

## Chapter 10

### *E-TAX ADMINISTRATION, KERALA \*\**

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#### **I) OVERVIEW**

The performance of Kerala state in the spheres of social and economic development has been substantially better than the others. The Department of Commercial Taxes is the major source of revenue to the Government of Kerala, accounting for 3/4ths of its revenues. The Department caters to 1,60,000 traders (tax payers) through 431 offices across the state. Traditionally, tax collection had the image of being corrupt with cumbersome procedures. The e-Tax administration programme removes the interface between the traders and officials minimizing corruption. It also adds to the convenience of the trader as all the requirements of filing returns, effecting payment, getting statutory forms etc is done online. Besides, development of risk assessment tools helps to determine which tax payers' matters must be examined very closely not merely at audit level, but at all stages, from Registration to Collection. The critical functions of the Department such as Filing of returns, Payment of Tax, Issue of Statutory Forms, Declaration of Consignments etc. are now fully automated.

KVATIS is the application software developed and deployed by the department to facilitate tax administration, which can be accessed through the gateway [www.keralataxes.gov.in](http://www.keralataxes.gov.in). KVATIS is segregated into both Intranet and Internet versions. The intranet application is accessible only to the employees of the Commercial Taxes Department. The internet application is accessible for the registered VAT dealers and the transporters who consign the goods through check posts. It is generally felt that 100% coverage in a computerization programme is practically not possible and that there would always be a section of the population which would be left out. The biggest achievement of Kerala is that it demonstrated that 100% coverage is possible inspite of all the short comings and thus broke the psychological barrier. Ofcourse, Kerala is lucky to have a well developed network of Akshaya centres. Since Kerala has already established a working model, it has become

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\*\*\*\* Winner of CSI e-Gov Awards, 2009-2010

easier for the other states to follow the example of Kerala. There is a general consensus across the country that the entire user interface can be computerized leading to tax payer convenience, higher tax compliance and lesser corruption. States that have not developed their own programmes can successfully adapt the architecture of the Kerala system to their own requirements. Several states like Orissa, Tamil Nadu, Goa, Bihar, Gujarat etc have visited and studied the existing model and are developing their own on similar lines.

## II) RESULT INDICATORS

### 1. Key Performance

#### *a. Stakeholder services and benefits achieved through ICT interventions*

The programme has achieved the following benefits from a trader/ user perspective : Simple and transparent process. Anytime anywhere service. Reduces Paper work. Traders do not need to visit the commercial tax offices Instant acknowledgement. Instant e-Challan and no service charges usually charged by banks for issuing Demand Drafts, Cheque clearance etc. Easy clearance at Check Post due to advance e-Declaration of goods in shipment. System generated annual return based on the monthly returns filed. Reduces the need for direct interaction with the tax officials thereby reducing corruption. The benefits are as follows from the perspective of the department :

- Paperless office.
- Scrutiny of Returns made easy.
- The entire revenue due to the state is instantly credited, thereby gaining on interest earned.
- Relief from cumbersome manual procedures. Rich data bank of dealer transactions enables easy cross verification. Time taken to issue refunds is reduced considerably.
- Avoids treasury reconciliation. Ensures greater level of compliance and tax buoyancy.

#### *b. % of services covered as ICT interventions*

The entire interface between the traders and the department has moved to the ePlatform, except for a last set of changes involving the interface at the check posts, which are being implemented now on a trial basis. In terms of percentage, about 95% of the services can be said to be covered in the initiative as explained below:

The KVATIS application was developed and deployed during 2007. The project became operational on 11.11.2007.

The important milestones achieved by the Department are as follows :

- e-Filing of returns - 01.01.2009
- e-Uploading of invoices - 01.01.2009
- e-Payment of tax - 01.09.2009
- e-Renewal of registration - 01.04.2010
- e-Downloading of Statutory Forms - 01.01.2010
- e-Consignment declaration - 01.01.2010
- e-Uploading of Stock Inventory - 01.04.2010

**1. e>Returns :** As per the law, traders have to file monthly returns before the assessing authority conceding the sales turnover and tax due for the month. The return shall be accompanied with the Challan / Cheque as proof of tax payment. Along with the return, the dealer has to file purchase and sales statements also. In the self assessment scenario, it is a herculean task to scrutinize all the returns with limited manpower. In order to overcome this situation, the department introduced online filing of returns. e>Returns along with uploaded invoice details are filed by traders and are scrutinized online by the officials. It is an honor to say that Kerala is the first State in India to facilitate electronic filing of returns to all the registered dealers. Those dealers having the facility of Internet connection can file their periodical returns from any place, at any time, through the Internet.

In order to cover small traders without Internet connectivity and traders who are not familiar with online services, the Government has provided a facility to the trading community to e-File their returns through Akshaya e-Centers ([www.akshaya.kerala.gov.in](http://www.akshaya.kerala.gov.in)) free of cost. About 1178 Akshaya e-Centers across the state were selected and trained by the department in this regard. Trade organizations and tax practitioners were also authorized to commence e-Filing centers. Thereby, e-Filing of returns became successful.

Auto generation of Annual return is another significance of the system. This relieves the trader from the task of preparing Annual return at the end of the financial year.

**2. e-Uploading of Invoices :** Along with the return, traders have to upload the details of Purchase invoice & dealer to dealer Sales invoice. This data uploaded enables the Department to cross verify the transactions and also augments tax compliance.

**3. e-Payment :** Having successfully achieved e-Filing of returns, Government took the next logical step of introducing e-Payment to its dealers. Just as the State stood first in the country while embarking upon e-Filing, Kerala once again became the first State to introduce e-Payment facility to all its registered dealers. Earlier, the traders had to submit challans or cheques along with their

returns to their respective offices. To enable the payment of tax online, the web application of the department was integrated with those of the Banks (State Bank of India and State Bank of Travancore). For those traders who do not have access to the internet, Akshaya Centres have been authorized to file returns and effect e-Payments. As a result, Kerala has been able to achieve 100% coverage in e>Returns as well as e-Payments. The user has a hassle free experience and the government has the advantage of realizing the revenue instantaneously, rather than waiting for the cheques / DD's to get encashed. Sanction has been received from the Reserve Bank of India to associate 7 more Banks for ePayment. They are :

- Corporation Bank.
- Indian Overseas Bank.
- Bank of India.
- IDBI.
- UCO Bank.
- Punjab National Bank.
- Bank of Baroda.

In order to facilitate e-Payment, more than 7500 commodities were grouped into 314 commodity groups. Necessary amendments in the Kerala Treasury Code, VAT Rules, CST Kerala Rules and KGST Rules were also incorporated. VAT, CST and KGST returns were integrated to facilitate e-payment service to all categories of dealers. Certain evasion prone commodities attract Advance tax payment at boarder check post, when the consignment enters the State Boarder. Hence, the e-payment facility was extended to the payment of Advance Tax also.

With the introduction of online registration renewal, the facility for online payment could be utilized for remitting the fee for registration renewal also. Inorder to ensure data security, the KVATIS Web Application has been subject to audit by STQC. The e-Payment gateway is secured through VeriSign SSL Certification.

**4. Online Downloading of Statutory Forms :** Earlier, the traders had to collect Statutory Forms such as C, E-I, E-II, F & H for inter-state movement of goods manually from the respective Commercial Tax office. Now, the Department has taken the necessary steps to issue online downloading of Statutory forms under the CST Act, through KVATIS. Hence, all the forms can be downloaded directly through the internet.

The bills to which forms are to be issued can be selected only from the invoices uploaded against a particular TIN. The system is designed in such a way so as to enable selecting the invoices for which the forms are to be issued, from the list of purchase/sales uploaded by the dealer while e-Filing the

return. An option to capture statutory forms utilization data is also provided and instantaneously updated in TINXSYS (Tax Information Exchange System).

**5. Online Registration Renewal & e-Payment of Renewal fee :** In order to enable the traders to renew their registration online rather than visiting the Commercial Tax office, the Department introduced online renewal of registration. The fee for renewal of registration can be remitted online, through e-Payment.

**6. e-Consignment Declaration :** This facility is available to all consignors / consignees / transporters to declare the details of consignments in a vehicle online, well in advance, before it reaches Kerala State Boundaries. When goods are being transported for sale in the state, their details can be declared in advance online. In addition, e-Payment can be affected for certain commodities, which attract payment of Advance Tax. It is a simple and transparent process that enables easy clearance at check posts and reduces transaction time.

**7. e-Uploading of Closing Stock Inventory :** Along with the Annual return, the dealers have to submit the statement of Closing Stock. The system was enhanced to enable the traders to upload the details of Closing Stock online, from 01.04.2010 onwards.

*c. Geographical Spread in the State achieved*

The programme is already implemented across the state, and used by all the 1,60,000 traders. Hence, it is already scaled up to its full potential. However, the programme is robust and can take more users as and when required without any general limitation.

**2. Efficiency improvement**

*a. Time saving / improvements in the delivering the above set of services.*

Prior to automation, the manual process of Tax collection was cumbersome and involved the collective efforts of various wings of the Department. The movement of data, collection of tax, tracking of records etc. is time-consuming which at times led to loss of critical information thereby resulting in loss of revenue. The priority of the Department was to effectively integrate and automate all these wings to enable speedy & transparent tax collection and this was achieved through computerization.

Computerisation has yielded a robust and holistic database which can be queried to verify the information submitted by the traders instantly. It is

therefore possible now for the officers to do an effective scrutiny in a fraction of the time taken earlier. For example, Cross verification of returns was a cumbersome process earlier. When a trader's purchase or sales figures were to be verified with the records of the respective seller buyer, the assessing officer would have to write to the particular officer of the relevant jurisdiction to send the relevant file, which was cumbersome and time consuming. Now it is possible for the officers to instantly reconcile the claims with the returns of traders with whom forward and backward transactions have taken place.

*b. Cost savings for delivering above set of services.*

As the traders are aware that all their return data is archived and any mismatch or falsification of data will be picked up by the system at the time of scrutiny, it has led to higher levels of compliance.

Greater compliance has led to increase in revenue collection. During the year 2009-10 while the economy was in the throes of recession, Kerala Commercial taxes has been able to post a growth of 16% in its revenue collection. This has been possible to a large extent due to the computerization initiative.

Since the e payment is instantly credited to the government's account, there is a significant gain in interest earned as there is not clearing time involved.

*c. Time Saving for availing the services (reduction in cycle time) :*

Earlier, the traders had to go to the commercial taxes office to file their returns, which had to be within office hours and there were usually long queues. Now, the trader can file a return at any time from any place, saving him the hassle of going to the office.

Similarly, in the case of payment, the trader had to go to the treasury and remit the money and take the receipt to submit it in the commercial tax office. Since, the introduction of ePayment, the trader can effect the payment from the comfort of his home/ office at a time convenient to him.

Also, in the case of statutory forms like C forms, F forms etc the trader had to go to the respective Commercial Tax offices to collect them. Now, the trader can download the statutory forms on the basis of his return details without having to go to the commercial tax office. Thus, the system has saved enormous time for the traders as well as the department while at the same time improving efficiency significantly.

*d. Cost Saving for availing these services*

Since the traders no longer have to go to the Commercial Tax offices, the possibility of corruption is minimized significantly. All tax payment is made by the traders as ePayment, through the portals of State Bank of India or State

Bank of Travancore. These banks allow for a zero balance account. By moving to ePayment, the traders do not have to incur the cost of service charges for taking Demand Drafts, Cheque clearing etc  
In addition, the traders save on the cost involved in making multiple trips to the offices, treasury etc.

### **III) ENABLER INDICATORS**

#### **1. Processes**

##### *a. Major front end and back-end process changes and implemented*

While planning the user interface of the department onto an ePlatform, it was realized early on that it was important to have modules that seamlessly integrate the front end and the back end processes to be able to fully harvest the gains. The idea was to carry over the manual process onto an eplatform. Along the way, significant amount of innovation, simplification and process reengineering happened. Today the full cycle of assessment, starting with the trader filing his return, effecting payment, downloading statutory forms and final assessment by the officer is conducted on an electronic platform, which has significantly added to efficiencies for the user and the government and is explained below.

- The Department of Commercial Taxes, Government of Kerala has developed and deployed a software called KVATIS for VAT administration.
- KVATIS is a full-fledged Information System software that enables the automation of various functions of the Department.
- It runs on an advanced IS infrastructure fully hosted within the State Information Infrastructure.
- It is developed based on the System Requirement Specifications & System Design Document.
- KVATIS has been developed using JAVA-J2EE, which is a platform independent language. Being a 3-tier Architecture, it can be accessed using web browsers such as Internet Explorer, Mozilla Firefox, Netscape Navigator, Google Chrome, and Opera.

The application is segregated into internet & intranet version. The intranet application is accessible only to the employees of the Commercial Taxes Department. The internet application is accessible for the registered VAT dealers and the transporters who consign the goods through check posts. More than 3000 computers in about 431 Commercial Tax Offices and Check Posts are interconnected through the Kerala State Wide Area Network (KSWAN) to the KVATIS system, hosted at the State Data Center (SDC).

A brief on the important Software Modules of KVATIS are provided below :

- The module 'DEALER INFORMATION SYSTEM' deals with Registration of a Dealer, Issue of Certificates & Permits, its Renewal, Cancellation, Suspension, Amendment etc.
- The module 'RETURNS' deals with Filing of Returns, Details of Payment, Defaulters, Enclosures, Verification, etc.
- The module 'CHECKPOST' deals with the details of Vehicles, Consignor – Consignee, Goods, Verification, Seizure, Auction, Transit Pass and Transport Permits etc.
- The module 'ENFORCEMENT & RAID' deals with Complaints, Investigation, Vehicle Checking, Detention of Goods, Inspection of Shops, Security, Auction etc.
- Other major modules deals with the functions related to Penalty and Offences, Audit Assessment, Appeals and Revisions, Recovery, Refunds and Employee Information etc.
- Using KVATIS Internet application, all registered dealers submit their periodic returns online. Along with the return, traders have to upload the details of Purchase invoice & dealer to dealer Sales invoice.
- Once the returns are submitted online, it is the task of the assessing authority concerned of the respective office, to receive and scrutinize the returns, by accessing the KVATIS Intranet application. Based on the result of scrutiny, the officer may :
  - Mark the periodic return as Completed, if no irregularities are found.
  - Mark the periodic return as Defective, if any irregularities are found.
  - If the return is marked as Defective, the dealers have the option to revise the Original return, to make the necessary correction, and resubmit the same. The officer will then have to re-evaluate the return and make a decision accordingly.

All hardware & other equipments procured by the department are co-located at the e-Governance State Data Centre at Thiruvananthapuram. The Department has two 64 GB database servers with Oracle 10g installed in IBM AIX platforms with RAC. There are six 8GB web application servers and four 8GB application servers in LINUX platform. All the application servers are connected through the load balancer. VLAN is created in the core switch which is mapped to the firewall. An IPS is used for preventing intrusions to the VLAN. An added security is provided for the web application by installing the Symantec security appliance. Automatic back up of data each day is taken using IBM TIVOLI for data security.

## ***2. People and Resources***

*a. Project management & Monitoring – Full time team in place*

A technical committee consisting of experts and headed by the Commissioner over sees the implementation of the programme and advises on the future course of action.

The IT Management Cell in the Commissionerate is responsible for the management of the programme. The Cell is headed by an Assistant Commissioner and co ordinates the activities of the different vendors/ service providers like Software development, data centre management etc to ensure smooth running of the programme. The Cell is also responsible for hand holding the users. Instant redressal of queries raised by the dealers & tax practitioners is necessary for the smooth administration of VAT. A dedicated team with expertise in the functionalities of KVATIS is in place for addressing the grievances and technical queries raised by the traders, to disburse the right information at the right time to the needy and also to ensure transparency. The Department provides 24\*7\*365 toll free helpline service to all its dealers. The VAT Helpline assists the dealers through e-mail as well as over phone, to clear the doubts relating to VAT Act and Rules. The IT Management Cell (ITMC) provides technical assistance on issues relating to e-Filing & e-Payment through e-mail as well as over telephone. e-SMS facility, which is an exclusive SMS Gateway, enables the Department to communicate messages instantly to traders and officials.

Inorder to resolve the technical issues faced by the dealers, the Department has deployed experienced software professionals at the Headquarters. The team is responsible for handling:

- Bug fixing and Change Requests of the existing software.
- Database and application tuning for the existing and new modules.
- Version control of the existing and new modules.
- Proper Testing of the change requests that are implemented.

The team stationed at the Commercial Taxes Headquarters for maintaining the KVATIS Application has the necessary skills and experience in the development and maintenance of 3-tier architecture and above (Database layer, Application Server layer, Browser layer) & J2EE enterprise applications.

*b Achievements of training of internal & external members on the new system*

When the programme was initiated, most of the staff especially the seniors did not have the requisite computer skills. They had to be motivated and trained continuously to improve their skill levels and confidence. The Department has set up four computer labs, for providing in-house training to its employees at –

- Thiruvananthapuram,
- Ernakulam,
- Palakkad and

- Kozhikode.

Employees are trained here at regular intervals to ensure that the skill levels are continuously updated.

The Department recently conducted an elaborate in-house training to its employees across the state in batches. Fifty employees with expertise and in depth knowledge of the system were identified and trained to be trainers. These trainers in turn trained the employees in the hands on training. Real issues from a live database are posed to the employees and they are to finalize assessment on a computer connected to the database under the supervision and guidance of the trainers. Today, the staff see the efficiencies and convenience that computerization brings and are very keen on being trained.

A detailed operational manual covering the entire functionality of KVATIS (both intranet & internet) was published and supplied to all the staff by the Information Technology Management Cell (ITMC) of the department.

In order to cover small traders having no Internet connectivity and traders who are not computer literates, the Government has provided a facility to the trading community to e-File their returns through Akshaya e-Centers ([www.akshaya.kerala.gov.in](http://www.akshaya.kerala.gov.in)) free of cost. About 1178 Akshaya e-Centers across the state were selected and the Akshaya personnel trained by the department. Trade organizations and tax practitioners were also trained and authorized to commence e-Filing centers.

*c. Change management strategy defined and implemented*

When the programme was envisaged, it involved a significant amount of change for the traders, the employees and other stake holders like tax practitioners etc who were all reticent to participate in the programme. Traders thought that they will not be able to handle the complexity of filing returns and effecting payment on an e platform. Similarly, employees thought that they cannot handle such an IT based system and that their power vis-a-vis traders will be diminished. Other stake holders like tax practitioners were also concerned about the system challenging their relevance. A change management strategy was worked out and continuous interactions were held with the stake holders, employee unions, trade bodies etc to impress upon them the benefits of the system. Even though, they were tentative initially, all of them today have realized the importance of having such a system and offer it their unconditional support. Proof of which is the fact that every single dealer in Kerala conducts his transactions with the department online.

With the introduction of various e-Services, the department possesses a data bank of about 1.60 lakh registered dealers. The entire data is critical and also increasing every day. The current system has the ability to easily expand and contract its resource pool to accommodate heavier or lighter loads. The modules in the system can be modified, added, or removed, to accommodate the changing load with ease.

The existing system is flexible to the change requests and can be enhanced by adding new modules/functionalities with minimal effort whenever required. The Version control of the existing and new modules is handled by the software team stationed at the Headquarters of Commercial Taxes. Each change that is implemented is tested thoroughly by the development team as well as the employees within the Department and certified before release.

*d. Leadership support ( Political, Bureaucratic) and its visibility*

An initiative of this nature cannot be taken up without unqualified political support. Once the programme was conceptualized and it was posed to the political leadership, the programme was supported whole heartedly. Issues relating to several stakeholders like traders organizations, staff unions etc could only be tackled due to political support. A series of advertisements were issued in the press and television introducing the programme which was endorsed by the Minister.

This programme was implemented over a period of five years and three commissioners. All the bureaucrats at the helm took up this project as the top most priority. Even the middle level bureaucracy played an important role in convincing their teams on the desirability of the programme. Of course the programme has been successful as the staff of the department took ownership for the project and enthusiastically supported it.

*e. Financial Model ( Funding pattern , Business model PPP etc) defined and implemented*

The implementation of e-Services and re-engineering in the Department of Commercial Taxes is a remarkable achievement in e-governance. The Department has already spent more than 40 crore rupees for automation from 2007 onwards. The initial expense for the implementation of the e-Tax administration was met by the Government of Kerala.

The Government of India has approved the National E-Governance Action Plan (NeGP) for creating the right governance and institutional mechanisms, to set up the core infrastructure and policies and implement a number of Mission Mode Projects at the Centre, State and integrated service levels to

create a citizen-centric and business-centric environment for governance. The Commercial Taxes Department, Government of Kerala is one of the identified Mission Mode Projects of the Government of Kerala. The Department has already furnished a detailed Project Report (DPR), to the Government of India covering the current level of Computerization in the Department, Processes to be Computerized, Process Reengineering, Technology Framework and Specifications, Project Implementation Plan, Total Project Cost including funding options, Disaster Recovery Center, Change Management, Risk Management and Impact Assessment etc.

Government of India has launched a Mission Mode project for computerization of the Commercial Taxes administration (MMPCT). Mission Mode project of the State of Kerala has been approved by the Project Empowered Committee, Government of India, set up to consider and approve the individual state projects. The total approved project cost comes to Rs. 41.25 crore. The Central share out of this total project cost will be Rs. 29.85 crore and State share will be Rs. 11.40 crore.

In terms of returns on the expenditure incurred, since the system has led to greater compliance and buoyant tax revenues it has justified the expenditure incurred many times over. 40 crores is a small price to pay to ensure a healthy growth rate of 16% on a tax base of 14,000 crores.

### **3. Technology**

#### *a. Disaster Recovery & business continuity plan defined & implemented*

The department understands the importance of having a Disaster recovery site in order to secure its data and ensure that operations continue unhindered even in the event of a disaster.

The Department is in the process of setting up a Disaster Recovery site at NIC, Hyderabad. They have the Infrastructure facility to host the DR site and the Department has to procure the necessary Hardware, Oracle License & support, Networking equipments & connectivity. In the interim, the Department has made the necessary arrangements with NIC, Hyderabad, for taking daily incremental back-up of data for the entire application through leased line connectivity.

#### *b. Technological solution cost effective and maintenance over time*

In terms of expenditure the model would be one of the most cost effective models any where. For Rs 40 crores, we have been able to computerize 140

offices, 14 check posts, and serve 1 lakh 60,000 dealers. Rs 40 crores spent on the programme is a small price to pay to ensure a healthy growth rate of 16% on a tax base of 14,000 crores apart from the increase in productivity and convenience.

The Department of Commercial Taxes has constituted a technical committee to evaluate the IT initiatives, under the chairmanship of Commissioner. An IT Management Cell is functioning at the Headquarters to co-ordinate activities relating to automation. The performance of vendors is regularly monitored by IT Management Cell.

Separate Annual Maintenance Contract is awarded for the maintenance of hardware equipments co-located at the State Data Center, desktop computers and peripherals at the Commercial Tax offices across the state, maintenance of KVATIS software, maintenance of KVATIS Database Administration and maintenance of KVATIS WAN.

*c. Security and confidentiality standards defined and implemented*

The following are the security feature of KVATIS :

- Firewall configured.
- All WAN connections are secured using VPN (Virtual Private Network).
- Security Policy.
- KVATIS web application is subject to the audit by Standardization, Testing and Quality Certification (STQC).
- e-Payment gateway is secured by VeriSign SSL Certification

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