eOffice®
Version 2.0 R2
The engine for e-Governance

eOffice – Administrative Information Management System

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2. NEED

What is eOFFICE?

eOffice Suite of Office Automation Software from Logicsoft – an Introduction

eOffice software has been designed with an objective to help reduce the movement of hard copy papers within an organization and integrate various, seemingly unrelated, activities within an organization.

The software is based on open technologies and web-based, which is user-friendly and easy-to-use. This facilitates easier deployment over the Local Area Network, Wide Area Network as well as over internet whenever required.

The user can access the system using standard Internet browser such as Internet Explorer or Netscape after necessary authentication.

The complete system works with a centralized back-end database to store the necessary structured information, keyed in by the user.

Main Features of eOffice

1. The user interface is web-based, straightforward and easy to use.
2. Capture the maintenance and flow of documents.
3. Keeping control information about documents, with/without storing the documents electronically.
4. Two-track search – one with keywords and the other a full-text search on all the documents.
5. Tracking physical files movement in the organization.
6. Facility of recording notings electronically.
7. Linking files and documents with tasks, appointments and schedules.
8. Allows tracking and cross-referencing of schedules, tasks and appointments with documents/letters/reference material.
9. Searching files and documents based on tasks, appointments, event, subject and related keywords.

Productivity Tools of eOffice

- Appointments Management System
- Tasks Manager
- Schedules Manager
- Document Management System
- File Tracking System
- Intranet Chat room
- Contact Management
- Post It – Instant messenger
Why eOFFICE?

Government Officials have got a stupendous task of catering to extremely disjoint actions, activities, decisions and processes related to governance at any point of time. Appointments, Tasks, Schedules, Documents and Files of the Minister and each one of the ministry officials are discrete elements, very important in their own right.

Seemingly unrelated information elements, collection and follow-up of each of them happen independently. But there is a lot of unspoken, strong interconnectivity between each of these elements that influences the day-to-day operations of the organization. A lot of control information flows around and with all of them, interconnecting, integrating and converting all these elements into one monolithic structure called the Governance.

The Need

Today, taking note of this interconnecting control information is actually the responsibility of the Officials in the organisation. Given the enormity of the amount of information that crosses the various Policy, Administrative, Legislative, Promotional and Governance functions that the organisation has to discharge, it becomes humanly impossible to keep track of each of them, and maintain the control information manually.

It would be of tremendous help to use an Integrated System for capture, dissemination and use all of these action and information elements, along with the control information. The Efficiency, Productivity and Control that can be exercised on the implementation of every decision can be increased by use of such system.

eOffice is an Integrated Administrative Information Management System, designed and developed by Logicsoft to cater to these needs, and help the Ministries to maintain the control information that drives the operations. An indigenously developed product from Logicsoft, the Product has been designed to meet the requirements of day-to-day functions of the various Government bodies.

1. **Openness**: Open architecture based on Internet
2. Consistent graphical user interface of Web browsers eliminates separate tutorial session
3. **Flexibility**: All of the solutions available for customizing
4. **Scalability**: Easy to scale up and down
5. **Innovation**: Easy to accommodate new technology
6. It is based on Internet protocols which expands accessibility significantly to worldwide.
7. It is possible to link with enterprise homepage to facilitate marketing
An Integrated Administrative Information Management System

Introduction
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eOffice Features
- Tracking Files Movement in the Ministry
- Allocating Tasks and Following-up progress
- Tracking and cross-referencing of Schedules, Tasks and Appointments with Documents/Letters/Reference Material
- Facility for Recording Notings Electronically
- Linking Files and Documents with Tasks, Appointments, Schedules
- Keeping control information about documents, with / without actually storing the documents electronically
- Searching Files and Documents based on Tasks, Appointments, Event, Subject and related keywords.
- Two Track Search – One with keywords entered by the user and the other a Full-Text Search on the entire Textual Document Formats.
- The user interface is web-based, straightforward, and easy to use.

eOffice is a first step towards making your office use Less Paper. EOffice is an Integrated Productivity System that gives you the power and flexibility to manage & locate documents within and outside your ministry, including:

- Scanned Images, Charts, Reports, Budgets, RFP’s, receipts, tenders, letters, blueprints
- Intelligent formats such as HTML(Web Pages), Text, PDF, MS Word
- Local and Intranet documents, by Document Type, Keyword, Attribute, Subject, or any imbedded text. Local and Remote Searching are combined in a single search

eOffice uses three-tier architecture with web-based access, integrated into the Intranet of the organization. This design provides you access to the widest possible array of document formats, and a seamless access integration of all the applications used in the organization.

Built for secure use in the Ministries, the system incorporates Distributed Access Control with IP and Username based access restrictions, based on the hierarchy.
eOffice Features in Detail

### Dak / References Management

The References/Dak Management System comprises of incoming references and outgoing communications with all the relevant control information about the internal forwarding that happens, including other standard control information like keywords, subject, organization and person of origin, dates of receipts and expiry.

**Dak Incoming**
- From Organization / Person
- User defined Keywords
- Subject Description
- Reference No and Date
- Author & designation
- Topics & Sub-Topics
- Dates of Receipts and Expiry
- Internal Number Generation
- Forwarding to other (single and multiple recipients inside the organization)

**Reports**
- By Reference No.
- By Topic & Sub-Topic
- By Department

**Search & Query**
- By Subject & By Keywords

### Appointments, Programmes and Tasks

This on-line tool can enhance your productivity by maintaining appointments, programmes and tour related details and help you to have them at your fingertip. The power is that you could download your appointments and programmes to your Digital Organizer or your Notebook Computer or Mobile Scheduler.

**Appointments**
- Date & Time based
- User defined time interval
- Subject Title
- Purpose
- Persons meeting
- Persons accompanying
- Place - City & Country
- Linking with documents/files

**Programmes**
- From date & To date based
- User defined time interval
- Subject Title
- Purpose
- Persons meeting
- Persons accompanying
- Place - City & Country
- Linking with documents/files

**Tasks**
- Date based Activity
- Completion status
- Fixed Tasks and Floating Tasks

**Search / Outputs**
- Normal & Detailed view
- Pending Items
- E-Mail forward
### Files Management

This on-line tool can enhance your productivity by maintaining appointments, programmes and tour related details and help you to have them at your fingertip. You can manage your notings and comments on the files, which can help you to track the progress of different files and assert the status – even when you are out of your office.

**Creating a new file**
- User defined Keywords
- Subject Description
- Pending status
- Action - Forward, Close
- Notings and Links

**Working on an existing file**
- Pending files only
- File history display - creation & notings
- Notings and Actions - Forward, close

**Search & Query**
- Pending items
- Search on all combinations of attribute
- Topics and Subtopics

### Documents Management

The Documents Management System comprises of incoming documents, outgoing documents, and reference documents with all the relevant control information like keywords, subject, organization and person of origin, dates of receipts and expiry.

**In-Box**
- From Organization / Person
- User defined Keywords
- Subject Description
- Reference No and Date
- Author & designation
- Topics & Sub-Topics
- Dates of Receipts and Expiry

**Out-Box**
- To Organization / Person
- User defined keywords
- Subject Description
- Reference No. and Date
- Author & Designation
- Topics & Sub-Topics
- Despatch Source & Date
- Sender Name & Details

**Search & Query**
- By Subject & By Keywords
- By Reference No.
- By Topic & Sub-Topic
- By Document Type – Electronic / Non-electronic
- Sort and View
- Embedded links and references with cross-document type links
- Both Simple and Power Search Features

**References**
- Source Organization / Name
- Subject & Keywords
- Author & Reference No.
- Document Date and Expiry Date
- Topics & Sub-Topics
- Document Type – Electronic / Non-Electronic
- Internal Reference No.

### On-line Productivity Tools

A set of powerful on-line productivity tools to help you share your contacts, ideas and instant messages through Contact Management System, E-Mail, Chat and POST-IT Instant Messenger. You can also exercise a very high level of communication management from your desktop by Telephone Tracking System and web-based E-Mail.

**Contact Management**
- Maintains shared and private addresses
- Addition/modification/deletion
- Addition of new groups
- Merging/transfer of groups
- Query based on addresses and groups

**Telephone Tracking System**
- Person Called
- Date / Time
- Purpose
- Action to be taken

**E-Mail**
- Web-based mail
- Integrates with local SNMP mail server
- Bulk E-Mail Sender

**Chat / Discussion Forum**
- For online chat with others on the local network
- Customizable Dynamic Chat Rooms

**Internal Employee Tracker**
- Reach anyone anywhere inside office
- Leave message on your desktop

**POST-IT Instant Messenger**

**Global Search**
Track 1 - Search by Document Keywords and Attributes:

Many documents you wish to make available to your users are not available in an electronic form. Therefore, in your E-Ministry Repository they will not be text or HTML (Web) documents; they will be scanned images of the actual documents. These items will be carefully cataloged, with specific attributes assigned to help you locate them.

This type of search is the most precise, focused search, and brings back all documents matching the criteria you enter.

Track 2 - Full-Text Search:

For a wider array of documents which are stored in either simple text or HTML (Web) format, E-Ministry includes a Full-Text Search engine. In a Full-Text Search, you enter one or more keywords and E-Ministry locates documents in our indexes that contain these words or phrases. E-Ministry can index documents on your servers and/or documents across the web on remote servers, in any combination.

Many of the text and Web format documents may reside right in your E-Ministry repository others may be on other servers elsewhere on the Web. In either case, the E-Ministry screen links you directly to the document for context viewing, full viewing, and/or printing.

This indexing and searching strategy gives E-Ministry the best of both worlds: Electronic document formats and scanned or computer images. Electronic documents, which reside on servers in any remote location, may be included in your searchable E-Ministry index.

These Two Search Tracks give the flexibility of Google-like search and database search

Key Highlights

- Indexing of HTML, Text, PDF and other formats for Full Text Searching
- Context View for Text-retrieved documents to show location of keywords
- Builds Full Text Search indexes only for locations you specify – not entire web
- Combined local and remote Full Text Search
- Query-by-Example for Text Searches – “Show me more pages like this one”
- Attribute Search by Subject, Keywords, other fields
- Attribute Search Results sorted by user-selected field
- Instant View with Optional Quick View feature
- User option to download to a browser plug-in viewer if one is installed
- Online Help for end users

System Requirements

E-Ministry is designed to be accessible to users with standard browsers, and with low-cost web connectivity.

User (Browser) Requirements:

- Any Forms-capable browser
- Windows computer with Internet or Intranet connectivity at 28.8 kbps or faster

Server Requirements:

- A Server Class Machine with 512MB RAM, 1.5GHz and above with 80 GB Storage
- Windows 2000
- Microsoft IIS-based 5.0 or above
- Microsoft SQL Server
4. Benefits of eOffice

Organization

- Improved Efficiency and Reduction in Response Times
- Consistency, Tracking and Control of Noting
- Reduction of duplicate / wasteful work
- Increased Control over the workflow
- Better tracking, rewarding, monitoring and control
- Person Independency
- Accountability
- Transparency
- The bottleneck of lower level staff will be removed
- Work load measurement possible more scientifically
- Yearly Evaluation of Performance more accurate
- Integration of Files Movements with Budgeting and Expenditure
- Cost Savings

Employees

- Follow-up of tasks after assignment becomes easier
- Pending List preparation is automatic giving Things to do list every day
- Productivity increases giving more confidence and peace of mind
- Less effort in retrieving required information at every level
- Less effort for locating files at every stage
- Performance of individuals are objectively measured
- Reduction of Inefficiency of employees

Benefits to the Citizens/Businesses

- Person Independency
- Less time spent on any interaction with various levels
- Less Money Spent on Compliance to Government Rules
- Increased Business and Individual Competitiveness
5. Infrastructure Requirements

**HARDWARE**

**SERVER:**

Intel Pentium III 700 MHz or above Dual CPU Capable Machine, with 36GB Hard disk, Minimum 512 MB Memory, with a backup Device, 15”Monitor.

**DESKTOP:**

Intel Pentium PIII 500 MHz with 128 MB Memory, 2GB HDD, 15”Monitor.

**SOFTWARE:**

**SERVER:**

Windows 2000 server with latest service pack with necessary Client Access license.

**DESKTOP:**

Any Windows 98 and above operating system with Internet browser.

**DATABASE:**

Microsoft SQL Server with necessary Client access license.

**NETWORK:**

Ethernet based 10/100 network connecting all users on TCP/IP Protocol.
6. CUSTOMIZATION SERVICES FOR eOffice

On successful completion of Installation and Configuration of eOffice in your Organisation, a window of one calendar month shall be earmarked as feedback period during which all suggestions related to any changes required in the developed system would be finalized.

Based on these inputs, in consultation with your organisation, Logicsoft shall finalise the list of modifications that shall be carried out as a part of Customization. The list of modifications shall be approved by competent authority and after that Logicsoft shall carry out customization of all requirements as desired by your organisation.

Deliverables & Delivery Schedule under Phase II

During customization, the following activities shall be carried out:

1. Post Installation support to Users in the organisation.
2. Establishing the required processes and tools for Past Data Migration (Not actual data migration only tool for the same will be provided. Data Migration will be taken up as a separate activity under customization)
3. Customization of eOffice to fulfill the needs of the Organisation
4. Establishing Processes for User Maintenance & System Maintenance

Costing for Customization

This shall be carried out on a man-month cost basis by Logicsoft.

Based on the inputs received during Phase I, Logicsoft shall estimate the number of personnel required for onsite customization and implementation and the same shall be finalized after consultation with the customer. Logicsoft shall deploy the mutually agreed number of personnel Onsite for the desired period.

The man-month (One person deployed fulltime at the customer premises for a period of one calendar month) charges shall be Rs.34,000/- only.

Payment Terms for Customization

- In the beginning every calendar month, the monthly manpower deployment shall be approved by the Customer.
- On completion of every calendar month, Logicsoft shall raise an invoice for the number of man-months approved and spent onsite.
- 100% of the invoice amount shall be payable within one week of the date of invoice.
7. POST IMPLEMENTATION SUPPORT THROUGH ANNUAL MAINTENANCE CONTRACT (AMC)

Activities to be covered under AMC

Under the Software AMC, Logicsoft shall carry out the following activities:

1. On call Support for Troubleshooting and bug fixing, if any
2. Preventive Maintenance of the software (Updates and upgrades of new releases. Implementation of new versions will be charged extra @10% of the list price of the newer version. Customization & Post maintenance will be extra as applicable.)

Any new development required shall not be part of this maintenance. However if the Customer wishes, Logicsoft shall provide development support on a man-month rate of Rs.34,000/- and the actual man-months required for any particular requirement specification shall be mutually finalized and approved by the Customer.

Deliverables & Delivery Schedule under AMC

- Successful completion of all activities to be covered under AMC
  - New Product version delivery
  - Free patches updates
  - Bug Fixing
- The period of AMC support shall be one calendar year from the date of sign-off, by the Customer, of the successful completion of Customization.

Charges for AMC

Annual charges for maintenance shall be @22% of the list price for the number of licenses of eOffice product cost PLUS customization charges paid.

Payment Terms for Phase III

- Annual in advance, along with a confirmed contract.
8. REFERENCES / CASE STUDY

Case Study: Power Intranet – An Initiative to Improve Internal Efficiency through ICT

Arvind Jadhav, Joint Secretary, Ministry of Power, Government of India
Saurabh Kumar, Deputy Secretary, Ministry of Power, Government of India
A.Rajendran, CEO and Director, Logicsoft International Private Limited

Abstract

While there are many initiatives in the E-Governance arena to create Citizen Interfaces and Business/Trade Support Interfaces using the Internet Technologies, Ministry of Power, Government of India has taken a pioneering initiative to create an internal Intranet, to improve the availability of information across the ministry and increase the efficiency of the functioning of the Ministry. The system developed and under implementation is an internal governance process recording system, which attempts to create the much sought after Transparency and Availability of information, making them depart from person dependency and reduce lots of repetitive and wasteful efforts. As part of the governance processes, right from Despatch Registers to Files, all the movement of various documents inside the ministry are recorded in the electronically indexed and searchable system. Also an integration of the Finance with tracking of Budgets, Sanctions and Actual Expenses are recorded, with a tight integration to the Controller of Accounts, providing up-to-date access to the Budget Left on various heads. In addition a central repository is created of all documents generated and used in the Ministry are made available in one place, in a searchable form. The intent is to create a platform where the benefits of using ICT inside the Ministry is experienced and this can create more enthusiasm and demands to deploy ICT to include the other critical functions of the Ministry. This paper discusses the approach taken, the issues addressed, the problems faced, the solutions chosen and the possible directions for the future.

Background

Use of ICT in the government is one of the means of improving the all round performance of Governments, improving the competitiveness and hence the prosperity of a nation. Efforts towards better Governance have been multifold, including a) Public Sector Reforms, b) Privatisation, c) Improved Transparency, d) Liberalization, e) Citizen Centric Restructuring, f) Divestment, g) De-regulation and so on.

The Ministry of Power, which is the APEX body of the Power Sector in India, owns the process of defining policies and implementing them. In its continued efforts towards the Power Sector Reforms, efforts to improve its operational and strategic effectiveness, an Intranet project has been designed and developed for the Ministry. This will integrate with existing internal and external networks, allowing the ready exchange of documents, messages and ideas. The intended benefits are informed, improved and faster decision-making, reduced time and financial costs for communication – improved efficiency. Key internal stakeholders are the Cabinet Minister and the Minister of State, Secretary (Power), Senior officials within the ministry, the other support staff of the Ministry, and staff within the Computer Centre. Key external stakeholders include the PM’s Office, Cabinet Secretariat, Ministries of the Government of India, State Governments, the Public Sector Power Companies, Private Power Companies, autonomous and non-governmental organisations in the power sector, international partners, etc.,.

The Ministry had earlier taken the initiative with the help of NIC to create a web presence, providing all the information that anyone related to Power Sector would require. Also, a national Wide Area Network, connecting all the Power related Public Sector Companies has been created, known as, CPSUNet. This connectivity provides a facility for all the Public Sector Agencies and State Electricity Boards and other related organizations, to connect to the Ministry and upload all the data related to Generation, Distribution, Demands of Power in the whole country. The Ministry has been collecting this data centrally for over 6 months now. The initiative keeps in mind the minimum requirements set in the Guidelines of
Issues and Inputs

Though there have been various initiatives to use ICT very effectively in the Ministry to support its functions, the application of it has been still in the traditional way of a group of people managing the data and contents. The need was to make everyone in the Ministry use the ICT to maximize the productivity and efficiency of the Ministry. An analysis was done in terms of what are the various aspects of the Ministry which would really benefit from such ICT induction.

One of the significant observations was, each of the departments of the Ministry may have different functional requirements which require custom solutions to be built for each department, but there is an underlying structure of practices that connects all the departments seamlessly. The need is to create that basic layer of computerization, which would ensure the creation of the climate for ICT induction. Once a momentum is created and a base is set, every department can then proceed to develop any individual applications that they would require.

The important common factors were observed in the Ministry that link all the departments and officials seamlessly and were listed out:

1. The File / Document / References tracking mechanism, maintained using the manual Despatch Registers
2. Various reports and documents that were created either inside or outside the Ministry and shared across all the departments. This includes answers to the Parliament Questions, Intra Office Memorandums, Performance Reports and so on
3. The information submitted by the organizations reporting to or affiliated to the Ministry through the CPSUNet, which is shared by all the departments
4. The Finance and Budget data, that is related to everyone, giving head-wise allocation and utilization till date, required for every department to take financial decisions

Due to their generic nature that cuts across all the departments, the choice was to devise a system which would address all these aspects, making the utility of this system extensive. Subsequently, every department would take up their own special requirements and get sub modules developed, fitting into the larger framework that would be created first.

With reference to this, the learning that has been reported in the field was studied and particularly the experiences given by Richard Heeks (Heeks, 2003) were kept in mind and accordingly the requirements analysis was done.

Some of the base level needs that were identified related at the end of this analysis were:

1. Locating files inside the Ministry take a significant amount of time and any initiatives to reduce this time can lead to more efficiency
2. Maintaining indexed and searchable past history would be very useful in locating related documents by search
3. Central Repository of all commonly used documents and reference material would be very useful, and reduce a lot of time spent - All data created within the Ministry should be made available at one place
4. A single sign-on for all the applications should be implemented to reduce administrative overheads
5. A Global Search Facility to be provided for finding any information by keywords search – Google-style
6. All this clearly to reduce the repetitive works done by various people in Ministry for the same information requirements

Based on these the following four major components were proposed to be designed and developed:

a) Tracking of files/documents/references across the Ministry,
b) An Application to provide up-to-date Budget and Finance Related information head-wise and
c) An Application to collate the data submitted by various Public Sector Units in the Power
Sector into a consolidated form, for flexible reporting and analysis.
d) An Intranet that would maintain a Unified Collection of all the documents and other material
created inside and outside the Ministry and used extensively inside the ministry by various
people.

While these requirements were evolved, a set of strategic inputs were also included, for guiding the
solution formulation and implementation:
1. No increased work load should be introduced for using the computer system. Wherever
possible the amount of work already being done, should be kept status quo, if not possible to
be reduced.
2. The solution worked out should be completely easy to learn and use, even for people who
don’t have computer experience earlier. To be precise, this should be easy for people with
stenographic background without requiring major training for using
3. It should not require any change in the existing practices of the Ministry, except that the
necessary information should be captured inside the System
4. New Motivation should be created in the stake-holders, esp the internal Ministry users, to
support and use this new system
5. Prototype should be employed in a more supportive and ICT savvy department and then
replicated in other departments
6. The existing hardware and software infrastructure available with the Ministry should be used
as is, with minimal additional resource inputs. Only on completion of the Prototype and trials,
y any further investments would be made on hardware / software
7. The organization developing the solution should commit to provide a full year support to
ensure smooth implementation of the system in the Ministry with appropriate further
development
8. Rather than designating nodal officers for collecting and updating the common information,
the system should allow and encourage capture of information at its source itself, across the
department and from outside
9. Access should be possible for the information on this application / data source even from
outside the Ministry, and this access would be given after proper validation and ensuring
security

The consultant who was involved in the development of a similar system earlier and had a familiarity with
the Ministry functions and processes was chosen for designing and implementing the system.

**Solution – Shakti Dwar - The Power Intranet**

Keeping all the above in view, the blueprint for the solution was evolved. The core was proposed to be
the Intranet Home Page. A brand for the same was created and it was christened – Shakti Dwar – Power
Intranet – Figure-1. This naturally evolved as the starting point of the Integration of the complete set of
applications, by becoming an internal Power Ministry Portal, ensuring that all the information and
applications used internally are linked into this portal, as a single entry point. The highlights of this
Intranet include: a) Unified Login, b) Common Data Repository, c) Tracking of Documents and Files, d)
CPSU Net Data Consolidation.

**Unified Login**

The problem of islands of automation is the need for multiple sign-ons for different applications and
facilities. This was addressed as the first issue, so that no additional investments are required to evolve a
single sign-on. With a single sign-on, a Role Based Access Control was formulated, ensuring that users
who have to discharge a particular function would get access to the modules related to it.

With a Login for every user in the Ministry, the system was envisaged to have an audit log of everything
that happens on the Intranet, both information access and applications usage. This became the
fundamental infrastructure which would ensure the much needed Accountability and Transparency to the

*Logicsoft, New Delhi*
System. Once any user logs in, using the Windows login, connecting to the PDC, the launcher application in the startup would get the user automatically logged into the Intranet Server, using his user name and password. The basic list of pending issues – Files, Daks, Tasks, Documents and Appointments will pop-up for the user on such logging in. A confirmation of having seen the pending list will only allow the users to continue with any activity on the computer.

**Common Data Repository**

Every information piece that was generated and used inside the ministry is in need for different people at different times. The strategy was to provide all unstructured, document or spread sheet data in a single place to avoid wastage of time related to locating these documents by various officers in the Ministry.

For this, all data commonly useful that have ever been created electronically in the Ministry, and used commonly by all departments, related to Parliament Questions, Office Memorandums, Standing Committee Reports, Annual Reports, Note for Pad, Directories, Contact information, etc were all collected and put into the common repository.

Also the common lists like Telephone Directory, Users List etc were also included into this list. The list of all the elements that were included into the system is enlisted in the Appendix I.

**Tracking – E-Office**

The Tracking of files/documents is the core component, which will model the work flow that happens inside the Ministry. The activities in the Ministry were all studied and a systematic model of all the functions was done. In the end, it was found that, a major portion of the activities inside the Ministry are all related to a standard workflow, needing an interconnection between the various office productivity functions. The schematic highlighting the focus of this system on the Control Information and the interconnect to the users is given in Figure-2.

The dispatch registers that are maintained are the pivots of the control information, and all the files/documents/references that move inside the ministry are all tracked using these dispatch registers. Whichever the Department, the flow of the documents recorded inside the ministry is the core work flow that happens. The core system, called the E-Office, procured by the Ministry had the engine that would be able to handle the automation of the maintenance of Despatch Registers. Implementation of this would ensure that, any files/documents/references moving inside the Ministry will all be tracked in the first place.

This would ensure that any file/document/reference can be located the moment the reference number or any keyword related is known. The ability to see the status of any of the files – across the Ministry, without having to physically access the file would reduce time taken for providing information to the stakeholders.

**CPSU Net Data Consolidation**

The various organizations that are related to the Ministry include State Governments, Power Sector PSUs including National Thermal Power Corporation, National Hydro-electric Power Corporation, Power Finance Corporation, etc., and other power related institutions/organizations.

These organizations provide regular reports to the Ministry about their performance, showing both the organizational performance and also the National Performance in the Power sector. The initiative is to consolidate all the information that is received from various reporting organizations into one place and creating a unified database of Demands, Performances, Operational Parameters, Generation, Distribution and Usage, so that this data can be used for long-term trend analysis and future projections. This would give clear-cut effectiveness measures of the various schemes/projects that are formulated and executed from time to time.
The first attempt was to make the information that already gets uploaded, in a structured form, accessible from the Intranet.

Common Search – Google-Style

The most important use of the Intranet would be the function as a single point of reference for all documents generated or used inside the ministry. Though there are category-wise functional directory listing created on the Intranet, an important requirement was to create a Search facility, which would search and bring out documents from the whole of Power Ministry Intranet. This is expected to improve productivity drastically.

Finance Information Pages

The strategy was to develop all the common functions that are required for all the departments across the Ministry. The finance information related to Budgets and Expenditure on various heads of accounts is always required for all the departments. The information typically required include: a) Amount Allocated in the Demands for Grants, b) Amount already sanctioned for release of Funds, c) Amount actually disbursed by the Controller of Accounts, d) Amount Receivable from various organizations as Receipts, e) Actual Amounts of Receipts. This information is required on a regular basis for taking informed decisions about further sanctions etc.

The Budget, Expenditure and Receipts data is now provided by the system through a dynamic report that can be generated by any authorized user and at any time. This is envisaged to help the Officials to take informed decisions about the planned expenditures, taking into account the current status of the actual position. The system has been developed to import data directly from the Controller of Accounts, making sure the data from the controller of accounts does not have to be re-entered. This would ensure reduction in delays in making the actual disbursement information available for the Ministry officials.

The Challenges Faced and Chosen Solutions

The creation of the right ambience was the first challenge and it succeeded with the help of the senior officers involvement. Creation of a senior level Committee to coordinate the complete process from inception to completion created the necessary top level commitment which is essential for such an initiative.

Since the interface of the Ministry of Power is not directly with Citizens, there was no need for a Citizen interface. But the interface required is with the various sub-ordinate organizations where the Government has invested and also controls, and also with the State Governments across the Country. This external interface was earlier created in a simple way through the CPSU Net. The need was to look at all the data that are required for all the departments and create a unified database that would be updated directly by all the data sources. The process of consolidating all the information into databases and making them accessible to all officials to generate various types of reports and analyses is a path that has been taken up.

Creating a psychologically conducive and non-intimidating system was the next major challenge. It was decided to formulate the path that would be most naturally creating interest in everybody to use the system. To ensure this comfort, it was decided that all the data, which the users are familiar with already, should be put into the main page of the Intranet, making this a central repository of data. This would make it amenable for users to access this for anything that they would require at any time.

Some of the Practical challenges that came up include:

Challenge 1 - It would be difficult for senior officers to input all the data inside directly:
The solution chosen to address this was, the PS / PA of the officials can be given the responsibility to maintain the information for the officers. All data capture / updation shall be done by the personal staff of

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various officials. This would ensure that the data is captured without putting additional loads on the officers.

**Challenge II - Maintenance of the common repository data regularly up-to-date will be difficult:**
The need is to update the documents regularly. The newer versions of all the documents need to be collected from all the sources of these documents and uploaded to the server. Appointing any particular person to collect the documents and install in the server will introduce a bottleneck and dependency of the system on that person. So the strategy chosen was that, every person who generates the document shall have the responsibility to upload the content to the server. For this, a facility for upload of data into the server is implemented and the upload can be done through the browser from the machine that the user is using.

**Challenge III – The Myth that Computerization will increase work than reducing it:**
A presentation was given to all the section people collectively and a guided brainstorming session was conducted to show the various benefits that the Intranet and the Tracking system would bring. The most important thrust was to show the amount of unnecessary work and pressures that are going to be relieved for all the supporting and personal staff. The appreciation of this issue created an intranet in implementing the system.

**Challenge IV – Question of What benefits will come for a person who implements this system and follows seriously compared to others who don’t?**
This question arises as the eOffice file tracking system is in addition to the existing manual system. Though the efforts are marginally duplicated in the data capture stage, it is expected to reduce the efforts required in tracking files and activities since the same person carries out both activities for a function. This shall compensate for the additional efforts put in data capturing. Also, as a measure of motivation, an Award Program has been proposed and instituted internally inside the Ministry to reward the champions. There was a suggestion from the user-group for creating such award, showing the acceptability of the system. Also, a system of logging actual transactions have been created that can be used to generate statistics about usage patterns, including usage of the individual employees. This can eventually be used as part of the evaluation mechanism used for Confidential Reports as well. This would ensure that the use of Intranet and related tools is integrated into the defined role definitions and Key Result Areas.

**Challenge V – How can all the employees trained on the new system?**
The developers have a continuous interaction with the users and one person has been assigned for three months to stay available for all the user support requirements. The support is being provided by email, internal call center and by phone. Individual training sessions are being conducted with each Section Staff, so that the system can be familiarized in the context of their departmental functions and needs. This is in continuation to the overview presentation given to all the users with a discussion session about all the implementation issues that need to be taken care of. The suggestions given in this forum were taken up and appropriate changes have been implemented in the system developed. This feedback session was meant for creating a sense of participation among the users.

**Risk Assessment of the Implementation and Future Use**

Design-reality gap analysis (Heeks, 2002) compares the assumptions/requirements within the application design with the existing reality in the public organization along seven 'ITPOSMO' dimensions. The larger the gap, the larger the risk for the e-government project. To find out more about design-reality gap analysis refer to http://www.egov4dev.org/riskdrgap.htm.

- **Information:** the design does not aim to significantly alter the reality of the content or presentation of information currently in use within the Ministry; what it does assume is that that information will flow more quickly and easily around the organization than it does in reality at present. Also this information would be updated at the point of creation itself. All this information would be indexed and provided in a searchable fashion for easy access. Design-reality gap rating: 2.5.
Technology: the design is based on the concept of using the existing network infrastructure, adding a few more computers and networking. The only changes from reality to design are the addition of some new servers, Internet links, and document-sharing/knowledge management software. Design-reality gap rating: 2.

Processes: the design builds on the reality of current communication and decision-making processes. It does not aim to radically reengineer these processes, merely to support them in order to improve their effectiveness. The design does assume more sharing of data and, hence, some new forms of decision-making that add to those currently found in reality. Design-reality gap rating: 3.

Objectives and values: the design assumes a relatively open organizational culture in which information is shared quite readily; it also assumes an objective of improving the quality of decision making within the Ministry. While key stakeholders in reality share the objective to some degree, there is a definitive need to move from the ‘information is power’ culture at present that discourages the open sharing of many types of information. Design-reality gap rating: 5.

Staffing and skills: the design assumes a range of competencies to be present. These include basic computer literacy among all staff; and skills in the interpretation and use of information up to an understanding of knowledge management. The use of Internet has improved the IT knowledge and experience levels available. IT usage, Information / knowledge-related competencies are rather weaker at present. Design-reality gap rating: 6.

Management systems and structures: the design of the network itself enables a flexible range of systems and structures to operate, including those already present in reality. However, there is an assumption that the systems and structures will not be required to be changed to derive the intended benefit of reducing the amount of time spent for locating of information. Design-reality gap rating: 4.

Other resources: the design assumes a whole set of capital and recurrent costs for the network. In reality, the Ministry has available sources of such revenue. Design assumptions about timescales do not appear to clash significantly with current realities, although a few users have other calls on their time. Design-reality gap rating: 2.

Overall Risk Assessment and Recommendation

The overall gap rating total for this design proposal is 24.5. According to the gap assessment table, this suggests some chance of partial failure of the project unless action is taken. Most of the larger Design-Reality gaps can be reduced by taking appropriate actions/measures.

Gap Reduction Actions to Mitigate Project Risks

To mitigate e-government project risks, you first identify those ITPOSIMO dimensions with the largest gaps. Then you attempt to reduce those gaps by altering the project design to make it more like current reality and/or by altering current reality to make it more like the project design.

The three largest gaps occur on the objectives and values, staffing and skills, and management systems and structures dimensions. It is these dimensions that should therefore be addressed with serious measures. The Challenges highlighted above and the solutions devised have largely addressed these issues. However, in addition to that, sustained risk mitigation actions have to taken up and they are:

i) Objectives and values dimension. Alter current reality by altering the current incentives and appraisal in order to encourage and reward the sharing of information. Key elements of new human resource practice would include explicit inclusion of information-sharing within the annual performance appraisal, which is linked to pay increments; and a specific scheme to identify and reward (both financially and through
Recognition) examples of good practice in information sharing and/or knowledge-building. The measure of instituting the Awards and Recognition, referred above, is towards this end.

ii) Staffing and skills dimension. Alter current reality by developing a set of training activities for staff. These will include:

Awareness-raising for senior managers about knowledge management, about the value (for them personally as well as for the organization) of information sharing, and about the challenges in moving to a more open, free-flow culture. This should be done in the lines of the meeting held already, repeating the review process periodically.

Information/knowledge management training for key staff, customized to their particular job content, aiming to enable those staff to make more effective use of information and knowledge in their work.

Where necessary, support for development of staff IT skills. It is suggested this be delivered through e-learning packages which not only develop skills but also have a ‘medium is the message’ impact. For example, the user-manual for the complete system is provided in the Intranet itself, for people to refer to.

The project has envisaged retention of a portion of the development team to stay in the site for a period of 12 months for support and hand-holding, to remove all the Staffing and skills related problems.

The use of the audit trails and action logs of the system to generate actual utilization statistics. This would give valuable insights about where the skills and staffing are lacking and accordingly training and development activities can be taken up.

iii) Management systems and structures dimension. Though there is no change required in the structure and content of the actual business processes, the process which needs to be used for capture of the information inside the IT systems is significant. This can be overcome by staffing and values dimensions, which will ensure that data gets captured at the point of creation. This would ensure that the data updation and uploading is not a major load for a few. Also, familiarizing and popularizing the practices that are existing elsewhere, in e-Governance projects abroad, and motivating people to become a Model Implementation of the e-Enabled Governance shall be a strategy deployed.

Conclusions

The internal efficiency-improvement of the Government systems is critical before they can stand up to provide an integrated and efficient Citizen and Business Fronts. The implementation of e-Office and the Power Intranet were the measures taken at Ministry of Power to enable improvement of the internal functions of the Ministry. The intention was not to criticize and re-look at the existing practices in anyway. It was realized that even by reducing the amount of time wasted in waiting and searching, with existing practices, it is possible to improve responsiveness of the Ministry.

The approach was a holistic approach, making sure the multifaceted issues involved are all addressed and the intended benefits to the Ministry are brought by minimal inputs. More important aspect kept in mind all the time is – sustainability – with which the benefits envisaged are produced forever.

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Figures

Figure-1  Shakti Dwar - The Power Intranet
Figure-2 Integrated Power Intranet and E-Office Design for the Ministry
Appendix 1

Power Intranet – Information Content

- Contacts Directory - Ministry, States, PSUs, Other Organizations
- Common References
  - Parliament Questions
  - Office Memorandums
  - Performance Budget
  - Annual Reports
  - Standing Committee on Energy
  - Economic Survey – Energy
  - APDRP Reports
  - MOU’s with new states, etc.
- A Common ‘Google-like’ text search facility to locate all the information using Keywords
- Facility to Upload files/information into various heads

E-Office – Features List

- Allocating Tasks and Following-up progress
- Tracking Files Movement in the Ministry
- Allows tracking and cross-referencing of Schedules, Tasks and Appointments with Documents/Letters/Reference Material
- Facility for Recording Notings Electronically
- Linking Files and Documents with Tasks, Appointments, Schedules
- Keeping control information about documents, with / without actually storing the documents electronically
- Capture and Maintenance of Intelligent and Non-Intelligent Documents
- Searching Files and Documents based on Tasks, Appointments, Event, Subject and related keywords.
- Two Track Search – One with keywords entered by the user, and the other a Full-Text Search on all the Intelligent Documents.
- Access to the widest possible array of document formats, while matching the viewing technology to the type of content.
- The user interface is web-based, straightforward, and easy to use.

References and Bibliography

10. ABOUT US
The Company ...

- Promoted by a team of Professionals to provide Great Solutions for Generations Ahead!
- Incorporated as a Consultancy and Software Services company in 1995
- Grown into an End-to-End e-Solutions consulting & implementing organisation
- Over 300 man years of experience
- Major Government and Corporate Customers
- Alliances with major players in the market
Business Domains

- Internet /Intranet Infrastructure
- Consulting & Implementation
- Government & eGovernance
- Retail
- Energy
- Web Publishing

*Logicsoft*
eGovernance Solutions

- Document Management
- Workflow
- Scheduling & Tasks Management
- Internet /Intranet Infrastructure For Internal Staff & Officers
- Citizen Centric Applications For Websites & Portals
- eGovernance Solutions
Services Offered

★ **Software Consulting & Development**
  ✓ Business & Productivity Applications
  ✓ Web-enabling of Legacy Software Applications

★ **System Integration Services**
  ✓ Internet & Intranet Infrastructure Implementation

★ **Web Publishing Services**
  ✓ Internet & Enterprise Portals
Major Customers in the Government Sector
Major Government Customers

☆ Ministries / Departments

- APEDA, Ministry of Commerce
- DCSSI, Ministry of Small Scale Industry
- FFDC, Ministry of Small Scale Industry
- Ministry of Power
- Ministry of Food Processing Industries
- Medical Council of India
- PPAC, Ministry of Petroleum
Major Government Customers

★ Defence
- Army Welfare Housing Society (AWHO)
- Army Group Insurance Fund (AGIF)
- Directorate General Border Roads (DGBR)

★ PSUs
- National Thermal Power Corporation
- Indian Oil Corporation
- Power Finance Corporation Limited
- Power Grid Corporation India Limited
PRODUCT OFFERING FROM LOGICSOFT for the Government Sector

eOffice - AIMS
- Administrative Information Management System
Features of eOffice

- Office automation system
- Calendar Management for Appointments & Meetings
- Task Scheduling/ Organizing/ conferencing
- File tracking
- Electronic document management
- Messaging
- MIS reports on Budgets Consumption & Monitoring
Types of Information

☆ The key information in different forms include
  ✓ Appointments
  ✓ Tasks
  ✓ Schedules
  ✓ Documents
  ✓ Files

☆ These are all Fundamentally Inter-related, not just of one person, but including everyone in the Organisation
eOFFICE – Enabling Tool

- A Tool for keeping track of everything with a searchable index for every piece of information that’s captured
- A great enabler for officials who would like to access information / status faster
- The Head of the organisation, if required, can have access to every small little detail of the Organisation’s Operations, drilling down to any level, in just a few clicks
The Place for eOFFICE

- The connecting information/Control Information is the key for locating all documents, files, related appointments, schedules etc.
- The tool for creating the interconnecting web of Control Information about everything that happens in the Organisation and its Subordinate and Attached Offices
The Place for eOFFICE

- Collection of Statistics, Operational Data is going on in the Current Level of implementation and is growing to increase the quality and quantity of data
- Disseminating this information is also a very important activity, with control information is key to the successful use for the intended purposes
eOFFICE- Core Functions

- Document Storage and Retrieval
- Document Flow Tracking
- Common and Personal Planner
- Appointments Diary and Tasks List
- Activities Assignment and Tracking
- Files Information Management
Technology

★ The system uses a Web Browser based Solution - like Microsoft Internet Explorer or Netscape Navigator
★ Designed for use within any Local Area Network (LAN) or Wide Area Network (WAN) with TCP/IP Implementation
★ Distributed Architecture for Connecting multiple offices and synchronising between all of them