E-Government: Concepts and Applications

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ABSTRACT

E-Governance is an Application of Information and Communication Technology (ICT) in the Government Process to achieve effectiveness, efficiency, transparency and accountability in providing services to citizens. E-Government provides interactions between Government to Government (G2G), Government to Employee (G2E), Government to Citizens (G2C) and Government to Business (G2G). It enables people to make best use of automated administrative processes that are accessible on-line. Governments worldwide are in rethink mode vis-a-vis systems, process and procedures in order to deliver efficient and cost effective services online. E-government, which is the result of e-governance, promises the continuous optimization of Service Delivery, Public participation and Governance by transforming internal and external relationships through technology, Internet and New Media.

Keywords: eServices, E-Government, e-Governance, Citizens Service, eTransport, eProcurement

1. INTRODUCTION

Today, the major demand on government is that it should be more receptive to cater the needs of citizens. Governments should become more participatory, lower barriers and costs for access and become more responsive to common people. This can be achieved through e-Government. E-Government is an application of e-Governance. This uses the latest technologies of computer science using Information and communication technology (ICT) and to make government more efficient, effective and to provide transparent services[1]. To achieve this goal, the government is focussing more to transform government services available to citizens through online. The terms "e-Government" and "e-Governance" are currently in widespread use. But, it is important for us to understand that there is a huge difference between two. E-Governance is a broader topic that deals with the whole spectrum of the relationship and networks within governments regarding the usage and application of ICT. e-Government is a narrower discipline dealing with the development of online government services to the citizen and businesses such as e-tax, e-transportation, e-procurement, e-participation etc.,. The "E" part of both e-government and e-governance stands for the electronic platform or infrastructure that enables and supports the networking of public policy development and deployment. This paper outlines the concepts of e-Government with an introduction and discussed few   e-Government applications in brief and concludes with conclusion.

2. E-GOVERNMENT

E-Government describes the use of information and communication technology (ICT) to support the operations of government[5]. These technologies can serve citizens in different ways i.e., better services to citizens, good interactions with business and industry, more efficient government management etc., In traditional system, usually there is an interaction between citizens and government offices. But with the help of advanced computer technology, it is possible to locate service centers closer to people. The examples of such centers include e-seva which is providing various services like aadhar, ration card, revenue service's etc., to common people. The benefits of implementing e-Government is to make less corruption in government offices, transparency, convenience, revenue growth etc.,
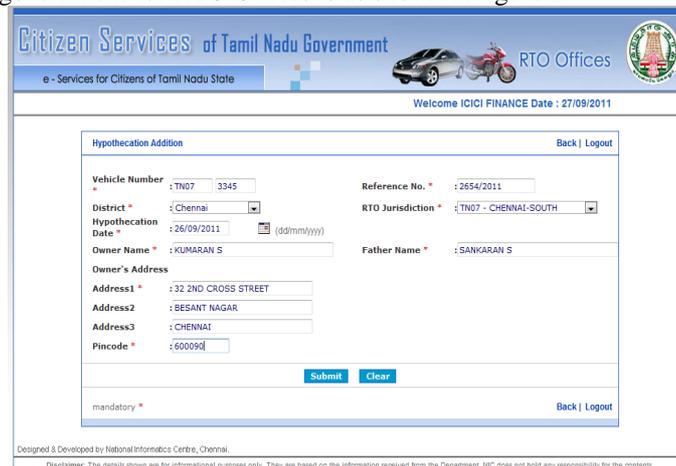

Fig.1: Interactions between Government and other Agencies

Further e-Government aims to make the interactions between government and citizens (G2C), government to business (G2B), government to government (G2G) and government to employee (G2E)[2]. Figure.1 shows the interactions between Governments with other Agencies. E-Government is mostly associated with computer and internet connections and also encompasses with other ICT applications like cellular phone, satellite communication and geographical information systems. The next section deals with some basic applications of e-Government with brief information[3].

3 SOME APPLICATIONS OF E-GOVERNMENT

A. Government to Citizen

This facilitates citizens to communicate directly with the government and provides access to various government services. Nowadays, the common citizen of India has to depend heavily on government services starting from birth certificate to death certificate. He has to transact with the government on every corner of his live. These services include E-Registration, E-Transportation, E-health, E-Education, E-help and E-Taxation etc., The Department of Science and Technology (DST), Gujarat has recently developed a network called Gujarat State Wide Area Network (GSWAN) for the same purpose mentioned above. A typical example of this model is GSWAN. (http://gswan.gov.in). This web site contains the link of different government departments and so any citizen can know and get the information by this website. VAHAN and SARATHI are application software's developed for State Transport Authority (STA), Tamil Nadu[4]. These software's were developed by National Informatics Centre (NIC) to perform all activities through computer in the Regional Transport offices (RTOs), Unit offices (UO) and Check Posts. The screen shot of citizen service of taminadu government for RTO Offices is as shown in figure.2

Fig.2: A Screen shot of citizen service of TamilNadu Government for RTO Offices

B. Government to Government

Government to Government (G2G) is a non-commercial interaction between government departments and organizations. The major goal of this interaction is to improve data sharing among other government department for planning of new schemes or policies for the benefit of people. This substantially reduces paperwork if properly used. E-Administration, E-police, E-Courts etc., are the examples of such applications. Department of Information Technology (DIT), Government of Manipur has developed several G2G services for better interactions between government departments. These applications include Personnel Information System (PIS), all treasury departments of Manipur. Personnel Information System (PIS) is a project (http://cpis.man.nic.in/Index.aspx) taken up by Government of Manipur for creation of database of Government Employees with necessary technical support by National Informatics Centre. TREASURYNET (http://ditmanipur.gov.in/treasury.html) is a computerized system for processing of receipts and expenditures as well as compilation of accounts in all Treasuries of Manipur. The development of software was done by NIC, Pune and customization activities were carried out by NIC Manipur.

C. Government to Business

Government to Business (G2B) facilitates how the government purchases goods and services from business organizations through electronic media such as the Internet. eBiz is India's first Government to Business (G2B) portal developed by Infosys in a public private partnership (PPP) model[6]. The eBiz platform will provide a one-stop shop for convenient and efficient online G2B services for the investor and business communities in India, reducing delays and complexity in obtaining information and services. E-Taxation, E-Licensing, E-Procurement and E-Tenders are some few examples of G2B applications. Figure 3 shows e-procurement website used by Andhra Pradesh government for

purchase of goods and material. It will reduce time and cost involved in the physical tendering system. E-Taxation refers to filing of income tax returns of various employees and business people to income tax department every year (www.incometaxindiaefiling.gov.in). This helps the people of filing income tax in an simple and efficient manner.
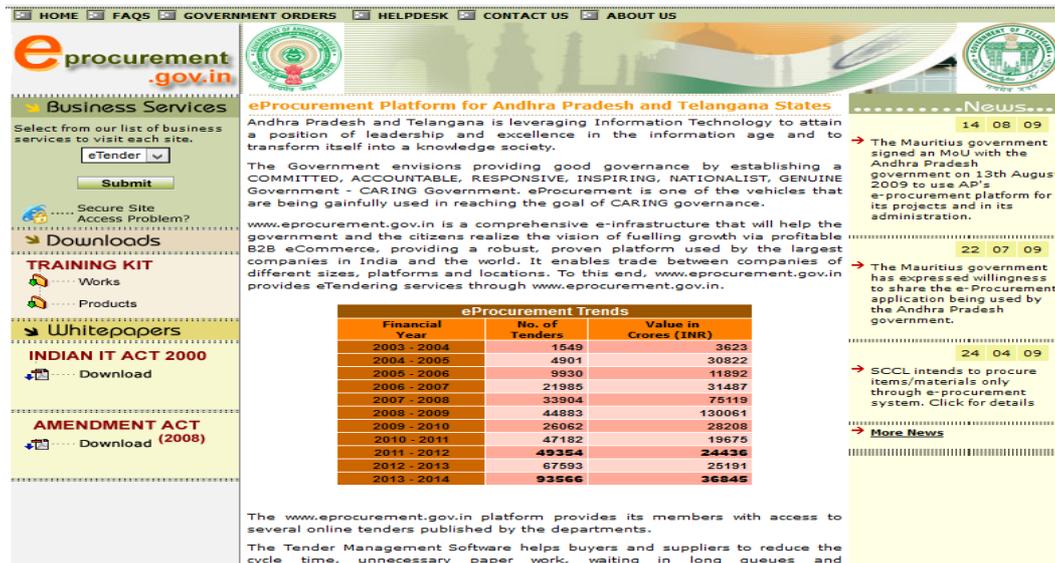

Figure 3 : e-procurement website designed for Andhra Pradesh government

D. Government to Employee

Government to Employee (G2E) is an online tool that provides communication between government units and their employees. The major goal of providing communication is to access information in regard to compensation and benefit policies, training opportunities etc., It also gives an effective way to provide e-learning to the employees, bring them together and to promote knowledge sharing among them. The IntraHaryana portal (http://intraharyana.nic.in/) integrates all government transactions and services of various ministries and departments as well as governments and their employees[7]. A Screen shot of website is mentioned in figure.4. Each employee has given one user name and password to access this portal. The employees can see their provident fund details, service book of employees, salary particulars etc., This project was developed and maintained by National Informatics Centre (NIC), Haryana government. The figure shows a snapshot of the website containing details about the portal.

Figure.4: A Screen Shot of IntraHaryana G2E Application

4. Conclusion

The main objective of every government is to provide efficient and effective services to common people or citizens. The computer and Information and communication technology (ICT) is developing in a fast and vast manner. Hence, the governments are also planning to provide services with the support of available ICT tools to provide better services to citizens. Though there are many financial hurdles and illiteracy of people in our country, the governments are trying to allocate huge amount of funds to materialize the government services into digital format for the benefit of common people. This paper focuses briefly about e-Government and e-Governance and explains basic idea of the main categories of G2C, G2G, G2B and G2E applications with developed already designed applications as an example study. This paper might be useful for the researchers who are willing to start their research in the area of e-Governance and e-Government sectors.

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