, and information was collected from around 2,000 users. Brainstorming sessions were conducted with each user group that dealt with specific applications to give users a feel of what was going to come in electronic form. 483 applications in the category of core, common and department-specific applications were identified. The applications for example included leave approval, salary advance, etc. and department specific e.g. for IT&C department – training, application to define protocol for visiting dignitaries, monitoring of projects, etc. In addition, an application called Generic File Processing Application was developed which catered to around 910 subjects. A human factor laboratory was set up to run the initial prototypes of the project through Government Secretaries and other users to test the usability of the application. Change management workshops were organized before implementing the project to sensitise employees on the relevance and benefits of the new system. A total of 10 trainings with participation from 400 middle-level officers (deputy secretary and assistant secretary) were conducted. Employees were also provided with operational training on the application. Awareness was created through workshops, G.O.'s, media coverage and verbal communications for the implementation of the project.

SKIMS: AP steps towards paperless administration

V. Rishi Kumar

HYDERABAD, Oct. 11 (Business Line, Internet Edition, Financial Daily from THE HINDU group of publications Thursday, October 12, 2000)

FEATURING over 2000 nodes and covering the seat of State administration and extending to the Chief Minister's Information System and linked up to multiple databases, the Secretariat Knowledge Information Management System (SKIMS) is being developed as the flagship application for electronic governance in Andhra Pradesh.

As per the project plan, SKIMS is to be developed by an independent firm which would be both a consultant as well as solution provider. Selection of the developer would be through a two-stage bidding process. The Government is in the advanced stage of finalising the bidder for this ambitious project.

The Andhra Pradesh Government has constituted a project implementation committee to oversee and guide the implementation of the SKIMS project as it involves interaction with various departments in the State Secretariat addressing their needs. This multi-stage project is expected to be implemented by mid-2001.

According to the State Information Technology Secretary, the project has been designed to develop a generic product that efficiently manages information and knowledge of a large organisation like the Secretariat. The scale of operations are so complex that even a large corporation cannot match the complexity of such an application, he added. This project would involve design, development and implementation of a central information system and departmental information system. It encompasses a comprehensive business process re-engineering in the Government. It is expected to address design and development of standards and information security. As an extension of the project implementation, the Secretariat staff is to be trained to handle the system for efficient management of information.

What the project does

It will increase employee productivity, speed up communication process, create a knowledge bank, exploit the power of computer networks, automate work flow in the Secretariat, prioritise areas of work and provide effective tools of performance evaluation. In short, it aims to provide paperless administration. Being a repository of information, the Secretariat work flow automation would mean faster decision-making, ease of communication backed by valuable resources. This is planned to be implemented in a phased manner to achieve a host of objectives.

Mr Satyanarayana said that the project will revolutionise the Secretariat function. This will be based on a separate IT architecture.

This is expected to leverage the database of the State stored in the Param supercomputer which is located in the Secretariat. It will provide a qualitative jump in productivity in the Secretariat. The knowledge network work flow would be managed by about 2000 nodes, he said. "SKIMS is expected to be a generic product and can be used for other similar applications. It can even be replicated in other States. This is a first of a kind project attempted by any Government in the country and is a flagship application for e-Governance."

The total hardware cost of the project, borne entirely by the GoAP, was Rs 19.30 crores. A three-year contract for maintenance of hardware was expected to cost Rs 1.50 crores. There were different vendors for various components in the project. There was one service provider to look after the network maintenance, another handled hardware. TCS was responsible for software development, implementation and maintenance.

The TCS team had an aggressive deadline to meet. They recorded and coded 100,000 files of data. PCs were installed in all sections, however in some departments one PC was shared among three people.

Within six months of its launch in November 2002, the implementation of the project moved at a steady pace despite obstacles in terms of user resistance to change. Over 50,000 current and 17,000 electronic files had been processed electronically. Further, more than 37,000 back files had been digitized and stored. A knowledge bank of more than 20,000 pages of Act, rules and references had been included. The Chief Secretary's office, the CM office and 12 departments had begun using the application. As per status reported in May 2003, 64118 current and 19952 electronic files were being processed using the application.

There was strong political support for the idea of using ICT in Government. The Chief Minister took personal interest and was known to be a serious ICT user. Employees who showed enthusiasm in using the system were the ones who liked the idea of working with computers. In 2004, the average number of electronic files being modified online was 320, whereas nearly 600 people logged in at peak times. In terms of buy-in from departments, nearly 33 departments were quite enthusiastic, whereas about 20 departments were not ready to experiment. The remaining 20 departments were not yet on board. Many employees out of 2,000, particularly in the age group of 35-40 years, were not interested, but were pushed into it. In few departments, about 30% of the heads of departments were enthusiastic and nearly 25% were hostile. Others were lukewarm in their response. At the middle level, among the 29 champions that were appointed, only 10 showed real enthusiasm. Amongst the 74 DPO's, only 37 were really available for the tasks and about 25 did a good job.

A time and motion study comparing the manual and computerized processes revealed some confirming results on the benefits of the new system. In the manual system, a file along with a draft letter or order took 22 hours to complete its journey, while with the new computerized system, the same type of file took 2 hours 40 minutes to be ready for dispatch.

There was no organized resistance from the unions. The association of officers played a positive role in implementing the new process and did not create any bottlenecks. One reason was the assurance that no employee would lose his or her job during the process of implementation. There was a help desk which received nearly

150 calls per week. This was in addition to the hand holding provided by the DPO's. There was one co-ordinator for 35 sections. There was a Suggestions Committee for users to send written feedback, suggestions and grievances, if any. A five-member team consisting of officers drawn from different departments were made responsible for ensuring quality and design improvements.

The implementation of the system was slow. Since such a system was designed for the first time and file processing in a Secretariat is quite complex, it was not possible for the designers to anticipate all the requirements of users. Over a period of time there was progress as the features in the system were gradually fine-tuned

During 2003 there were changes at the Chief Secretary level and departments levels, and in 2006. the political regime changed. The new Government was also keen to implement a faster file movement process in Government offices. This again gave a push to the project and a training session was organized not only for the employees but also for political leaders on using the application. In its efforts to give impetus to the project, the Government decided to rename it from SmartGov to CaringGov which stood for committed, accountable, responsive, inspiring, nationalistic and genuine government. Though the political leadership did not have keen inclination to ICT, at the same time they left it to the policy level to continue with the implementation of this application. To give another push to the project, and to demonstrate political support a hand-on training was organized for the Ministers and MLAs, along with the ceremonial name change for the project from SmartGov to CaringGov.

The Hindu, Thursday, Oct 21, 2004

From SmartGov to `CaringGov' now

By Our Special Correspondent

HYDERABAD, OCT. 20. Some were simply overawed. Some touched them with trepidation. Yet others kept playing with the mouse. But a few proved themselves to be geeks. That in short summed up the first ever date with computers and the orientation session on SmartGov, the e- file tracking system, for Y. S. Rajasekhara Reddy's Cabinet at the MCR Human Resource Development Institution here on Wednesday.

The programme started off with Dr. Reddy announcing change in the acronym from SmartGov to CaringGov (Committed, Accountable, Responsive, Inspiring, Nationalist and Genuine). He sought to remove the impression that his Government was not electronic and communication-savvy. "We too are tech-savvy but it is just that our priority is caring for the people."

Name changed

Later, when media persons quizzed him on why he changed the name, Dr. Reddy shot back, "Don't you know the difference between smart and caring. Smart is "athithelivi" in Telugu and we want to be the latter."

The Chief Minister said for all the talk of SmartGov, the e-filing and usage was just about 30 per cent. "We need to scale it up." Similarly, citizen services through the Rajiv Internet using broadband would be extended to every mandal in the first phase and to every village in the second phase. He asked all Ministers to get used to e-filing system, which along with e-governance would make the Government activities transparent, decision making faster and bring the administration closer to people.

Ministers briefed

In the first hands-on experience, Dr. Reddy appeared comfortable but some of his Cabinet colleagues found it somewhat difficult. They were briefed about the features of the CaringGov, mailbox, e-file creation and movement and working on them at the Minister and Chief Minister's levels.

A senior Minister compared the exercise to a graded school. "Some are in KG. Some in first class. Some in fifth and yet others have passed tenth class."

TanmoyChakravarthy, vice president of the Tata Consultancy Services, which was behind the SmartGov project, said 1.09 lakh files have been created electronically so far. But during the last four months the usage had dipped a bit. J. C. Mohanty, Principal Secretary, Information Technology and Communication, welcomed.

The project was to be extended to district-level offices, to provide a complete e-Governance network that would have enabled seamless information flow across different units of Governance. However, such an extension did not happen.

In 2010 due to the low usage of the application, the project was scraped.

Points for discussion:

1. What were the critical enablers for change management in this project? Prioritize them.
2. Who were the key stakeholders for the project?
3. Why did the project fail?
4. What steps/measures could have been taken to make this project a success?

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