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Evolution of a comprehensive & integrated ICT system – Commercial Tax Department Uttarakhand

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Abstract: We are all familiar with the famous Benjamin Franklin quote "Certainty? In this world, nothing is certain but death and taxes. So it is not surprising that Government continually seek out ways to perfect and automate the tax process. In fact, the implementation of an integrated Tax Management and information System eliminates a myriad of problems, boost productivity and ensures compliance for the tax authorities. In addition, the taxpayer is positively through better service delivery mechanism. The tax management and information system with the primary objective to generate more revenue alongside providing better service delivery system to its stakeholders is the major challenge for any Government department dealing with tax. Therefore, there is a need to have a comprehensive, integrated, user friendly and efficient computerized system to cater the expectations of citizens, Government officials and policy makers. But implementation of a computerisation system in any government department like Commercial Tax Department is always a challenging task. The paper highlights the software engineering model that has been experienced during the journey of development and implementation of an integrated tax management & information system which evolved from the start-up modules of e-Registration to generation of assessment order of a tax payer. It also illustrates the relationship among different modules evolved during the course of development of an integrated web-based system.

INTRODUCTION

The National e-Governance Plan (NeGP) approved by Government of India includes many high impact e-Governance initiatives and projects that have been identified as Mission Mode Projects (MMPs). NeGP comprises 31 mission mode projects (MMPs), which are further classified as state, central or integrated projects. Each state government can also define five MMPs specific to its individual needs.

There has been a strong demand for streamlining VAT administration through citizen-centric, service-oriented processes, and establishing a certain degree of standardization with respect to Commercial Tax (CT) administration. Since the CT departments mainly interface with businesses and often account for 60−70 per cent of the total revenue of the States and Union Territories (UTs), their functioning can directly affect the attractiveness of a State or UT as a business destination. It is against this backdrop that the Commercial Taxes MMP was conceived.

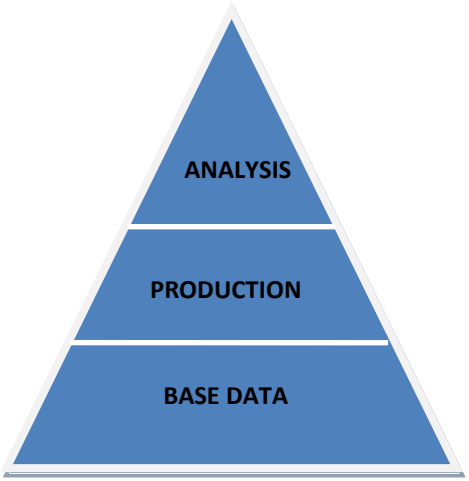
Under this MMP, various recommendations have been made to facilitate simplification of administrative procedures and reduction of processing timelines. Some of the key recommendations are noted below:

- Electronic filing of returns
- Electronic clearance of refunds
- Electronic payment of tax
- Online dealer ledger
- Online issuance of CST statutory forms
- Facility to dealers to obtain various online information services

Beginning of the Computerisation Journey

Any computerised system can be categorized into following three phases:

- Base Data
- Production
- Analysis



Base Data

In the case of Commercial Tax Department Uttarakhand (CTD-UK) the base data is formed by dealers information, payment of taxes, gathering of tax return along-with sale/purchase lists, issuance of statutory forms, declarations of tax by dealers, refund of payment, disposal of legal cases, road permit for importing goods from other States, road permit for passing through the State boundaries etc.

Production

This phase deals with automation of each of the above mentioned function . The digitization of dealer's details and automation of registration process forms the foundation block for building the ICT model of the department. All other modules like payment of taxes, filing of e-Return, generation of online permit, issuance of statutory forms revolve around basic data of a dealer. The various modules which are developed and successfully implemented as part of CTD-UK computerisation project are:

- e-Registration
- e-Profile
- e-payment
- e-Return
- e-TaxDeclaration
- e-Tripsheet
- e-Transit
- e-Refund
- e-Legal
- e-FormC
- e-FormXI

Analysis

Once all above modules are automated and data is available in digitized form, it becomes easier for a user to analyse it by developing an MIS or decision support system.

Methodology adopted

The transition from a typical Government office and a pile of files based system to a modern day office with seamless connectivity and total process integration was a daunting task for administration. It was felt that one of the major factors for making a computerised system successful is making it adaptable to its users. It is experienced that in any Government department implementing a comprehensive system at one go is not very readily accepted by its users. It is well known that a software process model is an abstract representation of a process. It presents a description of a process from some particular perspective as:

1. Specification.

2. Design.

3. Validation.

4. Implementation.

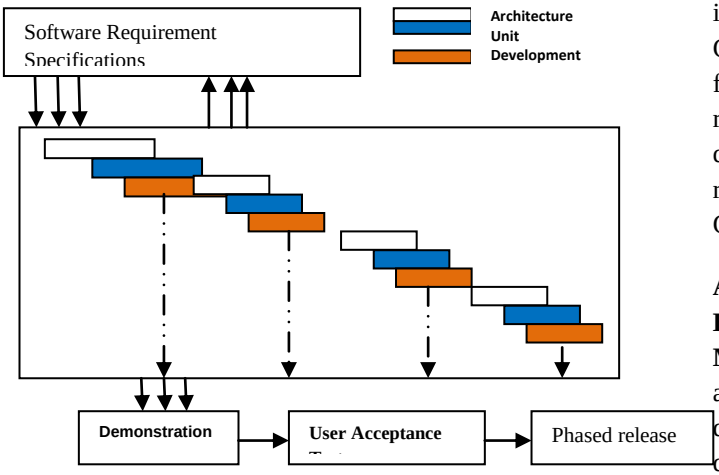
There are numbers of general models for software processes, like: Waterfall model, Evolutionary development, Formal systems development and Reuse based development, etc. This paper will show how Iteration/Evolutionary model is best suited in computerisation of any Government department, the Commercial Tax Department Uttarakhand(CTD-UK) in this case.

ITERATIVE DEVELOPMENT

With Iterative Development, the project is divided into smaller parts. This allows the development team to demonstrate results earlier on in the process and obtain valuable feedback from its stakeholders. In addition it induces confidence in its users for using a computerized system. Often, each iteration is actually a mini-Waterfall process with the feedback from one phase providing vital information for the design of the next phase. In a variation of this model, the software products, which are produced at the end of each step (or series of steps), can go into production immediately as incremental releases.

Various citizen centric modules were developed and implemented using iterative/evolutionary model one after another in a gap of 3-4 months. This resulted a

comprehensive and integrated system where all modules are inter-linked to each other.



The ICT launcher module - e-Registration

As mentioned earlier, dealer(business person) details forms the master data in case of CTD-UK computerisation. The first activity which was computerised was digitization of existing dealer's details which were around 55000 when automation work was started. e-Registration module was designed and developed for enabling receipt of online applications for registration of dealers and its disposal by department officials. With the introduction of e-Registration module, the average no. of days taken in disposal of any registration application is three.

Automation of other modules

Once any applicant was introduced with web-based CTD-UK portal for application of new registration, they were provided a user-id and password to access their user profiles and the information submitted by them at the time of registration. Existing and old dealers were also provided user-id and password for accessing their information. The successful implementation of this module made way for introducing subsequent modules in the system.

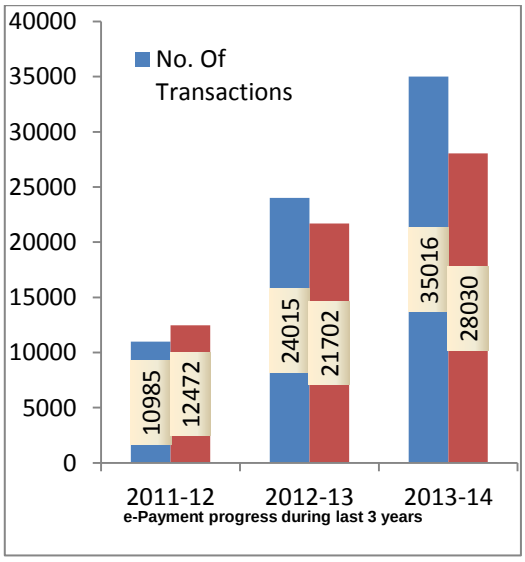
e-Payment

e-Payment module was introduced by enabling site-to-site integration between CTD-UK portal and nationalized banks. The usage of e-Payment by registered users has also increased substantially as shown in Graph 1.0.

e-Return

Every registered dealer has to submit periodical return to department showing sale and purchase data. The CTD-UK introduced mandatory filing of e-Return initially for the dealers having annual turnover of Rs 1 Crore. Subsequently the turnover limit was lowered for submitting e-Return and at present online filing of return has been made mandatory for all the registered dealers. The increase in no. of filing of periodical return has increased over the period as shown in Graph 2.0.

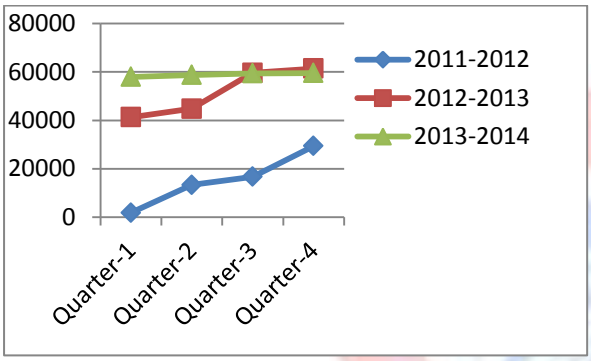
Abolishment of CTD-UK Check-Posts on State Borders – Introduction of Goods-in-Movement Module The implementation of 100% e-filing ensured adaptability of computerized system with-in department officials as well as by its users (registered dealers). This resulted CTD-UK take another step to abolish State check-posts and introduced the new computerised module titled at "Goods-in-Movement module". In this module every transporter/goods carrier was asked to online declare the details of goods being imported into the State for a dealer. All goods carriers were asked to carry online generated **e-Tripsheet** while entering into the State boundaries. The online e-Tripsheet had invoice-wise details of all dealers for which goods are being imported into the State. On average 5000 e-Tripsheets are generated per day in the State. This module also had another module of e-Transit, which was used by goods carrier who used State boundaries as corridor for passing from one State to other. The e-Transit is generated at entry point of the State boundary and is online declared utilized on exit from exit boundary of the State.



Graph 1.0

Invoice-wise filing of e-Return

Although 100 % filing of e-Return was implemented, but the annexures of return which had invoice –wise details of Sale and purchase list were submitted in hard-copy format by dealers. The revised e-Return module was developed by re-engineering the e-Filing module. In this module every registered dealer was provided a downloadable MS-Excel based utility for preparing the e-Return. The dealers are now required to only fill invoice –wise sale and purchase data in MS-Excel rows. And the summarised e-Return is auto generated from detailed invoice-wise data. The XML file, so generated is uploaded to CTD-UK web portal by registered dealers which contain e-Return data along-with invoice-wise sale & purchase data.



Graph 2.0

Self Generation of Form-C and Form-XI by dealers

Registered dealers are required to send Form-C to inter-state selling dealers for claiming tax-rebate on the goods being imported from other State. After implementation of invoice-wise submission of e-Return, all dealers were provided option to self generate filled Form-C(CST statutory forms) for sending it to selling dealers of other States. Similarly, Form-XI is self-generated by dealers for transferring goods with-in the State.

Implementation of other modules

Once any user-authenticated login-id/password computerised system gets established, implementation of various other modules like e-Amendment, e-Refund, e-Tax declaration, e-Legal application are easier for the citizens as well as for CTD-UK officials. All these modules have now been successfully implemented.

SERVICE MATURITY

Transparency

All information, mandatory to be disclosed under the RTI Act is now available online, and every citizen has access to information about registration, amendment in registration and its disposal etc. Details of return data along with sales & purchase details of dealers are available on click of a mouse. This helps in comparative analysis of growth, monitoring of Government revenue and in plugging tax leakages. The application has been integrated with SMS and email facility. The alerts regarding application status, verification of authenticity of a dealer, confirmation of e-payment, submission of e-registration and e-filling are sent to different stakeholders automatically by the system.

Convenience

For the ease of users, manuals and instruction for most of the services are available on the web portal. Option for offline filling of data and submission to CTD web-site is made available where large amount of information is to be submitted by a dealer/applicant. This facility is available for both – submission of e-Registration application and filing of e-Return. Help desks have been established in all offices of the Commercial Tax Department and toll free numbers have been provided to address the queries of e-Service users.

Cost Effectiveness

The web application has reduced the amount of money spent on paper and postal work as most of the information is available online and can be transferred electronically by just one click. Computer hardware and its maintenance costs have been reduced by replacing conventional desktops with thin clients.

Efficiency enhancement

The new workflow based system has revolutionized the department. Officials are free from repetitive, mundane work & unnecessary work pressure. It has also helped them in clearing the pending files quickly.

Capacity Building

The implementation of Tax Management and Information System in CTD-UK has brought ICT culture in the department. All sector offices are well equipped with computer hardware and networking devices. The department is very well ready to adopt implementation of Goods and Service Tax (GST) act in the State.

CHALLENGES FACED

The following challenges were faced by the project team during the evolution of the computerisation project:

Change Management and Mindset: The biggest challenge in the entire computerisation project was to change mindset of the officers and staff of Commercial Tax Department Uttarakhand at various levels.

Resistance from Bar Council, Business & Industry association: There was major resistance by advocate lobby, members of different business and industry associations. The members of bar council had obvious apprehension about implementation of various modules like e-Registration, e-Filing etc due to the reason that they had the fear of losing business after implementation of citizen centric web-based services.

Standardization of documents and process re-engineering: The process reengineering was another big challenges due to existing manual processes and a lot of changes had to be made in department act and rules for making it e-Enabled.

e-Readiness assessment of stakeholders

CONCLUSION

The CTD-UK computerisation project has been the most successful project of the State. This is the reason that this project has been selected as FAT (Final Accessible Test) project for the upcoming State Data Center. The primary objective of this paper is to gain visibility into the successful software engineering model which can be adopted by any Government department for implementation of large projects. The paper also tries to depict how any software module is linked to each other thereby evolving an integrated computerisation system. It is well known that there have been many instances in Government when a large project is designed, developed and implemented in one go but could not be successful due to various factors as mentioned in the paper.

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