

PAPER

On

E-Governance as a Tool for Improvement of Public Service Delivery in Customs

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**MCTP, PHASE – IV,
GROUP – 1 (Sub-Group I)**

SYNOPSIS

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INTRODUCTION

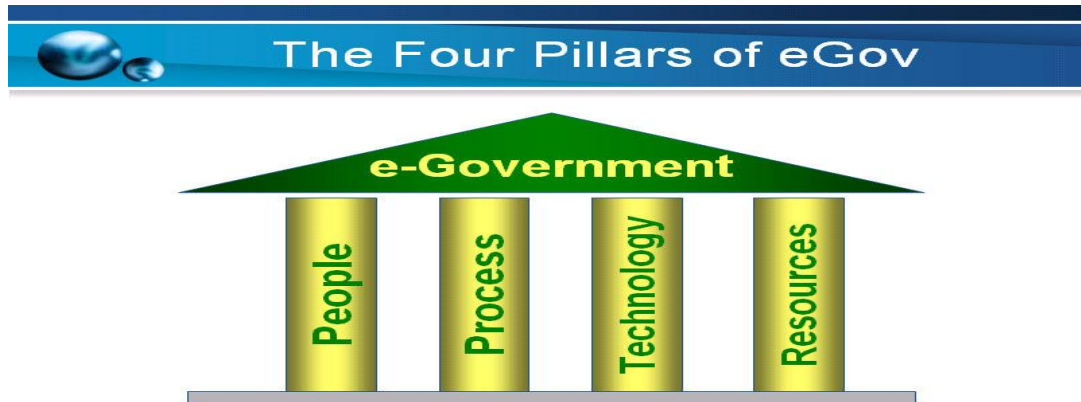
Governance is not a new concept. However, the advent of globalization made the citizens more aware of their rights and led to expectations from the Government to perform and deliver services in a transparent and efficient manner. In such a scenario, the traditional government structures and systems to deliver public services are unable to meet the citizens expectations. Innovative models and systems are required to improve the delivery of public services. The development of Information and Communication Technology (ICT) has provided a platform for providing good governance and this has led to emergence of the concept of e-governance.

e-Government normally refers to the use of Information and Communication Technologies that have the ability to transform relations with Citizens' businesses, and other arms of government. These technologies can serve better delivery of government services to citizens. (World Bank)

Electronic governance or e-governance is the application of information and communication 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.[1] 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.[1]

It is described as a process of reform in the way government works, shares information, engages citizens and delivers services to external and internal clients for the benefit of both government and the clients that they serve. Specifically, Government harnesses information technologies such as Wide Area Network (WAN), Internet, World Wide Web (www) and mobile computing to reach out to citizens, businesses and other arms of the government.

The emergence of IT in evolution of applications has affected both the role and functions of the Govt. Department. To provide ease in doing business and to facilitate citizens, quick and effective service delivery mechanism is required. E-Governance substantiates the need of effective, transparent and quick decision making process. Govt. is basically aimed to regulate the law, render services within the four-corners of law and satisfy the needs and aspirations of citizens. E-Governance has proven to be a tool of maintaining transparency; keeping the people informed, satisfying their needs in an expeditious manner and enable processing across all the barriers. Therefore, good governance has four basic components as depicted below:-



Objectives of e-Governance

e-Governance initiatives fulfil several objectives of good governance. With the help of technology we may build an informed society. An informed society is an empowered society. The informed people can make a Government responsible. So providing access to the people at large to every piece of information of the Government having public importance is essential for modern government. It is only possible through e-technology. Therefore, e-Governance empowers people. Customs EDI System has provided 360 degree view of processing and clearance through ICEGATE portal. It disseminates all the essential information to the trade and industry.

IT platform may provide interface to the public at large for expressing their view points on policies and decisions to be made by the government. To increase Government and Citizen Interaction and encourage citizen's participation in decision making processes, it plays a very crucial role. Otherwise, it is not possible to listen to everyone at large scale. In the physical world, the Government and Citizens hardly interact. The amount of feedback from and to the citizens may be negligible if technology is not used. Impact of social media on government now a days is not unknown to anyone. E-Governance helps in building a feedback framework, to assess the expectation and satisfaction of the citizens. It is used as a tool for enhancing quality of service delivery and its mechanism. Increased population has led to a representative democracy, which is not democracy in the true sense. Viewpoints of representatives and people at large may vary on certain issues. Therefore, enabling citizens through e-platform to express their concerns has paramount importance. E-governance aims to restore democracy to its true meaning by improving citizen participation in the governing process, by improving the feedback, providing access to information and overall participation of the citizens in the decision making processes. It may establish a proper dialogue between citizens and policy makers.

Human interfaces in governance are viewed difficult barriers now a day. It creates problems and evolves in prolonged and time taking processes. Implementation of IT applications reduces interface with users and speeds up decision making processes through automation, validation and integration of various Govt. Agencies. The IT applications enables decision making processes so easily that Govt. Agencies don't need to ask citizen to be present physically and to provide information every time. It reduces time, efforts and transaction cost drastically.

Bringing transparency in the governing process is essential for restoring faith in Government. E-governance carries an objective to make the governing process transparent by making all the Government data and information available to the people through access routes. It is to make people know the decisions and policies of the Government. It ensures that people are aware of the government decisions and are intended to take such decisions after taking their opinion. On the other hand, government authorities also feel that they are not free to take any decision, which are not accepted by the people. Therefore, it inculcates accountability in governance. Government is responsible and answerable for every act or decision taken by it. E-Governance aims and will help making the Government more accountable by bringing transparency and making the citizens informed. In the absence of IT technology, it would not be possible to involve each and every citizen at a large scale in the decision making process.

IT has capability to process data very fast. It can process crores of decisions based on data available within no time. Therefore, to reduce the reaction time of the Government and to expedite decision making processes in government, it is aptly required to implement and evolve IT technology. It is not necessary to obtain various information and data every time from the citizens, if the same data has been made available with its database for once. It also shares information with other applications and makes the processes easier. Therefore, e-Governance helps to take decision and communicates it very fast and reduce dwell time. It also standardizes practices across country and saves people from facing any dilemma of variant practices at different places within country. In nutshell, objectives of e-Governance may be defined in the following picture:



Benefits

For governance, thus, IT technology provides benefits such as Speedy process and clearance, easy communication, reducing time, reducing transaction cost etc. Remote IT services enable people to get their work done from their own premises. They do not need to rush towards government offices. It saves transportation cost, time and efforts. It also saves paper and stationery, which ultimately have an impact upon our forests. It reduces pollution and creates sustainable environment too. Transparency, accountability and best governance approaches are great benefits which have already been discussed in the foregone paras.

Needs of e-Governance

Needs of e-Governance may be specified in the terms as given below:

- Proactive Governance
- Enhanced Internal Efficiency
- Creating the best Business Environment
- Enhancing trust level in governance
- Public Service Delivery excellence
- Efficient Grievance Redress Mechanism
- Maintaining transparency
- Ensuring Accountability
- Speedy clearances
- Ease in doing business
- Transaction cost benefit
- Security and Safety

Indian Context

e-Governance is a framework for delivering information and communication technology (ICT) services to government departments. These services can be 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.

The four main target groups that can be distinguished in governance concepts are:

- Government-to-Citizen (customer)
- Government-to-Employees
- Government-to-Government
- Government-to-Business

Over the years, a large number of initiatives have been undertaken by various State Governments and Central Ministries to usher in an era of e-Governance. Sustained efforts have been made at multiple levels to improve the delivery of public services and simplify the process of accessing them.

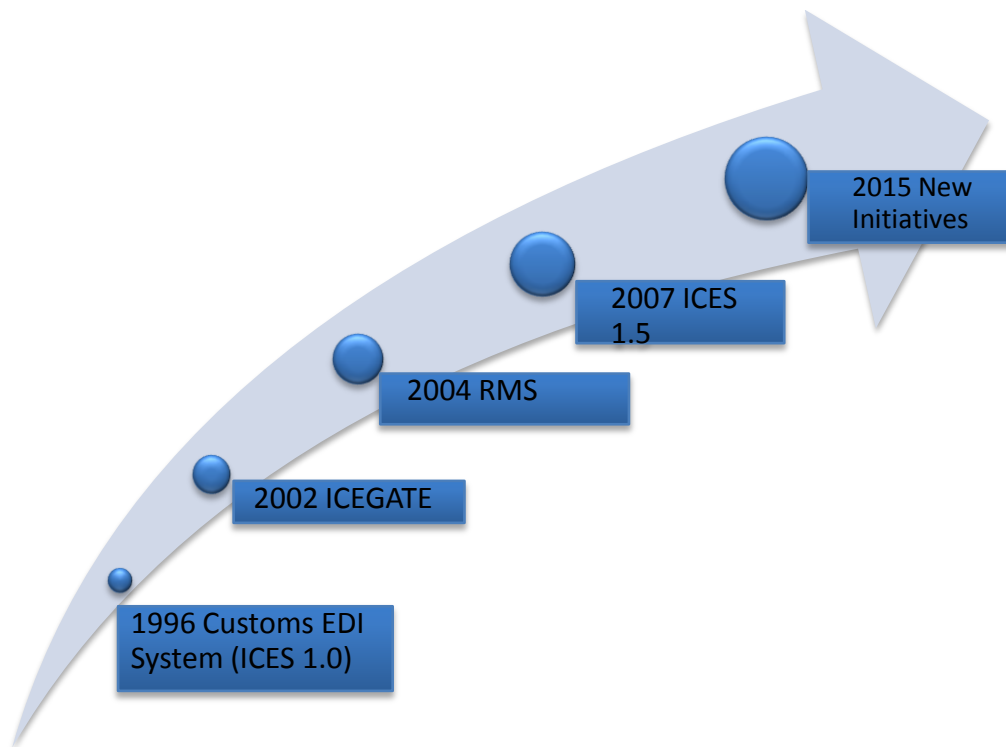
One of the key initiatives taken by Government of India is 'National e-Governance Plan (NeGP)'. The mission of this plan is to "Make all Government services accessible to the common man in his locality, through common service delivery outlets, and ensure efficiency, transparency, and reliability of such services at affordable costs to realize the basic needs of the common man". NeGP was launched on 18th June 2006.

Since the inception of NeGP and through various other initiatives by central and state governments, e-Governance in India has steadily evolved from computerization of Government Departments to initiatives that encapsulate the finer points of Governance, such as citizen centricity, service orientation and transparency. Lessons from previous e-Governance initiatives have played an important role in shaping the progressive e-Governance strategy of the country. Due cognizance has been taken of the notion that to speed up e-Governance implementation across the various arms of Government at National, State and Local levels, a program approach needs to be adopted, guided by a common vision and strategy. This approach has the potential of enabling huge savings in costs through sharing of core and support infrastructure, enabling interoperability through standards and of presenting a seamless view of Government to citizens.

Implementation of e-governance in Indian Customs

The Central Board of Excise and Customs (CBEC) had embraced IT long back. Indian Customs is one of the pioneers in this regard. Customs EDI Systems was implemented in 1996. Gradually, 40 major ports were covered under EDI Systems. Initially, every location had its own server hosted with ICES application. Banks and Custodians were integrated with the local server. All the servers were connected with central server called Kandla Server for directories update. In 2002, ICEGATE project was started for providing business interfaces to stakeholders. In 2004, Risk Management System was implemented as a facilitation measure.

In 2007, EDI System framework was modified and new version ICES 1.5 with centralized database management system was implemented. The new platform provides robust public interface and integration with other stakeholders through SFTP. It also provides Remote EDI System for users.



All customs administrations operate in a complex national and international legal and regulatory environment such as collection of revenue from imports and exports; facilitation of international trade; enforcement of various restrictions and prohibitions against threats of an

economic, social or political nature; protection of the environment; and compilation of international trade statistics.

The modernized Customs administration hinges crucially on sound Business Processes, effective and optimal use of Information Technology (IT) and Human Resources. For an IT implementation to result in the desired business outcomes, it must necessarily be aligned with the organizations overall strategy, goals and objectives. A dynamic tax environment, a rapidly changing technology landscape and growing stakeholder expectations make this alignment even more important. More so, when in India indirect taxes contribute significantly to the total Union tax revenue.

Indian Customs e-Governance has played vital role in improving tax administration and providing ease of doing business. It has following major components:



ICES 1.5 is the core application of customs, which processes all customs papers like bills of entry, shipping bills, IGM, EGM, CGM and documents / licenses furnished by other agencies online like DGFT Licenses, PQIS/FSSAI Permissions, information provided by Banks, Custodians, Shipping Lines, Airlines etc. It also provides platform for assessment and examination of goods and generates several information for other agencies.

Indian Customs EDI Gateway (ICEGATE) is the interface of core application with exporter / importers, CHA, Banks, DGFT and several other stakeholders/Govt. Departments. It connects all the Agencies (more than 19) with Customs EDI System for transactional and informational input/output.

It also manages e-payment gateway, incentive disbursement and real time documents tracking. Therefore, remote EDI Service and transparency measures in customs are taken very carefully.

ICEGATE RES Services		
Transactional <ul style="list-style-type: none"> ❖ Document Filing & processing ❖ Customs Duty Payment ❖ Export Incentive Disbursal ❖ Logistics Management <ul style="list-style-type: none"> ✦ Port / Custodians ✦ Cargo handling ✦ Carrier operations ❖ Licensing Management ❖ IPR Registration 	Informational <ul style="list-style-type: none"> ❖ Real time tracking ❖ 17 Tracking modules ❖ Daily Reports ❖ Customs Duty Calculator ❖ Help Desk <ul style="list-style-type: none"> ✦ Calls- 1.69 lacs ✦ E-mail – 1.32 Lacs ❖ Connecting Standards 	Regulatory <ul style="list-style-type: none"> ✦ MOC ✦ RBI ✦ Ministry of Steel ✦ Ministry of Shipping ✦ Ministry of Finance <ul style="list-style-type: none"> ✦ DGOV ✦ Pr. CCA ✦ Ministry of Railways ✦ MOA ✦ FSSAI
Free of cost 24X7X365 Services		

System Integrator (SI) is crucial for managing Security and Safety of data, safe communication system with other stakeholders, hardware, computing infrastructure and users' management. It has responsibility to manage all patches, new applications and connectivity with other applications. Maintenance and Support of running applications and servers are also in the hand of SI. It works 24x7 and ensures that all the applications and hardware are working fine. SI also provides helpdesk services to the internal users and helps in preparing and analyzing several miscellaneous reports.

The work of SI is viewed as central technical agency, which coordinates with other agencies like, ICES, ICEGATE, RMS, APIS etc. Application monitoring system and backend support is also provided by the SI.

Security has become major threat of IT applications in present day scenario. A single virus intrusion in core application may create havoc. SI has very important role in keeping central database safe. It is important to mention here that customs applications and database is absolutely safe and no such problem has arisen even for a single moment.

Enterprise Data Warehouse is the platform which has tremendous analytical capability. It processes business intelligence for policy making, audit and enforcement, based on transaction data collected from Customs, Central Excise and Service Tax.

A 360 degree data analysis approach has been adopted by DG, System with the help of Customs, Central Excise and VAT data. Several State Governments have been benefited with the

intelligence and information shared by EDW. The EDW project is also managed by SI team presently.

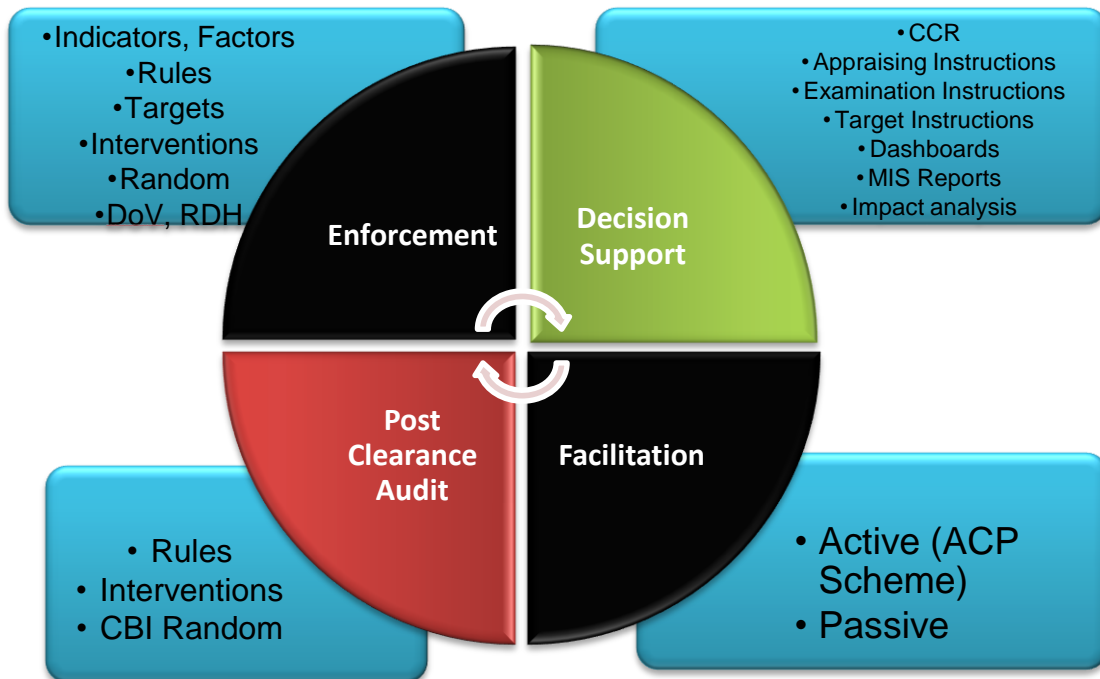


Risk Management System was introduced in 2004. Starting with Air Cargo Complex, Sahar Mumbai in December, 2005, the Risk Management System (RMS) has been implemented in 90 major Customs ports/airports covering about 95% of India's international trade. It has revolutionized the customs import clearance process by cutting down the clearance time drastically. Instead of routine assessment and examination of all cargo, only selected consignments are taken up for scrutiny and examination.

It is a tool to balance facilitation and enforcement which has been widely appreciated by the trade. Due to the introduction of RMS, the importers have greatly benefited by way of reduction in dwell time and transaction costs, which has improved their competitiveness. There has also been considerable reduction in the need for physical interaction between importers and Customs officers. Clearances without assessment and examination and the facility of direct delivery of cargo have been given to eligible Accredited Clients of Customs. Importers today are able to plan their logistics and supply chain as per global standards and follow "Just in time" principles.

The RMS Project has been designed and developed in house by a small team of Customs officers, at the Risk Management Division, Directorate General of Systems, Mumbai with the help of vendor. Thanks to remote filing using the internet web portal of Indian Customs www.icegate.gov.in, facility of e-payment and RMS, today the Indian importers are able to clear their goods within a few hours. Due to these efforts, the Indian Customs have been able to provide higher standards of service to the trading community.

RMS provides System Driven Risk Assessment with the help of Risk Parameters. It facilitates trade and provides Compulsory Compliance Reports (CCRs). RMS helps in reducing interventions by Customs officers based on high-risk Parameters. It also selects documents for Post Clearance Audit. RMS is also implemented in Export. It manages IPR system too.

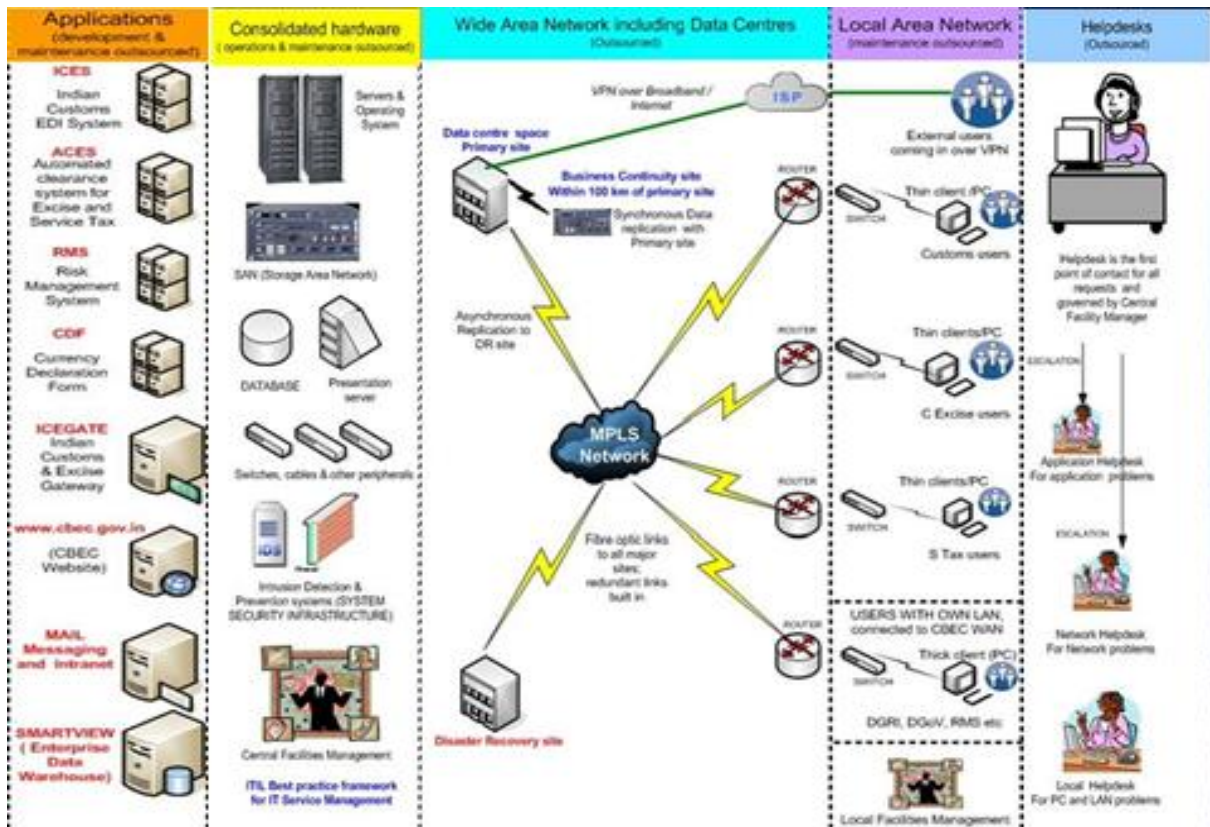


Customs EDI has also introduced Advance Passenger Information System (APIS) recently. It helps customs administration at Airport and profiling of passengers and enforcement.

Customs EDI System covers 126 major customs locations pan India. It integrates 22 broad categories of Govt. and Private Agencies. Almost 1.55 Crore documents are filed annually using Remote EDI Systems and processed at Customs EDI System. It is available to the users on 24X7X365 basis. Robust helpdesk and application support is available round the clock.

It also processes more than 3500 documents beyond business hours. 19 Banks are enabled at its e-payment gateway and more than Rs.800 Cr. Customs duty is paid daily through this gateway (99% of total duty payment). Customs EDI System disburses more than Rs.27000 Cr export incentives per annum. ICEGATE web-portal receives more than 12 lacs hits daily. It processes business transactions of 8.7 lacs Customs Brokers and other users. More than a lakh messages are exchanged through ICEGATE Platform daily.

A simple Customs EDI Framework is given below. Customs database is centralized. It has Primary, BCP and Disaster Recovery sites. All connected with MPLS. Internal users are connected through routers and switches with the help of WAN and LAN. Outside users are connected through ISP.



Customs EDI system has created Single Window framework to some extent. Although its integration process with other agencies are not yet completed since many Govt. department have yet to develop its IT platform for integration. The integrated departments/agencies are not directly communicating with customs online.

Indian Customs under CBEC had embraced IT as a tool to improve good governance long back. It e-Governance project is at the top of departments who are trying to manage their businesses through IT technology. It is providing host of IT enabled services today, hosted from its centralized IT infrastructure. Further, several new initiatives have been taken in hand to fulfill the aspirations of citizens. Some important projects, which are under discussion awaiting augmentation of infrastructures are given below:

- i. E-mobility solutions – enabling services at handheld devices.
- ii. Technology upgrade

- iii. Better/pre-shipment targeting and enhance capability of RMS.
- iv. Single Window Framework of Customs
- v. Coordinated Action
- vi. Integration with GST etc.

Lessons Learnt

Although Customs EDI System has substantiated the need of e-Governance adequately, yet it has to travel miles to achieve the objective of effective e-Governance. Before we discuss the shortcomings and recommend for improvement, it is important to look into the constraints and problems that the department has been facing on account of improvement. Swift changes in technology, high expectations of people, lack of skilled resources who know business and IT both etc. are having direct bearing on the quality of automation. Indian Customs has no doubt the same problem at the top. To perceive the challenges and constraints following major aspects may be kept in view:

1. **Infrastructure Support:** IT needs robust infrastructure Support and adequate bandwidth availability. Customs EDI system has been facing constraints on this account. Most of the western countries have invested huge amount in their infrastructure and support system. United Kingdom has invested more than US \$ 3 trillion in their IT infrastructure during the first decade of 21st Century. India on the other hand has invested very small amount on its infrastructure.
2. **Digital Divides:** It is also a fact that Indian IT solutions of different departments are developed separately in silos and its architectures are monolithic. Some departments are yet to achieve IT capability. For integration of different applications of different departments, there is a need to have light and changeable architecture with plug-and-play capability. It may be possible only when an integrated approach in preparing law and procedures has been adopted by the Government keeping in view its IT applicability. Business of different departments must be process oriented and IT competent. Unless we develop applications with a view to have option for easy integration with other agencies and reduce monolithic blocks into light building blocks adjustable as per needs, IT solution can't be orchestrated.

3. **Complicated Integration Process:** IT system can't orchestrate symphony unless it has interfaces with other applications and provides complete solution to the business processes. Customs EDI system needs to have architecture wherein integration with other application would be easy. The monolithic architecture may be transformed into light architecture adjustable with swift modification.
4. **HR Policy and Knowledge Management:** IT management needs robust HR policy on account of managing resources, knowledge and maintaining motivation level high. It is skill and knowledge intensive. Indian Customs EDI System not only has acute shortage of proper HR policy only but its knowledge management system is poorly managed.
5. **Commitment at Senior Management Level:** To streamline IT applications and enhance e-Governance prospects, high level commitment is required. Processes of different departments and its way of doing business can't be demonstrated in the same way through IT as it is framed. It therefore, requires having commitment at top level to simplify processes and law, wherever required, so that it may be managed through IT integration. Arranging finance, maintaining inside skill and knowledge level for IT Solutions etc. may not be possible if top management level is not committed. Inter-departmental coordination and re-engineering of processes is possible only if higher management is inclined to do it.
6. **Flexibility and Financial independence:** IT department must be given flexibility to re-adjust its plan based on the requirements. Financial independence is very much crucial for management of infrastructure and skill level.
7. **Gap between Policy/Law and Procedures making and IT:** As discussed above, IT experts of the department are not engaged normally while making policy and framing business processes of different departments. Standard framework of IT enabled process making approach is therefore essential.

International Best Practices

International Best Practices in Customs may be derived at from the Revised Kyoto Convention (RKC) which has been adopted by the World Customs Organization (WCO). The key recommendations are given below:

- ❖ Transparency and predictability in customs actions
- ❖ Standardization and simplification of documents
- ❖ Simplified procedures for authorized persons
- ❖ Maximum use of Information Technology
- ❖ Minimum necessary customs control to ensure compliance
- ❖ Use of risk management and audit based controls;
- ❖ Coordinated interventions with other border agencies;
- ❖ Partnership with the trade;
- ❖ Self-declaration/assessment.

WCO Framework of standard provides best practices and automation in customs administration, which recommends Customs to Customs networking and Customs to Business Partnership. It also prescribes the SAFE Framework and Supply-Chain Management under AEO MRA proposal, Single Window Platform and integration of all departments for decision making processes. Developing service oriented process approach and Capacity Building/Skill/Knowledge Management are the other important aspects. Standardization of data and processes, advance Risk Management System, Pre-Shipment advance information, Unique Consignment Reference (UCR), Selectivity, Profiling and Targeting, communication, Performance measures, Security Assessment, Employee Integrity, outbound security inspection and technical specification for standard implementation etc. are identified as main areas of implementation.

Integrated Border Management, Data Privacy and Protection, Global Information and Intelligence Strategy and advance technology are also very important aspects specified by WCO.

Further, many European countries have standardized processes of the entire department and have integrated processes at IT platform. Citizens are enabled to access all the applications with the help of single sign on ID (SSO ID) for all services. Validations of credentials and monitoring access system are common for all services [3].

A robust IT system can make all the best practice possible in India. Accordingly on the basis of these best practices we recommend improvement of our Customs EDI System, which are given below.

Recommendations

From our experiences and experiences of other countries following suggestions are enumerated for improvement of IT solution in customs and improvement of overall e-Governance initiatives of the country.

- i. **System Integration:** It has been learnt that the Customs EDI System is not yet integrated completely with other departments, which are participating in clearance processes and decision making processes of customs. Integration process is also very lengthy. Many departments have not yet achieved IT compatibility of integration.

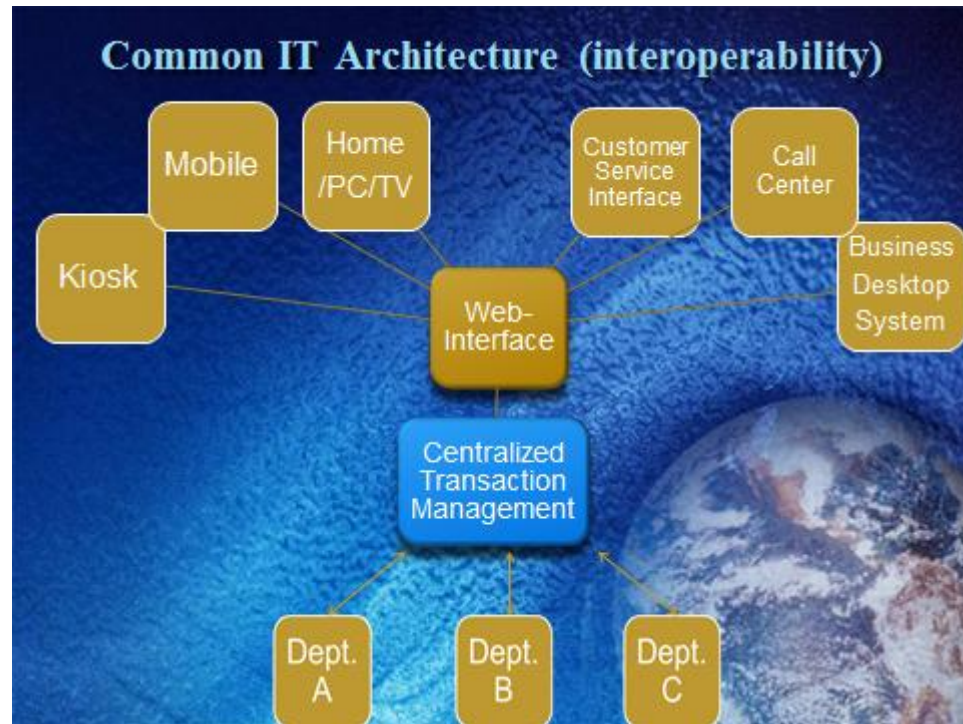
It has also been learnt that Single Window System is in the process of establishment so that all the Govt. and Private agencies participating in clearance processes directly or indirectly may be brought at the same platform. It would be easier in case the higher level management of all such departments is committed and if a common standard and same platform is set. Following picture describes a suitable integration model of customs community:



Similarly, it has been learnt that western countries like UK, Sweden, Holland etc. have developed Govt. wide service network with a common platform. Citizens' are empowered to access with the help of Single Sign On ID and Password for all the Govt. services through a common platform.

Therefore, India must not only integrate the customs community at a single platform, but also develop capability to integrate other govt. departments so

that people should not run pillar to post for availing services through different e-portals. This framework may be depicted in the following manner:

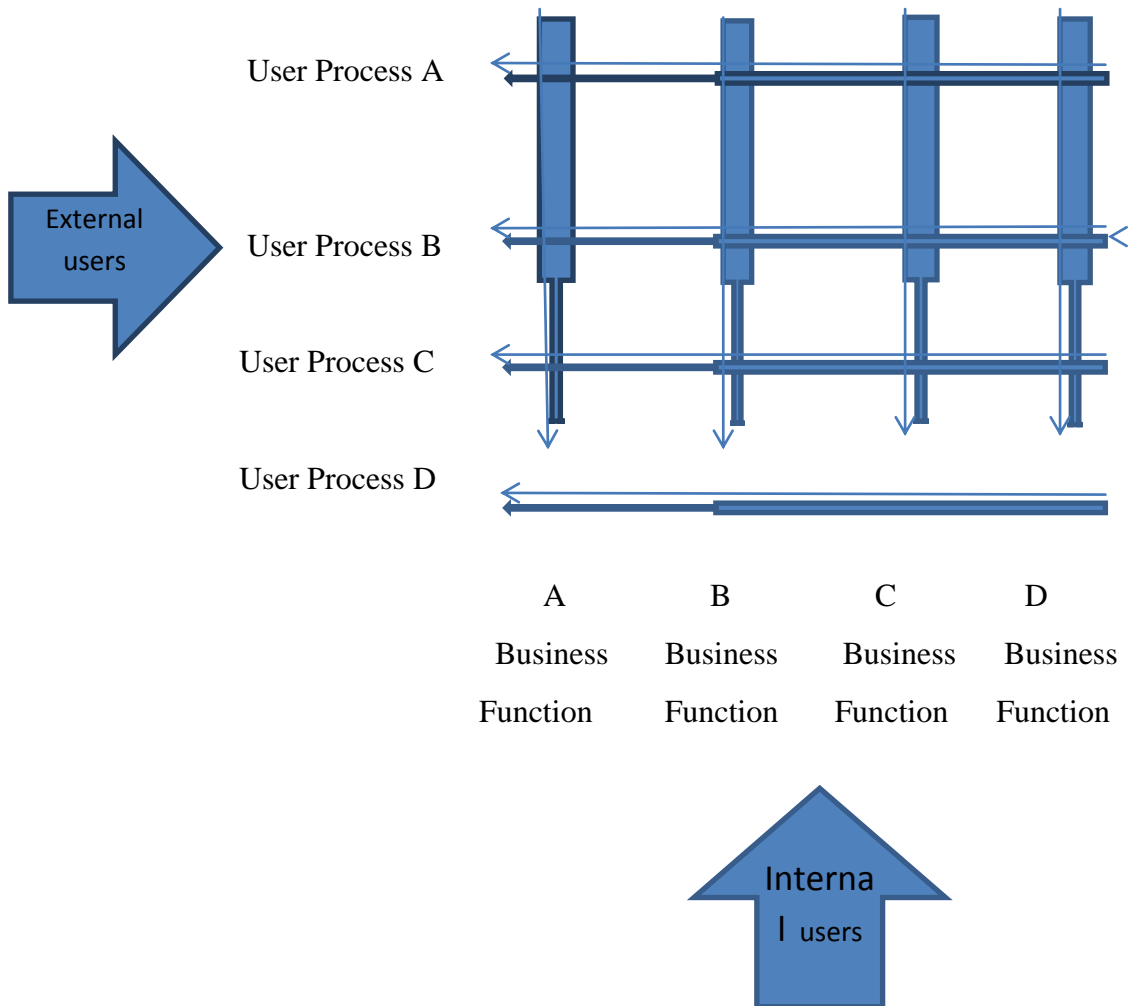


To make this possible, Service Oriented Architecture (SOA) may be opted by a Central Agency like Ministry of Communication and Information Technology and all IT platforms may be integrated with Centralized Transaction Management System.

- ii. **User Process Approach:** To achieve the centralized transaction management system, it is required to adopt a common open standard for all the departments and user process approach. Presently, every department has its own business function approach and therefore, monolithic application approach has been adopted by them. The approach we have created is task oriented. That is why we develop our services based on the parameters of law. We never think of doing it differently and that is why we create an IT block in silos. Successful implementation of e-government initiatives depends not only on the availability of “resources” but most importantly on the adoption of appropriate implementation-oriented paradigms that describe the growth and evolution of e-governments. The Design of IT service solutions have major challenge. It needs to have process oriented and service oriented design and not the business function oriented design

[4]. For example Shipping Bill may be originated through Central Excise department for export and come to customs for export. So processes may be built up to orchestrate an efficient e-business processing across department.

We may understand the differences of business flow process approach and user process approach with the help of following picture [5]:



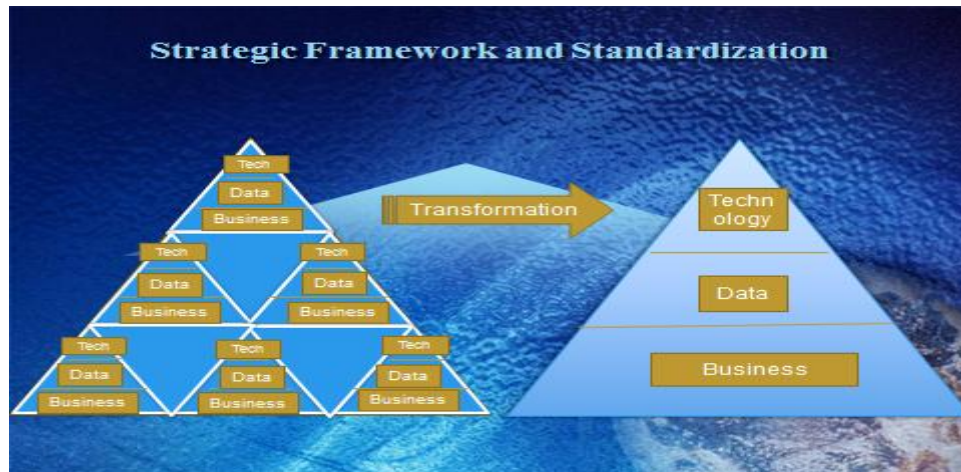
- iii. **Service Oriented Platform:** Complex processes across departments may be orchestrated with the help of SOA framework. SOAP communication protocol may simplify integration and interoperability. SOAP enables monolithic architecture to be transformed into simple building blocks using appropriate

technology to manage adequate quality of service level. Open standards are fundamental to this model to ensure interoperability of both data and interfaces between several platforms.

In recent years, Service Oriented Architecture (SOA) has emerged as an architectural style that advocates reuse and integration of software components irrespective of their location and implementation. It has been advocated as a suitable paradigm for crafting next-generation large-scale applications. While the SOA approach strongly reinforces well-established, general software architecture principles such as information hiding, modularization, and separation of concerns, it also adds additional themes such as service orchestration, service choreography, service repositories, and concepts like service bus.

- iv. **Common Interface:** Service-orientation is a new way of thinking about software systems that require interoperability. It helps one to identify certain high-level functionalities that can be deployed as logical units. One who is interested in availing a specific functionality can possibly do so by requesting the logical unit through the provided interface(s) without bothering about how the functionality is actually worked out. This feature enables one to provide common interfaces to applications, thereby enhancing the interoperability and reusability of already available functionalities of applications running on different platforms. Eventually, this would help in rapid integration of applications and automate most of the business processes of organizations.

- v. New ICT opportunities and achievements are constantly emerging, which needs to be adopted rapidly for effective results in e-Governance. Service oriented architecture (SOA) is a design approach to organize existing IT assets such that the heterogeneous and distributed e-Governance applications can be transformed into an integrated and simplified single window service centre for common citizens. A systematically executed SOA project using software engineering principles as discussed in the foregoing paras will help organisations to build stronger connection with service consumers and provide accurate and readily available information for better governance. It will help common citizens in sharing the available information in an easy and affordable manner. These software engineering principles can further be improved to develop citizen centric e-Governance SOA models so that the outputs of the business processes become visible to the end-customer, who will be able to select and combine different services to configure unique solutions that meet his / her personal needs.



vi. **Processes for common IT Platform :**

(I) Registration -

- a. Identification, Authentication, verification of online users(citizens' business, intermediaries)
- b. ID/Password/DSC/Chip-PIN

(II) Transaction Engine

- a. Handling the processing of transaction between citizens', business and department
- b. Management of state and orchestration across multiple service providers where transaction involves multiple entities.
- c. Handling two way secured communication between department/citizens/business

(III) Gateway Helpdesk

A common helpdesk managed with the help of specialized technical resources.

- vii. WCO SAFE framework: Global networking of customs EDI system shall have solution of several problems. Safety and security and trade facilitation are perfectly covered under Trade Supply Chain and AEO MRS model. Indian Customs EDI System must endeavor to get connected with WCO global network and SAFE Framework.

- viii. As discussed under objective of e-Governance, people must be kept well informed. Single window facility measures also stipulates requirement of a robust Advance Public Information System. Indian Customs EDI System although has a system hosted at its website www.icegate.gov.in and CBEC website but the quality of information disseminated must be enhanced.
- ix. Single Declaration, Centralized Appraisal, stopping requirement of physical papers, Advance Payment system, Coordinated approach with other agencies, automatic routing of information, single point data capturing, WCO Data Model, re-engineering of business processes of different department and making it more service oriented, e-mobility, inter-operability and end to end solutions are crucial steps required to be taken by the Indian Customs to improve e-Governance initiative.
- x. Finance, resources and knowledge management are very important components to maintain high level of quality of any e-platform. A right solution is giving autonomy to such department to charge certain fee to manage its cost intensive business approach. If possible, Govt. should create SPV with autonomy for such activities. Other-wise it cannot grow with expected capability. Aspirations of resources and incentivization should also be maintained.
- xi. PPP model to acquire required capital capability: To enhance facilitation, western countries have also developed PPP model to establish high speed train scanner, enhancing data base, using cloud database etc. Govt. may allow Customs department to enhance automation through Public Private Partnership.
- xii. Knowledge and Skill Management: Attrition rate of Private vendors is very high. NIC on the other hand has insufficient resource availability. Their motivation level is also very low since resources of lesser capability in private sector are getting more financial benefits. In such a scenario, it has become very crucial for customs department to manage its own resources for effective monitoring. Appointment of technical group at cutting age level for DOS must be taken into consideration as soon as possible. Otherwise Knowledge and skill management with quality may not be ensured.

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