

*AN INTEGRATED TAX PROCESSING
SYSTEM*

*THE TRINIDAD AND TOBAGO
EXPERIENCE*

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INTRODUCTION

The Trinidad and Tobago Tax Administration started electronic data processing in 1969 and at that time, it was considered a huge step forward in modernising the processing of tax returns.

Over the ensuing years the IT systems at the Inland Revenue Division (IRD) of the Ministry of Finance did not keep pace with developments in the world of technology and while there were partial upgrades of operating systems and certainly in processing and data storage capacity, there were still separate and outdated systems for Value Added Tax and Income and Corporation Taxes.

During the last several years and especially from around 2002, when serious reform initiatives were formulated, the Trinidad and Tobago IRD focused on the implementation of an integrated tax processing system. However, it was only as recently as 2005 that a contractor was identified and the work of implementation began.

This paper will address the efforts of the Trinidad and Tobago IRD to create an integrated tax processing system that merges the information collected in respect of all the taxes administered by the Board of Inland Revenue, into one efficient, easily accessible, easily updatable system. In particular, the paper will highlight how IRD selected and is implementing the tax processing system ultimately chosen, the benefits already being observed, past and ongoing challenges as implementation proceeds and general guidelines and factors that have been identified.

BACKGROUND

The mission statement as articulated in the strategic plan of the Trinidad and Tobago Inland Revenue Division (IRD) is “to promote and foster voluntary compliance with the tax laws and regulations by, providing quality customer service and education, improving our employees’ welfare, knowledge, skills and attitudes, and applying the tax laws effectively and efficiently, with fairness and integrity within an atmosphere of mutual respect.” By 2002, the systems in place did little to achieve IRD’s mission nor its vision of becoming the most efficient, effective and innovative tax administration, delivering excellent service to its customers.

The Inland Revenue Division’s current Income Tax and Value Added Tax (VAT) systems were designed and initially implemented in the early 1980s and 1990s respectively. Much of IRD tax processing was conducted with information from **separate systems** containing Income Tax, VAT and Pay-as-you-earn (PAYE) data. Various difficulties in the IRD’s systems have been identified in a number of Needs Assessments that have been carried out within recent years. Notably, the assessments found that the producing of reports requiring the integration of information from different and separate systems was very time consuming and difficult to accomplish. No link existed between the separate systems making it difficult to get the full Income Tax, PAYE and VAT profile on a single taxpayer. Staff members within IRD were often limited in their work capacity by the lack of information available to them. In addition, it was difficult to track non-compliant companies and individuals and both taxpayers and staff were dissatisfied with the length of time taken for processing returns and for updating information.

Given the age and architecture of the IRD tax systems, the lack of integration, and other limitations identified, it became apparent that a new concept, an Integrated Tax Processing System (ITPS) was required to process data with respect to all the taxes IRD administered. In 2003, the Government of the Republic of Trinidad and Tobago agreed to the acquisition of an Integrated Tax Processing System and the related services required for the implementation of such a system. In 2005, a contract was executed for the implementation of an ITPS and the project, which is still in progress, is expected to be completed in November 2008.

THE PROJECT TO DESIGN AND IMPLEMENT AN INTEGRATED TAX PROCESSING SYSTEM

I. PROJECT OBJECTIVE

The IRD's overall objective was to acquire an integrated tax processing system with the capability and the tools to improve the efficiency of processing and managing the taxpayer data collected by seeking to satisfy a list of identifiable needs

The successful system would assist in: -

- Collecting taxes in a more efficient and cost effective manner
- Effectively managing all areas of non-compliance
- Improving the quality of services provided to taxpayers
- Reducing turnaround time for processing returns and updating taxpayer records
- Allowing quick access to all tax information on a taxpayer.
- Increasing Tax Compliance
- Providing management information and statistics to IRD's management to assist with decision-making
- Providing information to the Ministry of Finance and other Government Agencies which would assist with decision-making

In addition to the above, the ideal system would represent a tremendous shift toward a single software solution that would cover all of the IRD's tax related duties and functions across all IRD's tax programs and sections.

II. PROJECT SCOPE

The ITPS, as envisioned above, would consist of tax administration software providing integrated information from all our taxes, as well as the underlying equipment and network infrastructure to support it. It would also include a document input system to facilitate prompt processing of transactions.

In order to successfully acquire this system, the IRD determined that the following must be accomplished:

- determining IRD's detailed requirements
- design and development of a solution to these requirements
- provision & installation of all hardware and software
- design and implementation of network infrastructure
- documentation of the system
- training of the IRD's workforce
- provision of change management services
- conversion of existing data

These tasks formed the scope of the project for the supply, design and implementation of an integrated tax processing system.

III. THE ACQUISITION PROCESS

The IRD could not dedicate the resources necessary to develop, implement and maintain a comprehensive system of the scope anticipated for the ITPS. Therefore, the decision was taken to outsource the design, development and implementation services required.

The acquisition process had the two (2) following phases:

1. The Vendor Pre-qualification Phase - The objective of the pre-qualification phase was to select companies with the necessary experience and capability. The IRD published a Registration of Interest, developed and distributed a pre-qualification document, evaluated responses, and selected the pre-qualifying vendors
2. The Proposal Evaluation Phase – During this phase, the proposals, submitted by the selected companies in response to IRD’s Request for Proposal (RFP), were evaluated and a company selected to provide the ITPS. Vendors were asked to submit documents that were evaluated on the following factors which were given varying weights:
 - a. Approach and Methodology
 - b. Background and Experience
 - c. Management and Staffing Plan

Following the evaluation process a contract was awarded to provide an Integrated Tax Processing System inclusive of hardware, software and the consulting services required to implement this system. The contractor partnered with a software and professional service company, to supply, configure and implement their Commercial off the Shelf (COTS) integrated tax processing system that is currently in production in fifteen (15) tax jurisdictions in North America.

The ITPS software features

GenTax, the integrated tax processing software package being implemented, is designed to support an agency implementing multiple taxes, with associated business and processing rules, with minimal changes to program code. The core of the product is designed to support configuration covering almost all aspects of the system including returns, letters, penalty, interest, transactions, customer types, workflow etc.

The ITPS solution can accomplish the following:-

- Execute selected functions via a web browser; interface with e-mail systems and enable taxpayer self-service
- Execute and manage programmed reports and ad hoc queries
- Create letter templates; manage printing of letters
- Print documents, forms, and letters (for example, returns)
- Index, store, and retrieve images
- Define and enforce application-based security
- Automatically create work items for staff, maintain and track work items.

- Track user's activities and permanently chronicle the user ID of the person who changed a taxpayer's records.
- Define plans for taxpayer candidate selection; manage identified candidates
- Manage data imported from external agencies
- Manage and track audit activities, working papers, financial postings, and audit recovery (tax add backs)
- Identify and process outstanding debts from customer accounts to ensure prompt follow-up of unpaid debts
- Receive, validate, post and correct returns and payments
- Identify and process non-filing accounts, calculate estimated assessments and penalties.
- Measure employees' performance as it tracks work completed on the system.

IV. PROJECT ORGANISATION

An IRD Steering Committee with overall governance of the project was established. This Committee was headed by a Project Executive, a Commissioner on the Board of Inland Revenue. The committee itself consisted of IRD executives with experience in key functional areas such as the Collections, Returns Processing, Reform, Information Technology and Administration. A joint project team of IRD, the contractor and sub contractor was formed for the actual implementation of the ITPS project.

Project Organisation roles:

Executive Steering Committee

The Executive Steering Committee (ESC) provides executive guidance, policy direction and support to the ITPS project to facilitate and ensure project success. This committee's responsibilities also include:-

- Resolving Project Resource Allocation Conflicts, Requests for Decision
- Monitoring Project Plans/Schedules and Project Budget
- Providing Strategic Direction and Plans
- Recommending and initiating policy and legislative changes required
- Appropriate reviews and acceptance of Project Deliverables.
- Authorisation of all payments, contractual or otherwise, bond releases etc
- Ensuring necessary funding in a timely manner

The Project Executive responsibilities include:

- Review and approval of all major deliverables
- Monitoring of project status
- Providing strategic direction
- Ensuring the timely resolution of critical issues that have been escalated to the Board or ESC
- Ensuring linkage with other related IRD initiatives and stakeholders

- Approving all project scope, budget and scheduling changes

Project Sponsor

The Project Sponsor is a senior IRD Manager who monitors the overall success of the project and the management of funding and scope.

The Officer's responsibilities include:

- Liaising with BIR and ESC with respect to project progress
- Ensuring resolution of any system design and functionality issues
- Securing Project Funding
- Ensuring release of required Subject Matter Experts and other resources from IRD
- Approving system requirements and project deliverables
- Seeking authorisation for and facilitating any changes in IRD business operations
- Ensuring the management of the project's Critical Success Factors

A joint Project Team comprising IRD and the Contractor was established to implement all aspects of the project. Project Managers were appointed by both parties to lead their team members. Each component of the project such as Change Management, Software Configuration and Information Technology was also co-ordinated by both the contractor and IRD counterpart.

V. IMPLEMENTATION METHODOLOGY

The ITPS project is being implemented in four (4) phases and was projected to span 3 years. The project involves system implementation, data conversion, change management, training and other services and was planned as follows:

- **Phase 0:** Detailed Project Planning, Requirements Assessment, Development of Tax Profiles, Infrastructure Design, Training
- **Phases 1 to 3:** System implementation, deployment of hardware and user training

For Phases 1 to 3, the contractor is expected to provide the following:-

1. **Professional Consulting and Implementation Services** – Consulting services to assist IRD with improving the business processes and computer systems it uses to administer the Republic's taxes. These consulting services include Project Management, Change Management, Systems Integration, and Training.

The key project management processes undertaken by the contractor included:

- a. Scope and project change management
- b. Project planning and tracking
- c. Project team management
- d. Risk management

- e. Deliverable Materials management
 - f. Configuration management
 - g. Issues and actions management
 - h. Quality management
 - i. Change management
2. The Software Solution – A revenue administration software application with system configuration and implementation services
 3. Infrastructure – New computer hardware for IRD consisting of servers, workstations for IRD employees, and printers.

For Phase 1 to 3, IRD had an especially significant role in the following:

1. Management oversight by IRD executives
2. Training
3. Testing
4. Communication
5. Data conversion
6. Data purification
7. Procurement and set up of hardware and system software
8. Security set up and maintenance
9. End user documentation
10. Infrastructure
11. Provision of requirements for tax configurations, reports, queries, forms
12. Implementation of new processes

The ITPS solution is deployed in three separate phases. Each phase deploys specific tax types. These groupings were determined jointly by IRD and the contracting team and were strategically placed based upon the following primary criteria: a) complexity and size of the tax application or tax type b) overall impact to the organization and filing periods.

The chart below identifies the breakdown of the tax applications or tax types by Phase.

| Phase 1 | Phase 2 | Phase 3 |
|-------------------------|-----------------------|-------------------------|
| Auctioneers Licence | Business Levy | Financial Services Tax |
| Club Gaming Tax | Corporation Tax | Insurance Premium Tax |
| Green Fund Levy | Health Surcharge | Insurance Surrender Tax |
| Hotel Accommodation Tax | Money Lenders Licence | Motor Vehicle Tax |
| PAYE | Pawn Brokers Licence | Stamp Duty |
| Petroleum Taxes | Income Tax | VAT |
| Unemployment Levy | Withholding Tax | |

Key Project Activities

Software Configuration

The commercial off-the-shelf tax solution is being configured to process the taxes specific to Trinidad and Tobago. Each tax has its own rules based on the associated tax laws or regulations. Several of the Division's staff, experienced in the various taxes and the administrating functions such as Collections, Processing worked along with the contractor in configuring the system. These IRD personnel, known as Subject Matter Experts guided the Contractor's developers, as well as IRD IT staff who were also learning the development of the system, in building into the software information such as how the tax liability is calculated and the payment due date.

Conversion

In order to successfully implement the ITPS, the contractor was required to convert the IRD legacy system's electronically stored data and port it into the ITPS. IRD IT staff first extracted the data into a flat file formatted according to the configuration requirements of the taxes. The contractor then ran a conversion program to bring the data into the ITPS. The conversion tasks began early in each phase with the identification of what data existed in the legacy system. Several extracts and then mock conversions were run to achieve the best possible results before the final conversion which occurred just before the phase rollout date.

Infrastructure

Users of the new ITPS will be conducting much of their work via computers. A wide area network was therefore implemented providing the underlying infrastructural support for the system. A large number of servers was set up at our headquarter building, at a backup site and our regional offices. The necessary links were installed to provide redundancy across the network and new backup software and equipment were implemented. Additionally, the IRD offices were all wired to provide network access to users and computers were provided to a large number of our personnel.

Change Management

IRD strongly positioned Change Management as a central focus in implementing the ITPS. As envisioned, the new technology would dramatically change the nature, roles, and responsibilities of employees' jobs, as well as positively transform their capacity to deliver services to taxpayers and provide new tools for the management and operations of the IRD's administration of taxes.

ITPS Change Management included change planning and implementation, communication, training and other actions needed to help IRD and its internal and external stakeholders prepare for, and successfully adopt, the new integrated business processes, systems and tools to improve performance. It also included the processes for helping the organization make the transition to a new working environment in order to implement the capabilities of the ITPS beneficially.

A key focus of the joint Contractor and IRD change management team was communications to stakeholders both internal and external. One of the initial tasks of the team was the identification of these stakeholders, their interaction with the IRD and the type of communication required.

Strategies were then developed to ensure that all persons involved were prepared for coming the change by way of workshops, “town meetings”, newsletters and other vehicles of communication.

Included under Change Management was the re-mapping of processes required to work along with the new system. The team engaged in collaborative planning with individual sections, with input from staff at all levels. In preparation for the transition to the new system, new processes were developed and plans for the discontinuation of old processes had to be made.

An Extended Change Management Team (ECMT) made up of supervisors, subject matter experts and change agents, was established. The ECMT was positioned to play an essential role in helping IRD as a whole, and particular sections, units and offices, to identify the specific changes that will be generated by ITPS, and the type of impact those changes will have on that part of the organization. The ECMT also played an active role in developing the pragmatic section change management plans and in facilitating effective communication, training and follow-up within the section.

The preparation of Section Change Management Plans was also another area of focus. The ITPS project Change Management team worked with internal IRD staff stakeholder groups to help develop customized change management and communication plans to anticipate and respond to section-specific issues and impacts. Section change management plans "translate" the broad changes being introduced through ITPS into meaningful step-by-step transition activities for the section, unit or office.

The Change Management component of the project played an essential part through out the implementation phases ensuring a smooth transition from the old system to the new ITPS.

Training

End user training was accomplished using the following delivery methods to ensure employees were provided with the knowledge and skills required to perform their duties using the various functions and features of the software:-

- Computer based training (CBT): Computer-delivered modules that introduce employees to the functionality of the system
- Classroom training: Extensive hands-on, instructor-led workshops with specific exercises for individual section and units
- Practice Labs: Post-training sessions in Practice Labs to build upon the knowledge received from CBTs and from classroom training
- Progress checklists: Checklists available during and after training that allow employees to assess their progress in picking up necessary skills and identify areas where additional training or practice may be needed
- Desk side support: Once the ITPS went into production, members of the ITPS Training Team were available to coach IRD staff through unfamiliar procedures
- Training materials and job aids: Power point presentations, software tips, practice exercises, and various job aids are available to IRD staff to use as reference material

BENEFITS EXPERIENCED

IRD has implemented the Phase 1 and Phase 2 taxes and significant benefits are already evident. These include the following:-

- Faster processing of transactions
- Greater access to information from all Regional Offices
- Improvements to the services offered to customers
- More efficient processes and procedures
- Increased employee satisfaction resulting from the functionalities available in the new system
- Enthusiasm among staff members participating in the introduction of the new system
- Greatly increased information security because of the presence of an infrastructure and network security system that requires user names and passwords to access the system.
- The availability of significantly improved analysis capabilities e.g. to facilitate decision making that optimizes collections and other compliance efforts.
- Availability of reports to facilitate the measurement of employees' performance.

CHALLENGES

During the implementation of the Integrated Tax Processing System (ITPS), the IRD faced several challenges that at times seemed daunting. However, as the challenges arose, staff members displayed fortitude and commitment to the success of the project and took steps in finding solutions. Some of those challenges included:-

- Staffing:
 - The project implementation required personnel to serve in the capacity of testers, trainers, developers, subject matter experts, and IT support staff for the networking and the implementation of the ITPS. The staff requirements had to be sourced from an already limited work force
 - Frequent Movement of staff within the organisation and the public service means that persons trained for a particular role may be transferred or re-assigned. This impacts on the quality of service provided and also requires the organisation to provide resources for continuous training.
- Change Management
 - Integration led to organization-wide changes which included organisational re-design, job re-design, job redundancy and other transition issues.
 - Employees' acceptance of process and procedural changes
 - Conversion – Mapping of legacy data fields and their contents to the new ITPS
- System implementation
 - In configuring the new system, the IRD is faced with decision requests from the Contractor requiring prompt responses, the decision for which may have significant implications in the administration of the tax.
 - The implementation of key tax types coincided with the approaching deadline for the amnesty provisions granted by the Government. Employees were faced with processing large volumes of work in a new processing environment.
- Physical infrastructure
 - The completion of infrastructure requirements was dependent on services provided by external service companies and this seriously affecting the IRD's ability to meet the deadline dates for that activity.
 - Office facilities and equipment had to be procured in a timely manner to facilitate the reorganisation and establishment of new sections.

CRITICAL FACTORS

- **A Collaborative Team Approach:** A collaborative spirit among the stakeholders is essential. Success in the implementation of this major transformation requires IRD, the contractor and its sub contractor, to develop a close working relationship of shared goals.
- **Dedicated Staff and Managers:** People working on the project must be willing to learn and be committed to its success.
- **Strong Visible Support from all levels of management:** IRD assigned a project executive and a project sponsor to the ITPS project on a full time basis.
- **Flexible business partners**
- **Good Communication:** Start early. Employ various strategies that encourage open, two-way, and on-going communication. Keep staff at all levels well-informed about the project. In particular, gain “buy-in” from staff
- **Training All The Stakeholders:** This includes senior management, project team members, testing team members, IT development team members, users and trainers. This requires a quality training plan as well as a co-ordinated approach to all facets of training.
- **Adequate resources dedicated full time to the project:** Expert resources had to be sourced from existing IRD resources to work on the project. Arrangements to acquire extra staff should be made before project begins. IRD was able to contract retirees to return and assist the Division during project time.
- **Data Purification:** Start early. This is essential to ensure there is a high level of confidence in the information in the legacy system.

CURRENT STATUS OF THE PROJECT

The implementation of the IRD's new ITPS began in November 2005 and is scheduled to be completed in November 2008. Phases 0, 1 and 2 have been completed resulting in the implementation of several taxes such as Petroleum, Individual and Corporation Income Taxes at the IRD headquarters, and its Regional Offices. By the completion of Phase 2, approximately five hundred and thirty two (532) members of staff were trained in the ITPS system and in new procedures for the system rollout.

Data from tax forms relating to the Phase 1 and 2 taxes are being captured using an imaging solution. The forms are scanned and the data captured and processed in the Integrated Tax Processing System. Payments documents are scanned at all Regional Offices and the payments are processed and the taxpayers' account updated nightly.

It is to be noted that the imaging of documents is an interim measure being employed for the processing of returns. Planned initiatives of the IRD include electronic filing, payments and other areas of client self-service over the Internet in a secure environment.

Phase 3 which started on May 5, 2008, is currently underway.

CONCLUSION

In 2002, Trinidad and Tobago Inland Revenue Division embarked on a project to develop and implement an Integrated Tax Processing System that would replace its cumbersome, inefficient legacy system with a modern one that takes advantage of the new technology and software available to merge data collected from various divisions into one system that could be easily accessible to staff. The IRD developed a plan that included a clearly defined objective with identifiable goals. As a result, the solution chosen was considered to be the most effective software system to meet the needs of the IRD.

Despite the occasional challenge, the Trinidad and Tobago Tax Administration has generally had rewarding experiences in the implementation of an Integrated Tax Processing System. Phase 1 and 2 have been implemented and IRD's management remains committed to taking the actions necessary to ensure the successful implementation of all phases of the ITPS Project by the November 2008 deadline. The IRD is also aware that much work remains to be done, both within its own organisation and in the enabling environment, before realising the full benefits of the new system. However, with the strong and dedicated support of its staff, the IRD is convinced that total success will ultimately be achieved.