E-Governance and RailNet

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Abstract

"ICTs (Information and Communication Technology) are effectively showing new dimensions to old institutional setups. There is a reinforced thrust for an informed and participatory citizenry for efficient e-governance. It goes without saying that impact of ICT on institutional changes is fast spreading across the boundaries of social and political arrangements of societies."

E-governance is the application of information and technology (ICT) for delivering government services, exchange of information communication transactions, integration of various stand-alone systems and services between government-to-customer (G2C), government-to-business (G2B), government-to-government (G2G) as well as back office processes and interactions within the entire government framework. Through e-governance, government services will be made available to citizens in a convenient, efficient and transparent manner. The three main target groups that can be distinguished in governance concepts are government, citizens and businesses/interest groups. In e-governance there are no distinct boundaries

An attempt is made   about the knowledge about e-governance and ICT and what challenges are faced specific to India and benefits taken by adapting e-governance by Indian Railway.

Keywords:

E-Governance, Railnet, ITC, government-to-customer (G2C), government-to-business (G2B), government-to-government (G2G)

Introduction

E-Governance is the application of Information and Communication Technology (ICT) for delivering Government Services, exchange of information, communication transactions, integration various stand-alone systems and services between Government and Citizens (G2C), Government and Business (G2B) as well as back office processes and interactions within the entire Government frame work. Through the e-Governance, the Government services will be made available to the citizens in a convenient, efficient and transparent manner. The Government being the service provider, it is important to motivate the employees for delivering the services through ICT. To achieve this, the Government employees are being trained on technology and started realizing the advantage of ICT. The aim is to make them thorough with e-Governance applications and responsive to the technology driven administration.

It is the use of a range of modern Information and Communication Technologies such as Internet, Local Area Networks, mobiles etc. by Government to improve the effectiveness, efficiency, service delivery and to promote democracy

Governance: An Information perspective

- Representative democracy relies on supposition that best way to make a decision is wider participation for all its citizens having access to relevant information.
- Government is by nature an information intensive organization.
- Information is power and information management is political.

Governance: In IT framework

- Expansion of Internet and electronic commerce, is redefining relationships among various stake holders in the process of Governance.
- A new model of governance would be based upon the transactions in virtual space, digital economy and dealing with knowledge oriented societies.
- Electronic Governance is an emerging trend to re-invent the way the Government works.

E-Governance: Focus

- Greater attention to improve service delivery mechanism

- Enhancing the efficiency of production
- Emphasis upon the wider access of information

What does E-Governance seek to achieve

- Efficiency
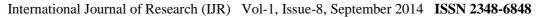- Transparency
- Citizen's participation

Enabling e-governance through ICT contributes to

- Good governance
- Trust and Accountability
- Citizen's awareness and empowerment
- Citizen's welfare
- Democracy
- Nation's economic growth

ICT is the biggest enabler of change and process reforms with minimum resistance. Decades of attempts for government and process reforms fade in face of what ICT has achieved in few years. People would not so readily accept process change but in the name of ICT they do.

Challenges in E-governance

*"E-governance, however, is not really the use of IT in governance but as a tool to ensure good governance. E-governance does not mean proliferation of computers and accessories; it is basically a political decision which calls for discipline, attitudinal change in officers and employees, and massive government process re-engineering,"***Ravi Kant (Special Secretary, IT, Govt. of West Bengal) explains.**

All implementers and drivers of e-governance initiatives agree that the biggest challenge of deploying e-governance is not technology but change management. Change management is important not only in terms of cultural change but also in terms of changing operations and processes workflow that the automated environment will introduce.

"It's important to educate people at all levels about the benefits of technology. The various benefits and advantages of e-enabling the system should be communicated clearly right at the beginning to ensure popular support which will lead to greater chances of success," explains Dr G D Gautama, Secretary, IT, Government of West Bengal.

It is important to explain to people that the introduction of IT will not take away existing jobs but will make them easier, and if less manpower is required for operations the staff can be re-deployed elsewhere with no threat to their career growth path.

The key challenges with electronic governance are not technology or internet issues but organizational issues like

- Redefining rules and procedures
- Information transparency
- Legal issues
- Infrastructure, Skill and awareness
- Access to right information

- Interdepartmental collaboration

- Tendency to resist the change in work culture
- Lack of human resources.
- Lack of ICT penetration in remote areas.

E-Governance Challenges Specific to India

We list down some of the challenges which are specific to India.

- **Lack of Integrated Services:** Most of the e-Governance Services being offered by state or central governments are not integrated. This can mainly be attributed to *Lack of Communication between different Departments.* So the information that resides with one department has no or very little meaning to some other department of Government.
- **Lack of Key Persons:** e-Governance projects lack key persons, not only from technological aspect, but from other aspects as well.
- **Population:** This is probably the biggest challenge. Apart from being an asset to the country it offers some unique issues, an important one being **Establishing Person Identities.** There is no unique identity of a person in India. Apart from this, measuring the population, keeping the database of all Indian nationals (& keeping it updated) are some other related challenges.
- **Different Languages:** A challenge due to the diversity of the country. It enforces need to

do governance (up to certain level), in local languages. Ensuring e-Governance in local language is a big task to achieve.

- According to an officer from NIC, success factors of e-Gov projects -
  - o 10% Technology
  - o 60% Process
  - o 20% Change Management
  - o Rest is luck

The National E-Governance Plan

E-Governance in India is graduating from pilots to Mission Mode projects

The concept of e-governance is now a reality for Indian citizens. We are graduating from pilot e-governance projects to bigger Mission Mode projects. In this, the core strategy is to move ahead in a systematic manner, and the approach is to achieve success step by step.

The National e-Governance Plan (2003-2007) of Indian Government seeks to lay the foundation and provide the impetus for long-term growth of e-Governance within the country. The plan seeks to create the right governance and institutional mechanisms, set up the core infrastructure and policies and implements a number of Mission Mode Projects at the center, state and integrated service levels to create a citizen-centric and business-centric environment for governance. In 2005, the World Bank signaled its willingness to increase funding further (if required) for a range of e-governance initiatives in India as part of the first phase of the country's National e-Governance Plan (NeGP).

NeGP Vision

"All Government services accessible to the common man in his locality through a One-stop-shop (integrated service delivery) ensuring convenience, efficiency, transparency & reliability"
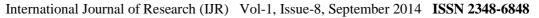
NeGP Approach

- Focus on Public Service Delivery & Outcomes
  - o Process Re-engineering & Change Management are critical
  - o Radically change the way government delivers services

- Centralized Initiative, Decentralized Implementation
  - o Implementation framework accordingly
  - o Project Implementation in Mission Mode
  - o Empowered Mission Teams - professionals & domain people

"Think Big, Start Small and Scale Fast"

The focus of NeGP is on the following.

- Adequate weightage must be given for quality and speed of implementation in procurement procedures for IT services.
- Incorporation of a suitable system of incentivisation of states to encourage adoption.
- The trend of delivery of services through common service centres should be encouraged and promoted.

- Wherever possible, services should be outsourced.
- The full potential for private sector investment should be exploited.
- Connectivity should be extended up to block level through NICNET/ SWANs.
- NeGP also envisages significant investments in areas such as government process re-engineering, capacity building, training, assessment and awareness. The plan is to be executed over a four-year period. An apex committee under the Cabinet Secretary is already in place for providing the strategic direction and management oversight.

Indian Railways RAILNET

The Indian Railways is Asia's largest and the world's second largest rail network. Adopting e-Governance in right earnest and to reap the benefit of IT explosion, Indian Railways have established a 'Corporate Wide Information System' (CWIS) called RAILNET. It provides smooth flow of information on demand for administrative purposes, which would enable taking quicker and better decisions.

Realising the important role that information plays in customer services and in railways operations, IR had embarked on its computerisation program. IR developed a dedicated skeletal communication network, as a basic requirement for train operation. After the early introduction of basic

computer applications e.g. Pay rolls, Inventory Control and Operating Statistics, Railways went for deployment of computers for productivity improvement through building up operational databases.
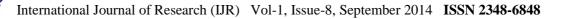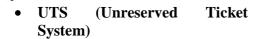
Use of IT in Railway

- **Passenger Reservation System (PRS)**

CONCERT (Country-wide Network of Computerised Enhanced Reservation & Ticketing), Indian Railways fully automated PRS software, is a complex online distributed transaction application based on client server architecture interconnecting the regional computing system into a National PRS grid. The salient features of CONCERT software include allowing passenger from anywhere to do a booking for a journey in any train in any class from anywhere to anywhere; handling reservation, modifications cancellation/refunds.

- **E-Ticketing**

CRIS (Centre for Railway Information System) has successfully developed the Internet ticketing solution launched by IRCTC (Indian Railway Catering and Tourism Corporation). The effort involved interfacing the IRCTC front end with backend PRS Alpha servers, writing procedures for search and queries at the backend, ticket printing on existing clients and accounting software.

- **UTS (Unreserved Ticket System)**

UTS is the complete solution for computerized unreserved ticketing from dedicated counter terminals and replaces manual Printed Card Tickets/Excess Fare Tickets/Blank Paper Tickets. In future, ticketing from handheld terminals smart card, automatic vending machines, etc. is also envisaged.

- **IVRS (Interactive Voice Response System)**

IVRS is a telephonic enquiry system which information such as Passenger Name Record (PNR) enquiry, Train Arrival/Departure information enquiry through NTES, and Berth availability position in any train, in multiple languages.

- **NTES (National Train Enquiry System)**

NTES provides arrival/ departure as well as current status information about any passenger train in the entire Indian Railways. NTES is parallel to PRS. The servers are located at five metros i.e. Delhi, Kolkata, Mumbai, Chennai, Secunderabad and all are interconnected. Entries are made regarding running of train every half an hour at various locations including divisional headquarter all over the Indian Railways. NTES is used by IVRS and other web enabled services and mobile services for providing train information to the public.

- **RailNET MIS**

For running any business organization, the efficiency of the MIS is very important. Indian Railways have many areas, where use of IT is going to have a telling effect. Some of these are listed down:

- **Rail Budget Compilation System (RBCS)**

CRIS has developed RBCS for collecting budgetary inputs from the different zones and production units of the Indian Railways. The system facilitates capturing of data, building of database, analysis of demands and pruning of the estimates for inclusion in the Railway Budget. Besides MIS reports, the system enables printing of budget documents in bilingual, Hindi and English. This system is implemented at 88 locations spread over Zonal Railways and Production Units apart from Railway Board.

- **Comprehensive Payroll Processing System (CPPS)**

CPPS is a comprehensive bilingual package generating monthly salary bills including Incentive Bonus Calculation and Labour Accounting modules and pay slips in Hindi.

- **Vigilance Software System (VSS)**

VSS is designed specially for the requirements of Vigilance Department of Indian Railways and has been implemented in all the Vigilance Departments of Indian Railway Zonal Headquarters. VSS maintains information about vigilance cases/complaints includes various reports, forwarding letters generated by Vigilance Department and keeps track of Receipt.

- **Material Management Information System for P-Way material (MMIS)**

This package is designed specially for the requirements of Civil Engineering department of Indian Railways and helps the users in accounting' stores for P-Way materials. Special emphasis has been given to scrap disposal.

Conclusion

E-Governance enhances the relationships between G2G, G2C, G2B, C2G and B2G using ICT. Thus, E-Governance not merely provides information about various activities of a Government but also involves citizens to participate in government's decision making process. During the last few years, many initiatives have been taken by different state governments in India for using IT as a tool in the functioning of Government so as to provide better services to citizens. In this paper we have made an attempt to summarize key areas which should be focused upon when a country wishes to position itself to be seriously moving towards E-Governance in a comprehensive way. This is a change, a transition that cannot be stopped since it is part of a global movement. Cooperation from government officials and staff will contribute to a smoother transition. Given the current high level of political commitment and largely adequate sources of funding, India is likely to soon emerge as a leader in E-Governance.

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