



## IWDMS

- Preface
- What is eGovernance?
- Role of IT
- Secretariat to e-Secretariat
- Problems faced
- Function-Building blocks
- Automation of Secretariat & Framework
- Electronic Workplace
- Seven Steps
- Security
- Business Continuity & Disaster Recovery
- Sample List
- Advantages
- Challenges

### Editorial Team

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# Integrated Workflow & Document Management System

## PREFACE

**State Secretariat** is the apex seat of State Government and houses 25 departments. The respective departments formulate policies, procedures and guidelines for functioning of the state and monitoring of the implementation of these policies, procedures and guidelines. In addition to these, the departments address issues like applications, petitions, grievances and representations sent by individuals and organizations. All establishment matters relating to the employees of the departments situated all over the state are also dealt with in Secretariat.

The predominant work done at the Secretariat involves immense flow of information in the form of files from one officer to another in this process, for seeking opinions, approvals and comments. The files are sent across to other departments also, to take concurrence/opinion on most of the critical subjects like legal, finance and administration matters.

**GOG has taken many initiatives in the year of eGovernance, a landmark decision to implement an integrated workflow & Document Management System in the entire secretariat. With this GOG intends to enter the next generation of technology – less paper office, 24\*7, efficient & knowledge driven working environment. The system will facilitate creation of electronic file, digital movement & flow of the file within the department & across all the other departments. A special**

## What is e-Governance?

**eGovernance** is the application of tools and techniques of eCommerce to the business of government for the benefit of both government and the citizens and businesses that they serve. It would imply use of information technologies such as Wide Area Networks (WAN), Internet, World Wide Web, and Mobile Computing by Government Agencies to reach out to citizens, business, and other arms of the government to:

- Improve delivery of services to citizens
- Improve interface with business and industry
- Empower citizens through access to knowledge and information
- Make the working of the government more efficient and effective

The resulting benefits could be more transparency, greater convenience, less corruption, revenue growth and cost reduction.

**One step further** is Smart-Governance, that is:

- Using technology as an enabling strategy to streamline government by providing

efficient and effective services and information to citizens and businesses

- An evolving set of IT tools and implementation techniques, as well as the strategies and practices necessary to do governance electronically
- Integrating a wide variety of management structures, technologies, and data for solution delivery transformation

## Role of Information Technology

The advent of **Information Technology** as a highly leveraged enabling tool for delivery of services in the public and the private sector has by now been universally recognized. This has redefined the fundamentals and has the potential to change the institutions as well as the mechanisms of delivery of services forever. The objective of achieving electronic Governance goes far beyond mere computerization of stand alone back office operations. It means to fundamentally change as to how the Government operates and this implies a new set of responsibilities for the executive, legislature and the citizenry. The effort should aim to bring about a social catharsis which needs to be orchestrated in a comprehensive, concerted and planned fashion.



**Information Technology in eGovernance** can bring about significant benefits:

- Better Government-Citizen Interface
- Effective Governance
- Setting Better Standards of Service
- Inter-Operability Across Departments
- Improving Transparency

## From Secretariat to e-Secretariat

The majority of the functionality performed by the Staff in the Secretariat involves a flow of information along predefined hierarchy of users. This flow consists of collection of information along the hierarchy or outside the system. It involves reviewing, commenting and approving along various officers in the hierarchy like Section Officers, Under Secretaries, Deputy Secretaries, Joint Secretaries, Additional Secretaries, Secretaries, Principal Secretaries, Office of Chief Secretary and Office of the Minister/Chief Minister.

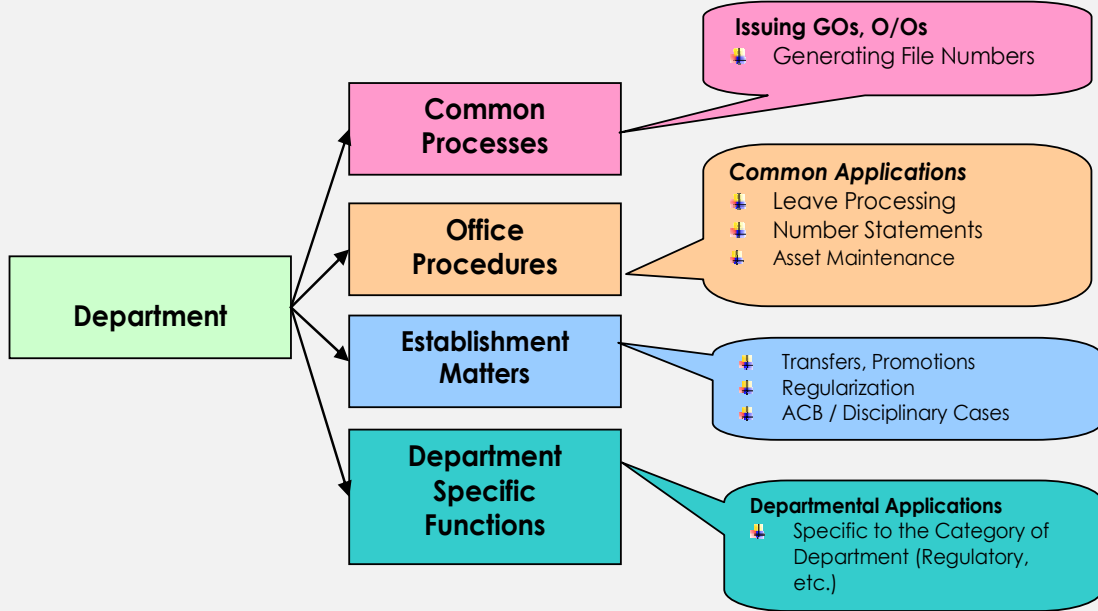
In the first activity involving file movement, a file is created and processed at each level in the hierarchy and finally disposed after approval. In the second activity huge volumes of data in the form of documents are created

and sought for the processing of these files. Reports are generated on a periodic basis (weekly, fortnightly, monthly, etc.) to enable the higher officials to monitor the implementation activities.

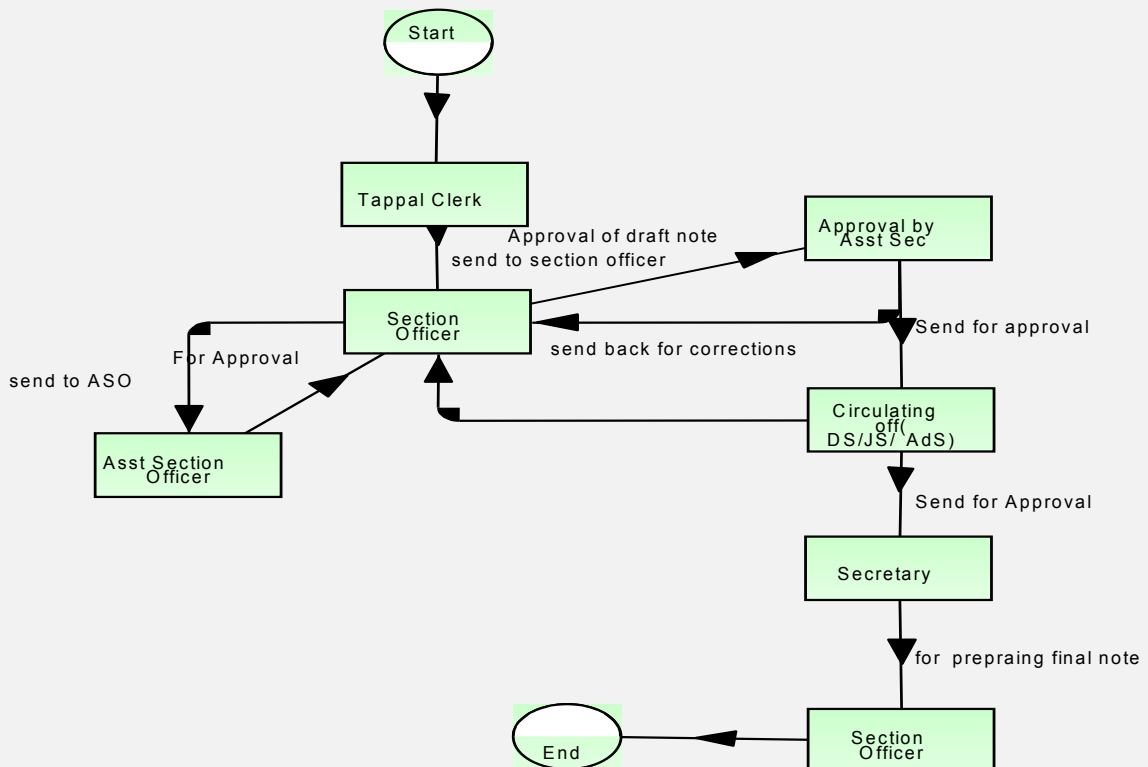
## Problems Faced by Administration at the Secretariat

- High Proportion of Establishment Work
- Multiple Levels of Processing - Several Review and Approval Cycles
- Multiplication of File Processing
- Inter-Divisional Consultations
- Prioritization of Files
- Person Dependency
- Traceability of the file
- File gets stuck at certain officers' desk and do not move without intervention. Delay in getting information to process the file (Often GRs issued by the department become precedent to process the file, or the rules and acts which may not be readily available)

## Functions – Building Blocks



## Typical Workflow in a Department



## Automation of Secretariat

Government of Gujarat as part of its eGovernance Policy has initiated the task of automating functions of State Secretariat. Integrated Workflow and Document Management System (IWDMS) is being implemented across Secretariat to bring about radical changes in the way Government functions and finally bringing benefits to the common man.

### Objectives of Automation

- Efficient & Transparent Administration
- Efficient Monitoring & Control
- Effective Internal Information Exchange
- Building a Knowledge Base, Enabling a Robust Decision Support System
- A Structured Work Environment in the Secretariat
- Collaborative Work Environment
- Effective Policymaking

### Automation of Secretariat Functions

#### Automated Workflow

The proposed solution would enable movement of information across and within Departments of the Secretariat, thereby seeking of opinions/approvals from other

relevant department. Features include:

- Workflow integration with organizational structure of the State Secretariat which includes all the levels from Deputy Section Officer to the Chief Secretary / Chief Minister
- File routing based on the necessary opinions/approvals needed from the higher authorities or cross-departmental officers
- File tracking/Monitoring to keep a tab on the progress of work being done in various Sections of the State Secretariat departments
- Integration of Workflow and Document Management System
- Adequate security built into the system so that any authorized user can trace comments (or any other notes) back to the user who made those comments
- Dynamic workflow with ability to route files in the hierarchy based on Subjects and Sections
- Surrogating/Delegation of authority to work on files in the absence of the concerned officers
- Completely integrated Audit trail with access to administrators and power users
- Maintain a session log

## Document Maintenance & Management

Most of Secretariat information is available in the form of documents like Government Orders, Acts, Amendments, Reports, etc. Processes are initiated by documents and end as documents. There is a need to store all these documents, a structured manner for easy access and retrieval with proper controls. Features include:

- Navigation within the documents and their versions in the Document Maintenance & Management System
- Centralized File and Correspondence Numbering
- Centralized numbering for all documents such as GRs, Office Orders, Letters, Memos
- Grouping of documents based on departments, sections, subjects, type to enable easy retrieval
- Indexing of documents based on metadata
- Search and Retrieve Interface
- Capable to collect data from diverse environments including DBMS / emails
- Incorporate Integration with Office Automation products
- Capability to link Incoming Correspondences / Letters, Drafts, Approved Orders, Knowledge bank and reference files within electronic file

- Auto data population from files to draft templates avoiding duplication of data entry
- Access Management to provide appropriate access to various users like Principle Secretaries, Deputy Secretaries, etc.

## Knowledge Bank

Government Officers often refer to Precedents, Acts, Rules and Statutes to take decisions that are subjective in nature. The rules would be different for different Subjects. These rules become sources of Knowledge in the Knowledge Bank. There is a continuous need felt by Government officers in easy search of those documents from an easily accessible knowledge pool. Features include:

- Logically group knowledge objects based on parameters like Department, Sections and Type of GRs
- Format independent object storage
- Subscription to knowledge base. Various officers of the State Secretariat to subscribe to the Knowledge base based on roles
- Access based on roles and hierarchies since most of the departments handle sensitive (legal/ financial etc ) data

- Enable users to refer to Knowledge Bank while performing their regular work and also link knowledge objects to files for easy reference.
- Classification of Acts
- Codification of Acts
- Querying - By Key Words, By Section, By Subject
- Version control

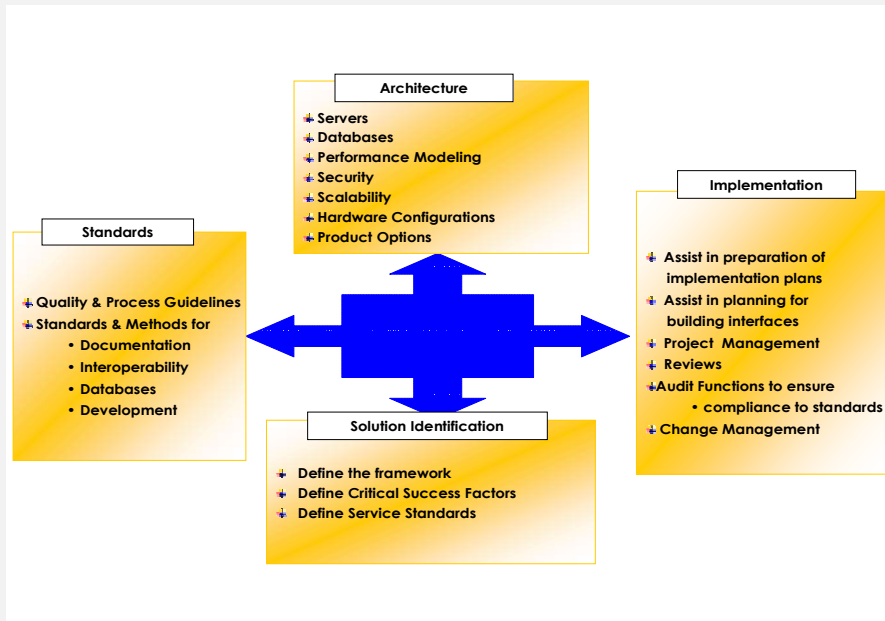
## Electronic File System

**Electronic File System** would comprise of functions that will cater to the file processing requirements in the Secretariat that are used in all departments and will encompass the standard features and actions on all files like creation, numbering, disposing, etc. Features include:

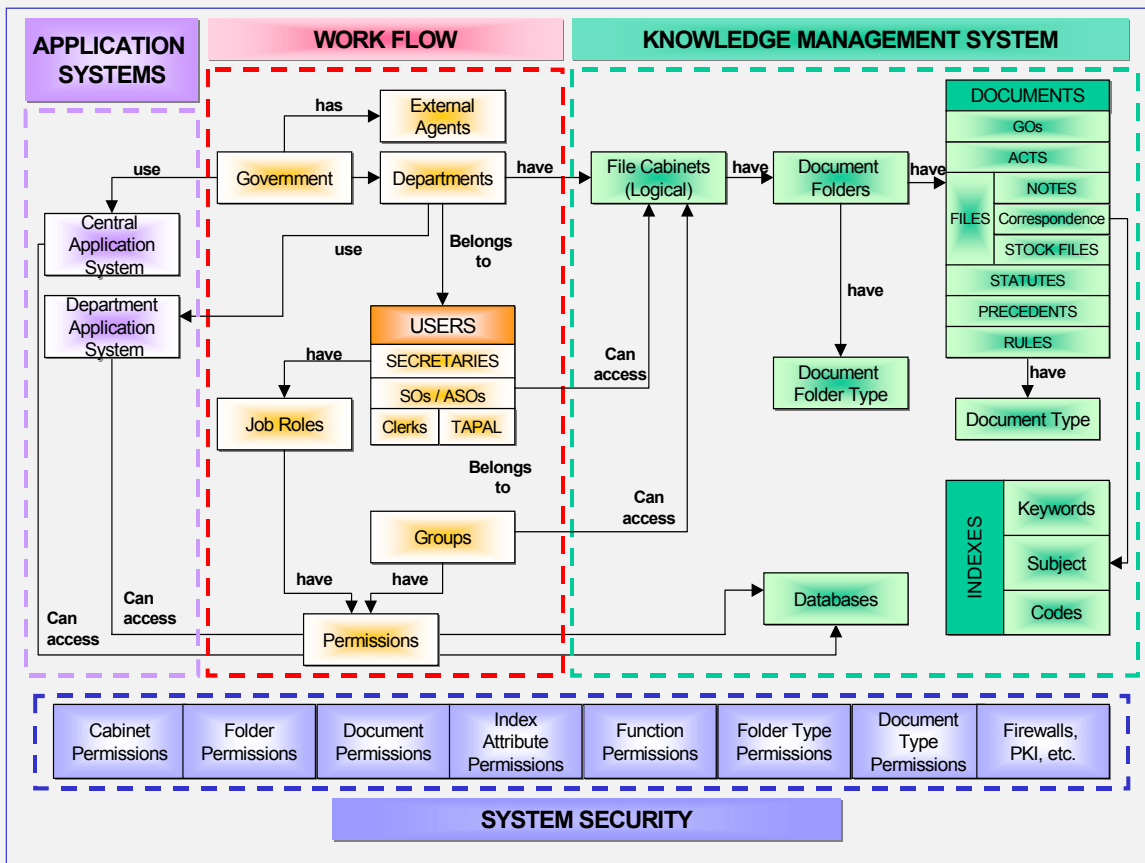
- Creation of Note file/Drafts/Minutes at all levels of the hierarchy to enable review and provide comments on the note and so on until the approving authority gives the approval on the note. The note could also be sent to other departments within the Secretariat for opinion on specific matters.
- Enable File Tracking and File Monitoring
- Facilitate Auto and Manual reminders to users on files, call back, approval and priority change

- Provide reports indicating the number of files in a section, pending files, files in section for reference, files sent out of section, files relating to questions, court case files, etc.
- File Pendency - Processing time information for each user linkage to file
- Automate the process of file movements and hence also automate all the related registers that are maintained
- Enable maintenance of an audit trail to ensure accountability and tracking on what happened, when and by whom, etc.
- File Searching - by file name, key words, author of the: file, and hierarchical position of the author, date created, date modified, priority set and status
- Validation while routing files in the workflow
- Call Back of files by an officer higher up in the hierarchy
- Shadow files and Referral files - Ability to reroute files in the workflow to a referral section for approval and reference

## Automation Framework



## Overview of the Electronic Workplace at Secretariat





The typical components of the electronic workplace are:

- Various Secretarial Departments
- Every Department has a specific profile of users such as Secretaries (Additional, Joint, Deputy), Sections Officers, Officers of the Tappal Section, Clerks
- Each user has a job role and belongs to a certain group determined by the Department and the user's job role
- The Departmental information is in the form of files, logically grouped and stored in file cabinets
- File Cabinets are organized as Document Folders that are further classified as Document Folder Types
- Document Folders store contain Documents categorized by Document Types such as GRs, Acts, Files, Statutes, etc.
- Application Systems are used by Departments, HOD and the Government to process information and store the data in the Departmental Databases

## Seven Steps to Processing Files

### 1. Login to Application

User logs on to the application with his user id and password

### 2. Go To Worklist

User checks the list of work items / action items in his/her Work list. He/She can select the work item as per priority of the same and start processing the same.

### 3. Open File

User opens the file as per the work list item.

### 4. Read Notings / Comments / Correspondence

User would go through the notings / comments / correspondence made on the file by previous entities in the workflow or attached earlier.

### 5. Add Your Comments

User enters his / her comments on the file based on subject matter, previous comments/correspondences and any other Acts/OO/GO/Statutes required to be referred to.

### 6. Attach Relevant Documents

User would attach relevant documents in the case.

### 7. Send / Route the File

Once user comments are made and document(s) attached, the file would be sent to next entity in the hierarchy.

## Security

### Application Security

- Authentication using user name and password to prevent unauthorized access
- Controlled Access to files based on Designation, Roles, Confidentiality and Subject.
- Digital Certificate/ Signing-based Authentication (Optional)

### Database Security

- Prevents updation of data by an unauthorized user
- All the changes to the data is tracked with date and time stamp
- User, access and updation trails

### Network Data Transfer Security

- Data traveling through the network is encrypted so sensitive data becomes unreadable over the network

### External Security

- Firewalls - provides required protection from internet traffic
- Complete control of information entering and leaving the Secretariat network
- Anti-Virus - Kits to detect new viruses and to prevent virus attacks

## Business Continuity and Disaster Recovery

### Business Continuity (BC) & Disaster Recovery (DR) Strategy

- Appointment of a DRM (Disaster Recovery Manager)
- Identification and documentation of “Disaster”
- Decision to migrate and revert back to primary site

### Disaster Recovery (DR) Setup

- Identical infrastructure and network connectivity
- Availability of all applications and data at secondary site

### Disaster Recovery Process

- Replication of transactional data at regular interval
- Declaration of “Disaster”
- Switch over to “DR Site”
- Revert back to primary site

### Key success factors

- Infrastructure readiness and availability of latest data
- Periodic Testing of Disaster Recovery Process
- Primary & Disaster Recovery site are in Active mode for read only activities

## Sample List of Applications under Automation

Common/Service Matters	Office Procedures
Recruitments /Appointments	Application for employee attendance
DPC Meetings	Service Register
Probation	Telephone Bill Payment System
Regularization of Staff	Maintenance of Office Equipment
Deputations (Other Duty)	Loans and Advances
Transfers Processing	Increments
Seniority Matters	Leave
Deputation (Foreign Services)	Sanctioning of Additional Pay
Retirements	GPF
GOI Issues	Pension
Processing of Assurances Given by Chief Minister	Retirement Benefits
Processing of Public Accounts Committee queries	Pay fixation

### Sample Department Applications

Monitoring of implementation of various schemes in case of natural disasters
Regulate mines and mineral development activities
Develop industrial, co-operative and cottage industries
Maintain statistical records related to the industries
Monitoring of loans/ advances and fund release to PSUs/ granting aid institutions/Co-operatives
Monitoring of state government guarantees
Financial Analysis
Tracking of NHRC cases
Requests for grants of visas and citizenship
Land acquisitions
Sales tax, excise revenue collection monitoring
Proposals for power projects

## Advantages of Automation

- Less-Paper Office
- Automates Routine Tasks - Workflow / Business Rules / Processes
- Automatic Generation of File Numbers and Tracking
- Work / Task Prioritization
- Standardization of the Common Process
- Reduced Cycle Times
- Reduced Dependencies
- Improved Opportunity for Value Addition
- Enabling Environment for Efficient Administration
- Assists in Decision Making - Decision Support and Analysis
- Easy and Efficient Referencing - Search Engines
- 24\*7 access - Break Geographical and Time Barriers
- Creation of Knowledge Base
- Integrating Departments
- Pictorial Dashboard - Provide a Holistic Status With Drill Down Facilities
- Traceability and Accountability of Actions - Audit Trail
- Electronic Personnel Register
- Reminders and Notifications to Officers

## Challenges

- |                                    |                              |
|------------------------------------|------------------------------|
| ▪ Ideal v/s Practical Requirements | ▪ Process Re-engineering     |
| ▪ Change Management                | ▪ Expectation Management     |
| ▪ Project Management               | ▪ Backlog and Data Migration |
| ▪ Standardization                  | ▪ Participatory Culture      |
| ▪ Prioritization                   | ▪ Inter-Operability          |



### CIT 2005

Exhibition cum Conference on Communication & Information Technology

4 – 6 February 2005, Ahmedabad

After overwhelming success of CIT 2004, Gujarat Informatics Limited along with Confederation of Indian Industries (CII) organized CIT 2005 – a Premier Annual Exhibition cum Conference on Communication & Information Technology. It was for 2 days conference at Tagore Hall, Paldi, Ahmedabad on 4<sup>th</sup> & 5<sup>th</sup> February, 2005 and the exhibition held during 4-6<sup>th</sup> February, 2005 at Sanskar Kendra Grounds, Paldi, Ahmedabad. The theme of the event was **“Harnessing IT for Enterprise and Socio-Economic Development”**.

The prime focus of the event to explore new frontiers in IT & communication sector, to help IT penetrate to the end user to reap its benefits. CIT is a Trends & Business Opportunities meet.

#### **Objectives of the Event:**

- To project Gujarat as a state conducive for Information Technology
- To dwell upon & address issues related to
  - IT related policies
  - Emerging Trends & New Vistas
- To understand the various requirements of & address issues facing this sector
- To identify the scope & opportunities while managing change due to globalization
- To help establish business relationships
- To create a platform for networking

This event was **inaugurated by Hon'ble Chief Minister of Gujarat** at Tagore Hall on 4<sup>th</sup>



There was a special session on eGovernance was held from 11-30 hrs to 13-45 hrs in the Conference Auditorium of National Institute of Design, Paldi. In eGovernance session, representatives from Infocom Development Authority (IDA) of Singapore, who have played the stellar role in making Singapore the best e-governed country in the world and Tata Consultancy Services (TCS), the leading player in e-governance applications all over India were invited.

An interactive videoconferencing session on “What it takes to design & build the worlds third

## Web Corner

Directory of official web sites of  
Government of India  
<http://goidirectory.nic.in>

GOI Web Search  
<http://search.nic.in>

Uttaranchal State Website  
<http://ua.nic.in>

Please look out for this section for URLs of  
Government websites

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