

STATE OF MICHIGAN
 DEPARTMENT OF MANAGEMENT AND BUDGET
 ACQUISITION SERVICES
 P.O. BOX 30026, LANSING, MI 48909
 OR
 530 W. ALLEGAN, LANSING, MI 48933

November 12, 2009

CHANGE NOTICE NO. 3
TO
CONTRACT NO. 071B6200136
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF VENDOR Mac Townsend 2303 Vega Ct League City, Texas 77573 Email: Mac.townsend@gmail.com	TELEPHONE Mac Townsend 281-557-0447
	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-0239 Jacque Kuch
Contract Compliance Inspector: Barb Suska Oracle Database Administrator	
CONTRACT PERIOD: From: February 6, 2006 To: February 5, 2010	
TERMS <p style="text-align: center;">N/A</p>	SHIPMENT <p style="text-align: center;">N/A</p>
F.O.B. <p style="text-align: center;">N/A</p>	SHIPPED FROM <p style="text-align: center;">N/A</p>
MINIMUM DELIVERY REQUIREMENTS <p style="text-align: center;">N/A</p>	
MISCELLANEOUS INFORMATION:	

NATURE OF CHANGE(S):

Effective immediately, the MDIT Project Manager for this contract has changed to Tiziana Galezzi and the contract administrator has changed to Barb Suska at 517 335-4067. All other terms and conditions remain the same.

AUTHORITY/REASON(S):

Per agency request.

TOTAL ESTIMATED CONTRACT VALUE REMAINS: \$839,744.00

STATE OF MICHIGAN
 DEPARTMENT OF MANAGEMENT AND BUDGET
 ACQUISITION SERVICES
 P.O. BOX 30026, LANSING, MI 48909
 OR
 530 W. ALLEGAN, LANSING, MI 48933

October 15, 2009

CHANGE NOTICE NO. 2
TO
CONTRACT NO. 071B6200136
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF VENDOR Mac Townsend 2303 Vega Ct League City, Texas 77573		TELEPHONE Mac Townsend 281-557-0447
		VENDOR NUMBER/MAIL CODE
Email: Mac.townsend@gmail.com		BUYER/CA (517) 241-0239 Jacque Kuch
Contract Compliance Inspector: Reid Sisson Oracle Database Administrator		
CONTRACT PERIOD: From: February 6, 2006 To: February 5, 2010		
TERMS N/A	SHIPMENT N/A	
F.O.B. N/A	SHIPPED FROM N/A	
MINIMUM DELIVERY REQUIREMENTS N/A		
MISCELLANEOUS INFORMATION:		

NATURE OF CHANGE(S):

Per Executive Directive 2009-3, the vendor has offered the following price concessions to the State of Michigan:

Effective 10/1/09 through 2/5/2010, the hourly rate on this contract is REDUCED by 5%. The new hourly rate is \$77.00 (\$81.00 minus 5% (\$4.00) = \$77.00). The total contract value is DECREASED \$2,656.00.

AUTHORITY/REASON(S):

Per agreement between the Vendor and the State of Michigan.

DECREASE: \$2,656.00

Total Revised Estimated Contract Value: \$839,744.00

STATE OF MICHIGAN
 DEPARTMENT OF MANAGEMENT AND BUDGET
 ACQUISITION SERVICES
 P.O. BOX 30026, LANSING, MI 48909
 OR
 530 W. ALLEGAN, LANSING, MI 48933

February 6, 2009

CHANGE NOTICE NO. 1
TO
CONTRACT NO. 071B6200136
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF VENDOR Mac Townsend 2303 Vega Ct League City, Texas 77573 Email:Mac.townsend@masterdba.com	TELEPHONE Mac Townsend 281-557-0447
	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-0239 Jacque Kuch
Contract Compliance Inspector: Reid Sisson Oracle Database Administrator	
CONTRACT PERIOD: From: February 6, 2006 To: February 5, 2010	
TERMS <p style="text-align: center;">N/A</p>	SHIPMENT <p style="text-align: center;">N/A</p>
F.O.B. <p style="text-align: center;">N/A</p>	SHIPPED FROM <p style="text-align: center;">N/A</p>
MINIMUM DELIVERY REQUIREMENTS <p style="text-align: center;">N/A</p>	
MISCELLANEOUS INFORMATION:	

NATURE OF CHANGE(S):

Effective immediately, this contract is hereby EXTENDED to February 5, 2010. All other terms and conditions remain the same.

AUTHORITY/REASON(S):

Per request of the agency and approval of Purchasing Operations

Estimated Contract Value Remains: \$842,400.00

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES
P.O. BOX 30026, LANSING, MI 48909
 OR
530 W. ALLEGAN, LANSING, MI 48933

February 14, 2006

NOTICE
OF
CONTRACT NO. 071B6200136
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF VENDOR Mac Townsend 2303 Vega Ct League City, Texas 77573		TELEPHONE Mac Townsend 281-557-0447
		VENDOR NUMBER/MAIL CODE
Email: Mac.townsend@masterdba.com		BUYER/CA (517) 241-0239 Jacque Kuch
Contract Compliance Inspector: Reid Sisson Oracle Database Administrator		
CONTRACT PERIOD: From: February 6, 2006 To: February 5, 2009		
TERMS N/A	SHIPMENT N/A	
F.O.B. N/A	SHIPPED FROM N/A	
MINIMUM DELIVERY REQUIREMENTS N/A		
MISCELLANEOUS INFORMATION:		

The terms and conditions of this Contract are those of **ITB #07116200072**, this Contract Agreement and the vendor's quote dated December 21, 2005. In the event of any conflicts between the specifications, terms and conditions indicated by the State and those indicated by the vendor, those of the State take precedence.

Estimated Contract Value: \$842,400.00

STATE OF MICHIGAN
 DEPARTMENT OF MANAGEMENT AND BUDGET
 ACQUISITION SERVICES
 P.O. BOX 30026, LANSING, MI 48909
 OR
 530 W. ALLEGAN, LANSING, MI 48933

**NOTICE
 OF
 CONTRACT NO. 071B6200136
 between
 THE STATE OF MICHIGAN
 and**

NAME & ADDRESS OF VENDOR Mac Townsend 2303 Vega Ct League City, Texas 77573 Mac.townsend@masterdba.com	TELEPHONE Mac Townsend 281-557-0447 VENDOR NUMBER/MAIL CODE BUYER/CA (517) 241-0239 Jacque Kuch
Contract Compliance Inspector: Reid Sisson <p style="text-align: center;">Oracle Database Administrator</p>	
CONTRACT PERIOD: From: February 6, 2006 To: February 5, 2009	
TERMS N/A	SHIPMENT N/A
F.O.B. N/A	SHIPPED FROM N/A
MINIMUM DELIVERY REQUIREMENTS <p style="text-align: center;">N/A</p>	
MISCELLANEOUS INFORMATION: The terms and conditions of this Contract are those of ITB #_07116200072, this Contract Agreement and the vendor's quote dated December 21, 2005. In the event of any conflicts between the specifications, terms and conditions indicated by the State and those indicated by the vendor, those of the State take precedence. Estimated Contract Value: \$842,400.00	

THIS IS NOT AN ORDER: This Contract Agreement is awarded on the basis of our inquiry bearing the [ITB No. 07116200072](#). Orders for delivery of equipment will be issued directly by the [Department of State](#) through the issuance of a Purchase Order Form.

All terms and conditions of the invitation to bid are made a part hereof.

FOR THE VENDOR: _____ Firm Name _____ Authorized Agent Signature _____ Authorized Agent (Print or Type) _____ Date	FOR THE STATE: _____ Signature Jacque Kuch _____ Name Buyer, IT Division _____ Title _____ Date
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**STATE OF MICHIGAN
Department of Management and Budget
Acquisition Services**

Contract 071B6200136
Oracle Database Administrator
Michigan Department of State

Buyer Name: Jacque Kuch
Telephone Number: (517) 241-0239
E-Mail Address: kuchj@michigan.gov



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Article 1 – Statement of Work (SOW)

1.0 Project Identification

1.001 PROJECT REQUEST

This Contract is for DBA Services for the Michigan Department of State Inventory and Qualified Voter Registration Computer Systems projects.

1.002 BACKGROUND

The Michigan Department of State Saleable and Non-Saleable Inventory system is a computer system accessed by state employees from a remote location in downtown Lansing. The system manages the sales and inventory for vehicle registrations for the State of Michigan. An Oracle database and suite of Oracle Manufacturing software written in several languages to include Java, C, SQL/Plus, and Oracle Forms and Reports are implemented in this system.

The Qualified Voter File (QVF) Voter Registration system is a computer system comprised of a large central database and approximately 468 client databases at different locations in the state. Software to implement the system is the Oracle Database and custom applications written in various languages to include PL/SQL, SQL and C. The QVF Voter Registrations system utilizes the Updateable Snapshot Replication feature of the Oracle database to integrate and manage data from election officials and other state sources.

Database for the QVF system is currently at Release 8.1.7.4. Database for the Inventory system is currently at 9.2.0.5. Application software for the Inventory System is currently at Release 11.5.9.

1.1 Scope of Work and Deliverables

1.101 IN SCOPE

The Contractor will provide the Oracle expertise and experience necessary to assure successful implementation of software upgrades and enhancements to the QVF application as well as the Inventory System.

The Department of Information Technology (DIT) has obtained a new set of servers to host the QVF application. After the installment and configuration of the new servers, the QVF System will be migrated to the new hardware. This will include the testing of the migration process, which must be done in order to guarantee the integrity of the QVF data as well as the metadata that enables replication to the sites that depend on the QVF database. Once testing at this stage is complete, the production QVF System will be migrated to the new computer systems in a fashion that will minimize production downtime and appear seamless to the client sites.

At this point the two computer systems that were being used to host the QVF System will be available to host the Inventory System that is currently running on inadequate computer and storage systems. The Inventory System will first be migrated to a test environment, which must be done to insure the integrity of the data and to validate the migration process. Once testing of the Saleable Inventory Migration process is completed, the production Saleable Inventory System will be migrated to this hardware in a fashion to minimize down time.

The QVF database will then need to be secured behind the State's firewall, yet it will need to provide connectivity to the dependant client sites. This will be accomplished by installing the Oracle 10g Connection Manager on a HP-UX computer system located in the DMZ. At this point in time, the QVF database will still reside in the DMZ on a different HP-UX computer system.

The Oracle Connection Manager will be configured to route replication database connection requests to the system hosting the QVF database. In addition, the Oracle 10g Grid Control management server will be installed on the same computer system as the Oracle 10g Connection Manager and be configured to access the Grid Control Metadata Repository on the computer system hosting the QVF database. Rollout of new client machines may begin at this point.

When new computer systems are made available to client sites accessing the QVF Database, they will be installed with Oracle 10g Client Software that will include Net8 Configuration files to access the QVF Database via the Connection Manager as opposed to direct connections that they use now. Oracle Grid Control Agents will



also be installed on the new client machines. While this is the preferred way to enable client machines to access the database through the Oracle Connection Manager, it maybe necessary to enable this connectivity before a rollout. Modifying the client's Net8 tnsnames file to route requests through the Connection Manager will do this. This modification can be performed by a software upgrade using existing capabilities in the QVF System. Once all sites have been enabled to route their connection request through the QVF Oracle 10g Connection manager, the QVF Database will be moved out of the DMZ and behind the State's firewall. Direct connections to the QVF Database from clients not behind the firewall will be disallowed. The firewall will be configured to allow the IP address of the Computer System hosting the Oracle Connection Manager to connect to the computer system hosting the QVF Database through one or more ports as deemed necessary to support the software configuration.

The Oracle 10g Application Server Software will now be installed on the test and development machines. Programming using Java, C, HTML, Javascript, and other languages will begin. The initial goal of this programming will be to provide limited QVF functionality to township, city, county, and state officials and other authorized agents that do not currently have access to the QVF System. Once development and testing of this initial capability is complete, the capability will be installed on the QVF Production System.

Additional capabilities will be identified and scoped and then implemented in similar fashion until most, if not all, of the QVF functionality is available to all authorized end users via the World Wide Web. Security for the QVF Database will be provided by the Oracle 10g Application Server Software as well as the Oracle 10g Connection Manager Software. The scope of work will include systems analysis, design, proof of concept, testing, tuning, implementation, documentation, maintenance, vendor upgrades, custom enhancements, and disaster recovery procedures for the QVF Voter Registration System and the Inventory System. Work will include programming assignments in C, PL/SQL, Java, HTML, XML and other WEB capable programming languages in addition to ongoing support tasks required for the day-to-day operations of the two systems. Training of state employees for the operation and maintenance of the new technologies is to be provided. The vendor to State employees during all phases of the work described herein will provide knowledge transfer of all technologies used to implement this work.

1.102 OUT OF SCOPE

All other items that are not specifically identified in **Article 1.101** are considered out of scope and would have to follow the change management process as outlined in the State of Michigan Project Management Methodology.

1.103 ENVIRONMENT

The State's current technical environment standards can be reviewed at: <http://www.michigan.gov/dit/0,1607,7-139-34305---,00.html>

The Michigan Department of State Inventory system is a computer system accessed by state employees from a remote location in downtown Lansing. The system manages the sales and inventory for vehicle registrations for the State of Michigan. An Oracle database and suite of Oracle Manufacturing software written in several languages to include Java, C, SQL/Plus, and Oracle Forms and Reports are implemented in this system.

The QVF Voter Registration system is a computer system comprised of a large central database and approximately 468 client databases at different locations within the state. Software to implement the system is the Oracle Database and custom applications written in various languages to include PL/SQL, SQL and C. The QVF Voter Registrations system utilizes the Updateable Snapshot Replication feature of the Oracle database to integrate and manage data from election officials and other state sources.

Database for the QVF system is currently at Release 8.1.7.4. Database for the License Plate Inventory system is currently at 9.2.0.5. Application software for the Inventory System is currently at Release 11.5.9.

The State of Michigan has purchased four new HP-UX computer systems. These systems will be used to host the QVF Voter Registration System and to provide resources for the upgrade of the QVF Voter Registration System to the latest release of the Oracle RDBMS, which is currently Oracle 10.1.0.4. In addition these systems will host the Oracle 10g Application Server and provide a means to secure the QVF database behind the State's firewall using the Oracle 10g Connection Manager. DIT is currently in the process of the server upgrade and requires the DBA contractor to be involved.



1.104 WORK AND DELIVERABLE

Contractor will provide Deliverables/Services and staff, and otherwise do all things necessary for or incidental to the performance of work, as set forth below:

OBJECTIVE:

- Upgrade existing systems to current vendor software releases and patches with minimal outage for production.
- Migrate the QVF system to new platforms.
- Administer databases used for the deployment of the QVF and Inventory systems.
- Enhance the QVF System to allow state and election officials access to their data via web technologies.
- Enhancements to the systems include custom capabilities as may be required by the State.
- Migrate the Inventory System to computer platforms more capable of performing due to the significant increase of data.
- Provide knowledge transfer to State Employees to enable them to continue development and maintenance of these systems.
- Perform disaster recovery if necessary.
- Enhance Disaster Recovery procedures to minimize downtime.

TASKS include the following but are not limited to:

- Upgrade databases to the latest release of Oracle 10g and apply patch sets as they become available from the vendor.
- Upgrade existing Oracle application software to the latest version from the vendor. Latest version is currently 11.5.10.
- Split existing single node systems into a dual node architecture..
- Clone production systems to development environments as required to allow for the implementation and testing of new features, required upgrades, and problem resolution, and trouble shoot performance problems on both systems.
- Move existing Oracle system from Tru64 Platform to the HPUX Platform
- Implement Oracle 10g Connection Manager, assisting in the rollout of new client platforms and insuring connectivity through Connection Manager.
- Implement Oracle 10g Grid Control, Oracle 10g Interconnect and the development of software to utilize Oracle 10g Interconnect.
- Assist developers in the use of efficient codes and appropriate technologies and platforms.
- Manage the fragmentation and chaining for Oracle tables.
- Implementation of storage and replication systems.
- Assist in the development of software to enhance the current system to allow remote web access.
- Assist in enhancing the disaster recovery procedures that include backup and recovery of systems.
- Assist in the implementation of standby database features for Oracle systems.

SKILL SET/EXPERIENCE REQUIRED:

The following skill set/experience are **required** for this position:

- Oracle DBA Masters Certificate.
- Five (5) plus years experience as Oracle 11i Apps DBA
- Five (5) plus years experience as an Oracle Core DBA.
- Five (5) plus years experience with Advanced Replication/Backup and > Recovery/Tuning/Architecture/Installation
- Five (5) years experience with SQL Programming Language
- Five (5) years experience with PL/SQL Programming Language
- Five (5) years experience with Microsoft Windows NT/2000 Operating System
- Five (5) years experience with Korn Shell
- Five (5) years experience as a Hewlett Packard Tru64 System administration
- One (1) year experience with Oracle 10gAS Installation, configuration and maintenance
- Five (5) years experience with Web development utilizing Oracle technologies
- Five (5) years experience with C and Oracle PROC Programming
- Five (5) years experience with RMAN cloning, backup and recovery
- Five (5) years experience with Oracle 6i Forms and Reports



- One (1) year experience with Oracle 10g Connection Manager, Oracle 10g Interconnect and Oracle 10g Grid Control

1.2 Roles and Responsibilities

1.201 CONTRACTOR STAFF, ROLES, AND RESPONSIBILITIES

Mac Townsend has been identified as the key personnel who will be involved with this Contract.

Mac Townsend will be provided knowledge transfer of the technology used in constructing this application. The State Department of Information Technology will provide a full time experienced programmer/analyst to this effort. This programmer/analyst will be the sole maintenance support for this application upon completion of the development effort.

1.202 STATE STAFF, ROLES, AND RESPONSIBILITIES

Al Haas, Department of Information Technology, will serve as the IT Program Manager. Al will be the prime contact and responsible for all programming developments and resolutions.

Dave Jaksa is the primary State contact. Dave is the on-site DBA for the QVF system and he is responsible for monitoring the upgrade. Dave receives progress reports and updates from contractors and assists wherever needed.

1.203 RESERVED

1.3 Project Plan

1.301 PROJECT PLAN MANAGEMENT

RESERVED

1.302 REPORTS

A bi-weekly progress report must be submitted to the Agency Project Manager through the life of this project. This report may be submitted with the billing invoice. Each bi-weekly progress report must contain the following:

1. **Hours:** Indicate the number of hours expended during the past two weeks, and the cumulative total to date for the project. Also state whether the remaining hours are sufficient to complete the project.
2. **Accomplishments:** Indicate what was worked on and what was completed during the current reporting period.

1.4 Project Management

1.401 ISSUE MANAGEMENT

Contractor shall be responsible for notifying the DIT Program Manager of all issues, and may be requested to become involved in determining and developing resolutions.

1.402 RISK MANAGEMENT

RESERVED

1.403 CHANGE MANAGEMENT

If a proposed contract change is approved by the Contract Compliance Inspector, the Contract Compliance Inspector will submit a request for change to the Department of Management and Budget, Acquisition Services Buyer, who will make recommendations to the Director of Acquisition Services regarding ultimate approval/disapproval of change request. If the DMB Acquisition Services Director agrees with the proposed modification, and all required approvals are obtained (including State Administrative Board), the Acquisition Services Buyer will issue an addendum to the Contract, via a Contract Change Notice. **Vendors who provide**



products or services prior to the issuance of a Contract Change Notice by the DMB Office of Acquisition Services, risk non-payment for the out-of-scope/pricing products and/or services.

1.501 CRITERIA
RESERVED

1.502 FINAL ACCEPTANCE

Acceptance is dependent upon adequate performance of required Services and the acceptance of the deliverables within this RFP.

1.6 Compensation and Payment

1.601 COMPENSATION AND PAYMENT

This RFP will result in a firm, fixed price contract. Monthly invoices must be submitted to the Contract Compliance Inspector or the designee. . All invoices should reflect actual work completed by payment date, and must be approved by the Agency Project Director prior to payment. The invoice must include the following information:

1. Number of hours worked during the prior month.
2. Cost per hour.
3. Invoice period begin and end date.
4. Deliverables in process and status.
5. Deliverables completed.

State shall pay Contractor an amount not to exceed eight hundred forty two thousand four hundred dollars (\$842,400.00) for the performance of all activities necessary for or incidental to the performance of work as set forth in this SOW. Authorized Services and Price List as follows (use separate pages, marked as Article 1, Attachment A, if necessary for the price schedules relevant to each Statement of Work):

All rates quoted will be firm for the duration of the contract. No price changes will be permitted.

Pricing for Unit priced contracts: The quantities shown are estimates only. The State is not obligated to buy in these or any other quantities.

Mac Townsend, Oracle DBA - price/hr \$81.00 X 2080 hrs per year = Total \$168,480.00 per year.

1.7 Additional Terms and Conditions Specific to this SOW

1.701 Additional Terms and Conditions Specific to this SOW

1. Normal work hours will be 8:00 a.m. to 5:00 p.m. Monday through Friday.
2. The Contractor, during the performance of services detailed in this Contract, will be responsible for any loss or damage to original documents, belonging to Department of State they are in the Contractor's possession. Restoration of lost or damaged original documents shall be at the Contractor's expense.
All questions that may arise as to the quality and acceptability of work, the manner of performance and rate of progress of the work, the interpretation of designs and specifications, and as to the satisfactory and acceptable fulfillment of the terms of this agreement shall be decided by the State.
3. All work prepared by the Contractor during the execution of this contract shall be considered works made by hire and shall belong exclusively to the State and its designees, unless specifically provided otherwise by mutual agreement of the Contractor and the State. This includes, but is not limited to, all new business processes created, all planning and design work performed, all technology developed, the source and object code of all software programs and systems, any business objects or databases created, all related documentation (written or automated), and all documents and reports. If by operation of law any of the work, including all related intellectual property rights is not owned in its entirety by the State automatically upon creation thereof, the Contractor agrees to assign, and hereby assigns to the State and its designees the ownership of such work, including all related intellectual property rights. The Contractor agrees to provide at no additional charge, any



assistance and to execute any action reasonably required for the State to perfect its intellectual property rights with respect to the aforementioned work. If the Contractor uses any subcontractors to perform and prepare any of the work, the Contractor shall insure through agreement with the subcontractors that all intellectual property rights in any of the work shall belong exclusively to the State. Failure of the Contractor to insure such rights may be considered by the State to be a material breach of this contract.

4. The Contractor shall agree that they will not furnish or disclose any items owned by the State to a third party without the written permission of the State. This includes both items created as part of this contract and items owned by the State that are incidental to the contract. The Contractor shall also agree not to use items owned by the State for other purposes without the prior written permission of the State.
5. The Contractor shall use all software in accordance with the State's license agreements and any further restrictions imposed by the State. The Contractor shall not make any unauthorized copies of any software under any circumstances. Contractors found copying or knowingly using copyrighted software other than for backup purposes are subject to progressive disciplinary action. Contractors shall not provide software to any outsiders including consultants, local governmental units, and others when this would be a violation of law or copyright agreements.
6. Contractors are responsible for maintaining the confidentiality of their passwords and are liable for any harm resulting from disclosing or allowing disclosure of any password. Any conduct that restricts or inhibits the legitimate business use of State systems or network is prohibited. Each person must use State systems and networks only for lawful purposes. Specifically prohibited is any use of State systems or disclosure of any data which would constitute a criminal offense, give rise to civil liability, violate any State of Michigan policy, or otherwise violate any applicable local, state, or federal law. This also applies to any computer systems or networks that are accessed from State computer systems or networks.
7. The State has developed, and will continue to develop during the course of this effort, a growing number of information technology standards. The selected Contractor must follow any and all standards adopted by the State. Where standards do not exist, the final acceptance of a new technique, technology, or design will rest with the Contract Administrator.

**ARTICLE 1B – EVALUATION INFORMATION****REQUIRED VENDOR INFORMATION**

Please provide the following required Vendor information. Failure to respond to each requirement may disqualify the Vendor from further participation in this RFP.

1B.100 Vendor Information**1B.101 VENDOR NAME AND ADDRESS**

Name, address, principle place of business, and telephone number of legal entity with which contract is to be written.

Name: Mac Townsend
Address: 2303 Vega Ct.
City, State, Zip: League City, Texas, 77573
Phone: (281-557-0447)
Web Page:

1B.102 LOCATION ADDRESS

Address: 2303 Vega Ct.
City, State, Zip: League City, Texas, 77573

1B.103 ORGANIZATION AND YEAR

Legal status and business structure (corporation, partnership, sole proprietorship, etc.) of the Vendor and the year entity was established.

Status: Began work as an Independent Consultant in 1983 and have since provided consulting services to several companies. First began consulting work for the State of Michigan in October 1999 as an Oracle Database Administrator and established myself as Sole Proprietorship in February 2002.

In addition, please provide:

(a) Company Sales Volume for the last five (5) years
Sales volume for the last five years is \$723,619.

(b) Size and location of facilities that will be involved in any resulting contract.
One 400 square foot office located at 2303 Vega Ct., League City, TX 77573.

1B.104 RFP CONTACT

Name, title, address, email, phone and fax numbers for Vendor's RFP Contact.

Name: Mac Townsend, Sole Proprietor
Address: 2303 Vega Ct.
City, State, Zip: League City, Texas, 77573
Phone: (281-557-0447)
Fax: (281-557-8149)
E-Mail: mac.townsend@masterdba.com

Note: Person named above will be sole contact for your company to receive the Contract.

Mac Townsend (281-557-0447)

1B.200 Qualifications**1B.201 PRIOR EXPERIENCE**

Attached is a resume that includes detailed, chronological work experience for the Project Director candidate as Attachment B.



1B.203 PAST PERFORMANCE

Please list any contracts the Vendor has had with the State in the last ten years.

Contract Number 071B3001019 – October 1, 2002 through December 31, 2003

Contract Number 071B5200088 – October 4, 2004 through October 3, 2005

1B.204 CONTRACT PERFORMANCE

Indicate if the Vendor has had a contract terminated for default in the last three (3) years.

I affirmatively state I have had no contract terminated for default in the last three years.

I understand termination for default is defined as notice to stop performance which was delivered to the Vendor due to the Vendor's non-performance or poor performance and the issue of performance was either (a) not litigated due to inaction on the part of the Vendor, or (b) litigated and determined that the Vendor was in default.

1B.300 Disclosures

1B.301 DISCLOSURE OF LITIGATION

Not applicable, there are no such litigation, investigations or proceedings.

1B.302 DISCLOSURE OF RFP ASSISTANCE

Not applicable, there was no such assistance with the drafting of this RFP.



Article 2 – General Terms and Conditions

2.01 GENERAL INFORMATION

This Contract is for a period of three (3) years commencing on the date that the last signature required to make the Contract enforceable is obtained. All outstanding Purchase Orders shall also expire upon the termination (cancellation for any of the reasons listed in 2.210) of the Contract, unless otherwise extended pursuant to the Contract. Absent an early termination for any reason, Purchase Orders issued but not expired, by the end of the Contract's stated term, will remain in effect for the balance of the fiscal year for which they were issued.

This Contract may be renewed in writing by mutual agreement of the parties not less than thirty (30) days before its expiration. The Contract may be renewed for up to two (2) one (1) year periods. Successful completion of negotiations surrounding the terms of the extension will be a pre-requisite for the exercise of any option year.

2.02 ISSUING OFFICE

Acquisition Services, Department of Management and Budget, State of Michigan, hereafter known as Acquisition Services, for the Michigan Department of State, announce this ITB. Where actions are a combination of those of Acquisition Services and the Michigan Department of State, the authority will be known as the State.

2.021 Modifications, Revisions, Consents And Approvals

Any contract resulting from this ITB may not be modified, amended, extended, or augmented, except by a writing executed by the parties hereto, and any breach or default by a party shall not be waived or released other than in writing signed by the other party.

2.22 Sole-Point-Of-Contact:

Acquisition Services is the sole point of contact in the State with regard to all procurement and contractual matters relating to the services described herein. Acquisition Services is the only office authorized to change, modify, amend, alter, clarify, etc., the specifications, terms, and conditions of this Invitation to Bid and any contract(s) awarded as a result of this Request. Acquisition Services will remain the sole point of contact throughout the procurement process, until such time as the Director of Acquisition Services shall direct otherwise in writing. All communications concerning this ITB must be addressed to:

Jacque Kuch, Buyer
Department of Management and Budget
Acquisition Services
2nd Floor, Mason Building
P.O. Box 30026
Lansing, Michigan 48909
kuchj@michigan.gov

2.03 CONTRACT ADMINISTRATOR AND WORK LOCATION

The Director of Acquisition Services may direct the Michigan Department of State to assign a Contract Administrator to be authorized to administer resulting Contract(s) on a day-to-day basis during the term of the Contract. However, administration of any Contract implies no authority to change, modify, clarify, amend, or otherwise alter the terms, conditions, and specifications of such contract. That authority is retained by Acquisition Services. The Contract Administrator for this contract is

Reid Sisson
Department of Information Technology, Contract and Procurement Services
Romney Building
111 S Capitol Ave 4th floor
Lansing, Michigan 48933
sissonr@michigan.gov



Al Haas, Project Manager.
Secondary Complex, Operations Center
7285 Parsons Dr.
Lansing, MI 48913
haasa@michigan.gov

2.04 INCURRING COSTS AND LEGISLATIVE APPROPRIATIONS

The State of Michigan is not liable for any cost incurred by any bidder prior to signing of a contract by all parties. Total liability of the State is limited to the terms and conditions of any resulting Contract.

The State fiscal year is October 1st through September 30th. The prospective contractor should realize that payments in any given fiscal year are contingent upon enactment of legislative appropriations.

2.05 CONTRACTOR RESPONSIBILITIES

The Contractor will be required to assume responsibility for all contractual activities offered in their proposal whether or not the Contractor performs them. Further, the State will consider the Contractor to be the sole point of contact with regard to contractual matters, including payment of any and all charges resulting from the anticipated contract. **Note: If any personnel contracted through this RFP are not your employees, but that of another company, you must include a list of those companies (subcontractors), including firm name and address, contact person, complete description of skill sets to be subcontracted, and descriptive information concerning subcontractor's organizational abilities in your response. The State reserves the right to approve subcontractors for this work and to require the Contractor to replace subcontractors found to be unacceptable. The Contractor is totally responsible for adherence by the subcontractor to all provisions of the Contract. Failure to identify companies providing personnel for your use in Contracts will be cause for cancellation of your Contract.**

2.06 DISCLOSURE

All information in a bidder's proposal and any Contract resulting from this ITB is subject to disclosure under the provisions of the "Freedom of Information Act.", 1976 Public Act No. 442, as amended, MCL 15.231, *et seq.*

2.07 CONTRACT DOCUMENTS

The following constitute the complete and exclusive statement of the agreement between the parties as it relates to this transaction:

- State's ITB and any Addenda thereto
- Contractor's response to the State's ITB and any Addenda thereto

The contents of this ITB and the proposal will become contractual obligations, if a contract ensues. Failure of the successful bidder to accept these obligations may result in cancellation of the award.

2.08 USE OF DIT STANDARD INFORMATION TECHNOLOGY ENVIRONMENT

Unless otherwise stated in this Contract, all items produced by the Contractor must run on and be compatible with the State Standard Information Technology Environment.

The State needs to maintain software and other items produced as the result of the contract. Therefore, software development tools may not be used unless approved in writing, by the DIT.

2.09 INDEMNIFICATION

For Purposes of Indemnification as set forth in this section, State means the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees and agents.

2.091 General Indemnification

The Contractor shall indemnify, defend and hold harmless the State from and against all losses, liabilities, penalties, fines, damages, and claims (including taxes), and all related costs, and all related costs and expenses (including reasonable attorneys' fees and costs of investigation, litigation, settlement, judgments, interest and penalties), arising from or in connection with any claim, demand, action, citation or legal proceeding against the State arising out of or resulting from the death or bodily injury of any person, or the damage, loss or destruction of any real or tangible personal property, in connection with the performance of services by Contractor, by any of its



subcontractors, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable provided that the Contractor is notified within 30 days from the time that the State has knowledge of such claims. This indemnification obligation shall not apply to the extent, if any, that such death, bodily injury or property damage is caused by the conduct of the State.

2.092 Patent/Copyright Infringement Indemnification

The Contractor shall indemnify, defend and hold harmless the State from and against all losses, liabilities, damages (including taxes), and all related costs and expenses (including reasonable attorneys' fees and costs of investigation, litigation, settlement, judgments, interest and penalties) incurred in connection with any action or proceeding threatened or brought against the State to the extent that such action or proceeding is based on a claim that any piece of equipment, software, commodity or service supplied by the Contractor or its subcontractors, or the operation of such equipment, software, commodity or service, or the use or reproduction of any documentation provided with such equipment, software, commodity or service infringes any United States patent, copyright or trade secret of any person or entity, which is enforceable under the laws of the United States.

In addition, should the equipment, software, commodity, or service, or its operation, become or in the State's or Contractor's opinion be likely to become the subject of a claim of infringement, the Contractor shall at the Contractor's sole expense (i) procure for the State the right to continue using the equipment, software, commodity or service or, if such option is not reasonably available to the Contractor, (ii) replace or modify to the State's satisfaction the same with equipment, software, commodity or service of equivalent function and performance so that it becomes non-infringing, or, if such option is not reasonably available to Contractor, (iii) accept its return by the State with appropriate credits to the State against the Contractor's charges and reimburse the State for any losses or costs incurred as a consequence of the State ceasing its use and returning it.

2.093 Continuation of Indemnification Obligation

The duty to indemnify will continue in full force and effect, notwithstanding the expiration or early cancellation of the Contract, with respect to any claims based on facts or conditions that occurred prior to expiration or cancellation.

2.10 LIMITATION OF LIABILITY

The Contractor's liability for damages to the State for any cause whatsoever, and regardless of the form of action, whether in contract or tort, shall be limited the value of the Contract or \$200,000 which ever is higher. The foregoing limitation of liability shall not apply to claims for infringement of United States patent, copyright or trade secrets; to claims for death or bodily injury or damage to any real or tangible personal property caused by the negligence or fault of the Contractor; to claims related to the Contractor's unauthorized release of confidential information; to claims covered by other specific provisions of this Contract, if any, calling for liquidated damages; to the Contractor's indemnification obligations under Section II-C; and to the receipt of court costs or attorney's fees that might be awarded by a court in addition to damages after litigation based on this Contract.

Neither the Contractor nor the State shall be liable to the other for indirect or consequential damages even, if such party has been advised of the possibility of such damages. This limitation as to indirect or consequential damages does not apply to claims for infringement of United States patent, copyright or trade secrets; to claims related to the Contractor's unauthorized release of confidential information; to other specific provisions of this Contract, if any, calling for liquidated damages; or to the receipt of court costs or attorney's fees that might be awarded by a court in addition to damages after litigation based on this Contract.

2.11 CONTRACTOR'S LIABILITY INSURANCE

Before starting work the Contractor must furnish to the Director of Acquisition Services, a Certificate of Insurance verifying liability coverage. The Contract or Purchase Order number must be shown on the Certificate of Insurance to assure correct filing. These Certificates shall contain a provision that coverage's afforded under the policies will not be canceled until at least fifteen days prior written notice bearing the Contract Number or Purchase Order Number has been given to the Director of Acquisition Services.

The Contractor shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from the Contractor's operations under the Contract (Purchase Order), whether such operations be by himself or by any Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:



- Claims under workers' disability compensation, disability benefit and other similar employee benefit act. A non-resident Contractor shall have insurance for benefits payable under Michigan's Workers' Disability Compensation Law for any employee resident of and hired in Michigan; and as respects any other employee protected by workers' disability compensation laws of any other state the Contractor shall have insurance or participate in a mandatory state fund to cover the benefits payable to any such employee.
- Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees.
- Claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees, subject to limits of liability of not less than \$100,000 each occurrence and, when applicable \$300,000 annual aggregate, for non-automobile hazards and as required by law for automobile hazards.
- Claims for damages because of injury to or destruction of tangible property, including loss of use resulting there from, subject to a limit of liability of not less than \$50,000 each occurrence for non-automobile hazards and as required by law for automobile hazards.
- Insurance for Subparagraphs (3) and (4) non-automobile hazards on a combined single limit of liability basis shall not be less than \$100,000 each occurrence and when applicable, \$300,000 annual aggregate.

The insurance shall be written for not less than any limits of liability herein specified or required by law, whichever is greater, and shall include contractual liability insurance as applicable to the Contractor's obligations under the Indemnification clause of the BPO

2.12 CANCELLATION

The State may cancel this Contract without further liability or penalty to the State, its departments, divisions, agencies, offices, commissions, officers, agents and employees for any of the following reasons:

2.121 Material Breach by the Contractor.

In the event that the Contractor breaches any of its material duties or obligations under the Contract the State may, having provided written notice of cancellation to the Contractor, cancel this Contract in whole or in part, for cause, as of the date specified in the notice of cancellation.

In the event that this Contract is cancelled for cause, in addition to any legal remedies otherwise available to the State by law or equity, the Contractor shall be responsible for all costs incurred by the State in canceling the Contract, including but not limited to, State administrative costs, attorneys fees and court costs, and any additional costs the State may incur to procure the services required by this Contract from other sources. All excess re-procurement costs and damages shall not be considered by the parties to be consequential, indirect or incidental, and shall be subject to the dollar limitation of liability as provided in Section II-D.

In the event the State chooses to partially cancel this Contract for cause charges payable under this Contract will be equitably adjusted to reflect those services that are cancelled.

In the event this Contract is cancelled for cause pursuant to this section, and it is therefore determined, for any reason, that the Contractor was not in breach of contract pursuant to the provisions of this section, that cancellation for cause shall be deemed to have been a cancellation for convenience, effective as of the same date, and the rights and obligations of the parties shall be limited to that otherwise provided in the Contract for a cancellation for convenience.

2.122 Cancellation For Convenience By the State.

The State may cancel this Contract for its convenience, in whole or part, if the State determines that such a cancellation is in the State's best interest. Reasons for such cancellation shall be left to the sole discretion of the State and may include, but not necessarily be limited to (a) the State no longer needs the services or products specified in the Contract, (b) relocation of office, program changes, changes in laws, rules, or regulations make implementation of the Contract services no longer practical or feasible, and (c) unacceptable prices for additional services requested by the State. The State may cancel the Contract for its convenience, in whole or in part, by



giving the Contractor written notice 30 days prior to the date of cancellation. If the State chooses to cancel this Contract in part, the charges payable under this Contract shall be equitably adjusted to reflect those services that are cancelled.

2.123 Non-Appropriation.

In the event that funds to enable the State to effect continued payment under this Contract are not appropriated or otherwise made available. The Contractor acknowledges that, if this Contract extends for several fiscal years, continuation of this Contract is subject to appropriation or availability of funds for this project. If funds are not appropriated or otherwise made available, the State shall have the right to cancel this Contract at the end of the last period for which funds have been appropriated or otherwise made available by giving written notice of cancellation to the Contractor. The State shall give the Contractor written notice of such non-appropriation or unavailability within 30 days after it receives notice of such non-appropriation or unavailability.

2.124 Criminal Offense.

In the event the Contractor, an officer of the Contractor, or an owner of a 25% or greater share of the Contractor, is convicted of a criminal offense incident to the application for or performance of a State, public or private Contract or subcontract; or convicted of a criminal offense including but not limited to any of the following: embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, attempting to influence a public employee to breach the ethical conduct standards for State of Michigan employees; convicted under State or federal antitrust statutes; or convicted of any other criminal offense which in the sole discretion of the State, reflects upon the Contractor's business integrity.

In the event any final administrative or judicial decision or adjudication disapproves a previously approved request for purchase of personal services pursuant to Constitution 1963, Article 11, section 5, and Civil Service Rule 4-6. Cancellation may be in whole or in part and may be immediate as of the date of the written notice to the Contractor or may be effective as of the date stated in such written notice.

2.13 ASSIGNMEN

The Contractor shall not have the right to assign this Contract or to assign or delegate any of its duties or obligations under this Contract to any other party (whether by operation of law or otherwise), without the prior written consent of the State. Any purported assignment in violation of this section shall be null and void. Further, the Contractor may not assign the right to receive money due under the Contract without the prior written consent of the State Acquisition Services Director.

2.13 DELEGATION

The Contractor shall not delegate any duties or obligations under this Contract to a subcontractor other than a subcontractor named in the bid unless the State Acquisition Services Director has given written consent to the delegation.

2.14 NON-DISCRIMINATION CLAUSE

In the performance of any Contract or purchase order resulting here from, the bidder agrees not to discriminate against any employee or applicant for employment, with respect to their hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of race, color, religion, national origin, ancestry, age, sex, height, weight, marital status, physical or mental disability unrelated to the individual's ability to perform the duties of the particular job or position. The bidder further agrees that every subcontract entered into for the performance of any Contract or purchase order resulting here from will contain a provision requiring non-discrimination in employment, as herein specified, binding upon each subcontractor. This covenant is required pursuant to the Elliot Larsen Civil Rights Act, 1976 Public Act 453, as amended, MCL 37.2101, *et seq*, and the Persons with Disabilities Civil Rights Act, 1976 Public Act 220, as amended, MCL 37.1101, *et seq*, and any breach thereof may be regarded as a material breach of the Contract or purchase order.



2.15 UNFAIR LABOR PRACTICES

Pursuant to 1980 Public Act 278, as amended, MCL 423.231, et seq, the State shall not award a Contract or subcontract to an employer whose name appears in the current register of employers failing to correct an unfair labor practice compiled pursuant to section 2 of the Act. The United States National Labor Relations Board compiles this information.

A Contractor of the State, in relation to the Contract, shall not enter into a Contract with a subcontractor, manufacturer, or supplier whose name appears in this register. Pursuant to section 4 of 1980 Public Act 278, MCL 423.324, the State may void any Contract if, subsequent to award of the Contract, the name of the Contractor as an employer, or the name of the subcontractor, manufacturer or supplier of the Contractor appears in the register.

2.16 SURVIVOR

Any provisions of the Contract that impose continuing obligations on the parties including, but not limited to the Contractor's indemnity and other obligations shall survive the expiration or cancellation of this Contract for any reason.

2.17 GOVERNING LAW

This Contract shall in all respects be governed by, and construed in accordance with, the laws of the State of Michigan. Any dispute arising herein shall be resolved in the State of Michigan.

2.18 NO WAIVER OF DEFAULT

The failure of a party to insist upon strict adherence to any term of a Contract resulting from this RFP shall not be considered a waiver or deprive the party of the right thereafter to insist upon strict adherence to that term, or any other term, of the Contract.

2.19 SEVERABILITY

Each provision of the Contract shall be deemed to be severable from all other provisions of the Contract and, if one or more of the provisions of the Contract shall be declared invalid, the remaining provisions of the Contract shall remain in full force and effect.

2.20 HEADINGS

Captions and headings used in the Contract are for information and organization purposes. Captions and headings, including inaccurate references, do not, in any way, define or limit the requirements or terms and conditions of this Contract.

2.21 RELATIONSHIP OF THE PARTIES

The relationship between the State and the Contractor is that of client and independent Contractor. No agent, employee, or servant of the Contractor or any of its subcontractors shall be or shall be deemed to be an employee, agent, or servant of the State for any reason. The Contractor will be solely and entirely responsible for its acts and the acts of its agents, employees, servants and subcontractors during the performance of this Contract.



**Appendix A:
Price Proposal**

Year 1:
 Estimated Number of Hours 2080
 Hourly Rate \$81.00
 Total: \$168,480

Year 2:
 Estimated Number of Hours 2080
 Hourly Rate \$81.00
 Total: \$168,480

Year 3:
 Estimated Number of Hours 2080
 Hourly Rate \$81.00
 Total: \$168,480

3-Year Total \$505,440

Year 4 (Extension 1):
 Estimated Number of Hours 2080
 Hourly Rate \$81.00
 Total: \$168,480

Year 5 (Extension 2):
 Estimated Number of Hours 2080
 Hourly Rate \$81.00
 Total: \$168,480

5-Year Total \$842,400

Mac Townsend – Sole Proprietor

January 5, 2006



Appendix B: Resume

Resume – Mac Townsend

SKILL SET SUMMARY

Over 25 years experience as an IT Professional spanning software development, software testing, software documentation, system analysis, systems design and database administration.

UNIX Operating System – HP, HP-UX, Solaris, Compaq/DEC Alpha, IBM AIX, Linux

UNIX Shells – ksh, csh, sh

Windows 2000, Windows NT, Windows 98, Windows 95

Programming Languages – C/C++, Pro C, SQL, PL/SQL, ADA, FORTRAN, Assembly Language, JavaScript, HTML

Oracle – Oracle DBA Masters Certificate, Advanced Replication, Oracle Enterprise Manager, Recovery Manager (RMAN), WebDB, Oracle 11i, Oracle 9i, Oracle 9iAS, Oracle 10g, Oracle 10g Application Server, Oracle 10g Connection Manager, Oracle 10g Grid Control, Oracle 10g Interconnect, SQLLDR, Advanced Security, Tuning, Backup and Recovery

PROFESSIONAL EXPERIENCE

02/2002 – Present Michigan Department of Information Technology Lansing, MI
Database Administrator (Contract Position)

11i Apps DBA, Core DBA, Advanced Replication, Backup and Recovery, Tuning, Architecture, Installation, SQL, PL/SQL, Oracle 9iAS, Oracle 10g AS SuSe Linux, Redhat Linux, UNIX, Windows NT/2000, Korn Shell, RMAN, cloning, backup and recovery, patching, Oracle Forms and Reports 6i, Unix System Administration.

Serve as Primary Database Administrator for the State of Michigan's Saleable and Non-Saleable Inventory System.
Serve as Backup Database Administrator for the State of Michigan's Qualified Voter File System.

Continue development and enhancement of disaster recovery procedures to take advantage of new Oracle 10g Features.

Upgraded the Qualified Voter File System from Oracle 8i to Oracle 10g and applied latest patch set on the HP Tru64 Production and Development Servers.

Assisted development personnel in the deployment of an enhanced version of the Qualified Voter File System.

Cloned the Qualified Voter File System running Oracle 10g from the Qualified Voter File System on a HP Tru64 computer to a HP-UX computer. Implemented Master-to-Master Replication on these two computer systems in preparation for an upgrade of the Qualified Voter File System.

Assisted and collaborated with State of Michigan IT Staff and Management to comply with the "Help America Vote Act of 2002" by enhancing the Qualified Voter File system.

Integrated Oracle 10g Connection Manager, Oracle 10g Grid Control, and Oracle 10g Application Server with the Qualified Voter File system in a laboratory environment to keep abreast of new and emerging database and web technologies. Demonstrated this environment to State of Michigan IT Staff, State of Michigan Management, and State of Michigan Election Officials.

Upgrade Oracle Applications 11i version 11.5.7 to version 11.5.9 in support of the State of Michigan's Saleable and Non-Saleable Inventory System. Upgrade Oracle 8i to Oracle 9i for 11i Inventory Saleable and Non-Saleable System. Apply latest patch sets to both the Oracle 11i Application Software and the Oracle 9i Database Software.

Integrated Oracle 9i Application Server the Qualified Voter File System in a lab environment to keep abreast of new and emerging database and web technologies. Demonstrated this environment to State of Michigan IT Staff, State of Michigan Management, and State of Michigan Election Officials.

Implement Oracle Advanced Security for the Qualified Voter File System to protect data transmission to the Qualified Voter File Systems Client Machines to the Main Server in Lansing.



Development of ProC routines to insert and extract signature files as LOBs into and from an Oracle Database.

Upgrade Oracle Applications from 11.5.4 to 11.5.7 in support of the Saleable and Non-Saleable Inventory System.

Upgrade Oracle Applications from 11.5.7 to 11.5.9 in support of the Saleable and Non-Saleable Inventory System.

Implement and administer Oracle 11.5.4 Inventory Application in support of the Saleable and Non-Saleable Inventory System.

Implement and administer Oracle 8.1.7 RMAN for backup and recovery of 5 Oracle Databases.

Develop and maintain hybrid multi-master asynchronous replication environment supporting 468 updateable snapshot sites through out the state of Michigan in support of voter registration. Forty-gigabyte master database averaging 250,000 transactions per day.

11/2003 – 12/2004 IBM at Burlington Northern Santa Fe Forth Worth, TX
Database Administrator (Contract Position)

Install Oracle 9iAS R1

Install and maintain several Oracle 9i databases

Upgrade existing Oracle 8i databases to Oracle 9i

Install Patches as required.

Implement RMAN as part of Disaster Recovery Plan

Developed Korn Shell Scripts to be used for backup and recovery

Convert dictionary managed tablespaces to locally managed tablespaces

Implement Oracle Standby Database to support hardware change.

Developed system to collect database backup metadata from numerous heterogeneous DBMS systems throughout the country via RPC calls.

Developed web front-end to report on collected metadata.

08/2000 – 01/2001 Oracle Corporation Redwood Shores, CA
Technical Manager – Consultant

11i Apps DBA, Core DBA, Advanced Replication, OEM, Backup and Recovery, Tuning, Architecture, Installation, SQL, PL/SQL, UNIX, Windows NT/2000, Korn Shell, HTML, Javascript

Served primarily as an Oracle Database Administrator performing installation, tuning, patching, backup and recovery, cloning, and daily assistance to developers. Client base includes Michigan State Government, Ohio State Government, QWEST Telecommunications and Bellsouth Telecommunications

03/1998 - 07/2000 Instrumental, Inc. St Paul, MN
Senior Database Architect - Consultant

Core DBA, Backup and Recovery, Tuning, Logical Design, WebDB, Installation, Education, C Programming, Oracle Forms, Oracle Reports, JavaScript, CGI.

Install and administer Oracle Database for the US Navy in a Windows NT environment. Development of custom financial and inventory application using Oracle WebDB 2.2.

Completed design of custom application using CASE*Method Entity Relationship Modelling. Developed and delivered "Introduction to Oracle (SQL and PL/SQL) Class" to Navy end-users.

Project Manager and principal contributor for the design, development and deployment of Web based applications for Sun Microsystems, Fujitsu, and Subaru. Disciplines included HTML, Javascript, PL/SQL, C Programming, Oracle Database design, CGI Scripts and Netscape Enterprise Server.

08/1996 – 02/1998 ARIS Corporation Bellevue, WA
Core DBA, Backup and Recovery, Tuning, Architecture, Education Consultant

Serve as an instructor and consultant to MIS professionals. Engaged in teaching UNIX, Korn Shell Programming, SQL (Structured Query Language), PL/SQL (Procedural Language SQL), ORACLE Database Tuning, and ORACLE Database



Administration.

Deployment Team Leader for a nation wide client/server implementation of software and hardware necessary to support centralized database operations with remote node software access via ISDN connections (Novell/Windows).

03/1991 – 08/1996 **Cray Research** **Minneapolis, MN**
Pre Sales Analyst, C Programming, Fortran Programming, Representative Beijing China, Software Porting, Performance Tuning

Pre and Post Sales Analyst. Provided technical guidance to organizations considering the acquisition of a Cray Research Supercomputer. Duties included technical presentation, software integration, benchmarking, software tuning, software porting, systems design, systems administration, and systems implementation.

Primary operating system was Unix (UNICOS) in a workstation/supercomputer environment. Primary programming languages were Fortran and C.

Installation and systems administration of Cray Research Computers at customer installations, corporate sponsored marketing events, and trade shows. Provided technical assistance and training to systems administrators and end users at new installations. Integrated third party disk subsystems to new and existing installations

Assigned as Representative to Beijing, China for one year. As such, provided a technical interface to existing customer base and worked with prospective clients throughout the country and Hong Kong.

Experience with Cray Research's Parallel Vector (YMP, C90, EL, and J90), Symmetrical Multiple Processors (CS6400), and Multiple Parallel Processors (T3D) computing platforms.

Taught Conversational English to Chinese College students during night school at the Beijing Foreign Language Institute (2 semesters).

04/1989 – 02/1991 **Alliant Computer Corporation** **Little, MA**
Pre Sales Analyst, Fortran Programming, C Programming, Performance Tuning

Pre and post sales activities involving software porting, software tuning, systems design, systems integration, systems administration, real time systems development and integration, and technical presentation. Primary operating system was UNIX in a heterogeneous client/server environment. Primary programming language was FORTRAN. Specialized as the real time systems engineer for clients and prospects throughout the United States.

09/1986 – 03/1989 **Grumman Corporation** **Melbourne, FL**
System Design and Analysis, Fortran Programming, Testing, Real Time Simulation

Project Leader for the initial specification, design, development, testing, and deployment of a real time simulator used both to test and stress the Joint Stars Radar Tracking Subsystem and to train and qualify operators of the subsystem. System design and implementation performed in accordance with Navy and Air Force standards. Software developed utilizing the ADA and Fortran programming languages on Digital Equipment Corporation's VAX's and Mil VAX's.

08/1985 – 08/1986 **TRACOR Aerospace** **Austin, TX**
System Design and Analysis, Fortran Programming, Assembly Language Programming, Testing

Systems development and testing of the US Army's Black Hawk Direction Finding Subsystem. Developed software to perform analysis of the feasibility of universal calibration on the Black Hawk's Quick Fix antennae. Software design, development, and testing performed in accordance with Navy and Air Force standards utilizing the FORTRAN programming language and assembly language on Rolm Mil SpecComputers and Data General Computers.

08/1982 – 07/1985 **Lockheed** **Austin, TX**
System Design and Analysis, Fortran Programming, Testing, Real Time Simulation

Task Leader for the development and deployment of two real time systems to test the US Navy's Tomahawk Missile Tactical Control Group and Launch Control Group subsystems. Systems used to qualify Tomahawk operational personnel while at sea. System design, development, and testing performed in accordance with Navy standards on Rolm Mil Spec computers, Data General computers, and Digital Equipment Corporation computers. Programming languages used were FORTRAN, ADA, and assembly language.



Taught the FORTRAN programming language during night school at Austin Community College (2 semesters).

01/1980 – 07/1982 **McDonnell Douglas Corporation** **Houston, TX**
System Design and Analysis, Fortran Programming, Testing, Discrete Event Simulation

Development and maintenance of the Space Vehicle Dynamic Simulator (SVDS). System was used to validate software changes to onboard shuttle software, verify mission data loads, and to test and validate different abort scenarios. Software developed on UNIVAC computers using the FORTRAN programming language.

EDUCATION

Bachelor of Science Mathematics - University of Texas at Arlington – July 1980

ORACLE CORPORATION COURSES

Oracle 8i Advanced Replication
Oracle 9i Administration New Features
11i Oracle HRMS Implement Human Resources
Complex Data Models and Database Design
Tune and Troubleshoot Oracle7 Database
SQL, SQL*PLUS and PL/SQL
Administer the Oracle7 Database I
Administer the Oracle7 Database II

HONORS/ACHIEVEMENTS

Oracle DBA Master Certificate
“Above and Beyond Award” - Cray Research
“Tiger Team Award” - Alliant Computer Corp
“Employee of the Month” – Lockheed

MILITARY SERVICE

US Army July 1971 – April 1974 Honorable Discharge



Experience	Level
Unix Administration	Mac Townsend has been performing Unix Administration on several vendor's computing platforms since April 1989. Vendors include Alliant, Sun, Cray Research, Digital Equipment Corp., and Hewlett Packard
Primary and backup database administrator	Mac Townsend has been an Oracle database administrator since August 1996. He has served as an Oracle database administrator for several companies to include Cray Research, Instrumental Corp., ARIS Corp, and Oracle Corporation. In October 1999, Mac Townsend began serving as a backup database administrator for the Qualified Voter File System and began serving as the primary database administrator for the State of Michigan's Inventory System in February 2002.
Assisting with migration of systems to new hardware	Mac Townsend has assisted with the migration of systems to new hardware since April 1989. More recently, Mac Townsend has assisted with the migration of database systems for the Qualified Voter File System in 1999 and is currently assisting with the migration of the Qualified Voter File System to the HP-UX platforms.
Keeping abreast of new and emerging database and web technologies	Mac Townsend utilizes several means to keep abreast of new and emerging web technologies. These include taking formal classes, research on the world wide web, subscriptions to technical journals, and prototyping in a laboratory environment.
Knowledge of the Help America Vote Act (HAVA) to ensure compliance with federal elections requirements.	For the past year, Mac Townsend has been working with Michigan Department of Information Technology Management and IT Staff to ensure improvements to the Qualified Voter File System are in scope with the Help America Vote Act (HAVA) and are compliant with federal elections requirements.