

# **PROJECT REQUEST FOR QUOTE**

PROJECT RF	Q EMAIL
Doc ID:	EDUR201102900
To:	State Term Schedule (STS) Vendors Only
From:	Ohio Department of Education
Subject:	Data Warehouse Analysis

#### COMMENTS

The Ohio Department of Education (ODE) Office of Information Technology/Operations would like to announce the opportunity to bid for the Analysis phase of the ARRA SLDS Grant Data Warehouse Analysis project. Attached you will find the Statement of Work (SOW) for this fixed-price project detailing the project scope, deliverables, responsibilities, skills, and experience required for this project, along with the documented business requirements.

Please provide a vendor quote on company letterhead that includes the total contract cost, proposed payment schedule, company qualifications, resource resumes and your company's development and project management approach. The proposal should demonstrate your understanding of the project. The quote must also include your STS number.

**Note:** All information contained in a vendor proposal is considered public information unless disclosure is prohibited by state or federal law.

Send your proposal to me via email (<a href="mailto:scott.barnheiser@ode.state.oh.us">scott.barnheiser@ode.state.oh.us</a>) and a copy to the agency procurement officer (<a href="mailto:Amadu.Sankoh@ode.state.oh.us">Amadu.Sankoh@ode.state.oh.us</a>) by 5:00 PM on Thursday March 3, 2011.

#### Assumptions:

- Work will begin on or after March 28, 2011 when the Purchase Order becomes available
- The work will be performed on site at ODE offices located at 25 South Front Street, Columbus, Ohio
- No travel costs or delays to start will be compensated by ODE
- Final selection will be based upon either lowest cost or highest score evaluation
- Both candidates and company are required to sign non-disclosure agreements

Phone calls will not be accepted regarding this opportunity. Please post any questions online so that other interested vendors could share responses.



# **PROJECT STATEMENT OF WORK**

## **PROJECT IDENTIFICATION**

PROJECT IDENTIFICATION		
Office Name		
Information Technology Office		
Project Name		Date Created
Data Warehouse Analysis		01/28/11
Prepared by	Version	<b>Project Class</b>
Scott Barnheiser	2.0	Class C

# **PROJECT INFORMATION**

#### **PROJECT REQUEST**

This Statement of Work (SOW) identifies work to be performed under the anticipated contract. Services will be rendered, and deliverable items completed, within the 2011 fiscal year, which ends June 30, 2011.

The vendor agrees to provide the bulk of the following services at the primary site of Ohio Department of Education (ODE) 25 South Front St, Columbus, OH 43215; and State Data applicable to this contract will be maintained or made available at 25 South Front St, Columbus, OH 43215 for the internal Data Warehouse analysis. The vendor will be required to travel to North West Ohio Computer Association (NWOCA) 209 Nolan Parkway Archbold, Ohio 43502 for the external Data Warehouse analysis as needed where the external Data Warehouse is located and hosted. The vendor will also be required to travel to stakeholder locations around Ohio for both internal and external Data Warehouse analysis as needed.

During the performance of this contract, the vendor shall not change the location(s) of the country where services are performed, or change the location(s) of the country where the data are maintained or made available without prior written approval of the Department, if applicable.

This work is being performed in support of the ODE Information Technology Office (ITO) in preparation for work that will be done to expand the ODE Statewide Longitudinal Data Warehouse. This project will review and evaluate the existing data warehouse structure, perform analysis of the data warehouse based on our future needs, look at the various ODE applications to determine what data we should include, and develop a set of recommendations in terms of design and technology for the project going forward. These recommendations will be used in subsequent ARRA SLDS grant work related to the data warehouse.

The work will be deemed successful if the deliverables defined herein are completed and if these deliverables are available to fulfill their intended purposes of enabling ODE to make decisions with regard to our Statewide Longitudinal Data Warehouse and then implement those decisions.

This project is classified as a competitive fixed bid proposal. As part of the response, please include a recommended payment schedule.



The vendor should have demonstrated extensive experience in Education Data Warehousing, longitudinal data, analysis of state-level education data infrastructure and working with student level education data as well as prior experience in similar engagements. The vendor should be associated with various Data Warehouse Associations.

Prospective vendors will be interviewed prior to contract award to ensure knowledge and capacity to meet the project requirements.

Contingent upon continued funding and approval by the State, this contract may be renewed in Fiscal Year 2012, beginning July 1, 2011 and ending June 30, 2012, under the same terms and conditions if necessary.

## **Project Background**

In 2009, the U.S. Department of Education Institute of Education Sciences (IES) National Center for Education Statistics (NCES) awarded 27 states, including Ohio, with a Statewide Longitudinal Data Systems (SLDS) Grant.

Ohio's approved 2009 SLDS Grant application includes the following primary projects or outcomes:

- Expansion of Ohio's Local Data Analysis Data Warehouse (LDADW)
- Development of a Statewide Student Enrollment Data and Student Cross Reference database and application (SSED-SCR)
- Development of a Student Record Exchange (SRE) System
- Preparation and Planning for Electronic High School Transcript (eTranscript)

In 2010, the U.S. Department of Education IES NCES awarded 20 states, including Ohio, with an ARRA SLDS Grant. Ohio's approved 2009 ARRA SLDS Grant application includes the following projects or outcomes:

- Development of an Early Childhood Data System Integration Plan
- Implementation of an eTranscript Brokerage Service
- Expansion of Ohio's Statewide Longitudinal Data Warehouse
- Development of a Reporting and Analysis User Interface Application

Together, the projects and outcomes of the two SLDS grants brings Ohio closer to meeting all of the Data Quality Campaign (DQC) requirements for a robust longitudinal education data system.

#### **Business Drivers**

Ohio was awarded an ARRA SLDS grant in 2010. As part of this work, we will be updating the existing data warehouses to meet the requirements specified in the grant. To effectively make the required changes, we need to analyze the existing data warehouses to determine the scope of the changes that are required.

#### **Objectives**

Review and evaluate the existing data warehouses structure, perform analysis of the data warehouses based on our future needs, look at the various ODE applications to determine what data we should include, and develop a set of recommendations in terms of design and technology for the project going forward.

#### Scope

#### **Scope Inclusions**



Internal ODE Data Warehouse

External Data Warehouse (D3A2)

Business Dimensional, Logical, and Physical data models

Data from ODE's application portfolio, including (but not limited to) EMIS, CORE, CCIP, STARS, ECS/CLS, and the School Foundation Payment System.

#### Scope

## **Scope Exclusions**

Implementation of the recommendations resulting from the analysis.

#### **RISK IDENTIFICATION —** FACTORS THAT MAY HAVE A NEGATIVE IMPACT ON THE PROJECT

- Finding a suitable vendor for this project
- Cost is within budget

## **Assumptions/Constraints –** Items believed to be true for and project limits

Resource availability

Project completion no later than June 30, 2011.

# **WORK APPROACH**

## **PROJECT MANAGEMENT**

The ODE Project Manager will monitor the project and provide vendor oversight. The ODE Project Manager will be the single point of contact between the vendor and ODE staff, both technical and business. Management of the project and vendor project team is the responsibility of the vendor.

The project will be managed using the Project Management Body of Knowledge (PMBOK) framework and methodologies. Adherence to PMBOK and PMCOP project management methodology is defined in the ODE PMO Guide and policy statements, the OIT PMCOP and includes, but is not limited to:

- Stakeholder management (project definition, governance, stakeholder buy-in)
- Estimating and planning (controlled estimation, planning, change control)
- Monitoring and reporting (progress metrics, reporting to business and technology stakeholders)
- Financial and business case control (budget management, financial control, benefit tracking)
- Supplier management (statement of work, task order, progress management)
- Risk and issue management (active management of risks, issues and mitigation)
- Configuration management (tight control of project deliverables)
- Quality management (devise and apply acceptance criteria, demonstrate compliance)
- Knowledge management (using existing knowledge base, project knowledge transfer).

The following project management artifacts are required:



- Project Schedule
- Meeting Minutes
- Weekly Status Reports
- Monthly Executive Status Reports
- Issues Log
- Risk Log
- Deliverables Acceptance
- Project Closeout Report

#### **Major Activities**

Interview users and stakeholders to identify requirements and expectations on the data and reporting needs for each of the two data warehouses (internal and external).

Review and evaluate the existing structure of both the internal and external data warehouses, identifying areas where the design is already suitable; where the design could be improved; or where the design does not meet the identified requirements and expectations.

Review existing ODE and non-ODE applications and data sources and to determine where data needed to fulfill the requirements and expectations should be sourced.

Develop a set of recommendations for changes and improvements to either/both data warehouses with respect to meeting the needs of the business and stakeholders, logical and physical design, and technology or processes used to implement and make the data available to users.

Create a Data Warehouse Dimensional Model for each data warehouse.

Create a Logical Data Model for each data warehouse.

#### **Status Reporting**

The vendor will provide weekly status reports and attend regular scheduled weekly status meetings. Detailed project tasks and work items will be stored in and reported through ODE Microsoft SharePoint site for this project.

#### **Schedule**

The vendor will develop project schedule. It will be stored on the project's SharePoint. They will be made available to the entire project team, ODE ITO management and business sponsors and users. The vendor will be responsible for meeting all timelines designated and agreed by ODE project manager and business sponsors. All work for this engagement will be completed by June 30, 2011.

#### **Vendor Personnel**

The vendor is responsible for replacing, in a timely manner, any personnel whose skills the ODE determines to be inadequate to perform the tasks required. The vendor must obtain equally-qualified replacement personnel for any personnel who become unavailable during the course of the project.

#### **Participation in Meetings**

The vendor will participate in meetings with personnel or groups recommended by the project manager.



## **Standards Compliance**

ODE has developed the following standards documents, which vendors are required to adhere to over the course of the project:

- ODE Database Standards
- Project Management Standards
- Infrastructure Standards
  - Desktop
  - Network
  - Server (Application, Database, Web, OS)
- Storage

All vendor staff working on ODE projects is required to review the ODE Information Security policies and sign an ODE Information Security and Confidentiality Certification form when complete.

#### **Microsoft Project**

ODE requires the use of Microsoft Project with all of its projects.

## **Non-Disclosure Agreement**

Both candidate and company will be required to sign non-disclosure agreements which prevent disclosure of any data obtained while on the engagement which can be used to personally identify any parties at anytime either during or after the engagement.

## **DELIVERABLES**

#### **KEY PROJECT DELIVERABLES Technical Artifacts Key Deliverable** Responsibility **Approval Acceptance Criteria** Required Architecture Vendor Approval from ODE CIO, Yes Diagrams/Models (Data ODE Director of Enterprise Lineage, Business) Applications, and **ODE Project Manager** Vendor Requirements Approval from ODE CIO, Yes ODE Director of Enterprise Applications, and **ODE Project Manager**



Dimensional Model	Vendor	Approval from ODE CIO,	Yes
		ODE Director of Enterprise Applications, and	
		ODE Project Manager	
Logical Data Model	Vendor	Approval from ODE CIO,	Yes
		ODE Director of Enterprise Applications, and	
		ODE Project Manager	
Recommendations &	Vendor	Approval from ODE CIO,	Yes
Outcomes Document		ODE Director of Enterprise Applications, and	
		ODE Project Manager	

# **STAFFING**

ODE assumes that the following staffing requirements would be required to execute the scope of the proposal. All resources will be required to complete their work on site at ODE (25 S. Front Street, Columbus, Ohio) but are not expected to remain at the location for the duration of the engagement. The vendor will determine the staffing level and appropriate onsite work schedule for each resource.

A resource may be assigned to more than one role; however, that resource must function in the role(s) to which he or she is assigned. More than one resource can be assigned to any of the listed roles, but at least one assigned resource must meet the listed *Skills Required* for that role. Any proposed candidate used to demonstrate that the vendor's proposed team meets the staffing requirements for a particular position/role must perform that role on the project. For example, if a particular candidate, John Doe, is proposed to demonstrate meeting the skill requirements for the "Business Analyst" role, then John Doe must be used on the project to perform tasks and activities requiring "Business Analyst" skills. John Doe's experience cannot be used to meet the "Business Analyst" skill requirements if the vendor has no intention of having John Doe perform a substantial portion of the tasks and activities requiring "Business Analyst" skills. If the vendor determines that a specified role is not necessary for the project's success, the proposal must include a detailed justification for that decision.

The vendor proposal must show how each candidate meets the required/preferred skill set. Just a resume will not be sufficient.



STAFFING REQUIREMENT	s		
Resource	Type of Resource	Skills Required	Skills Preferred
Business Systems Analyst/Requirements Analyst	Vendor	<ul> <li>At least eight years overall IT experience.</li> <li>At least five years experience in business and requirements analysis</li> <li>At least two years experience writing use cases and/or storyboarding</li> <li>At least eight years of experience with Data Warehouse design</li> <li>Demonstrated extensive experience in Education Data Warehousing, longitudinal data, analysis of state-level education data infrastructure and working with student level education data as well as prior experience in similar engagements.</li> <li>Be associated with various Data Warehouse Associations.</li> </ul>	<ul> <li>Experience in conducting JAD sessions</li> <li>Experience with a requirement management tool</li> <li>BS or MS in related field</li> <li>Relevant certifications</li> </ul>
Technical Writer	Vendor	<ul> <li>At least eight years overall IT experience</li> <li>At least five years experience in technical writing and editing</li> </ul>	<ul> <li>Experience in developing and editing project and technical documentation</li> <li>Experience in developing system administration manuals</li> <li>Experience in developing user manuals</li> <li>BA or MA in related field</li> </ul>



STAFFING REQUIREMENTS			
Resource	Type of Resource	Skills Required	Skills Preferred
Data Warehouse Architect	Vendor	<ul> <li>At least ten years experience in IT</li> <li>At least eight years experience designing data warehouse systems, including (but not limited to):         <ul> <li>Interviewing business stakeholders and system users to identify important business data</li> <li>Creating dimensional data models with conformed dimensions</li> <li>Documenting data lineage (source-totarget mappings), dependencies, and calculations that can lead to an ETL design and implementation</li> <li>Identifying and designing summary tables and/or cubes</li> <li>Defining measures and metrics to inform business intelligence schema, report, &amp; dashboard implementation</li> </ul> </li> <li>Demonstrated extensive experience in Education Data Warehousing, longitudinal data, analysis of state-level education data infrastructure and working with student level education data as well as prior experience</li> </ul>	<ul> <li>Experience with designing databases and data warehouses on Oracle and taking advantage of Oracle's features designed for data warehousing</li> <li>Experience with ETL design in Informatica PowerCenter 8 or higher</li> <li>Experience creating logical and physical data models using ERwin 4.1 or higher</li> <li>BS or MS in related field (Computer Science, etc.)</li> </ul>



STAFFING REQUIREMENTS	;		
Resource	Type of Resource	Skills Required	Skills Preferred
		<ul><li>in similar engagements.</li><li>Be associated with various Data Warehouse Associations.</li></ul>	

# **ROLES AND RESPONSIBILITIES**

FUNCTIONAL AREA	REQUIRED ROLE	RESPONSIBILITIES	STAFF
Information Technology Office	Executive Sponsor	Represents business interests of the project. Fulfills the following responsibilities:	ODE CIO
		<ul> <li>Provides commitment to the project</li> <li>Provides guidance on policy</li> <li>Signs off on deliverables</li> <li>Reviews and signs off on project deliverables</li> </ul>	
Business Center	Subject Matter Experts (SMEs)	Represent the end-user interests of the project. Fulfill the following responsibilities:	ODE
		<ul> <li>Provide output requirements (data and design)</li> <li>Provide design recommendations for data input</li> <li>Provide insight on usability</li> </ul>	
Information Technology Office	Technology Sponsor	Represents technology interests of the project. Fulfills the following responsibilities:	ODE Director of Enterprise Applications
		<ul> <li>Provides guidance for technological issues</li> <li>Provides guidance on policy issues</li> <li>Makes decisions on issues escalated by the Applications Development Manager</li> <li>Ensures that required ODE technical resources are available</li> </ul>	



FUNCTIONAL AREA	REQUIRED ROLE	RESPONSIBILITIES	STAFF
PMO	Project Manager	Represents ODE Project Management Office interests of the project. Fulfills the following responsibilities:	ODE (Assigned Project Manager)
		<ul> <li>Creates the SOW</li> <li>Selects the contractor</li> <li>Develops the high level project schedule</li> <li>Approves vendor invoices</li> <li>Manages scope change and control</li> <li>Reports progress and escalates problems as needed to Project Executive Sponsors</li> <li>Reviews project deliverables</li> <li>Provides project oversight</li> <li>Interfaces with vendor representatives</li> </ul>	
Data Services	Data Manager	Is involved throughout the application development lifecycle. Ensures that the data needs of the customer are being met and that data standards are being followed. Fulfills the following responsibilities:  Is involved in the gathering of requirements Reviews the project documentation Conducts reviews of the data model to support the application Understands and identifies data that exists in other systems/data stores Attends all status meetings during which data, data models, reports, Extraction Transformation Loads (ETLs), and data exchanges will be discussed	ODE



# **MANAGEMENT APPROACH**

#### **DELIVERABLE ACCEPTANCE MANAGEMENT**

Project key deliverables and products will be approved by staff assigned in the Deliverables Section. All approved deliverables require a hand written signature of appropriate staff member. A Deliverables Log must be attached to the regular project status report. A deliverable log will be submitted to the ODE Project Manager at each iteration of the project. This log will allow payment towards the payment schedule for the project. Payment will be based on acceptance of deliverable.

#### **ISSUES AND PROBLEM MANAGEMENT**

The project will capture, prioritize, resolve, escalate, and monitor reported issues in the project SharePoint.

The Issues log will be included as part of regular status reports and weekly status meetings.

# **PROGRESS REPORTING AND COMMUNICATIONS**

PROJECT STATUS REPO	RTS	
Type of Status Report	Due	Purpose
Weekly Workgroup Status Report	TBD	To enable the project manager to monitor and control the progress of the project and update the Project Plan. If there are several workgroups involved, the project manager consolidates the weekly reports and updates the Project Plan with actual hours and estimate to complete. The consolidated version is distributed to the project team.
Monthly Status Report	TBD	To communicate project progress to the project sponsor and steering committee.
OTHER COMMUNICATIO	N STRATEGIES	
Communication Strategy	Purpose	
PMO Sharepoint Site	<ul><li>Track risks and issi</li><li>Store and share wo</li><li>Store final docume</li></ul>	



## **BUDGET**

#### **BUDGET**

#### **Vendor Payment Process**

This is a fixed bid proposal that will follow a Vendor/State STS Agreement.

#### **Terms and Conditions**

Vendor/State STS Agreement

#### **Termination Provisions**

Vendor/State STS Agreement

## **VENDOR PROPOSAL**

## **Vendor Proposal Requirements**

Submitting vendors will provide a Vendor Proposal on company letterhead that includes the total contract cost, proposed payment schedule, company qualifications, sub-contractor qualifications if applicable, resource resumes, your company's development and project management approach, and any other information required to determine your ability to deliver the required services. The proposal should demonstrate your understanding of the project. The quote must also include your STS number.

Per **Executive Order 2010-09S**: Banning the Expenditure of Public Funds for Offshore Services - Prospective Service Providers shall be required to:

- Affirm that they understand and will abide by the requirements of this Order.
- Disclose the location(s) where all services will be performed by any contractor or subcontractor.
- Disclose the locations(s) where any state data associated with any of the services they are providing, or seek to provide, will be accessed, tested, maintained, backed-up or stored.
- Disclose any shift in the location of any services being provided by the contractor or any subcontractor.
- Disclose the principal location of business for the contractor and all subcontractors who are supplying services to the state under the proposed contract.

**Note** - During the performance of this contract, the vendor shall not change the location(s) of the country where services are performed, or change the location(s) of the country where the data are maintained or made available without prior written approval of the Department, if applicable.

Send your proposal offering to me via email (<u>scott.barnheiser@ode.state.oh.us</u>) with a copy to the ODE Agency Procurement Officer (<u>amadu.sankoh@ode.state.oh.us</u>) by 5:00 PM on Thursday, March 3, 2011.

**Note** - All information contained in a vendor proposal is considered public information unless disclosure is prohibited by state or federal law.



# **CONTACT INFORMATION**

PROJECT CONTACTS			
Name	Title/Organization	Location	Email
Scott Barnheiser	Project Manager, ITO PMO	25 South Front Street, Mail Stop G05 Columbus, OH 43215	scott.barnheiser@ode.st ate.oh.us

#### DEPARTMENT OF ADMINISTRATIVE SERVICES

STANDARD AFFIRMATION AND DISCLOSURE FORM EXECUTIVE ORDER 2010-09S

Banning the Expenditure of Public Funds on Offshore Services

All of the following provisions must be included in all invitations to bid, requests for proposals, state term schedules, multiple award contracts, requests for quotations, informal quotations and statements of work. This information is to be submitted as part of the response to any of the procurement methods listed.

## CONTRACTOR/SUBCONTRACTOR AFFIRMATION AND DISCLOSURE:

By the signature affixed to this response, the Bidder/Offeror affirms, understands and will abide by the requirements of Executive Order 2010-09S issued by Ohio Governor Ted Strickland. If awarded a contract, the Bidder/Offeror becomes the Contractor and affirms that both the Contractor and any of its subcontractors shall perform no services requested under this Contract outside of the United States. The Executive Order is attached and is available at the following website: (http://www.governor.ohio.gov/Default.aspx?tabid=1495).

The Bidder/Offeror shall provide all the name(s) and location(s) where services under this Contract will be performed in the spaces provided below or by attachment. Failure to provide this information as part of the response will deem the Bidder/Offeror not responsive and no further consideration will be given to the response. Bidder/Offeror's offering will not be considered. If the Bidder/Offeror will not be using subcontractors, indicate "Not Applicable" in the appropriate spaces.

1.	Principal location of business of Contracto	:
	(Address)	(City, State, Zip)
	Name/Principal location of business of su	contractor(s):



(Name)	(Address, City, State, Zip)
(Name)	(Address, City, State, Zip)
Location where services will be performed	ed by Contractor:
(Address)	(City, State, Zip)
Name/Location where services will be po	erformed by subcontractor(s):
(Name)	(Address, City, State, Zip)
(Name)	(Address, City, State, Zip)
Location where state data will be stored, Contractor:	accessed, tested, maintained or backed-up, by
(Address)	(Address, City, State, Zip)
	(Address, City, State, Zip)  be stored, accessed, tested, maintained or backed-up by
Name/Location(s) where state data will be	•
Name/Location(s) where state data will be Sub-contractor(s):	be stored, accessed, tested, maintained or backed-up by
Name/Location(s) where state data will be Sub-contractor(s):  (Name)	(Address, City, State, Zip)
Name/Location(s) where state data will be Sub-contractor(s):  (Name)	(Address, City, State, Zip)  (Address, City, State, Zip)
Name/Location(s) where state data will be Sub-contractor(s):  (Name)  (Name)	(Address, City, State, Zip)  (Address, City, State, Zip)  (Address, City, State, Zip)
Name/Location(s) where state data will be Sub-contractor(s):  (Name)  (Name)  (Name)  (Name)	(Address, City, State, Zip)  (Address, City, State, Zip)  (Address, City, State, Zip)  (Address, City, State, Zip)



Name/Location(s) where services will be changed or shifted to be performed by subcontractor(s)	
(Name)	(Address, City, State, Zip)
(Name)	(Address, City, State, Zip)
(Name)	(Address, City, State, Zip)
(Name)	(Address, City, State, Zip)