VAT Information System*

M.M. Shrivastava
Commissioner of Commercial Taxes, Govt. of Gujarat Office of
Commissioner of Commercial Taxes, Sales Tax Bhavan, Ahmedabad, Gujarat
comm-st@gujarat.gov.in

Abstract

With the Govt. of Gujarat deciding to adapt to VAT regime from 1 April 2006, the Commissioner of Commercial Taxes decided to computerize the VAT related business processes simultaneously.

This was a conscious initiative, knowing, that as the VAT processes are deployed, there could be resistance from dealer community necessitating modifications and amendments in the VAT related rules and processes which may impact the computerization project and the application development. However, the simultaneous exercise insured that legal system had adequate provisions encapsulating e-Governance.

The project was initiated to ensure prompt capturing of data at its origination in digitized form so that the VAT administration could be more informed and controlled. As the VAT implementation process involving VAT returns, scrutiny, assessment and refunds get streamlined, it was envisaged that the data also gets digitized to help the administration have an in-depth analysis of information for better decision support with respect to strategizing the tax administration processes.

The implementation of **Computerization** Project has lead to following benefits for the Government:

1 *Informed decision making:* Due to huge quantum and diversity of data sources informed decision making is difficult in manual system. Availability of data in a digitized data format has helped in better analysis, and subsequent decision making.

2 *Improved analytical studies:* Easy compilation and comparison of data provides various options for analytical studies like commodity analysis, revenue trend analysis etc.

3 *Increased compliance:* Information collected from various sources are collated and collected in the form of central database. This enables an officer to have complete information about any dealer/transaction on the click of mouse. This leads to increased tax compliance by preventing and detecting tax evaders. For example, entry of unscrupulous dealer is prevented by using reports like 'check duplicates'. In this report, an officer is provided with information about earlier usage of same dealer name, applicant name, address, etc., anywhere in state. Similarly transactions not disclosed in returns are detected by match–mismatch report.

4 *Improved administrative control:* The field officers are having access to a number of reports which provide critical input on different facets of administration. It helps in increasing revenue collection, and preventing

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evasion. For example, Unit officers have list of return/challans defaulters available on real time basis, these leads to control on defaulters.

5   *Dissemination of information:* Departmental web site is used for two way communication with stakeholders. It is an important tool to disseminate information about latest changes in the acts and rules, circulars and statistical information. There has been a steady growth in the number of users taking the services through website. The number of hits on the website as of today is about 8 lakhs.

1. Introduction

Project conceptualization

VATIS project was conceptualized by the commissionerate to achieve the following broad business aims:
- Multi Point Taxation without burden of double taxation
- Simplifying and re-engineering Procedures
  - o Re-Organization of administrative structure and Re-definition of Roles
- Efficient, Effective and Economical Tax Administration
  - o Citizen Service Orientation—moving away from person dependency to process dependency and ensuring transparency to maximize citizens' acceptability of VAT regime
  - o Alerts to Department—proactive data points for better decision support
  - o Monitoring of Tax Collection

2. Project Vision, Stakeholders, Objectives and Services

Vision

Efficient, effective, economical and transparent tax administration

Stakeholders

- Tax payers
- Tax practitioners
- Commercial Tax Department, Govt. of Gujarat
- Employees of Commercial Tax Department
- State Government

Objectives

- The objectives for implementation of VATIS are as follows:
- Simplify administrative procedures

- Provide better quality of information for decision making
- Efficient and transparent commercial tax administration
- Improving the quality of services to the taxpayer

Services

The major services made available through VATIS are as follows:
- e-Registration—Dealers can put online request for registration.
- e-Returns— Dealers can file online returns. For ease of use, facility for uploading Microsoft Excel format file is provided. For reusability of the information, dealers have online access for history of e-Returns filed, take printout and can submit the same to the department if required.
- Dealers can put online request for acquiring statutory forms and receive the forms at their door steps without visiting department offices personally.
- Online submission of statutory forms to avail green channel at all check posts (under development)
- e-Request for refunds—Dealers can put online request for refund claims.
- e-Request for amendments—Dealers can put online request for amendment of registration related information.
- e-Messages—Dealers can receive online messages generated by the system in their Message Box.
- e-Payment and Integration with Treasury—Dealers have facility of making online payments against tax, interest and penalty having integration of the citizen portal with treasury. (under development)

3. Public Private Partnership (PPP)

Computerization is not implemented on PPP model. The entire project has been funded by the State Government.

4. Necessity/Needs

Computerization was necessitated due to the following:
- Increase in number of dealers filing returns and challans due to introduction of VAT which is a multipoint TAX unlike first point tax under Sales Tax Act.
- Massive data handling: Data collected from various sources are to be processed to ensure that seller deposits tax because buyer claims credit of input tax.
- Delays in the system, and lack of transparency.

5. Project Plan

Requirements of process re-engineering and legal framework

With the introduction of VAT, Act Rules and Administrative procedures were finalized keeping in view the data capture requirements for processing through computer system e.g. Legal provision for mandatory submission of e-Return, Mechanical numbering of Invoices, etc.

Process re-engineering is almost completed for all VAT processes. Registration, Return modules are operational and once the computerized system is fully stabilized other processes like refund, payment, etc., will also be computerized and implemented.
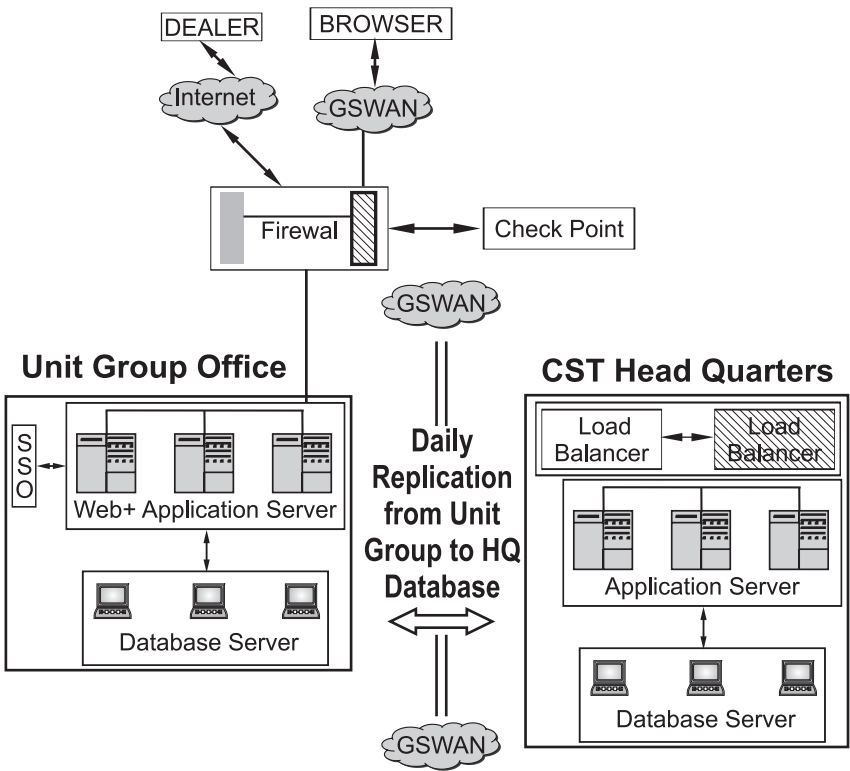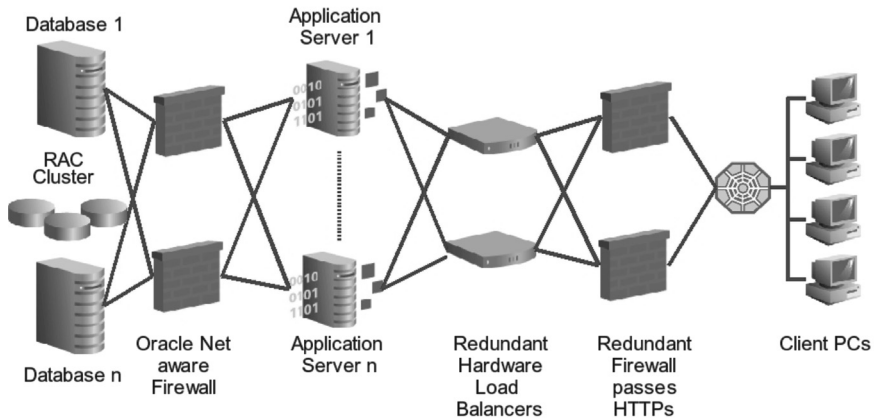
Fig. 1
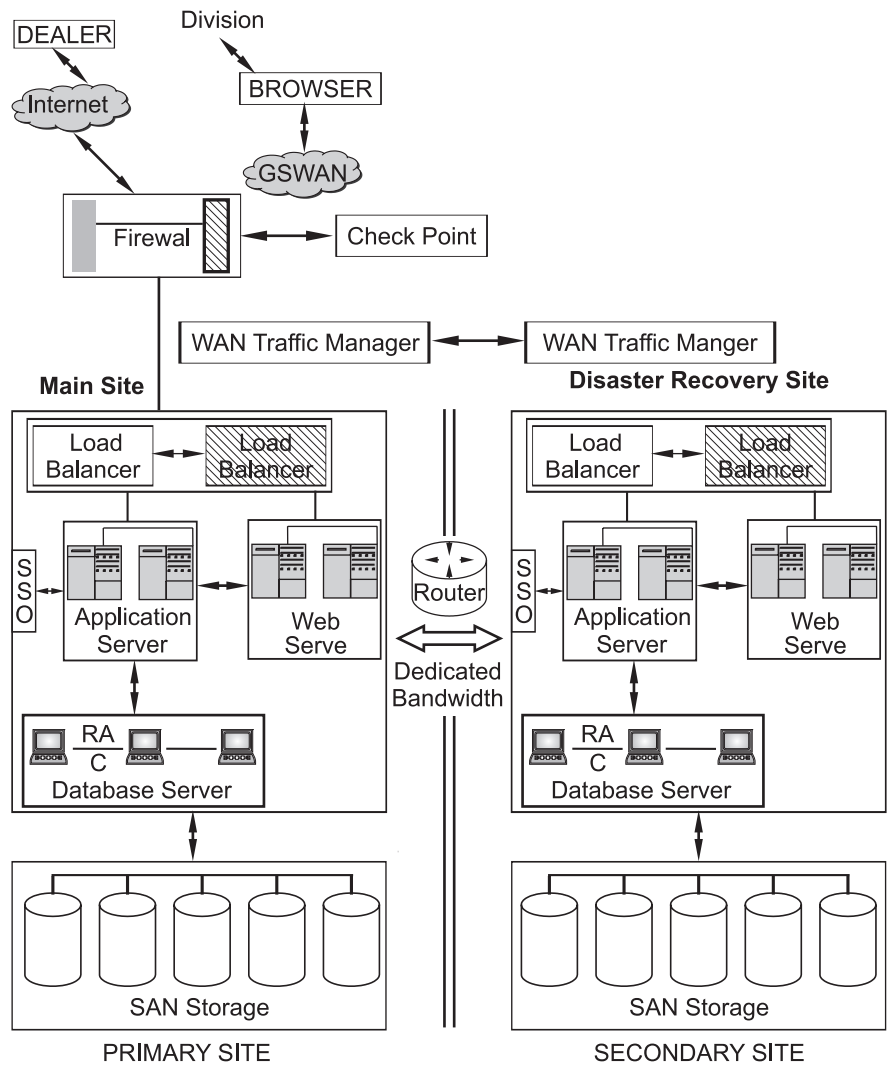
6. Technology Architecture

    i.   Application Architecture at CST Head Quarters
    ii. Application Architecture at Each Unit Group Office
    iii. High Availability/Scalability Configuration – Logical Network
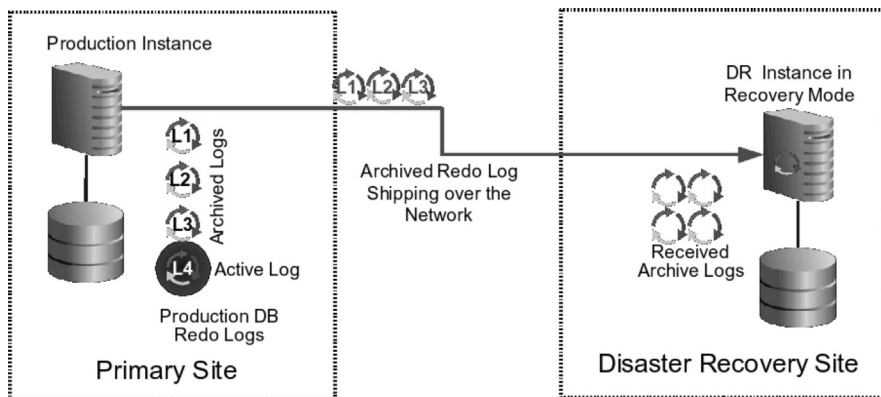   iv. Disaster Recovery

Fig. 2

Fig. 3

Database 1 — Application Server 1 — RAC Cluster — Database n — Oracle Net aware Firewall — Application Server n — Redundant Hardware Load Balancers — Redundant Firewall passes HTTPs — Client PCs

- All network connections are redundant as shown in blue. The network shown here is logical. Actual implementation will use one or more switches and will have a different layout.

- This configuration follows the classic MZ-DMZ-Internet model and is very secure. This architecture also has excellent availability characteristics.

Working Principal

Fig. 4

Production Instance — Archived Logs (L1, L2, L3) — Active Log (L4) — Production DB Redo Logs — Primary Site — Archived Redo Log Shipping over the Network — DR Instance in Recovery Mode — Received Archive Logs — Disaster Recovery Site

- Copies database level changes.
- Works at the log size/transaction level.
- Requires less bandwidth in comparison to pure disk copy solutions as only details of "what to do" are sent to the DR database.
- The actual disk writes to multiple blocks are performed by the DR database. This eliminates the need to copy many blocks for each transaction.
- Certified with Oracle Applications 11i.

7. Milestones

The major milestones for VATIS project have been as follows:

Table 1

Milestone	Date
Project initiation	Sept 2005
Go live	March 2006

Different applications have been operationalsed in a staggered manner.

8. Project Management Structure

The project management structure for VATIS project consists of following:
- The team headed by Commissioner under IT implementation committee for the department.
- There is a separate branch for e-Governance in the Commissionerate.

9. Implementation

Strategy for Pilot to roll out

The Strategy adopted for roll out of application was as follows:
- Selected an IT partner, who already had implemented VAT IT application earlier, therefore having proven record and experience about functional as well as technical know-how. The partner was involved while designing IT-friendly form formats when deploying VAT business processes.
- Decided to move simultaneously with the VAT process deployment and IT application development and ensuring thereby quick Proof-of-Concept and testing of application functionality to go-live to be able to capture digitized data at origin.
- Introduced IT awareness and application orientation as part of VAT change management HR initiative within the department and training sessions arranged for all the employees of the department.
- Organized seminars, workshops and facilitation centres for the dealers/citizens/practitioners for VAT business processes and eServices/eReturns.
- Setup a helpdesk with an open mind to help all users and incorporated suggestions, modifications as enhancements and improvements to the e-functionality/eReturns.

10.   Capacity Building

Computerization project governance structure primarily consists of a team headed by Commissioner under IT implementation committee for the department. The change management and training aspects for the project are taken care by this team and a separate branch for e-Governance in the commissionerate. The details of the training provided are as follows:
- More than 2000 personnel imparted training during last 18 months
- More than 10 Seminars held for e-Return
- Computer guide, handbooks, Act, Rules, etc., put on the intranet that is within the application

11. Evaluation and Measurement

The stakeholder feedback is taken in various manners including the feedback section in the web portal, e-communication, seminars, workshops, etc. The structured feedback survey (CSI) is also taken twice a year on following parameters:
- Quality of deliverables
- Project management
- Post-implementation support
- Documentations
- Responsiveness
- Communication
- Infrastructure
- Security and confidentiality

12. Issues and their Solutions

- Lessons learnt—critical success factors, failure factors
  - o Lessons learnt
    Migration of existing data, and cleaning of the same gave lot of problems.
  - o Critical success factors
    Simultaneous introduction of VAT and start of the project. So, all the forms under VAT rules were designed in a computer friendly manner.
    Logically Centralized and Physically De-Centralized Architecture of Application.
  - o Failure factors
    N/A
- Replication in other states

The project can be customized and easily replicated in other state governments.

- Road ahead

  The road ahead for VATIS project consists of providing following services:
  - e-Payments
  - Online application for C-Forms
  - Online submission of waybills
  - e-Invoices

13. Status and Results

The positive outcomes of VATIS Project for its stakeholders have been as follows:

Dealers/Citizens

o Transparency, better response for services, avoidance to un-ethical practices

o Direct and meaningful communication through web portal as single window for services

o Time and location independence due to e-Services

Tax administrators/Commissionerate

o Daily updated data dashboard and MIS for informed proactive decision support

o Holistic view of state-level transactions and health of tax revenue collection

o High value, citizen friendly image

o Better control

Employees of the department

o Speedier internal process such as scrutiny, assessment and monthly report preparation with digitized data and automated triggers and work flows

o Spare time and effort for core work of leveraging tax-net and revenue generation

State Government

o Easy consolidation of revenue collection data at treasury level

o Predictable revenue in-flow and refund forecast/planning

14. Specific Achievements during the Year 2006–07

The specific achievements made during 2006–07 have been as follows:
- More than 60,000 TIN generated through the system.
- More than 32 lakh acknowledgements issued through the computerized application.
- Detailed data entry for more than 20 lakh forms.
- Entry of 1.23 lakh forms for Tax on closing stock done.
- e-Return started for selected 4,000 dealers.

15. Future Plans for Readers Seeking more Information on Project

The future plans for VATIS project consists of providing following services:
- e-Payments
- Online application for C-Forms
- Online submission of waybills
- e-Invoices