



Solicitation Information
30 March 07

RFP # 7003414

TITLE: Data Warehouse

Submission Deadline: 1 May 07 @ 2:20 PM (Eastern Time)

PRE-BID/ PROPOSAL CONFERENCE: Yes Date: 17 April 07 Time: 2:30 PM Mandatory : No Location: Department of Administration / Division of Purchases (Bid Room), One Capitol Hill, Providence, RI

Questions concerning this solicitation may also be e-mailed to the Division of Purchases at questions@purchasing.state.ri.us no later than **13 April 07 at 12:00 Noon (ET)**. Questions should be submitted in a *Microsoft Word attachment*. Please reference the RFP / LOI # on all correspondence. Questions received, if any, will be posted on the Internet as an addendum to this solicitation. It is the responsibility of all interested parties to download this information.

SURETY REQUIRED: No
BOND REQUIRED: No

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Administrator of Purchasing Systems

Vendors must register on-line at the State Purchasing Website at www.purchasing.ri.gov.

NOTE TO VENDORS:

Offers received without the entire completed three-page RIVP Generated Bidder Certification Form attached may result in disqualification.

THIS PAGE IS NOT A BIDDER CERTIFICATION FORM

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1 Introduction/Process

The Division of Taxation and the Office of Revenue Analysis are part of the Department of Revenue (DOR) of the State of Rhode Island. The mission of the Division of Taxation is to assess and collect all revenue the Legislature places under the control of the Tax Administrator in the most efficient and cost effective manner and to foster voluntary compliance with the tax laws by instilling public confidence through professional, impartial and ethical conduct.

The Office of Revenue Analysis was recently formed to: (1) analyze, evaluate, and appraise the tax system of the State, and make recommendations for its revision in accordance with the best interests of the economy of the State, (2) assume responsibility for preparing the tax expenditures report, and (3) prepare cost benefit analyses of all tax expenditures.

The general purpose of this procurement is to implement a data warehouse as described elsewhere herein which would provide a centralized environment with tools to allow users to create and run reports and queries that would assist the DOR in the collection of tax dollars and management of information, thereby increasing tax revenue and realizing organizational efficiencies.

The Rhode Island Department of Administration/Division of Purchases, on behalf of the DOR, is soliciting proposals from qualified firms and organizations to provide professional services to implement the data warehouse in accordance with the terms of this solicitation and the State's General Conditions of Purchase. Any resulting award or engagement from this RFP will be bound by the State General Terms and Conditions (available at www.purchasing.ri.gov).

This is a Request for Proposals, not an Invitation for Bid. Responses will be evaluated on the basis of the relative merits of the proposal, in addition to price; there will be no public opening and reading of responses received by the Office of Purchases pursuant to this Request, other than to name those offerors who have submitted proposals.

1.1 Instructions and Notifications to Offerors

- Potential offerors are advised to review all sections of this RFP carefully and to follow instructions completely, as failure to make a complete submission as described elsewhere herein may result in rejection of the proposal.
- Alternative approaches and/or methodologies to accomplish the desired or intended results of this procurement are solicited. However, proposals which depart from or materially alter the terms, requirements, or scope of work defined by this request will be rejected, considered to be non-responsive.



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- All costs associated with developing or submitting a proposal in response to this request, or to provide oral or written clarification of its content shall be borne by the offeror. The State assumes no responsibility for these costs.
- Proposals are considered to be irrevocable for a period of not less than one hundred and twenty (120) days following the opening date, and may not be withdrawn, except with the express written permission of the State Purchasing Agent.
- All pricing submitted will be considered to be firm and fixed unless otherwise indicated herein.
- Proposals misdirected to other state locations or which are otherwise not present in the Division of Purchases at the time of opening for any cause will be determined to be late and may not be considered. The "official" time clock is kept at the reception area of the Division of Purchases.
- In accordance with Title 7, Chapter 1.2 of the General Laws of Rhode Island, no foreign corporation shall have the right to transact business in the State until it shall have procured a Certificate of Authority to do so from the Rhode Island Secretary of State (401-222-3040). This will be a requirement only of the successful bidder (s).
- Offerors are advised that all materials submitted to the State of Rhode Island for consideration in response to this Request for Proposals will be considered to be public records, as defined in Title 38 Chapter 2 of the Rhode Island General Laws, without exception, and will be released for inspection immediately upon request, once an award has been made.
- It is intended that an award pursuant to this request will be made to a prime contractor, who will assume responsibility for all aspects of the work. Joint venture and cooperative proposals will not be considered, but subcontracts are permitted, provided that their use is clearly indicated in the offeror's proposal, and the subcontractor(s) proposed to be used are identified in the proposal. All subcontracts shall be in writing, requiring the subcontractor to comply with all provisions of the contract and a copy of the subcontract provided to the State. If the State approves the use of a subcontractor, the contractor shall remain responsible for the work performed. The contractor must notify the State of any changes of status of any subcontractor and must have amendments to these subcontracts approved by the State.
- The State of Rhode Island has a goal of ten percent (10%) participation by Minority Business Enterprises (MBE's) in all state procurements. For further information, visit the web site www.rimbe.org. To speak with an MBE officer, call 401-222-6253.
- Interested parties are instructed to peruse the Division of Purchases web site on a regular basis, as additional information relating to this solicitation may be released in the form of an addendum to this RFP.



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- Equal Employment Opportunity (RIGL 28-5.1)
§ 28-5.1-1 Declaration of policy. (a) Equal opportunity and affirmative action toward its achievement is the policy of all units of Rhode Island state government, including all public and quasi-public agencies, commissions, boards and authorities, and in the classified, unclassified, and non-classified services of state employment. This policy applies in all areas where the State dollar is spent, in employment, public service, grants and financial assistance, and in state licensing and regulation. For further information, contact the Rhode Island Equal Employment Opportunity Office, at 401-222-3090.

1.2 Contract Term

The DOR is requesting a proposal for a project, using a phased, modular approach with an approximate start date of July 1, 2007. This date is subject to change based on date the RFP is awarded and a final contract signed. The end of the contract (completion of the project) will be proposed by the vendor and considered during the evaluation of the technical proposal. The vendor will not provide services prior to the issuance of a purchase order by the State of Rhode Island.

2 Project Overview

2.1 Background

The Division of Taxation/Office of Revenue Analysis uses a large number and wide variety of data sources to perform tasks. The current processes and methods for accessing systems information are tedious and time consuming. The existing legacy systems used for transaction processing do not meet the needs of the users for reporting and querying the data. A centralized environment is needed with tools to allow users to create and run reports and queries that would assist the DOR in the collection of tax dollars and management of information, thereby increasing tax revenue and realizing organizational efficiencies.

2.2 Summary and Purpose

The purpose of this Request for Proposal is to acquire proposals from prospective offerors for a proven data warehouse solution which has been previously implemented. This request is for the offeror to provide software, system integration services, training and support.

The vendor is required to perform a study of the Division of Taxation/Office of Revenue's equipment, central processes, back-up and recovery, architecture, etc. to determine where current hardware is inadequate and make recommendations for additional hardware required to support the operation of the data warehouse. Hardware will be bid separately by the State.



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2.3 Project Goals

The general goals of this data warehouse project are as follows. (Detailed business requirements are listed in Appendix F which will be referenced later in this document.)

1. Create an environment where all information used by the Division of Taxation is centralized and standardized with updates to the data from a variety of data sources.
2. Provide the end users with an easy-to-use interface to access information and build savable reports and queries.
3. Increase tax revenue by allowing users to find inconsistencies in tax filings and assess additional taxes.
4. Provide tools to allow DOR the ability to study various tax policy options and perform revenue trend analysis and reporting.

3 Organizational Overview

Among the divisions and offices of The Department of Revenue (DOR) are the Office of Revenue Analysis and the Division of Taxation. These two areas are in scope for this project and will be the primary users of the taxation data warehouse.

3.1 Office of Revenue Analysis

The Office of Revenue staff will have access to taxation data sufficient to carry out the duties of the office: to analyze, evaluate, and appraise the tax system of the State, and make recommendations for its revision in accordance with the best interests of the economy of the State. The office shall be responsible for preparing the tax expenditures report and for preparing cost benefit analyses of all tax expenditures.

The DOR and the Office of Revenue Analysis are new entities within the State and at the writing of this RFP have not yet been staffed. Additional requirements may be added once the Director of DOR and Chief of Revenue Analysis have been named.

Office of Revenue Analysis – 1 Chief, 4 potential users

- Provide expert analysis on all tax related policy decisions
- Perform revenue and cost estimates on all proposed tax legislation



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3.2 Division of Taxation

There are 227 employees in the Division of Taxation. [Appendix D](#) is the organizational chart for the Division. The five listed below within the Division of Taxation that will be the heaviest users of the data warehouse are listed below. The following outlines the business functions of those units and include the number of staff anticipated to be users of the data warehouse.

Field Audit - 1 chief, 5 supervisors, 45 auditors, approximately 50 potential users

Responsible for enforcement programs

- Supervisors responsible for managing caseload
- Perform audits and examinations of taxpayer returns
- Largest concentration of potential users
- Highest revenue potential

Office Assessment and Review - 5 chiefs, approximately 15-20 potential users

- Corporation, Excise, Income, Estate, and Employer Tax
- Provide taxpayer assistance.
- Responsible for managing errors identified in each area via mainframe reports
- Audit tax returns, verify refunds and deductions, set up accounts

Compliance and Collections – 2 chiefs, 3-5 potential users

- Collect known liabilities
- Work to bring Non-filers into compliance
- Review collectibles in bankruptcy to determine ability to collect
- File claims in bankruptcy court
- File liens, judgments against delinquent taxpayers

Processing - 2 chiefs, approximately 3-5 potential users

- Process tax return through: data entry, 2D bar code, OCR, electronic filing
- Provide reporting and data management within division as needed
- Mailroom processes all incoming mail and deposits all receipts
- Return Perfection responsible for correcting returns (i.e. obtain missing signatures)
- Electronic funds transfer
- Accounting

Tax Administrator's Office – 4 potential users

- Responsible for overall operations of the Division of Taxation



3.3 Types of Users and Required Functionality

The proposed system needs to support at least five types of users.

The primary needs for the users will be reporting and querying the data warehouse to find information. The availability of a boxed set of queries and reports should allow users to perform the following functions within these levels.

Executive Level Users

The executive users will be made up of senior management of the DOR. Their primary use of the data warehouse will be reviewing information on the efficiency of the units. A dashboard approach would allow the user to assess how the business is operating by providing a summary of operational metrics, i.e. number of audits in the pipeline, stage in audit life cycle. The dashboard would provide the capability to point and click to drill down for further detail. This information will be used to highlight trends, operational inefficiencies, and will be used to improve processing. The number of transactions and historical comparisons will be a primary focus of this group. Reports will be generated in support of the State legislation to assess performance of legislative initiatives and justify new legislation. These users will have access to all dashboards.

Supervisor Level Users

The supervisor level users will be using the data warehouse to gauge unit efficiency and look at the results to help determine “best methods” on performance. In addition, these users will be supporting the agents’ information needs by running ad hoc queries to find case level information as needed.

Tax Policy Analysts

These users will be made up of Revenue Analysts. Their primary function will be to use the data warehouse to evaluate and project revenue for all tax policy and legislative changes.

Taxation Discovery and Field Audit Units

This unit will be made up of agents, supervisors and tax auditors. Their primary function will be to use the data warehouse reporting tools to run reports and perform data analysis to identify non-compliance and inconsistencies in tax filings.

Information Systems Users

Information systems users will support the data warehouse in their capacities as systems administrators, DBAs, and providing technical support to DOR users.



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3.3.1 Business Requirements

There will be approximately 80-100 data warehouse users within DOR. The offeror should allow for expanding that number based on the potential for staffing changes in the future.

There are multiple sources of data currently being used by the various units. [Appendix A](#) lists the majority of the data sources. The offeror is required to analyze this list and recommend additions and/or changes based on that analysis and on their experience in building similar systems. The data warehouse project will consolidate all of these sources into one central location.

The vendor is required to recommend the appropriate frequency of updating the data warehouse based on current data availability and the vendor's experience with other state revenue data warehouse installations and their successful operation. There should be a significant increase in operating efficiencies and a streamlining of the processes associated with accessing information with the new system.

The DOR has created a list of specific mandatory and desirable business requirements ([Appendix F](#)) by functional area, to be included in the proposed solutions. All responses must include a completed copy of [Appendix F](#) indicating vendor's ability to satisfy each requirement.

4 System Requirements

Proposals shall contain detail on proposed system's capabilities in each of the following sections. These sections are based on accepted and proven data warehouse design and implementation standards.

4.1 Technical Requirements

[Appendix G](#) provides detailed requirements within the following categories. Offeror must respond to each individual requirement listed indicating the ability to provide each one and any associated cost. The appendix includes the following sections:

4.1.1 General

This section includes the non-functional requirements and those requirements that apply to the project as a whole.

4.1.2 ETL Process

In order to build a data warehouse the solution should provide tools and methodologies to best Extract, Transform and Load data into a central relational database. A preliminary list of data sources and an approximate number of records is provided in [Appendix A](#).



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The offeror should provide an overview of their approach on how the data sources would be handled, exception reporting, and resource requirements from the State to manage the ETL process.

4.1.3 Report and Query Tool

A primary goal of this project is to allow end users to easily and quickly create reports from the data warehouse.

The submitted proposal should include details on the proposed query and reporting tools to be used by the end users to connect to the data warehouse and build reports, views, and queries to get selected information out of the data warehouse.

The detail should specify technical skill-level required to create reports, views and queries. Vendor's training plan must take into consideration the variety of skill levels within the user community.

The offeror will recommend reports that they have identified as instrumental in generating the most revenue in other states. The reports provided should be easy to distribute and modify by end users and will be used as shells for end users to create their own reports. The offeror shall provide training to the appropriate state staff to create and code the reports as part of their total training and transition proposal to meet this requirement.

4.1.4 Security

Specific security requirements related to the operation of the data warehouse, which are in addition to the overall Security Requirements specified in Section 4.3.

4.2 System Architecture

This system will be incorporated into the State's information system architecture. It is preferred, but not required, the proposal be based on a proven solution currently in use in at least one other state government revenue area. Details on the current system architecture for the State of Rhode Island can be seen in [Appendix B](#).

4.2.1 Hardware

The vendor is required to perform a study of equipment, central processes, backup and recovery, architecture, etc. to determine where current Division of Taxation hardware is inadequate. Hardware will be bid separately by the State.

The offeror should provide information on the hardware required to build, update, maintain and support the operation of the data warehouse. This specification should include data on the



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manufacturer of the system, processor architecture, amount of memory, amount of hard disk space and network interface information.

4.2.2 Operating System

The prospective offeror should include information on the operating system(s) to be used with the hardware. This should include manufacturer, version number(s) for each operating system.

4.2.3 Relational Database Management System

The Department of Administration/DOR currently uses Oracle technology for its financial and personnel systems and is interested in building a concentration of skills in the Oracle DBMS within the State. Therefore, the State of Rhode Island strongly prefers a data warehouse system that utilizes Oracle Technology and tools as its database technology; however we are open to alternative recommendations. Proposals should describe the recommended database, the rationale for the recommendation, and a strategy for technical support.

4.3 Security Requirements

Security requirements for State of Rhode Island projects must comply with current computer/network best practices. These best practices are defined by NIST (www.nist.gov) Document 800-53 along with other NIST documents.

Provide security plans, as deliverables under the contract, indicating how the vendor plans to provide confidentiality, integrity and availability into the product.

The application is subject to security testing for current vulnerabilities as one requirement for acceptance.

Provide a plan to secure data during the development process including laptop policies. Policies will be agreed upon at contract negotiations.

No data provided to the vendor is to be removed offsite. Any laptops used during the development process should not have any data loaded on them at all. All development that requires data should be done using a server located on the State of RI network.

No copies of data should be removed by the vendor from the site in any form (CD, floppies, tapes, flash drive, paper, FTP, etc.)

All contractors and their employees will be required to sign a non-disclosure agreement regarding confidential data including, but not limited to, tax data.

It is required that the vendor will comply with 'IRS Security Guidelines for Federal, State and Local Agencies' as described in IRS publication 1075.



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4.4 Backup and Recovery

The submitted proposal should include a backup and recovery strategy including a recommendation to satisfy hardware requirements. The vendor shall supply training in backup and recovery to appropriate staff from The Division of Information Technology, who will manage those processes.

4.5 System Administration

During development and implementation, the offeror will be responsible for the system administration of all software provided as part of their proposal. Once successful implementation is completed and the data warehouse is operational, a point person (and a back-up) from the Department of Revenue will assume the responsibilities of system administration. Offeror will define staffing needs to perform this function on an ongoing basis.

The offeror will be responsible to provide written documentation and training on the operation of all the equipment and any operating procedures required to maintain, support and update the data warehouse.

4.6 Data Warehouse Support

The offerors should define various options available for data warehouse support including but not limited to in house support requirements for State of RI staff.

The vendor will maintain an on-site presence in Rhode Island after implementation of the system to ensure a smooth transition to state operations. This support must consist of an appropriate number of high-level, highly skilled, experienced staff located at the DOR for a period of time to be determined and agreed upon by the Vendor Project Manager and the State Project Manager. The time frame will not exceed 120 days. Turnover includes the vendor's warranty of the system that it will be free of errors that cause deviation from the functional and performance requirements specified in this RFP and any resulting contract, for a period of thirteen months from the date of the State's final acceptance of the system.

During the turnover to the State for day-to-day operations, the vendor must assist the State in maintaining the system by providing technical support and assisting in all other functions that are normally associated with maintenance and operation of the data warehouse and the technical architecture installed by the vendor. During this phase, the vendor must prepare the State to take over the responsibility of the day-to-day system maintenance.

The offerors should include in their cost proposal cost for support and maintenance for 13 months following acceptance by the State. The offeror should also include a separate cost proposal for support and maintenance beyond the 13 month period. The level of support should include minor changes in data structures, performance tuning, and other data related tasks, above and beyond system administration. The offeror should include both an annual contract cost and a time and materials ("hourly cost") for this type of work.



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5 Project Requirements

5.1 Vendor Qualifications/Requirements

- A brief history of the vendor's firm, including date of incorporation, the two (2) most recent audited annual report or audited statement of income and retained earnings and audited balance sheet for the last two years certified by an independent certified public accountant, size of the business, ownership, organizational chart indicating where the proposed project staff fits on that chart, management and project managers resume/biography, percentage of staff dedicated to this project, support hours available to clients and address for the corporate headquarters and the group providing the proposed services, if different than corporate headquarters location. Upon contract award, the winning bidder shall annually provide the State with audited financial statements certified by an independent certified public accountant.
- The selected vendor shall provide a performance bond in the amount of the contract price.
- It is preferred, but not required, the vendor team have experience implementing a state government revenue data warehouse over the most recent three years. The vendor must have experience implementing a data warehouse over the most recent three years. Include a comprehensive listing of installations, listing those completed and any in progress. Indicate the number of staff dedicated to each development, the number of staff members with data warehouse implementation experience, the number of staff members with revenue data warehouse implementation experience, and those that have worked on other government projects.
- The vendor must include recent customer references from other states and or entities which have had a successful implementation. The State's and or entities' name, address, and the contact person's title, organization/agency and phone number must be provided. Give a brief project summary and the start and end dates of the project.
- The vendor will be responsible for furnishing their own development tools including any/all computer hardware and software. The vendor is also responsible for items such as office/clerical/administrative support needed to complete this project.
- The vendor shall be responsible for paying all of their travel, meals and lodging costs incurred during activities undertaken during the scope of work outlined in this RFP.
- All costs associated with the preparation, development or submission of bids or other offers will be the responsibility of the vendor. The State will not reimburse any such costs.



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- All documents, correspondence and other submissions to the Division of Purchases are considered public records, pursuant to Title 38, Chapter 2 of the General Laws.
- The vendor shall provide resumes for all proposed project staff. The resumes should emphasize managerial and technical experience with implementation of previous data warehouse systems.
- All employees of the vendor and any subcontractor assigned to this procurement prior to commencing work under the contract shall have a criminal history background check done, including a fingerprint search, the costs of which shall be paid by vendor and any subcontractor and the results of which shall be furnished to the State.
- Explain any past or outstanding lawsuits related to the vendor's past performance under contract on the development or implementation of any business process analysis/redesign, and computer hardware, software, and systems development/implementation projects.
- The vendor must provide the following sample documentation, but not limited to:
 - User documentation
 - Training materials
 - Testing plan
 - Project plan
 - System documentation from similar revenue projects
- The vendor must prepare and submit an initial work breakdown structure (WBS), preferably in Microsoft Project format, with target dates and a schedule of deliverables as tied to the payment schedule.
- The vendor must submit a high level description of the project approach and proposed time lines.
- The vendor and any contractor shall agree it and its entire staff assigned to this project will adhere to state and IRS policies governing confidentiality of individual records and sign a confidentiality agreement.
- Drug Free Workplace: In accordance with Executive Order No 91 - 14, the vendor who does business with the State and their employees shall abide by the State's drug-free workplace policy and the vendor shall so attest by signing a certificate of compliance.

5.2 Team Location

- A local presence in the main offices of the DOR is required. All meetings will be held at that office or a place that is mutually agreed upon by the State and the vendor.



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- The State will provide office space for the core vendor staff members at the main office of the DOR.

5.3 Initial Deliverables

- Project kickoff meeting to review: project goals and deliverables, project team member roles and responsibilities, the preliminary project plan.
- A Work Breakdown Structure (WBS) including but not limited to detail on the following components. Vendor shall include additional tasks they deem critical including but not limited to milestones, deliverables, target dates and staff requirements.
 - Assistance in setup and installation of the required hardware
 - Installation of the software needed and prepare the environment for the data warehouse.
 - Data Scrubbing and Mapping
 - Loading the data sources to the staging area
 - Data update process
 - Reporting functionality including use of standard reports
 - Security
 - Training Plan
 - Acceptance Testing

5.4 State of Rhode Island Project Manager Deliverables

- The Executive Sponsor, David Sullivan, Tax Administrator, will appoint a Project Manager and anticipates the staff involvement of a Steering Committee, Project Team and Working Groups. The project team will consist of the Project Manager, supervisors and Subject Matter Experts within the DOR and staff from the Department of Administration's (DOA) Division of Information Technology (DoIT), DOR and other stakeholders when applicable.
- The State Project Manager will coordinate the activities of the Project Team, Working Groups and the vendor. In this role, the Project Manager will be responsible for ensuring that the project proceeds toward the goal of implementing a system that



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is responsive to the DOR's needs. The State Project Manager will provide day-to-day oversight of the vendor to ensure that all aspects of the resulting contract are being executed; monitor the progress of the project; ensure that appropriate representatives from all concerned organizations participate in key decisions; facilitate the timely resolution of issues raised by the project participants; coordinate the reporting, review and quality control process; and accept project deliverables.

- In addition, the State Project Manager and team members will be responsible for:
 - receipt, control, coordination and review of deliverables
 - approval of contractor deliverables
 - creating the DOR project reports and managing State project staff
 - correspondence and communication control among the Project Team and Working Group members
 - identification and enrollment of new system users
 - approval of Acceptance Test scenarios and review of Acceptance Test results
- The Steering Committee, Project Team and the Working Groups will contribute to the data validation effort, participate in acceptance testing and will assume the lead role in the execution of the State's acceptance testing effort. These teams will also be responsible for providing any additional information needed on the technical environment at DOR. Further, they will be responsible for reviewing the system technical specifications, system compliance with security and audit requirements and approve installations. The teams will work with the vendor throughout the project to ensure that technical and operations documentation is sufficient to allow the DOR to operate and maintain the system after implementation.

5.5 Vendor Project Manager

- The Vendor Project Manager will be interviewed by Executive Sponsor and the State Project Manager.
- The Vendor Project Manager must be able to demonstrate experience managing a similar implementation and in following project management methodology.
- The vendor shall not change its designation of the Project Manager during the performance of the services without prior written consent of the Executive Sponsor, which reserves the right to interview and accept/reject any new candidate.
- The vendor is responsible for their deliverables and will report on and provide the State Project Manager with updates related to the scope, schedule, resource allocations and budget. (See Project Reporting Section 5.6)



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- Other project management activities include, but are not limited to, scheduling meetings, taking and distributing meeting minutes, coordinating design group meetings and testing meetings and assuring completion of their deliverables.
- The Vendor Project Manager will inform the State Project Manager of any potential risks and urgent issues, be responsible for producing a project plan and a Work Breakdown Structure (WBS).
- The moving of vendor project participants between vendor projects shall require prior written approval of the Executive Sponsor, which shall not be unreasonably withheld.
- The DOR shall have the right to require the vendor to remove any individual from his/her assignment to this agreement by the vendor or any subcontractor, if, in the opinion of the DOR, such employee is uncooperative, inept, incompetent or otherwise unacceptable. In the event that an employee is removed pursuant to a written request from the Executive Sponsor the replacement provisions above shall apply. The Vendor Project Manager shall immediately notify the State Project Manager of the resignation or discharge of any vendor personnel assigned to this project, and such personnel shall be forthwith relieved on any further work under the contract. Transfer of knowledge must occur prior to the departure of all vendor staff members.
- Vendor will notify DOR immediately if it experiences any security breach that may cause DOR, State of RI, or IRS data to be compromised. In the event of a security breach, the vendor agrees the State reserves the right to allow a third party security firm to perform an objective security audit at the vendor's cost in accordance with recognized cyber security industry best practices.

5.6 Vendor Project Reporting

The vendor's project management approach must meet the following project meeting and reporting requirements:

- **Weekly and other meetings.** Throughout the project the Vendor Project Manager and other key individuals must attend brief weekly meetings, and other requested meetings with the State Project Manager and other members of the DOR Project Team. The weekly meetings must follow a preset agenda developed by the vendor, but must also allow the vendor or the State to discuss other issues that concern either party.
- **Weekly status reports.** The vendor must prepare, in writing, a succinct status report at least one day prior to each of the weekly meetings. These reports must list all activities which occurred since the last report, and briefly describe their current status, including, but not limited to:
 - Any problems encountered and their disposition
 - The results of any tests
 - Whether or not deadlines were met



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- Any problems that have arisen that need to be addressed before proceeding to the next task
- Planned tasks, and priorities, to be completed in the next week
- **Monthly status reports.** The vendor must submit, in writing, a succinct status report due to the State Project Manager on an agreed upon day each month while the contract is in effect. The report shall include the following summaries:
 - The overall completion status of the project in terms of the approved project WBS
 - Activities completed during the month
 - Plans for activities for the next month
 - Deliverables status
 - Problems encountered and proposed/actual resolutions
 - Risk updates and any new risks identified
 - Testing status and test results
 - Proposed changes to the project WBS

5.7 WBS and Schedule

- The DOR will notify the vendor in writing of the approval or disapproval of the WBS. Any disapproval will specifically set forth the part or parts of the WBS which are unacceptable to the DOR and what corrections or improvements are required by the DOR. The vendor will resubmit the WBS, modified in accordance with the State Project Manager's direction, within ten (10) business days of receipt of the disapproval unless it receives from the DOR written permission for an extension.
- If the vendor wishes to receive an extension, it must submit a written request within five (5) business days after receipt of disapproval setting forth the specific reasons why the vendor cannot comply with the requirements, together with a schedule of when the vendor will be able to resubmit the WBS.
- The project WBS must be formally addressed, and needed updates proposed in conjunction with the weekly and monthly status report meetings throughout the project and at least ten (10) days before the start of each new phase of the project. The updated WBS will incorporate any new information into the detailed schedule including realistic dates, activities and deliverables for that project phase. The approval process for the updated WBS is the same as described above for the initial WBS.
- It is understood that in order to expedite the approval process the vendor may submit for the informal comment of the DOR, draft versions of any or all parts of the updated WBS, subject to all the terms and conditions of the contract. An updated WBS and any other amendments to the WBS shall be subject to DOR's approval.



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5.8 Deliverable Submission and Approval

- The vendor will define, perform and produce all tasks associated with deliverables, by the due dates specified in the contract and any resulting updated project WBS(s). The vendor must describe the format and content as well as provide the delivery schedule for all required deliverables identified in this RFP. Each deliverable must be delivered to the DOR dated and clearly identified as a deliverable to distinguish it from preliminary drafts or other material which may be presented to the DOR from time to time.
- If the vendor is unable to provide a deliverable on time it should indicate in writing when the deliverable will be submitted. The payment schedule for work performed under the contract shall be adjusted if the deliverables are not provided to the DOR in accordance with the time schedule in the most recently approved project WBS.
- DOR will review, comment on and approve or disapprove of deliverables in as timely a manner as possible, depending upon the size and content of each deliverable. Not later than ten (10) work days after receipt of a deliverable, the DOR shall notify the vendor either of the DOR's approval or disapproval. Reasons for disapproval shall be stated in the notice as specifically as is reasonable under the circumstances.
- Unless otherwise agreed to by the parties in writing, the vendor shall correct and resubmit the deliverable as necessary to qualify it for approval, no later than five (5) business days after receipt of a notice of disapproval.
- Also, unless otherwise agreed to by the parties in writing, the DOR shall notify the vendor either of the DOR approval or disapproval no later than five (5) work days after resubmission of any originally disapproved deliverable. Any disapproval, and the statement of reasons, shall be confined in scope to the reasons specified for the original disapproval, and to deficiencies, if any, introduced by the corrections.
- The time frames stated above for approval or disapproval of a deliverable assumes that the vendor will provide the DOR with interim copies of the deliverable or portions of the deliverable for the DOR's review and comments. If that is not the case, then the above time frames are not binding upon the DOR.
- By submitting a deliverable, the vendor represents that, to the best of its knowledge, it has performed the associated tasks in a manner which must, in concert with other tasks, meet the objectives stated or referred to in the contract. By approving a deliverable, the DOR represents only that it has reviewed the deliverable and detected no errors or omissions of sufficient gravity to threaten the attainment of the objectives of this RFP or to warrant the withholding or denial of payment for the work completed. The DOR approval of a deliverable does not discharge the vendor's obligation to make, at its expense, any changes to approved deliverables necessary to meet the specifications set forth in the contract and established during the project. It is



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understood that in order to expedite the approval process the vendor may submit draft provisions of any and all deliverables prior to the date specified in the work breakdown structure for the informal comment of the DOR.

5.9 Quality Assurance Plan

A Master Test Plan for the Data Warehouse Project will be supplied and managed by the vendor with State of RI oversight to provide a central artifact to govern the planning and control of the test effort. It will define the general approach that will be employed to test the software, infrastructure and evaluate the results of that testing. This is a top-level plan that will be used by the project team to govern and direct the detailed testing. The detail testing and acceptance criteria will be created during the initiation of the project with the project team and vendor. The Master Test Plan will provide visibility to the project team that adequate consideration has been given to various aspects of governing the test effort.

The Master Test Plan will ensure the delivery of the target deliverable applications and systems that are defect free, user friendly, effective and efficient for the State of RI by discovering as many defects as possible as early as possible, assessing quality risks, verifying requirements, advising about product quality and testing.

The test plan must include but is not limited to:

- Terminology, Acronyms and Definitions
- Testing Workflow
- Test Data Plan: Identify types and quantity of data required for testing. Identify data selection criteria and process to execute the selection. Coordinate with the Data warehouse development team the loading of test data
- Roles and Responsibilities
- Milestones
- Deliverables
- Test Cases Requirements
- Defects Tracking Plan
- Definition of what is in scope and out of scope
- Definition of the test environment requirements and identify tasks required to prepare the environment for testing. Create and follow change management process to move from test to production.
- A plan to document metrics used in testing including managing the execution and communication of testing metrics.
- Production Acceptance Verifications
- Planned Tests must include but are not limited to:
 - System Integration
 - Interface
 - System (meets standards)
 - Performance
 - User Acceptance
 - Usability



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- Data Integrity
- Security PEN Testing

The State of Rhode Island uses the Rational Tool suite from IBM for Quality Assurance activities and would require the vendor to provide artifacts that could be imported. The use of automated testing tools is encouraged where applicable. The vendor is free to use any tools for this effort. It is required that the final application be integrated with the State of Rhode Island version control software.

All testing artifacts will be transferred to the State of RI upon the completion of each testing phase. The vendor is required to provide verification documentation of all test efforts based on the acceptance criteria defined by the project team during the initiation phase of the project.

An established and successfully used testing methodology and plan is preferred.

5.10 Acceptance

The selected vendor shall submit to an acceptance trial period. The period shall begin on the first full work day after the vendor and the DOR agree and declare the application development to be complete and the system operational, and continue for up to one hundred and twenty (120) days.

During the acceptance trial period, the system shall meet the successful performance criteria required by the DOR and identified in the selected vendor's proposal. The successful performance criteria will include the ability of the DOR to operate the system. Security must be reliable.

The State of Rhode Island will work closely with the vendor to ensure that the testing is completed and coordinate the acceptance of deliverables as tied to the payment schedule. At least twenty-five percent (25%) of the total contract price shall not be paid until acceptance of the system.

The Project Steering Committee, led by David Sullivan, Executive Sponsor, will determine when all acceptance criteria have been met.

In the event that the selected vendor fails to meet all requirements, the DOR shall have the right to declare the vendor's product unacceptable, the vendor in default and to terminate all agreements without penalty or obligation. These actions are consistent with the provisions of the termination for default clause required in the contract. Should the DOR exercise the contract's termination for default clause for failing the performance period, the vendor shall not be entitled to any remaining payment whatsoever for its products or services.



5.11 Training Plan

The training plan should include, at a minimum, the following elements:

- Vendor's assumption of preexisting skill sets for both end users and technical staff.
- List of learning objectives
- Proposed training strategy
- Suggested curriculum
- Detailed description of each course (include suggested maximum number of students and duration of course)
- List of recommended courses for each of the following groups: administrators, programmers, end users, technicians, and executive users.
- Training facility requirements
- Résumés for proposed instructor(s)
- A training schedule
- Copy of existing training materials
- Plan for creating and updating a training database to be used for technical and end user training

5.11.1 Training Materials

Training materials should be user friendly. Materials should be clear and easy to understand for all levels of users. Materials should, whenever appropriate, reflect the business processes for the State of Rhode Island. All Training materials must reflect the actual system that is implemented in the State of Rhode Island including all customizations and updates. All materials must be provided in an acceptable electronic format that can both be printed and updated for future use.

5.12 Documentation

5.12.1 User Manuals

User manuals must include a detailed description and explanation of how various modules of the system work and their functions e.g., log on procedures, identification of data elements available, print procedures, preprogrammed report procedures, data entry procedures, and error avoidance/correction procedures. User manuals must be provided in electronic format and updates provided on an ongoing basis.



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Manuals should:

- Be easy to understand with clear explanations of screens and functions for non-technical users in how to access and update data, and how to generate and understand reports
- Include training material and handouts which can be used in formal hands-on training classes
- Be organized to match logical business functions and cross-referenced so that all online query explanations, reports, and update functions can be reviewed as a group
- Provide explanations of all codes and values, including error codes. These codes should be documented in terms of meaning, along with an explanation of "next step" action or error correction alternatives
- Provide a data dictionary, which may be understood by non-technical users. This dictionary should provide a detailed explanation of where the data comes from, where the data resides, what the data means and who has update/delete authority
- Include instructions for requesting standard and ad-hoc reports and provide samples of reports. These instructions must also include narrative descriptions of each report
- Be updated as vendor changes are made to the system.

5.12.2 Technical Manuals

Technical support manuals should document the system from the perspective of system administrators and application developers for purposes of ongoing maintenance and troubleshooting, as well as for ease of adding additional data into the data warehouse. The documentation should include descriptions of the data warehouse environment, database views, and automated tools. Subjects such as diagnostics, trouble shooting, and maintenance, installation and system setup procedures must be covered. The vendor will update the manuals as vendor changes are made to the system. This documentation must be in electronic format with capability to print and should:

- Include documentation of all system modules. This will include an inventory of all programs and a narrative description concerning the purpose of the modules, how/where a module is used, the way a module is invoked and the data utilized or created as a result of running a module
- include all tasks required to clearly explain the software system
- include description of how data is populated in the systems to meet requirements
- provide detailed descriptions of all reports and processes from beginning to end
- provide detailed data-flow, entity-relationship diagrams (ERD), and process flow diagrams along with narrative descriptions linking these diagrams to the individual program modules described above
- include a detailed technical description of all screens and reports indicating the function, uses, inputs and outputs of each one



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- describe all error conditions, error codes and remedies resulting from any system function
- include a detailed "how to" description of how to change or modify any reports or queries
- provide a technical data dictionary which provides a map of the database, technical data definitions and instructions on how data can be added, deleted or modified from the database
- describe all computational formulas utilized in the applications
- provide recommended procedures for disaster recovery
- provide adequate documentation for the Database Administrator

5.13 Warranty

All product or service warranties normally offered by the vendor shall accrue to the State's benefit, in addition to any special requirements which may be imposed by the State. Vendor warrants the system will be free of errors that cause deviation from the functional and performance requirements specified in this RFP and any resulting contract, for a period of thirteen (13) months from the date of the State's final acceptance of the system. The State may, in the event of failure, order its replacement, repair or return for full credit, at its sole option. The vendor shall be liable for damages resulting from deficiencies.

The vendor shall also warrant that any deliverable furnished herein will be free at the time of delivery of harmful code and will not infringe or violate any intellectual property right.

5.14 Ownership

Responses must identify any software licenses or other granted rights to intellectual property which vendor would propose not be considered "work for hire."

Proprietary software is non-custom written, not "made for hire" computer software supplied by the vendor and documentation used to describe, maintain and use the software. The State will be granted a non-exclusive, fully paid perpetual, royalty free license to use any proprietary software acquired hereunder. Vendor agrees to escrow the source code for any proprietary software with a neutral third party mutually agreed upon by the vendor and the State under the terms of an escrow agreement satisfactory to the State, vendor and the escrow agent. Vendor shall deposit with the escrow agent on a quarterly basis the source code for the most recent version. The source code shall be delivered to the State by the escrow agent with rights to modify the source code and to create derivative works there from upon certain specified events such as, but not limited to, vendor's bankruptcy, liquidation or insolvency proceeding, failure to support the proprietary software, certain breaches and triggering events in the agreement between the State and vendor and as otherwise provided in the agreement with the escrow agent. The cost of the source code escrow shall be paid by vendor.



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Licenses to third party software that is commercial off the shelf or sold at established catalog or market prices and sold or leased to the general public shall not be subject to the ownership provision of this section. The vendor shall obtain for the State, in the name of the State, any necessary licenses for all such software not owned by the vendor that is necessary for the performance of this contract.

Customized software is “work for hire,” custom written and customer specific software or customizations to proprietary software developed for the State and title to such software vests in the State. Any and all data, technical information, information systems, materials gathered, originated, developed, prepared, used or obtained by vendor in performance of the contract, including but not limited to, all hardware, customized software computer programs, source code, object code, documentation and manuals, all system modifications in their most current version, all system instructions for operating the DOR system in their most current version, all data files in their most current version, user and operational manuals and other documentation if not previously delivered in their current version, electronic copies of training programs for DOR and DOA staff for the operation and use of the system, any and all performance-enhancing operational plans and products, all specialized or specially modified software and programs, including utilities, software and documentation which are required for, or used in the operation of the system but which may not be considered as being developed or modified under the terms of the contract and all project management artifacts (reports, schedules, plans), regardless of state of completion shall be deemed to be owned and remain owned by the State (“State Property”), and the State has the right to: (1) reproduce, publish, disclose or otherwise use and to authorize others to use the State Property for State government purposes, and (2) receive delivery of such State Property upon 30 days notice by the State throughout the term of the contract and including 90 days thereafter. To be clear, with respect to software computer programs and/or source code developed for the State, the work shall be considered “work for hire”, i.e., the State, not the vendor or any subcontractor, shall have full and complete ownership of all software computer programs and/or source code developed. The Vendor shall deliver to the State on a quarterly basis, in a form acceptable to the State, any and all in process software source code for all software computer programs developed under this contract. Specifically, the delivery of source code shall be within ten (10) days from the end of each calendar quarter starting from the date the purchase order is issued by the Division of Purchases.

This ownership provision is in consideration of vendor’s use of public funds in collecting or preparing such data, information and reports. Any and all State Property or information deemed owned by the State pursuant to this section shall not be used by vendor for any independent project of vendor or publicized by vendor without the prior written permission of the State.

After acceptance period and except as specified herein, it is the State’s desire to maintain and own the entire system but not limited to all application software deployed and configured for this



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project by the selected vendor. This does not preclude the ability for the State to enter into a maintenance contract.

5.14.1 Transition of Services

Services under this RFP are extremely important to the State and must be continued without interruption. During any transition of services upon contract termination, expiration or otherwise, the vendor agrees to perform at no additional cost to the State as directed by the State in good faith, to transition the services under this RFP without interruption.

5.15 Insurance

In addition to Paragraph 31 of the General Terms and Conditions entitled "Insurance," Vendor shall provide:

- (a) Personal/Advertising in the amount of at least \$1,000,000 per occurrence
- (b) Technology Errors and Omissions Insurance in the amount of at least \$1,000,000 with a date of inception prior to commencement of work and coverage to remain in full force and effect for thirteen (13) months after acceptance of the system. The State Purchasing Agent reserves the right to change or waive this requirement.
- (c) Vendor agrees to a waiver of subrogation

5.16 Compliance with Law and Jurisdiction

The vendor shall comply with all applicable federal, state and local laws, rules, regulations and orders. Vendor shall take any additional precautions as the State may reasonably require for safety and accident prevention purposes while performing work at DOR.

The contract shall be governed and interpreted by the laws of the State of Rhode Island, without reference to the conflict of law principles, and venue of any action brought in regard to the contract shall be in Providence County, Providence, Rhode Island.



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6 Scoring Criteria

A Technical Review Sub-Committee (“TRC”) will be commissioned to propose recommended evaluations and scoring for all proposals to the Architectural, Engineering, Consultant Services Selection Committee (“Committee”) using the following criteria. The vendor must receive a total of 70% of all available technical points in order for the cost proposal to be opened and considered.

Technical Proposal

- Vendor Qualification – Technical, Business Expertise & References **35 points**
- Project Approach **30 points**
- Training & Documentation **10 points**

Cost Proposal

- Cost **25 points**

The low bidder will receive one hundred percent (100%) of the available points for cost. All other bidders will be awarded cost points based on the following formula:

$$\text{Low bid} / \text{vendors bid} * \text{available points}$$

For example: If the low bidder (vendor A) bids \$65,000 and vendor B bids \$100,000 and the total points available are fifty (50), vendor B’s cost points are calculated as follows:

$$\$65,000 / \$100,000 * 50 = 32.5 \text{ points}$$

Selected vendors may be required to give an oral presentation and system demonstration. The TRC will contact selected vendors to make arrangements for times and dates. The selected vendors should expect to conduct one whole day consisting of an oral presentation and system demonstration. The TRC will provide selected vendors with scenarios to use for the system demonstration approximately one to two weeks prior to scheduled visit. The TRC reserves the right to request follow-up demonstrations from selected vendors. The TRC may revise original scores based on the vendor’s oral presentation and system demonstration.

The TRC reserves the right to recommend rejection to the Division of Purchases any or all proposals submitted as a result of this bid process. Proposals found to be technically or substantially non-responsive at any point in the evaluation process will be rejected and not considered further.

The TRC may, at its sole option, elect to invite candidates back for a second presentation prior to making recommendations to the Committee.

The TRC will present written recommendations for all technical and cost evaluations, to the Division of Purchases, who in turn will forward the recommendations to the Committee. The Committee will vote on the recommendations and may recommend up to three finalists to the Chief Purchasing Officer, who will make the final award.



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The State reserves the right to negotiate the final terms, conditions, and scope of the contract with up to the top three (3) finalists.

6.1 Governing Terms and Conditions

All state purchase orders, contracts, solicitations, delivery orders and service requests shall incorporate and be subject to the provisions of Title 37 Chapter 2 of the General Laws of the State of Rhode Island, the regulations adopted pursuant thereto, all other applicable provisions of the Rhode Island general laws, specific requirements described in the request or contract, and the general conditions of purchase, which may be downloaded from the Internet at www.purchasing.ri.gov

6.2 Proposal Format

- A completed and signed three-page RIVIP Bidder Certification Cover Form, available at www.purchasing.ri.gov.
- A Cost Proposal
- A separate technical proposal describing the qualifications and background of the applicant and experience with similar projects, as well as the work plan or approach proposed for this requirement. Current customer references, project approach (WBS), corporation biography, explanation of previous/pending lawsuits, proposed vendor staffing roles and staff resumes, examples of previous re-engineering/re-design work, business process and documents as stated in section 5.2 of the RFP must in the technical proposal
- A completed and signed W-9 (taxpayer identification number and certification). Form is downloadable at www.purchasing.ri.gov.
- In addition to the multiple hard copies of proposals required, respondents are requested to provide their proposal in electronic format (CD or DVD). Microsoft Word/Excel or PDF format is preferable. Only one (1) electronic copy is requested.

6.3 Technical Proposal

The detailed technical proposal must contain, at a minimum, the following items, as well as other items requested in this RFP, in the order and format listed below:

- Cover page
- Transmittal letter signed by an owner, officer or authorized agent of the firm or organization, acknowledging and accepting the terms and conditions of this request, and tendering an offer to the State
- Table of Contents



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- Glossary of Terms: Vendors are requested to submit a glossary containing an explanation of terms and acronyms used in their proposals.
- Executive Summary: The executive summary is intended to highlight the contents of the technical proposal and to provide state evaluators with a broad understanding of the vendor's technical approach and ability
- Vendor's organization and staffing
- A completed vendor Response Staffing Resource Table must be included in this section. The vendor can submit a customized formatted table.
- Narrative of security process
- Narrative addressing each of the requirements/conditions detailed in Sections 1 thru 5.
- Sample system documentation
- Completed copy of Appendices F and G of the RFP

6.4 Cost Proposal

The vendor must submit a cost proposal either in whole (the entire cost of the project) or in part (with breakdown by line item for the proposed scope of services) and conclude with a summary of the total system costs. The proposal must reflect the full bid amount including separate pricing for mandatory and "desirable" requirements which are not part of the software package. The cost proposal must be separate, signed, sealed and be reflected as a fixed bid.



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Appendix A Data Sources

Data Source Name	Division	System Source	Approx. # of Records (if available)	Comments
IRTF by State Code	IRS	3480 Cart	550,840	
IMF by SSN	IRS	3480 Cart	488,881	
BMF by State Code	IRS	3480 Cart	250,113	
BRTF by State Code	IRS	3480 Cart		
CP2000	IRS	3480 Cart	26,433	
Non Itemizer	IRS	3480 Cart	293,282	
Pari-Mutuel Betting	Taxation	Access Database		
Insurance	Taxation	Access Database		
IFTA Licenses/Bonds	Taxation	Access Database		
Gasoline	Taxation	Access Database		
Cigarette	Taxation	Access Database		
Tobacco Products	Taxation	Access Database		
Bank Deposits	Taxation	Access Database		
Public Service Gross Earn	Taxation	Access Database		
Realty/Mobile Home	Taxation	Access Database		
Bank Excise	Taxation	Access Database		
Underground Storage Tank	Taxation	Access Database		
Estate Tax	Taxation	Access Database		
Auto Rental Surcharge	Taxation	Access Database		
Gaming Withholding	Taxation	Access Database		
Uniform Oil Response Prevent	Taxation	Access Database		
Alcohol Beverage Import Fee	Taxation	Access Database		
Alcohol Beverage A/R	Taxation	Access Database		
Hospital Licensing Fee	Taxation	Access Database		
Liquor Agent License	Taxation	Access Database		
Alcohol Beverage Mfg Tax	Taxation	Access Database		
Alcohol Wholesale License	Taxation	Access Database		
Field Audit Database	Taxation	Q&A	9,732	Needs conversion



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Data Source Name	Division	System Source	Approx. # of Records (if available)	Comments
Field Audit Archive Database	Taxation	Q&A	20,672	Needs conversion
Corporation Tax Comment File	Taxation	Mainframe Flat File	369,000	
Corporation Tax Return Correction File	Taxation	Mainframe Flat File	900	
Corporation Tax Return Correction Index File	Taxation	Mainframe Flat File	900	
Corporation Tax Correspondence File	Taxation	Mainframe Flat File	113,000	
Corporation Tax Payment File	Taxation	Mainframe Flat File	7,400	
Corporation Tax Return File	Taxation	Mainframe Flat File	733,000	
Income Tax 1040-H Address File	Taxation	Mainframe Flat File	3,900	
Income Tax Accounts Receivable File	Taxation	Mainframe Flat File	237,000	
Income Tax Comment File	Taxation	Mainframe Flat File	6,750,000	
Income Tax Correction Error File	Taxation	Mainframe Flat File	210	
Income Tax Credit File	Taxation	Mainframe Flat File	227,000	
Income Tax ELF EFIN File	Taxation	Mainframe Flat File	3,750	
Income Tax Electronic Filing File	Taxation	Mainframe Flat File	226,000	
Income Tax Electronic Filing Transmission File	Taxation	Mainframe Flat File		ELF file uploaded daily
Income Tax Fraud Address File	Taxation	Mainframe Flat File	60	
Income Tax History Comment File	Taxation	Mainframe Flat File	1,460,000	
Income Tax History Credit File	Taxation	Mainframe Flat File	350,000	
Income Tax History Name Cross Reference File	Taxation	Mainframe Flat File	2,430,000	
Income Tax History Spouse SSN File	Taxation	Mainframe Flat File	675,000	
Income Tax History Tax File	Taxation	Mainframe Flat File	1,740,000	
Income Tax License Account Receivable File	Taxation	Mainframe Flat File	36,000	
Income Tax Name Cross Reference File	Taxation	Mainframe Flat File	1,900,000	
Income Tax Refund YTD File	Taxation	Mainframe Flat File	430,000	
Income Tax Spouse SSN File	Taxation	Mainframe Flat File	500,000	
Income Tax Statistics File	Taxation	Mainframe Flat File	525	
Income Tax Return Correction File	Taxation	Mainframe Flat File	330,000	
Income Tax Taxpayer File	Taxation	Mainframe Flat File	1,350,000	
Income Tax Return File	Taxation	Mainframe Flat File	1,250,000	
Health Tax Comment File	Taxation	Mainframe Flat File	2,000	
Health Tax History File	Taxation	Mainframe Flat File	1,100	
Health Tax Name Index File	Taxation	Mainframe Flat File	180	



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Data Source Name	Division	System Source	Approx. # of Records (if available)	Comments
Health Tax Return File	Taxation	Mainframe Flat File	375	
Sales Tax Comment File	Taxation	Mainframe Flat File	840,000	
Sales Tax Condensed File	Taxation	Mainframe Flat File	285,000	
Sales Tax History File	Taxation	Mainframe Flat File	440,000	
Sales Tax Liquor License File	Taxation	Mainframe Flat File	3,300	
Sales Tax Meal & Beverage Location Dist File	Taxation	Mainframe Flat File	162,000	
Sales Tax Meal & Beverage Location Hold File	Taxation	Mainframe Flat File	2,500	
Sales Tax Meal & Beverage Location Id File	Taxation	Mainframe Flat File	475	
Sales Tax Permit Cross Reference File	Taxation	Mainframe Flat File	59,000	
Sales Tax Return Transaction Hold File	Taxation	Mainframe Flat File	87,000	
Sales Tax Return File	Taxation	Mainframe Flat File	270,000	
Sales Tax Use Tax File	Taxation	Mainframe Flat File	145,000	
Withholding Tax Comment File	Taxation	Mainframe Flat File	551,000	
Withholding Tax History File	Taxation	Mainframe Flat File	473,000	
Withholding Tax Lease File	Taxation	Mainframe Flat File	70	
Withholding Tax Return File	Taxation	Mainframe Flat File	80,000	
Withholding Tax W2 Employer History File	Taxation	Mainframe Flat File	5,000,000	
Withholding Tax W2 Employer File	Taxation	Mainframe Flat File	692,000	
Withholding Tax W2 SSN History File	Taxation	Mainframe Flat File	4,800,000	
Withholding Tax W2 SSN File	Taxation	Mainframe Flat File	674,000	
Business Tax Accounts Receivable File	Taxation	Mainframe Flat File	325,000	
Business Tax Information File	Taxation	Mainframe Flat File	225,000	
Business Tax Name File	Taxation	Mainframe Flat File	338,000	
Business Tax Comment File	Taxation	Mainframe Flat File	180	
Business Tax Statistics File	Taxation	Mainframe Flat File	3,800	
Batch Inventory File	Taxation	Mainframe Flat File	133,000	
Batch Inventory Total File	Taxation	Mainframe Flat File	30,000	
Batch Inventory Transmittal File	Taxation	Mainframe Flat File	128,000	
Collection Assessment File	Taxation	Mainframe Flat File	345	
Liens File	Taxation	Mainframe Flat File	25,000	
Liens Web File	Taxation	Mainframe Flat File	7,100	



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Data Source Name	Division	System Source	Approx. # of Records (if available)	Comments
Liens Name File	Taxation	Mainframe Flat File	50,500	
Tax Comment File	Taxation	Mainframe Flat File	86,000	
Collection Officer File	Taxation	Mainframe Flat File	100	
EFT ID File	Taxation	Mainframe Flat File	2,900	
Tax Security File	Taxation	Mainframe Flat File	240	
Tax Zip Code File	Taxation	Mainframe Flat File	5,900	
RI Unclaimed Property	Treasury	Informix		
Cities and Town Property Tax	Cities & Towns	Unknown		
Dept. of Business Regulation data	DBR	Informix, Access, NAIC		Multiple applications (see Appendix B)
Corporate Information	Secretary of State	SQL		
Boat Registrations Table	DEM	Informix		
Commercial Fishing License	DEM	Informix		
Boat Applicant Table	DEM	Informix		
Commercial Fishing Applicant	DEM	Informix		
Employee/Employer Data	DET/DLT	VSAM files, SQL DS, DB2, indexed files		Multiple applications (see Appendix B)
Motor Vehicle Registration and Licensing	DMV	TBAM Database		System to be upgraded
Dept. of Health Data	DOH	File Pro, MS SQL		Multiple databases
U.S. Customs data	US Customs			
Other 3 rd party data sources	Various			e.g. Liquor wholesalers
State of RI Vendor Database	DOA	Oracle		

The respondent should take into consideration that these files could grow and shrink during the year based on the business cycles of the departments involved. The proposed solution should allow low cost scalability for future expansion and the addition of other heterogeneous data sources.



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Appendix B Data Source Technical Notes

Taxation

The Taxation Division's platform is an IBM Z 900 series running VSE 3.2. This system is shared among many departments and agencies throughout the State. The files referenced are flat EBCDIC VSAM files. The system accepts 9 track reel tapes, as well as 3480, 3490 and 3590 cartridges.

Field Audit and Refunds & Adjustments are Q&A databases; the other databases at Taxation are Microsoft Access. These files reside on a Novell file server at the Division of Taxation offices.

IRS Data

All IRS data is provided on 3480 cartridges at various times throughout the year depending on the type of information on the tape. The tape contains flat files and the file layout is included with the tape. There can be modifications to the file format from tape to tape.

Cities and Town Information

The cities and towns are not currently providing property ownership information to the State electronically. Specific files and formats available in the individual cities and towns are unknown. This data will eventually be a required feed to the data warehouse.

Division of Motor Vehicle (DMV)

The DMV application runs on an IBM RS 6000 server with an IBM AIX Unix operating system. The data base management system is TBAM (Transaction Based Access Method). This system uses a 3590 tape cartridge for backups.

Department of Health (DOH)

The Department of Health applications run on a MS Windows 2000 platform. The birth registration system (VR2000) uses a MS SQL database for the capture, storage and building of extract files for births filed 2005 or after. A FilePro application contains data for births prior to 2005, deaths, and marriages. Births records grow by 14,000 per year, death files by approximately 10,000 per year, marriage records by 8,000 per year.

A License2000 front-end application with MS SQL database runs on a MS Windows 2000 platform and contains 295,830 licenses spread over 79 different professions and 582 different license types. This includes all licenses issued by Health Professionals Regulation, Facilities Regulation, Occupational Health, Food Protection, Drinking Water Quality, and Laboratories.

All DOH licenses are issued and maintained through License2000 except those issued by Emergency Medical Services (FilePro) and Office of Managed Care Regulation (Microsoft Access).



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Department of Environmental Management (DEM)

This department is using SCO ANSI UNIX on a Compaq Proliant. The database being run is Informix V 7.2 with a standard engine.

Department of Labor and Training (DLT)

An IBM S390 mainframe is used to store and support this group's IT activities including Employer Tax Information. This application uses both VSAM files and an SQL/DS database. Unemployment claims and Temporary Disability Insurance (TDI) payments are processed on an AS400. Unemployment data is stored in a DB2 database structure. TDI data is stored in indexed files.

Secretary of State

Linux, Apache, MySQL and PHP are used for the majority of the applications. Microsoft operating systems and database products are used strictly in maintenance phase. All active development is done using open source.

Department of Business Regulation (DBR)

The Department of Business Regulation is using Informix V7.24 on an SCO UNIX based system. Commercial Licensing, Banking and Securities and Liquor Licensing data reside on Informix databases. Racing and Accountancy data are stored on Access databases hosted on a Novell network. Insurance data is hosted at the remote NAIC location.

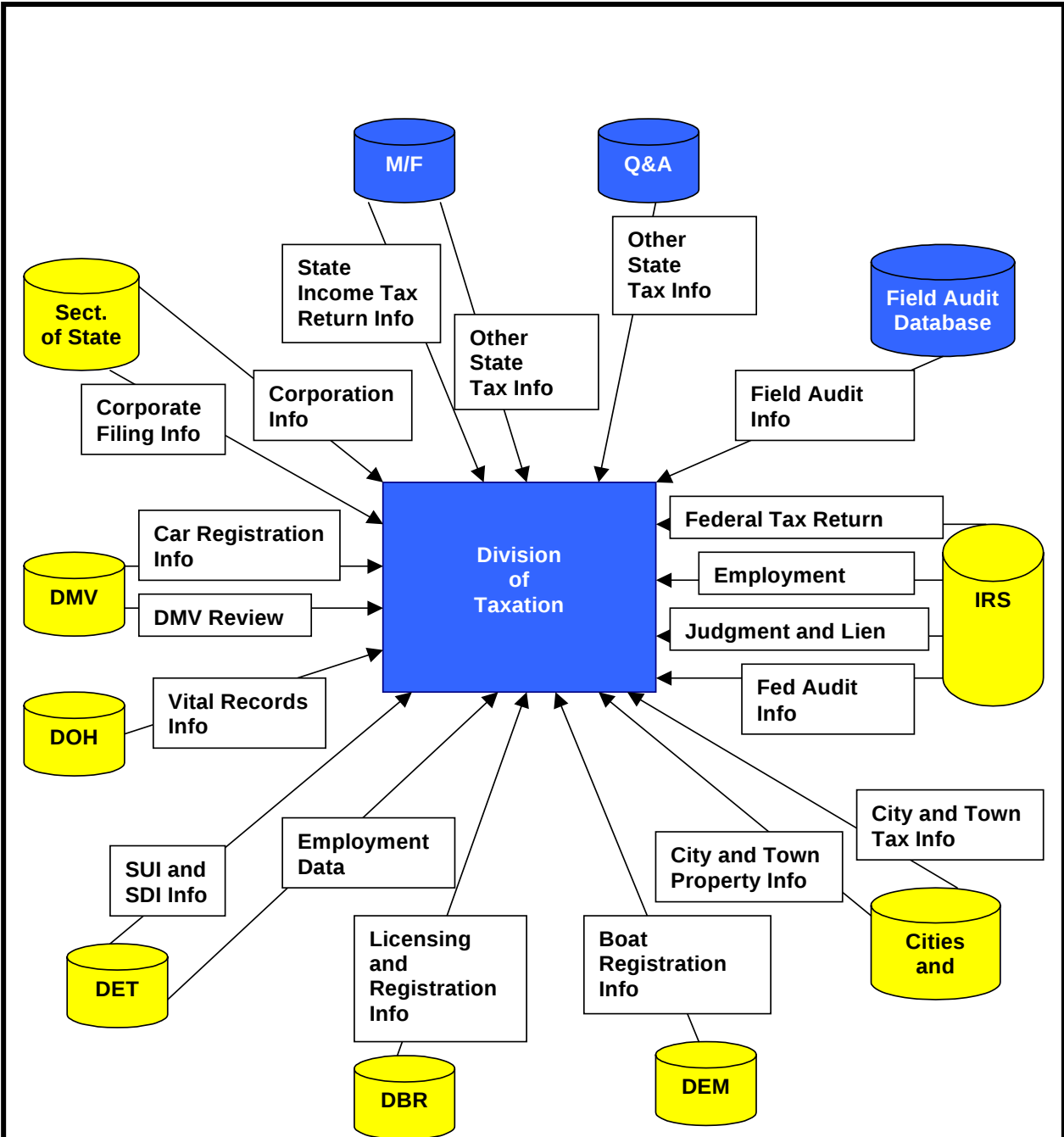
Office of the General Treasurer

The unclaimed property system is currently a UNIX SCO server with an Informix database. The proposed system scheduled to go in place is a Windows 2000 server with an SQL database using a standard Microsoft interface.



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Appendix C Context Diagrams For Data Warehouse Structure

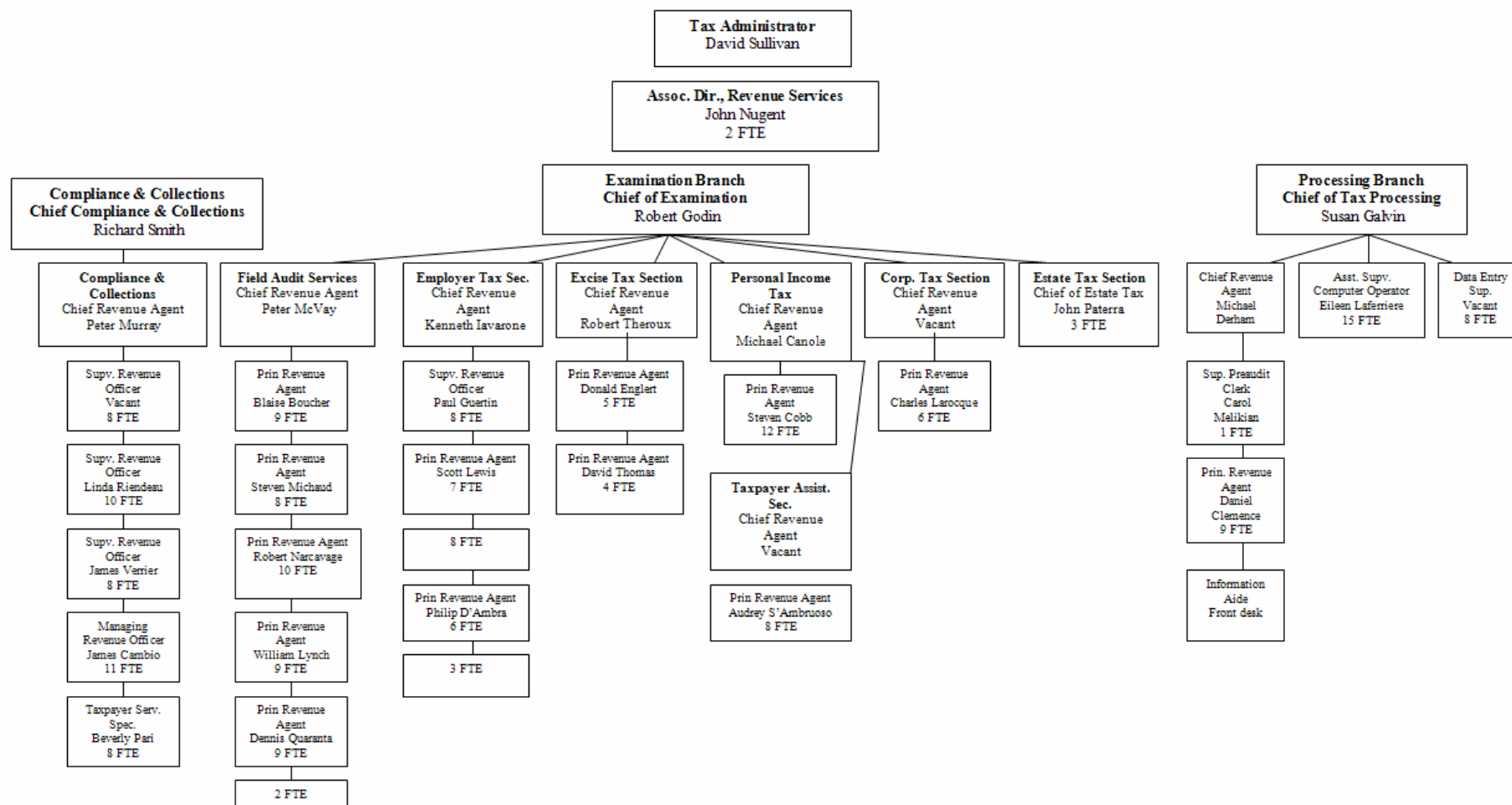




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Appendix D Division of Taxation Organizational Chart

DEPARTMENT OF REVENUE - DIVISION OF TAXATION





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Appendix E Network Infrastructure

This appendix provides an overview of the existing network infrastructure at the State of Rhode Island as it relates to the Division of Taxation.

LAN

Currently the LAN used is based around an NDS authenticated Netware Server Deployment Version 5.0. There are several Netware SAA Servers in place for communication between PCs and the mainframe. The PC clients are using Attachmate Extra for terminal emulation. The protocols currently supported are IP and IPX, but IPX is being phased out. There are plans in place to migrate to Novell 5.0 for the file server and only support IP. The physical cabling plant was recently upgraded to CAT 6 from the desktops jacks, returning to centralized wiring closets. Each closet contains a Cisco Catalyst 6500 chassis with power over Ethernet enabled 10/100MB ports. Each of the closet switches connects via a gigabit fiber link to the Core switch in the basement datacenter where most of our local building applications servers reside. There are plans to retire SAA and use an updated emulation solution that will eliminate the bottleneck of SAA.

WAN

The WAN connects approximately 100 state offices to One Capitol Hill where the Division of Taxation is located. The WAN is based around an Enhanced SONET ring architecture connecting our three main technology centers in the State (Department of Administration in Providence, the Enterprise Operations center in Johnston and the Pastore Complex in Cranston). This is a resilient ring technology supported by Verizon Communications. Any agencies not directly connected to a SONET location come in over an aggregate T3 Frame Relay connection with bandwidth for each location varying from 56K links, 384K links, T1 links and 10MB TLS connections. The protocol supported across the enterprise is TCP/IP, with the 3 core routers directing all traffic via EIGRP routes to the appropriate addresses. All Internet traffic is routed to our internet provider OSHEAN, across the frame relay and SONET to our One Capitol Hill datacenter, where we have our enterprise Firewall and IPS devices protecting the network. Netware SAA, Microsoft SNA / HIS servers and some legacy 3270 Cluster Controllers manage the mainframe connectivity at each location. Bidders should include minimum bandwidth requirements for their proposed solution.

Client PC Technology

All proposals should identify the minimum and the recommended client PC configurations to run the recommended tools and have access to the data warehouse.



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Taxation

There are a unique variety of PCs operational at this time. A few that are slated for replacement are DOS / Windows 3.1, some are PCs running Windows 95/ 98 / Windows NT and have IPX/SPX as a required network protocol, and most have been upgraded to Windows XP running only IP. There are plans to upgrade ALL machines to windows XP and use IP as the sole network protocol.



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Appendix F Business Requirements

General Requirements	Mandatory	Desirable	Included in bid? Y/N	Part of basic package? Y/N	% already developed in software?	# of Hours to complete?	User Type
A common platform designed to emphasize ease-of-use and reduce the need for technical support as well as implementation and on-going support costs across all elements of the system.	X						
A system that is maintainable, flexible and expandable by the State without vendor intervention to allow the system to keep pace with changing business requirements.	X						
A system which can be integrated with existing legacy and processing systems through open architecture which allows bi-directional transfer of data.	X						
A proven system with prior successful implementation in the revenue administration environment, using little or no new custom development. References of prior implementations in similar state environments are required.	X						
An integrated and comprehensive system addressing aspects of the audit process from the identification of qualified candidates through assignment, audit, assessment and collection processes.		X					

NOTE: If desired requirement is not included in base bid, include pricing in Cost Proposal Section



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Revenue Analysis Requirements	Mandatory	Desirable	Included in bid? Y/N	Part of basic package? Y/N	% already developed in software?	# of Hours to complete?	User Type
Provide the capability for staff to utilize the Data Warehouse and analytical engine, in particular the tools for Online Analytical Processing (OLAP) and Business Intelligence, to perform ad hoc analysis of revenue and collections data for the purposes of determining trends and forecasting future performance, as well as modeling or projecting the impact of potential legislation.	X						
Ability to utilize the above mentioned tools to prepare the State's tax expenditures report as required in section 44-48.1-1 and the statistics of income tax required in section 44-30-1.2.	X						
Ability to utilize the above mentioned tools to prepare cost benefit analyses of all tax expenditures.	X						
Ability to save and modify rule sets and queries in order to rerun the queries as needed against different data or with modified rules and/or parameters.	X						
The tools and capability to add data sources to the Data Warehouse as desired for additional input to trending, forecasting analysis, and economic analysis, without requiring Vendor intervention.	X						
Availability of tools for presentation of analysis results in both data and graphical form, utilizing color and graph styles to effectively display results, or the ability to export analysis results to packages such as Microsoft Excel with graphic capabilities.	X						

NOTE: If desired requirement is not included in base bid, include pricing in Cost Proposal Section



State of Rhode Island Request for Proposal Data Warehouse

Audit Selection Requirements	Mandatory	Desirable	Included in bid? Y/N	Part of basic package? Y/N	% already developed in software?	# of Hours to complete?	User Type
A Data Warehouse and analytical engine with tools for Online Analytical Processing (OLAP) and Business Intelligence able to perform rule-based risk analysis of taxpayer data, incorporating the knowledge and experience of senior audit staff/personnel.	X						
Analysis results will consist of a combination of clearly described "risk analysis scores" (probability of non-compliance) and profiles such as revenue potential, complexity, and collection probability to assist in the selection process.	X						
Availability of an easily understood description and explanation of the areas of non-compliance identified during analysis, to assist in the selection process and to provide the auditor guidance and focus within the audit.	X						
System will provide the means to prioritize potential audit cases for selection (based on organizational requirements/criteria, goals, objectives), which in turn will allow the unit to optimize staffing.	X						
Rules will be maintainable by the Dept. of Revenue (not IT or Contractor) to reflect changes in tax law, regulations, policies and litigation to allow the compliance unit to respond quickly to changes in the business environment.	X						
Comprehensive data mining facilities with the ability to "match" data from a broad range of sources.	X						
Integration of Case Management and Field Audit Support Systems providing a seamless transition from selection to case assignment through audit, audit review and assessment.		X					

NOTE: If desired requirement is not included in base bid, include pricing in Cost Proposal Section



State of Rhode Island Request for Proposal Data Warehouse

Discovery Functionality Requirements	Mandatory	Desirable	Included in bid? Y/N	Part of basic package? Y/N	% already developed in software?	# of Hours to complete?	User Type
Provide rule-based, risk analysis facilities to reduce number of false positive (or erroneous leads) and assist in the prioritization of cases to help ensure effective use of organizational resources.	X						
Comprehensive data mining facilities with the ability to “match” data from a broad range of sources. This functionality will enable end-user (non-IT) managers to set-up and run match programs with multiple criteria, variables, etc. to identify non-filers and non-registrants	X						
Integrate Discovery functionality with the Case Management/Tracking & Reporting Functionality (common to the Audit Case Management Functionality) that supports the creation, tracking and management of Discovery cases and generates/tracks required case correspondence. Discovery Functionality will also provide for standard and ad-hoc reporting		X					

NOTE: If desired requirement is not included in base bid, include pricing in Cost Proposal Section



State of Rhode Island Request for Proposal Data Warehouse

Collections Management Requirements	Mandatory	Desirable	Included in bid? Y/N	Part of basic package? Y/N	% already developed in software?	# of Hours to complete?	User Type
Ability to perform rule-based, risk analysis based on knowledge & experience of senior staff/personnel.	X						
Rule base must be maintainable by the user organization (not IT or Vendor) to reflect changes in tax law, regulations and policies, etc.	X						
Capability to evaluate and assess the likelihood for collection of an account based on account variables and analysis of historic collections data for similar and dissimilar accounts within the Data Warehouse.	X						
Ability to develop and recommend a collection strategy for an account/taxpayer that yields the greatest cost benefit.	X						
Ability to evaluate accounts and prioritize potential cases (receivables) for action based on organizational requirements/criteria, goals, objectives, etc.	X						
Facilities to transfer case data to existing Departmental collection/receivable system (Rev-Q and mainframe Collections Management system) to assist DOR supervisors in planning, structuring, conducting and documenting the collection.	X						
Facilities to transfer data such as, but not limited to, collection action used, adjustment by class/type/category, collection by class/type/category, penalty and interest, from existing Departmental collection/receivable system (Rev-Q) for use in performing the analysis process of the Data Warehouse.	X						

NOTE: If desired requirement is not included in base bid, include pricing in Cost Proposal Section



State of Rhode Island Request for Proposal Data Warehouse

Audit Case Management Requirements	Mandatory	Desirable	Included in bid? Y/N	Part of basic package? Y/N	% already developed in software?	# of Hours to complete?	User Type
Facilities to transfer case data such as, but not limited to, adjustment by class/type/category, tax assessment by class/type/category, collection by class/type/category, penalty and interest, from existing Audit Support Software (currently Q&A) for use in performing the analysis process of the Data Warehouse.	X						
The creation, management and distribution of an electronic audit case file, including the capability to incorporate external objects such as spreadsheets, document images, document files, notes, etc. under a single case file umbrella. Offeror must state classes of objects that will be supported.		X					
The capture and reporting of case status and activities such as, but not limited to, assignment status, assigned personnel, audit hours, audit status, and collection status.		X					
On-line management reporting capabilities for cases in-progress and historical reporting capabilities, both standard and ad-hoc.		X					
Consistent and comprehensive case management, tracking and reporting facilities supporting all areas: Audit, Discovery and Collections Management.		X					
Provide facilities to transfer case data to existing Audit Support Software to assist the auditor in planning, structuring, conducting and documenting the audit.		X					

NOTE: If desired requirement is not included in base bid, include pricing in Cost Proposal Section



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Appendix G Technical Requirements

General Requirements	Mandatory	Desirable	Included in bid? Y/N	Part of basic package? Y/N	% already developed in software?	# of Hours to complete?
The system shall be available, at a minimum, to users for normal business hours. However, there will be days when the system will need to be available for extended hours.	X					
Any batch processing or maintenance activity must take place when the system is not scheduled to be available to users, or must not impact user availability or materially degrade System performance.	X					
A system which can be integrated with existing legacy and processing systems through open architecture which allows bi-directional transfer of data.	X					
System shall provide the ability to notify users that scheduled data loads are delayed.	X					
Must be scalable to allow the State to add, upgrade, or remove servers as computing capacity needs change, without disrupting the functionality of the data warehouse and its applications.	X					
Availability of a centralized, secure system administration interface	X					
Availability of consulting services for system and application maintenance including help desk location and hours.	X					
User group including other customers of this product.		X				
Work plan detailing level of support, training, consulting, documentation included in price.	X					
Ability to easily add new sources, targets, and data elements.	X					



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General Requirements (Cont'd)	Mandatory	Desirable	Included in bid? Y/N	Part of basic package? Y/N	% already developed in software?	# of Hours to complete?
Inclusion of major release changes and upgrades in standard support agreement.	X					
Availability of secure development, test and production environments.	X					
Ability to manage and archive data stored in the data warehouse.	X					
Efficiency at responding to and processing a request, for example, process time, response time, and capacity considerations.	X					
Extent to which solution specifications map source information to satisfy user needs.		X				
Documented reliability of system including amount of downtime experienced by other users.	X					



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ETL Process Requirements	Mandatory	Desirable	Included in bid? Y/N	Part of basic package? Y/N	% already developed in software?	# of Hours to complete?
Business diagrams and detailed guides provided	X					
Ability to schedule and process extraction, transformation, loading and refresh of data with no negative impact to state's current job schedule.	X					
Ability to track and control success or failure of this process including the availability of procedures to rerun/restart the process in the event of failure.	X					
Ability to notify operations personnel of load failures via email or cell phone.	X					
Detailed procedures for backups, restores, optimizations, utilizations, unloads, reloads, restructures, constraint validation, data refresh, data cleansing and operational intervention.	X					
Provides application system data cross reference definitions including mapping of profiled and cleansed data to target system location. (data dictionary).	X					
Documentation of transformation algorithms required to populate data warehouse and/or tax compliance applications.	X					
Ability to integrate and migrate data from multiple sources in multiple formats.	X					
Effective and proven methods to analyze data and insure that it is correct, complete and consistent including data profiling.	X					
Use of a staging area to separate data warehouse and transformation process.	X					



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ETL Process Requirements (Cont'd)	Mandatory	Desirable	Included in bid? Y/N	Part of basic package? Y/N	% already developed in software?	# of Hours to complete?
Detailed procedures to perform data cleansing including the availability of automated features.	X					
Provide method for tracking source and target changes across multiple iterations of the ETL process including date of last update.	X					
Load process can be started by a trigger event. Examples include but are not limited to: manual schedule, calendar, existence of a file or table.	X					
Load process capable of running as a collection or as individual components.	X					
Provide utilities that allow rollback of problematic or erroneous loads to any prior maintained version	X					
Provide edit, validation and balancing controls that prevent incomplete or incorrect data loads and generate control reports.	X					
Availability of job monitoring services e.g. a GUI to display and monitor extract status along with estimated time of completion.	X					



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Report and Query Tool requirements	Mandatory	Desirable	Included in bid? Y/N	Part of basic package? Y/N	% already developed in software?	# of Hours to complete?
Solution includes a comprehensive set of predefined 'canned' reports which have demonstrated proven results in generating revenue in other states.	X					
Ad-hoc reporting capabilities emphasizing ease of use	X					
Availability of a 'dashboard' approach with the ability to 'drill down' to supporting detail of summary amounts based on user-specified parameters	X					
Ability to create reports based on selection and sort criteria according to user-specified parameters.	X					
Ability to create reports and data extracts to be directly imported into documents from other applications. Examples include but are not limited to: report generator, Microsoft Word, Excel, and database applications.	X					
Online graphical presentation of data. Examples include but are not limited to graphs and charts.		X				
Reporting tool supports online report viewing, printing, and save output of all reports.	X					
Provides flexibility in filtering field values to include in report. Examples include but are not limited to: selection list, wild card for single and multiple range selection, and user entry.	X					
Ability to use phonetic query capability.		X				
Ability for a user to schedule a recurring report in advance.	X					
User friendly features such as, but not limited to: pull-down menus, point and click operation, scroll bars and scrollable list boxes, radio buttons, online prompts or balloon help messages, ability to open multiple windows within application concurrently.	X					
All data that has been archived shall be available to users for reporting.	X					



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Security Requirements	Mandatory	Desirable	Included in bid? Y/N	Part of basic package? Y/N	% already developed in software?	# of Hours to complete?
System shall allow for establishment of multiple security levels reelecting at a minimum the user types described in Section 3.3.	X					
Ability to disable log-on if incorrect password entry attempted after a parameter-driven number of attempts. An online ability to automatically notify appropriate personnel upon disabling log-on capability.	X					
Ability to mask password entry, so passwords cannot be viewed while being entered.	X					
Ability to enforce automatic and on demand changing of passwords by user, role or mass change.	X					
System shall include disaster recovery with full recovery within an agreed upon time frame with the State. System shall be fully replicated in a location separate from the production environment.	X					
Capability to recover from a server crash including the ability to recover ETL sessions to the point at which it last succeeded.	X					
Capacity of guarding against unauthorized access.	X					
Ability to time out after specified time frame of inactivity.	X					
Availability of audit trail of system use including user name, date, and table accessed.		X				
Ability to secure federal tax information as described in IRS Security Guidelines for Federal, State, and Local Agencies as described in IRS publication 1075.	X					



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