

Paperless Office in Mantralaya and Sindhudurg District

Rajesh Aggarwal, Virendra Singh, Sudhanshu Bohra

Directorate of Information Technology, Government of Maharashtra, 7th Floor, Mantralaya-Annex Building, Mumbai – 400032,
Telephone: 022-22044586

E-mail: sec.it@maharashtra.gov.in, director.it@maharashtra.gov.in, sudhanshu.bohra@semt.maharashtra.gov.in

Abstract – The need for effective and transparent Government processes and speedy service delivery is a long-felt one. Moreover, the age-old physical file movement of documents incurs a lot of time and requires continuous monitoring from one desk to the other before a final decision is taken. Consequently, many crucial decisions get delayed due to the slow movement of files and/or unavailability or absence of the senior officials in the office for clearing these files. Theft and missing of files is also not uncommon in most of the government offices. The immediate need in such scenario was to have a system in place where an authorized employee could locate the required documents and/or files in the shortest possible time, update and share them with other relevant users and eventually store them with proper references.

This paper presents a classic example of business process reengineering and change management that aims at developing an understanding of how the phased manner of eOffice implementation in Mantralaya and Sindhudurg district has revamped the conventional paper based office operations to a virtually paperless workplace. It also reveals the road blocks, the various means to remove them and how this massive transformation can be replicated.

Index Terms – eOffice, Sindhudurg, Mantralaya, Directorate of Information Technology (DIT), National Informatics Centre (NIC), Government of Maharashtra, change management, business process re-engineering

I. e-Office : An Introduction

The first thing that attracts attention when one enters a typical government office in India is stack of papers and lots of files, piled high on the desks, sometimes even making it difficult to find a person behind those files. One can just think about the people who work every day with these files—creating, retrieving, signing, forwarding, storing, and searching. Physical file management has been a part of Government since ages.

Due to the large number of physical files, average search time for any document is very high and sometimes files are never even found. Misplacement of files is a very common issue. In organizations where there is lot of paper based work, significant part of the employees' time is spent in handling papers and filing documents. Protecting the files kept in record rooms from wear and tear or any misuse is another challenge. In any unforeseen event such as fire, no backups are available for the physical files stored.

e-Office is aimed at improving internal efficiencies in an organization through electronic administration. e-Office is workflow software that enables departments to clear, edit or suggest on files in computers connected through intranet. e-Office is aimed at increasing the usage of work flow and rule based file routing, quick search or retrieval of files and office orders and digital signatures for authentication. The components of eOffice application and the electronic file movement are depicted in the figure shown below:

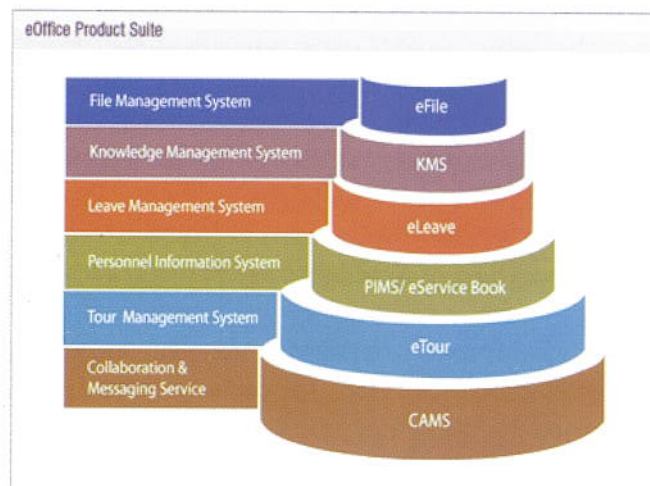


Fig 1: Components of eOffice

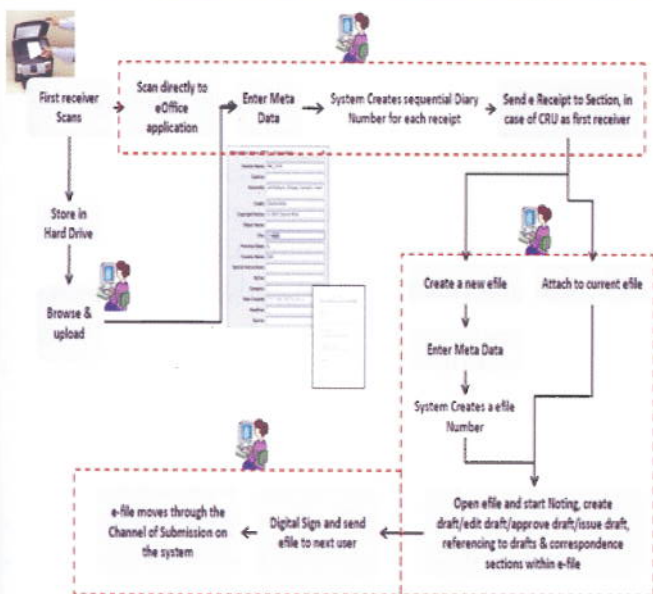


Fig 2: eFile Workflow

II. Methodology adopted

The transition from a typical Government Office and a typewriter based system to a modern day office with seamless connectivity and total process integration was a daunting task for the administration. But with meticulous planning and a steady and persistent approach the change management and the transition was effectively handled.

In order to smoothly roll out e-Office in each of the 39 departments of Mantralaya, following preparatory steps were followed:

1. The scope of eOffice implementation in terms of locations (as some of the Departments have offices outside Mantralaya premises)- which helps to decide the cost and time pertaining to setting up an intranet connectivity and no. of users etc.
2. An eOffice Government Structure was created by each department:
 - a. A single point of contact for eOffice implementation in all departments, known as the Nodal officer, was appointed by each department
 - b. Nodal Coordinators were appointed in each of the departments for preparing digitization and migration plan.
3. Number of users in eOffice who need DSC token were assessed and then the request for the same was sent to NIC, Mumbai for requisition of the same.
4. The cost of upgradation of hardware post expiry of warranty was planned.
5. A plan was devised for the three stages:
 - a. Planning: Appoint Nodal Team, identification of documents for digitization, selection of data within identified documents, decision on sequence (closed/active/all files) and model (in-house/outsourced/mixed) of digitization, estimation of volume of documents and effort/resources required.
 - b. Preparatory: Preparation of digitization timetable (digitization activities outlined in the planning stage vis-a-vis responsibility vis-a-vis timeline), procurement of resources (incase digitization work is outsourced depending on the decision taken in planning stage) and training for document identification, indexing and scanning of files
 - c. Implementation: Implement the digitization timetable.
6. Records were classified in terms of Notings, Correspondences, Drafts and References so that scanned records are easily integrated into eOffice.
7. Staff was made cognizant about keeping their computer drives clean for faster and smoother eOffice usage.
8. The use of printers was discouraged and the printers in excess were removed from each department; similarly scanners were also redistributed to departments which requested for the same.
9. Active files in progress were identified and the same were scanned.

10. The manner in which files are scanned was decided, e.g. in Mantralaya, both physical and closed files are scanned.
11. Central Registry Unit was established for each department comprising individuals who have good computer knowledge- all receipts from any entity outside the department are diarized by this unit.
12. Issued orders to send letters only on A4 size paper except in cases of legal communication.
13. Kept the latest Employee Master Data (comprising details like employee name, designation, etc.) and Leave Data (comprising history of all types of leaves taken by each employee) ready for integration into eOffice.
14. Similarly, the latest Knowledge Management System data comprising circulars, GRs, office orders, etc. was kept ready.
15. A list of the primary, secondary and tertiary processes of file subjects was created in each department and the same was provided to NIC for updation in eOffice; these file heads are useful for classification of files and they are included in the drop-down list while creating a file in eOffice.
16. Categorized eOffice users in terms of the type and level of training required in terms of aspects covering basic computer usage, typing in Marathi/English, email usage etc. and conduct internal training programmes. The entire generic project plan for the implementation of paperless office can be summarized as under:
 - a. Phase 1- Planning: This includes formation of Core Team, conducting an orientation workshop, infrastructure gap analysis and covering of gaps.
 - b. Phase 2- Preparation: In this phase, standardization of activities and digitization strategy needs to be finalized, employee master data and Organization Structure need to be defined, NIC email ID and Digital Signature Token need to be created.
 - c. Phase 3- Implementation: Training and hand-holding activities need to be conducted and eOffice application should be released.

A phased manner for implementation of e-Office

and the stages can be identified as:

1. Business Process Re-engineering
2. Resource Gap Analysis and covering the gaps
 - a. Infrastructure Gaps
 - b. Human Resource Gaps
3. Change Management and implementation

The aforementioned stages have been explained in detail below:

1. Business Process Reengineering

At Sindhudurg, before starting with the implementation of eOffice, we realized the need of process reengineering to eliminate any inefficiencies in the system and to ensure a robust new system which does not carry any unproductive administrative processes.

To overhaul the entire system, BPR /GPR was undertaken and the following tasks were carried out effectively:

- Filing system was improved on the lines of Central Secretariat Manual of Office Procedures.
- Identified more than 2300 subjects being handled by the District Collector office and graded them into the Basic, Primary and Secondary Processes.
- Documented the ideal work flow for each process and the various provisions of the law or Government orders needed for the same.
- Record classification and record room improvement: Over 25,000 files with lakhs and lakhs of pages were classified and moved into record rooms thereby improving the overall environment of the office.
- Digitization of old records for integrating into eOffice: The remaining files that were current and required for the day to day work were identified for scanning and moving them into the e-Office system. We had a daunting task of scanning about 11 lakh pages in the sands of files, which was done very smoothly by our motivated set of employees.

2. Resource Gap Analysis:

a. Infrastructure Gap Analysis

Based on the prerequisites of the eOffice product, we have studied our current infrastructure set and a detailed report has been made. E.g. the office at Sindhudurg district had terrible shortage of computers, scanners and also the internet connectivity. These gaps such as unavailability of computers, scanners, requisite software, digital signature certificate tokens were identified and through constant planning and resource management the gaps were plugged to create an ideal environment for the switch over to total electronic governance. Over 350 employees were provided with new computers; all offices were provided with heavy duty scanners and were connected through intranet.

b. Human Resource Gap Analysis

Human resources are the most important stakeholders of the process and they are integral part of the overall system and the changes we bring in. A study on the assessing the eOffice related training needs of staffmembers was conducted and trainings were planned accordingly. All employees were trained initially on the use of computers and then slowly on the e-office application. For departments in Mantralaya, more than 300 mass training sessions were conducted, while desk to desk hands on training was provided to produce a pool of well trained and motivated lot to make the transformation possible.

3. Change Management and Launching of e-Office

The slow and steady march towards creating the best governed office was not easy if the change management was not effectively tackled and this was done by following a strategy of training continuously and motivating people to work ceaselessly for achieving the aims. It was also imperative to define the roles of stakeholders involved in the project, as shown in table 1. The e-Office champions were selected and they were the people who managed the change over by training and personal example. With this approach we finally launched one of the biggest e-Governance projects in the history of Maharashtra state on 24th Dec, 2013 and this was inaugurated

by the Honorable Chief Minister of Maharashtra. The function was attended by the Honorable Revenue Minister, Honorable Minister Industries and Ports, Honorable Chief Secretary, Honorable Additional Chief Secretary and various other dignitaries. The role played by each stake holder is highlighted in the below mentioned table:

Table 1: Stakeholders' role in e-Office Project

Stake Holder	Role
Chief Secretary, Government of Maharashtra	Drive complete eOffice Initiative across state Provide necessary leadership and direction to the state for eOffice implementation
Secretary, I.T / Directorate of IT	Nodal office for implementing eOffice in Maharashtra including Mantralaya To plan, execute, monitor and control the project end to end Issued work order to NICSI as required Prioritize and planned for implementations across the state in different offices To form required committees to monitor the progress of the project Issue necessary Government Resolutions for implementing eOffice Conduct periodic meetings with various stake holders Liaison with NIC eOffice product team and implementation team for smooth implementation Provide any necessary infrastructure support
Head of the departments from each department	Identify Nodal officers and core team Issue directives and orders to implement eOffice Provide necessary support to nodal officers

Nodal Officers from each department	Support Implementation in the department Liaise with NIC team for preparatory and implementation activities Undergo champion training and be a master trainer in the department Strengthen the CRUs
All Employees of Government of Maharashtra	Use eOffice and escalate any issues to NIC and DIT via Nodal officers/ eOffice Support/ help desk
NIC/ Implementation Agency	Provide necessary technical support for implementation Provide necessary manpower for implementation and hand holding

III. Advantages of the eOffice

1. *Transparency & Accountability* has been the one of the best advantages brought by eOffice. The documents or the files are preserved forever. There are no chances of the files being misplaced, modified or lost. There is an absolute transparency as anything once written on the file cannot be changed or undone. The files cannot be kept pending as the system is designed to give feedback and monitoring mechanism.
2. *Quick disposal of cases and systematic, timely monitoring of pending cases* has been the other immediate advantage we have seen.
3. *File tracking has become a lot simpler and easier* as the location of receipts and files is available at any point time to all required employees.
4. *Better communication* has been facilitated with the help of a single Employee directory.
5. *Centralized, easily accessible knowledge repository* has been created at Sindhudurg, which has helped in preserving GRs, circulars and other important documents in an organized fashion in KMS (Knowledge Management System).
6. In addition to the above, long terms results of

the eOffice have been listed below:

- i. Seamless integration of various other applications with eOffice
- ii. Creating a clean e-environment for the employees
- iii. Simplifying the future with good infrastructure and increased awareness on computers
- iv. Building a Citizen interface to facilitate the whereabouts and action taken on grievances, applications, petitions, RTI, etc.
- v. Paving a way for the transition to a Paperless/ Less Paper Office

Sindhudurg today has the rare distinction of being the first district in the country to have successfully integrated the entire revenue administration from the Tehsil level to District Collectorate. The two centuries old institution of District Collector has moved into a new era of Governance and Sindhudurg leads this monumental change.

IV. Lessons Learnt

1. *Phase-wise implementation:* eOffice roll out should be planned in such a manner that it is implemented either department wise or subject wise. In department wise approach, departments should be categorized in terms of different phases of implementation and 'Go Live' dates for each phase should be declared in advance. E.g. In Mantralaya, 1st Oct 2013 for 19 departments, 1st Nov 2013 for 10 departments and 1st Dec 2013 for remaining 10 departments were declared 'Go Live' dates in terms of first, second and third phase implementation respectively. The alternate way is to implement eOffice for only a selected number of subjects in all departments so that file movement takes place end to end and atleast employees start getting hands on experience on eOffice.
2. *Make Top Officials the Nodal Officers:* Top officials should be assigned the role of eOffice Nodal Officers. They should review the progress of eOffice implementation in their respective departments. E.g. In Mantralaya,

only Deputy Secretaries or Joint Secretaries have been appointed as Nodal Officers for each department.

3. *Top-down approach:* eOffice cannot be implemented if it is not driven from the top. A bottom-up approach is not the right fit for the smooth implementation of eOffice. It may be noted that if Secretaries of each department instruct their staff to take up eOffice working style religiously, it is much easier for the operations team to drive the project in a lesser time frame.
4. *Issuance of GRs and circulars:* The apex body in an organization must issue Government Resolutions and Circulars which define digitization strategy to be adopted and the necessary actions to be undertaken by organizations as initial steps towards eOffice. To facilitate the implementation of eOffice in the state government offices and departments, Chief Secretary's Office had issued a GR on 20th August, 2013 which is available on the official website and provides guidelines to the organizations interested in implementing eOffice for undertaking requisite preparations. Similarly many circulars were issued to departments as measures to implement eOffice.
5. *Discourage use of printers:* Printers should not be used by departments unless due to emergency. There are several ways in which printer usage can be reduced in a Government set up. E.g. 'paper less environment drive' was initiated by Director-IT as a result of which all staff members discarded unwanted papers, thus ensuring a clean and paperless desk; printers were also withdrawn from departments which had an excess number of printers and the same were redistributed to the ones with lesser than sufficient number of printers.
6. *Change Management and capacity building:* Changing mindsets of Government employees at all levels to stop using a 200 years old physical file movement system has been a major challenge. Re-engineering of mindset of employees is necessary in order to drive eOffice environment. In this regard, regular training programmes need to be conducted. Initial trainings should be imparted to fresh users for demonstrating eOffice suite in detail while refresher trainings should be imparted to ensure that all queries of users, who have started using eOffice, are addressed.
7. *Setting up of an eOffice Support Team:* An eOffice Support Team along with Facility Management Services team should be put in place for providing eOffice handholding and support services. There should also be an eOffice Support Help Desk which the users may contact via email or phone for reporting eOffice related issues.
8. *Readiness Status and Gap Analysis:* Departments should ensure that they meet the prerequisites in terms of infrastructure (comprising scanners, computers, etc) and employee readiness status (comprising DSC issuance and eOffice login issuance) before implementing eOffice. A proper gap analysis report must be maintained and all the gaps must be filled before implementing eOffice.
9. *Parallel movement of physical files should stop:* It was often noted that eOffice was used as a file tracking system for physical files only (which can be marked as 'received' in the eOffice application) while physical files are actually processed. Since eOffice, in its real purpose, involves movement of only electronic files, departments must ensure that a cutoff time is set before moving into eOffice. This cutoff date should signify the date after which no physical file moves along with electronic file.
10. *Financial Provision for IT upgradation:* Since technologies keep changing rapidly, it is imperative to ensure sufficient financial resources for upgradation of IT Infrastructure including computers, scanners, bandwidth of network connectivity, etc.

V. Outcome

The interventions and the initiatives taken have resulted in a lot of benefits which can be listed as under:

1. The drudgery of employees has reduced
2. The administration has become more accountable and transparent.
3. The working environment has become friendly to citizens.
4. The public participation programmes have become more successful.
5. The Sindhudurg district has become a role model of Administrative Excellence not only in Maharashtra but the entire Country.
6. The various changes in the internal office processes are highlighted in Table 2 and the figures signifying current status of eOffice are shown in Fig 3 & Fig 4:

Table 2: Change in the processes

Process before eOffice	Process after eOffice
In an office like Mantralaya moves at least between 10-15 users in an official channel. Being a physical format, there are at least additional 10 unproductive touch points	No unproductive touch points, files go directly to the person involved or to the registry electronically.
Files take days to reach across offices/locations	Files are forwarded instantly with a single click
Files can be tampered	Files recorded once, can never be tampered
It was not possible to find out the exact location of the files	File tracking can be done by anyone and all the information is available at finger tips
Monthly arrear reports are prepared manually and take at least a week. There is no mechanism to validate the reports	Monthly arrear reports can be created instantly. In addition, pendency reports can be pulled any time.
Preparation of leave orders take anywhere from days to months	Leave orders are issued instantly

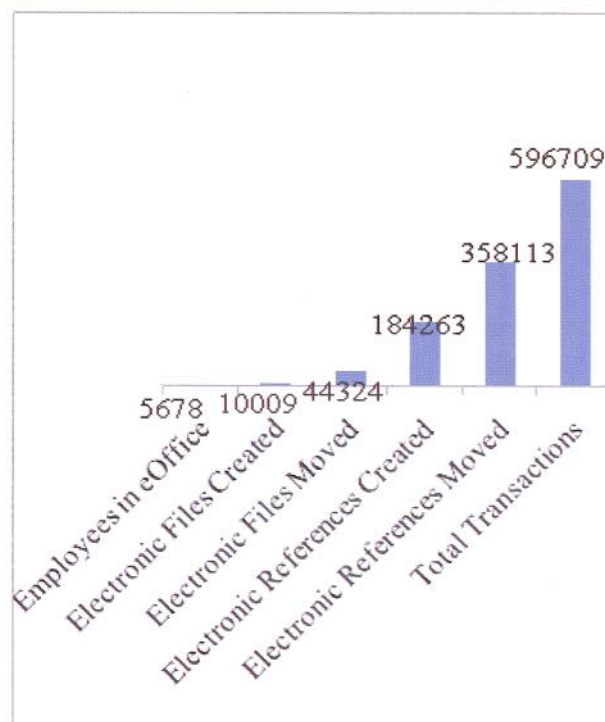


Fig 3: Current status in Mantralaya

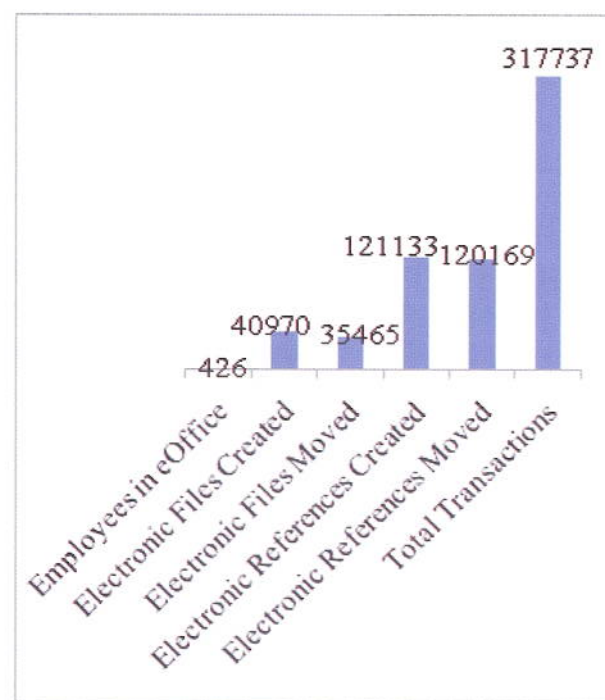


Fig 4: Current status in Sindhudurg

VI. Sustainability of the project

eOffice is a longterm sustainable project of Government of Maharashtra. Key requirements for sustenance of any project are as below:

1. **Funding:** 0.5% of each department's budget is given for eGovernance initiatives of the departments. Funds from this allocation can be spent by departments on eOffice.
2. **Infrastructure:** Directorate of IT is supporting all the departments by providing the necessary infrastructure. Many other Mission Mode Projects such as eDistrict, SWAN, Crime and Criminal Tracking Network and System (CCTNS), etc. are underway across departments which will also fill the infrastructure gaps for departments in remote locations. Strategy has been formed that all state government instances will be set up in State Data Center, which is maintained by DIT. For other offices and autonomous bodies, eOffice will be deployed in the respective data centers. For all other offices, hosting will be done at National Data Centre.
3. **Leadership support:** As stated in above sections, eOffice is a flagship project with support from Hon'ble Chief Secretary and Hon'ble Chief Minister. With the directives from leadership and support from DIT and local departments, eOffice has long sustainability and bright future
4. **Implementation Support:** DIT is providing support to each district and department by providing manpower at various capacities
 - a. District and Divisional Consultants by DIT to support the initiative at district level
 - b. Departmental consultants by DIT to support the process study and implementation of initiatives in the state.
 - c. Additional District Project Managers by DIT, stationed at districts to support initiative in the districts
 - d. In addition, NIC in Maharashtra has expanded the eOffice team in the state to support this initiative across the state.
5. **Ownership transfer to departments:** From the time of inception of the project, project team ensures the participation from all the relevant stake holders from departments. Departmental users are made part of the

implementation, process study, data gathering, configuration, status tracking etc. All users trained and nodal officers and champions are identified and empowered to be self-sufficient in resolving minor issues related to eOffice. Arrangements are being made with NIC to provide a continuous support during implementation and long term product support after implementation.

VII. Achievements

- With close to 6,000 users in one instance, Maharashtra Secretariat is the largest ever eOffice implementation so far in the country. All levels of users from assistants, clerks to Secretaries, and Hon'ble State Ministers and cabinet ministers and their staff have been brought on board
- 35 district collectors, 8 divisional commissioners, and deputy divisional commissioners exchange files with Mantralaya instantly. IAS officers across the state exchange files via eOffice. Even officers apply for leaves remotely using eOffice
- e-Office at Mantralaya has recently won 'Gold Award' under the category 'Best Green IT initiative of the Year' at the first Express IT Awards
- e-Office at Mantralaya has won the Jury's choice award for best G2G initiative of the year by eMaharashtra
- e-Office at Mantralaya has been awarded Order of Merit by Skoch
- e-Office at Sindhudurg has won Skoch Order of Merit and Platinum Award at Skoch Digital Inclusion Awards Ceremony
- e-Office at Sindhudurg has also been featured as Case Study in the PC Quest Magazine.
- e-Office at Sindhudurg has won the 1st place in best G2G initiative of the year by eMaharashtra
- Paperless Sindhudurg had been selected for presenting in 15th Thinkers and Writers Forum by Skoch
- Paperless Sindhudurg has won CSI Nihilent Excellence Award