



# **The E-Government: A Framework for Transition to E-Governance**

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# Scheme of Presentation

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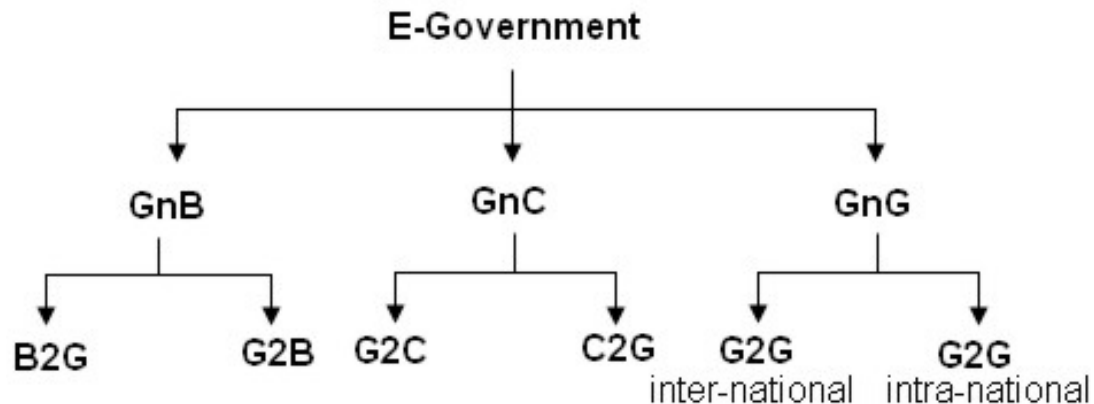


# Introduction

- **E-Governance**

- “Government’s use of technology, particularly web-based Internet applications, to enhance the access to and delivery of government information and service to citizens, business partners, employees, other agencies, and government entities,” or
- “the continuous optimization of service delivery, constituency participation, and governance by transforming internal and external relationships through technology, the Internet, and new media.”

- **E-Governance Types**





# E-Governance Theories

## 1. Rationalism Theory

New tools will be utilized to help in better decision making and optimizing governance processes. The theory in itself is divided into:

1. **Ocean Theory:** Application of e-governance and following the popular trend and adopting the ways of the leaders.
2. **Peninsula Theory:** Applying the tools for e-governance but at the same time taking steps to keep the cultural and traditional heritage and values within the community.

## 2. Island Theory

Island or Control Theory implies that the e-government tools would be used for better control of the populace. This theory is based on the concept of “information is control”.

## 3. Flood Theory

Also called Noise Theory is based on the fact that e-government tools such as Internet gives too much information for e-governance procedures such as decision making.

## 4. Cloud Theory

Cloud Theory implies that technology will not have much impact on decision making. Changes in governance and government are socially and politically driven and Internet is one of the means.

## 5. Tempest Theory

Tempest or Chaos theory implies that e-government tools such as Internet would make a government loose control – mainly by malpractices.



# E-Economy Models

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- **Three different e-economy models have appeared around the globe. They are:**
  1. E-Business Core Model
  2. E-Government Core Model
  3. Hierarchical E-Government Model

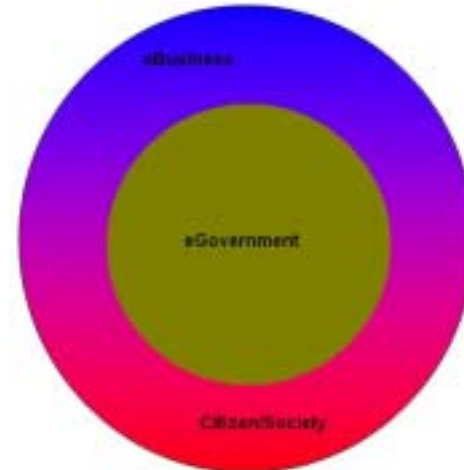




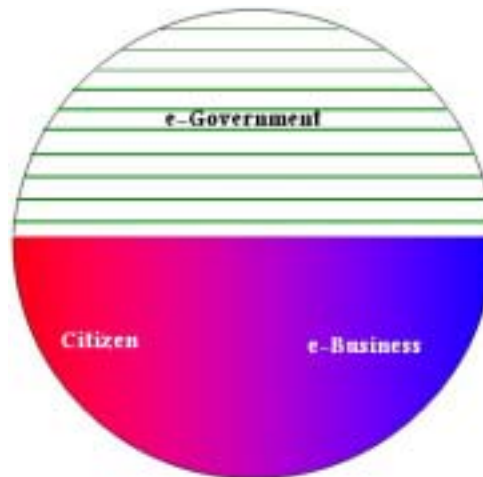
# E-Economy Models cont...



E-Business Core Model



E-Government Core Model



Hierarchical E-Government Model



# E-Governments Across the World

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- We will be looking at five e-governments, namely:
  - USA
  - Singapore
  - Australia
  - India
  - Pakistan



# USA

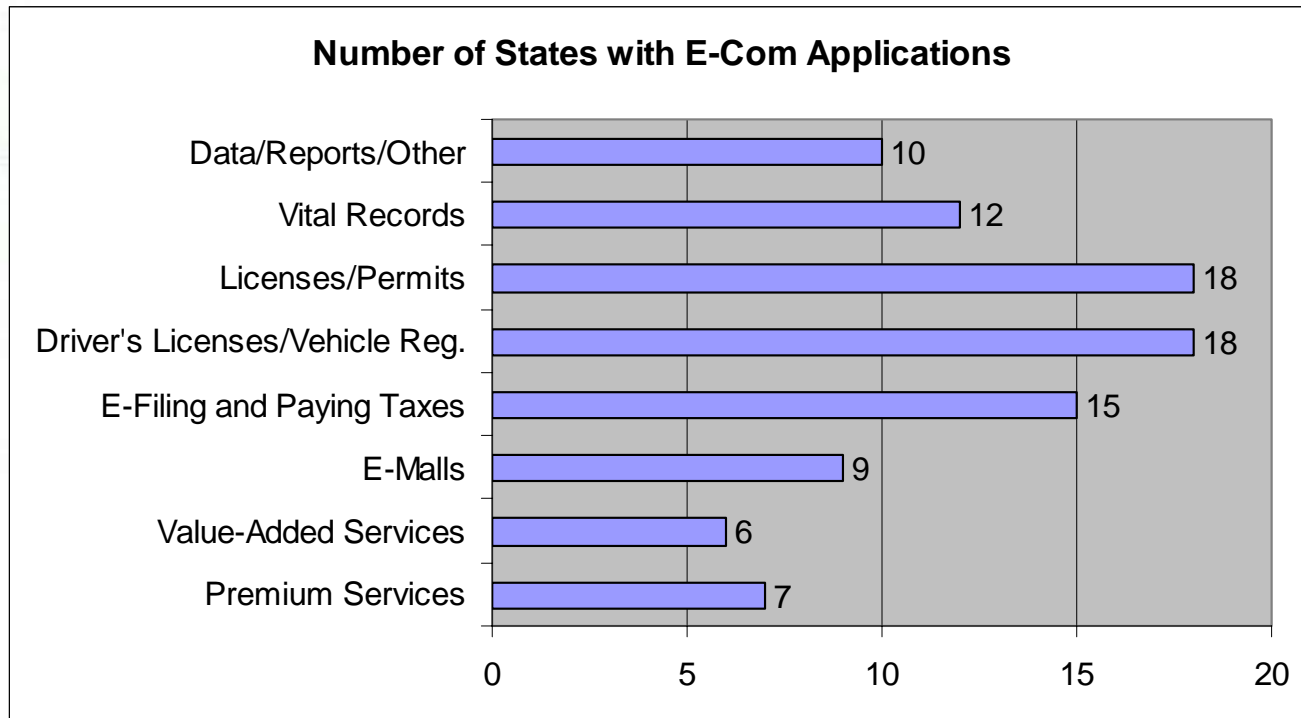
- **American government began its work on e-governance through utilization of Internet in 1993. America is implementing an eBusiness Core Model leaning towards Cloud Theory.**
- **The e-government framework in USA is based on 7 principles comprising the following:**
  1. Easy access;
  2. Re-engineered Systems;
  3. Automated Systems;
  4. One-Stop Service;
  5. Service by Customer, not Provider;
  6. Privacy protected and embraced; and
  7. Access to the physically challenged.





# USA Cont...

## E-Services implemented in USA





# Singapore

- **Singapore launched its IT2000 master plan in 1992 with the aim of transformation into an “Intelligent Island”. The e-government is being modeled into eGovernment Core Model based on Island Theory.**
- **The master plan was carried out in number of steps. At first the plan laid out very broad goals,**
- **Based on these broad objectives the government narrowed down its aims and policies were constituted to carry out these aims. The practical results obtained include:**
  - In 1995 a onestop shop Government Internet Website and an eCitizen Center was set up. 130 public services are delivered electronically through the eCitizen Center
  - Singapore Government Network (an Intranet facility) was broadband-enabled in 2001
  - A network architecture was created to give over 30,000 civil servant access to systems and information at anytime and any place.



# Australia

- **Australia's eBusiness Core Model is being modeled around Ocean E-Governance.**
- **The Internet has enabled Australian federal government to provide the same quality of public services to Australians living in rural areas as for those living in bigger Australian cities.**
- **As part of e-government, following milestones were set by the government:**
  - To have all federal government services available online by 2001;
  - To establish a Government Information Center as a main point of access to information about government services;
  - To establish a government-wide Intranet for secure online communication; and
  - To establish electronic payments as the normal means for federal payments by 2000.



# India

- **Indian Government is implementing a Trapezoid eGovernance Model based on Ocean E-Governance. The main achievements of Indian government towards the goal of e-government include:**
  - *Gyandoot Project*, 39 Internet-enabled kiosks that provides local entrepreneurs with Internet and telecommunications access, reaching over half a million people;
  - *Lokmitra* is aiming to provide easy access to information at the remote corners of the state;
  - *Raj-Swift* is a statewide intranet between office of CM and all the district collectors;
  - *Rajnidhi Informaiton Kiosk Project* has been created to function as a modern service delivery system;
  - To monitor various key activities of Rajasthan state Chief Minister's Information system has been created;
  - Secretariat has been networked to interconnect more than a thousand rooms in the state government secretariat;
  - *Vikas Darpan*: GIS based planning and decision support system; and
  - *Project Telemedicine* interconnects three medical institutes



# Pakistan

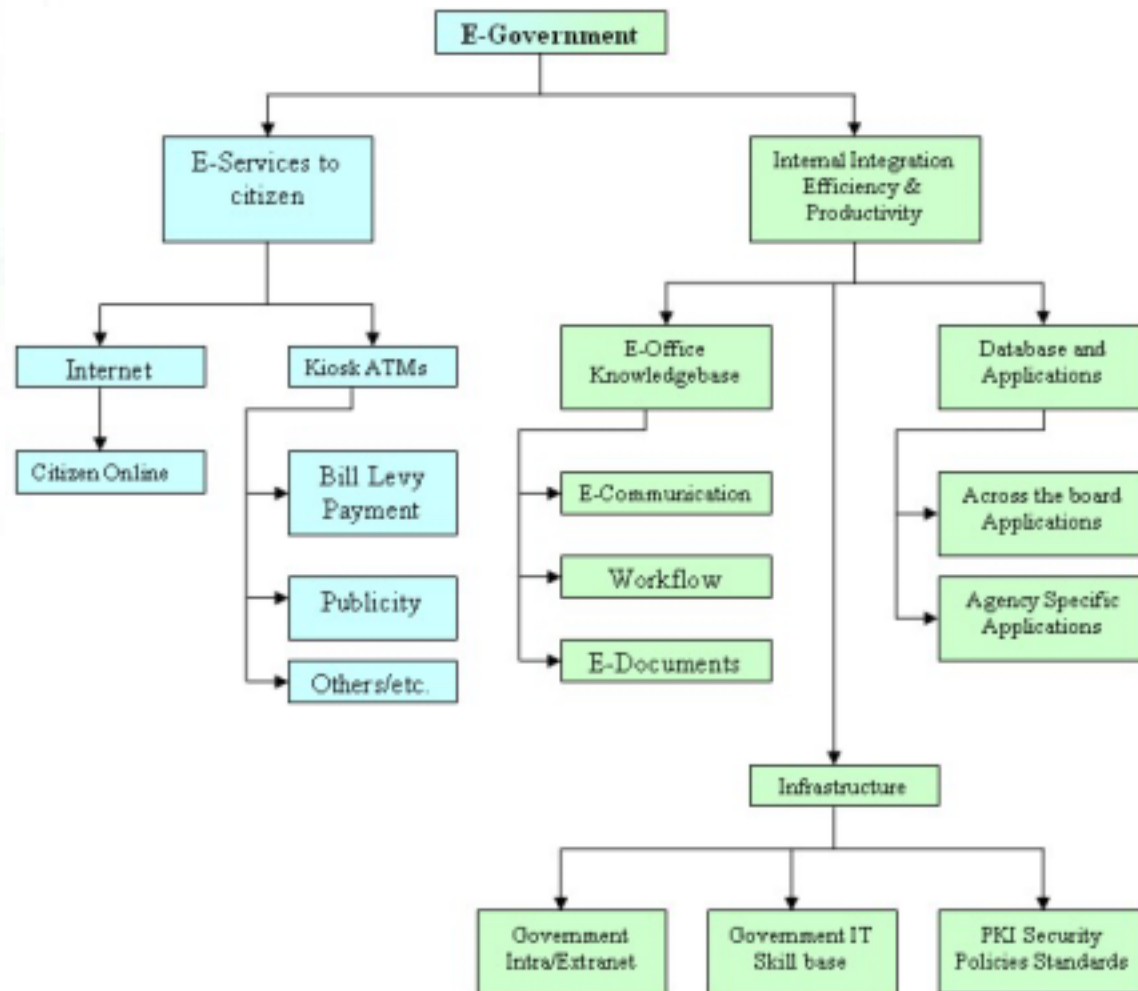
- **Pakistan is in the beginning of implementing its e-governance, and so far it seems to be heading towards Ocean E-Governance with Trapezoid Governance Model.**
- **The main objectives which the government set to be achieved out of the implementation of this program are:**
  - Improve services delivery to citizens; and
  - Improve the internal efficiency of government operations so that government functionaries become well versed in the use of ICT to provide service in a speedy, efficient and transparent manner.





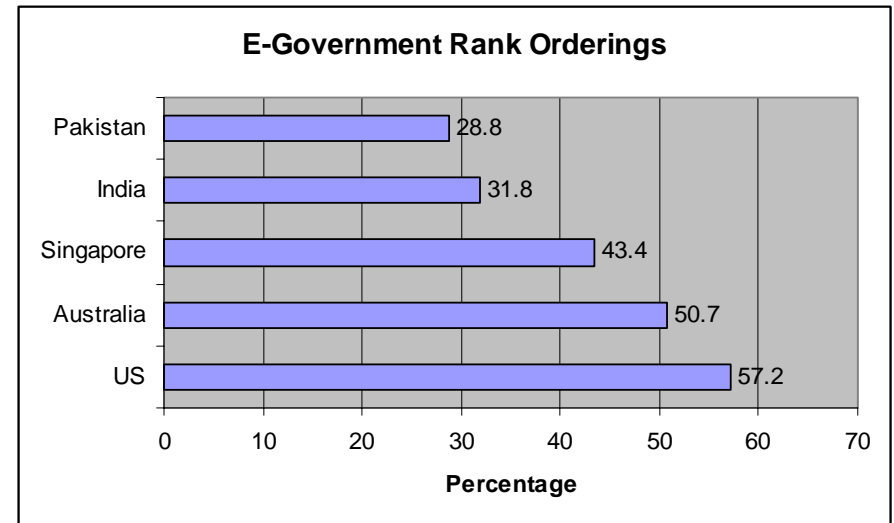
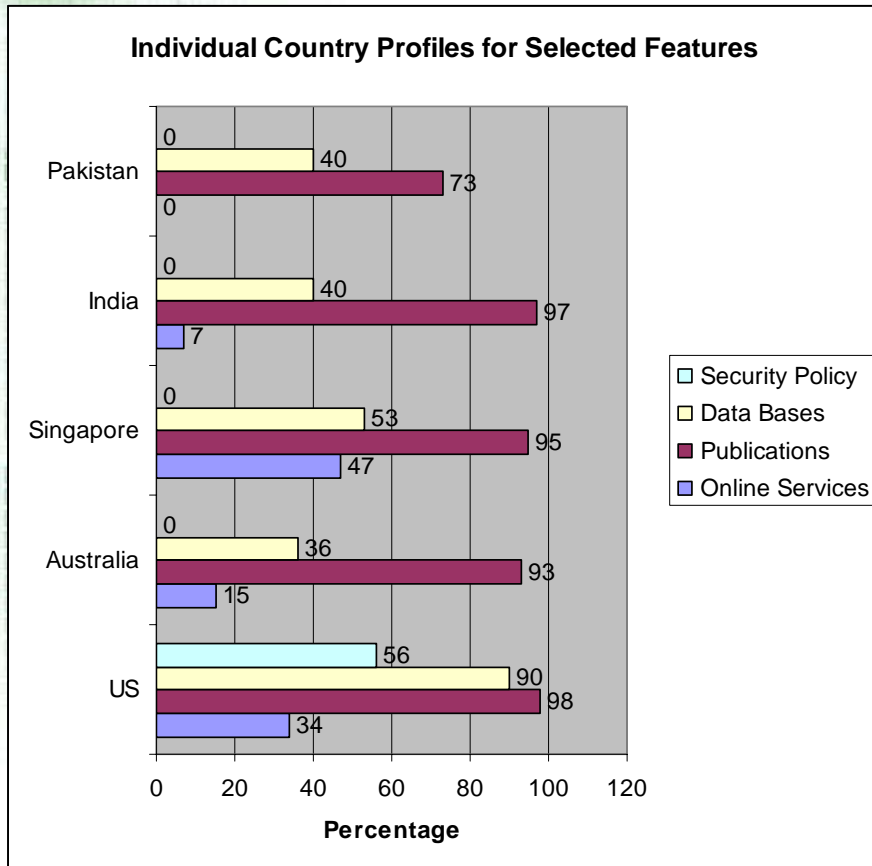
# Pakistan cont...

Aims to be achieved, elaborated





# Pakistan's E-Government vis a vis Others



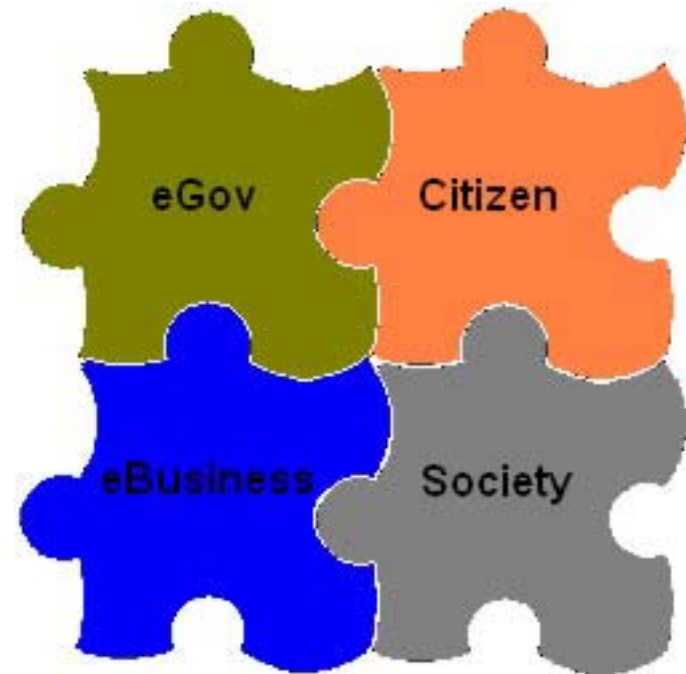
Based on 22 features



# A Framework for E-Economy: The Jigsaw Model

- This framework for the e-government has been developed with the aim of transforming a government into an e-government and overcoming the shortcomings of prevalent e-government models. This framework is more disposed towards the “Rationalistic Government Theory”.
- Draws parallels to the “jigsaw” for its four parties.

Complementing Four Parties  
In the Framework





# Salient Features of Jigsaw Model

- In the model no single party leads the rest as in case of the previous models.
- In the model each party complements the other
  - Progress of one party is mimicked and followed by the rest.
- Model aims for a government that does not sit on top of the citizens and businesses, rather stays in between.
- The transition of a government into an e-government based on Jigsaw model is divided into four stages.



# Four Stages of Transition to E-Government

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- **We look at the transition states of one of the four parties.**
  - Other parties would follow a similar pattern
- **Each stage marks a significant improvement in the services of the e-government.**





# Stage 1

- **The government is said to be in the first stage of e-governance when it starts the implementation of transformation into e-governance. The technologies implemented in the first stage include:**
  - **Internal Networks**
    - LANs within the offices
  - **Website, Email and Information Dissemination**
    - Web presence, email addresses for employees
  - **Electronic Forms**
    - Making available official forms on website
  - **Announcements**
    - Periodic updates of announcements page



# Stage 1 Cont...

- **Two Way Communication**
  - Discussion boards and email addresses of officials
- **Digital Data Collection**
  - Digital data collection starts in this stage
  - Employees typing in the new data and start developing electronic database
- **Decision Modeling Tools**
  - Primitive e-governance tools in use for decades
    - Spread sheets, budgeting tools
    - Mainly used by big organizations and top levels of government
  - Use off-the-shelf tools
  - PC powerful enough to run them
- **Knowledge Management**
  - Management of collective knowledge or wisdom of the organization
  - Should start in this stage
- **Pilot Project**
  - First project of an e-service with an e-transaction
  - End of Stage-1



# Stage 2

- **A government is said to be in stage two when the culture of e-transactions has started and majority of the citizens have access to the Internet. The steps to be carried out to take the government into the e-governance in terms of application of ICT tools are described below.**
  - **E-Transactions and Intra-Office Network**
    - Transform services into e-services
    - Office LANs should be advanced, e.g. backup capabilities
    - Security tools
    - Integration of networks of different branches of same office
  - **Information Dissemination**
    - Increase information of official websites
    - Include official procedures, budgets and expenditures
  - **Electronic Forms**
    - Online forms evolve for online submissions and e-transactions
  - **Announcements and Updates**
    - Automated emails
    - Visitors re-visit only if updated regularly



# Stage 2 Cont...

- **Two way communication**
  - Evolve to include live chats with officials on special occasions
  - Prelude to teleconferencing
- **Digital Data Collection**
  - Automatic data generation from online submitted forms
- **Decision Modeling Tools**
  - Using Expert Systems
  - Digital information being used in policy and decision making
- **Knowledge Management**
  - Custom knowledge management tools utilized in government offices
- **Government Portal Sites and Value Added Services**
  - Develop an E-Portal
    - Brings together numerous content providers, provides information, develops close relationship between government and citizen
- **Unique ID**
  - A unique ID to every citizen of the country
  - Can be done based on ID card
  - Use the same ID to provide email address to every citizen with email forwarding ability
  - Will create a direct communication link between the government and the citizen
  - First step towards e-voting
- **Integration and Automated Exchange of Data – Pilot Project**
  - First project of automated exchange of data between two offices



# Stage 3

- **In this stage every government office is online and data is automatically sorted and sent to the respective agencies. Majority of the citizens are online.**
  - Integration into Intra-National Network
    - Automated transfer of data between different government offices
  - Information Dissemination
    - Make available all the information online and include video streaming and real time video streaming
  - Announcements and Updates
    - Intelligent announcement and update system should become intelligent
  - Two way communication
    - Teleconferencing introduced in the two way communication system
  - E-Democracy
    - E-Voting and real time debates and conversations over Internet





## Stage 4

- **The e-governance steps into this stage when the entire country is integrated into one giant network with automated flow of information. At this stage the country starts upgrading its technology to enhance its service delivery. Also, this stage would see different inter-governmental integration, the ultimate aim of today's e-governance.**
  - **Wireless E-Commerce (M-Commerce)**
    - The e-government should evolve for m-government
  - **Inter-Government Integration**



# Methodology for E-Service Development

- The visualization of the different stages of e-governance is possible with the use of Internet. For this purpose the services have to be transformed into e-services.
- New e-service development methodology and the nine steps of converting a service into an e-service are as under:
  1. E-Service Plan;
  2. E-Service Analysis;
  3. E-Service Design;
  4. E-Service Development;
  5. E-Service Benchmark;
  6. Pilot E-Service Deployment;
  7. E-Service Upgrade;
  8. Wide Scale E-Service Deployment; and
  9. Education, Maintenance and Up-gradation.



# E-Service Plan

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- **This is the step in which engineering process of an e-service begins. First step is the creation of a strategic plan for the project before embarking on the development of e-service.**
  - Identify Manual Procedure
  - Identify Translatable Data Flows
  - Identify Audience



# E-Service Analysis

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- **The aim of this step is to get a detailed analysis based on the data collected in the previous step. The data will be complemented with further analysis using techniques like interviews, document reviews, etc.**
  - Procedure Analysis
  - Audience Analysis



# E-Service Design

- **Third step is the design of e-service. Different tools and techniques are used for the design. There are number of methodologies, designing tools and modeling languages available for example UML (Unified Modeling Language), formal methods, etc., which are to be utilized for the purpose of designing the e-service.**





# E-Service Development

- **Development of the e-service would make use of the latest available technologies in order to stay with the ever-advancing world of e-commerce. Some of the important features that a website giving e-service needs to look into are:**
  - *Information about the Organization and e-Service:* this would include general, historical, working methods, employees, annual planner and budgetary information along with links to others, internships, and jobs availability;
  - *Information acquisition and Storage in Digital Format;*
  - *Digital Display of Information – E-Catalogs and Search Option;*
  - *System Connectivity:* this would mean taking into consideration of bandwidth of the targeted audience and their environment;
  - *E-Transactions:* this would encompass the security procedures for transactions;
  - *System Security:* this would be required for securing digital data;
  - *Interface:* the website has to be designed for ease and speed along with feed back channels;
  - *Information Updates:* the website should be intelligent enough to automatically update itself, wherever possible; and
  - *Analysis of Performance:* website should have analysis tools, e.g. hit counter.



# E-Service Development cont...

- **E-Service Benchmark**
  - Benchmark against similar e-services
- **Pilot E-Service Deployment**
  1. Pilot Testing Plan;
  2. Evaluation Process Creation;
  3. Pilot Deployment;
  4. Pilot Run;
  5. Result Analysis; and
  6. Lessons Learned from Pilot.
- **E-Service Upgrade**
  - Based on results in the previous stage
- **Wide Scale Deployment**
  1. Wide Scale Deployment Plan; and
  2. Wide Scale Deployment.
- **Evaluation, Maintenance and Updates**



# Conclusion

- **Developing countries need to tap the vast potential – employment, trade and services – that the ICT sector offers in addition to bringing greater transparency and ease.**
- **However, utilization of the surging potential in ICT sector is crucially linked with transforming governmental functions to e-government albeit in phases and with pilot projects.**
- **“The Internet has the potential to strengthen our democracy and to make government more open, efficient, and user-friendly,” President Bill Clinton**



# Thank You

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