ANGÉLICA INFANTE-GREEN
Commissioner

DR. JAVIER MONTAÑEZ
Interim Superintendent

Providence Public School District
Purchasing Department
797 Westminster Street
Providence, RI 02903-4045
tel. 401.456.9264
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www.providenceschools.org

REQUEST FOR PROPOSALS

ITEM DESCRIPTION: Database and ETL Pipeline Developer

DATE AND TIME TO BE OPENED: Wednesday, October 6, 2021 at 1:00PM

PRE-BID CONFERENCE (IF APPLICABLE): None

SUBJECT MATTER EXPERT (NAME): Steven Cartwright

SUBJECT MATTER EXPERT (EMAIL): steven.cartwright@providenceschools.org

QUESTION DEADLINE: Friday, September 17, 2021 at 4:30PM

Instructions

1. Bidders must submit sealed proposals in an envelope clearly labeled with the Item Description shown above on the outside of the envelope. The proposal envelope and any information relative to the proposal must be addressed to:

   Purchasing Department, Suite 206
   797 Westminster Street
   Providence, RI 02903

2. Bidders must include **at least** one original, one copy, and a digital PDF copy on a flash drive.
3. Proposal responses must be in ink or typewritten.
4. Bidders are advised that all materials submitted to Providence Public Schools for consideration in response to this Request for Proposals shall be considered to be public records as defined in R.I. General Law Section 38-2 et seq, without exception, and may be released for public inspection. All proposals submitted become the property of Providence Public Schools.
5. Bid proposals that are not present in the Providence Public Schools Purchasing Department at the time of opening for whatever cause will be deemed to be late and will not be considered. Postmarks shall not be considered proof of timely submission.
6. Questions regarding this request for proposals must be submitted to the Subject Matter Expert via email by the question deadline listed above. Questions will be answered via addendum to be posted publicly on the Providence Schools website. Bidders are responsible for checking the website for all addenda distributed in response to questions and requests for additional information.

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Notice to Vendors
General Terms

1. Providence Public Schools reserves the right to award the contract on the basis of the lowest responsible evaluated bid proposal.

2. In determining the lowest responsive evaluated bid proposal, cash discounts based on preferable payment terms will not be considered.

3. No proposal will be accepted if it is made in collusion with any other bidder.

4. Providence Public Schools reserves the right to award to a single vendor, to split the award between multiple vendors and to reject any and all proposals. Unless otherwise specified, Providence Public Schools reserves the right to make the award by item or items or by total as may be in its best interest.

5. As Providence Public Schools is exempt from the payment of Federal Excise Taxes and Rhode Island Sales Tax, prices quoted are not to include these taxes.

6. In case of error in the extension of prices quoted, the unit price will govern. In the event there is a discrepancy between the price written in words and written in figures, the prices written in words shall govern.

7. Awards shall be subject to the General Terms set forth herein, which terms shall be deemed accepted by the Bidder upon submission of the bid proposal, subject to the provisions of this paragraph, and shall be further deemed to be incorporated into the contract upon issuance of the award. Any proposed exceptions, modifications, or deviations from the terms, conditions, and specifications contained herein must be listed and fully explained on a separate sheet attached to the Bidder's detailed conditions and specifications and referred to separately in the Bids. Such proposed exceptions, modifications, or deviations shall be an additional variable for consideration by the Providence Public School District in addition to vendor qualifications, price, quantity, and/or scope of services. In all cases not indicated by Bidders as an exception, modification, or deviation, it is understood that the terms, conditions and specifications of the Providence Public School District shall apply. No exception, modification, or deviation shall be deemed accepted, approved, or otherwise incorporated into the contract unless expressly set forth in the award notice.

8. Proposals must meet the attached specifications. Bids may be submitted on an "equal in quality" basis. Providence Public Schools reserves the right to decide equality and determine whether bids are responsive. Bidders must indicate brand or make offered and submit detailed specifications if other than brand requested.

9. A bidder who is an out of-state corporation shall qualify or register to transact business in this State, in accordance with R.I. General Law Section 7-1.2-1401 et seq. as amended)

10. Delivery dates must be shown in the bid. If no delivery dates are specified, it will be assumed that an immediate delivery from stock will be made.

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11. Only one shipping charge will be applied in the event of partial deliveries for blanket or term contracts.

12. For contracts involving construction, alteration and/or repair work, the provisions of State Labor Law concerning payment of prevailing wage rates apply (See R.I. General Law Section 37-13-1 et seq. as amended).

13. All proposals will be disclosed at the opening date and time listed above. After a reasonable lapse of time, tabulation of proposals may be viewed on the Providence Public School's website (https://www.providenceschools.org/Page/4634).

14. Awards will be made within ninety (90) days of the proposal opening. All proposal prices will be considered firm, unless qualified otherwise. Requests for price increases will not be honored.

15. No goods should be delivered and no work should be started without a Purchase Order from Providence Public Schools.

16. Prior to commencing performance under the contract, the successful bidder (the "Contractor") shall attest to compliance with provisions of R.I. General Law Section 28-29-1, et seq. If exempt from compliance, the Contractor shall submit a sworn Affidavit by a corporate officer to that effect, which shall accompany the signed contract.

17. Prior to commencing performance under the contract, Contractor shall, submit a certificate of insurance, in a form and in an amount satisfactory to Providence Public Schools.

18. The Contractor will not be permitted to: assign or underlet the contract; or assign either legally or equitably any monies or any claim thereto without the previous written consent of the Director of Purchasing.

19. The Contractor shall not be paid in advance.

20. The contract shall be in effect from the date of award through **June 30, 2022** or for such other duration as may be agreed to in writing and signed by the parties, unless terminated by either party at any time, with or without cause.

21. In the event of termination by District or the Contractor prior to completion of the contract, compensation shall be prorated on the basis of hours actually worked, and the Contractor shall only be entitled to receive just and equitable compensation for any satisfactory work completed and expenses incurred up to the date of termination.

22. Failure to deliver within the time quoted or failure to meet specifications may result in default in accordance with the general specifications.

23. The Contractor must conduct a criminal background check, at the Contractor's expense, of all employees employed under the contract who interact with students, except District employees.

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The Contractor shall provide a copy of the background check report(s) to the District, upon request.

24. The Contractor is not an employee of District and is not entitled to fringe benefits, pension, workers' compensation, retirement, etc. District shall not deduct Federal income taxes, FICA (Social Security), or any other taxes required to be deducted by an employer, as this is the responsibility of the Contractor.

25. The Contractor understands products produced as a result of the contract are the sole property of the District and may not be used by the Contractor without the express written permission of the District.

26. The Contractor agrees to hold District and the City of Providence harmless from any and all damages incurred by District or the City by reason of the Contractor's negligence or breach of contract, including without limitation, damages of every kind and nature, out-of-pocket costs, and legal expenses.

27. The contract may not be modified or amended in any way except by mutual agreement in writing and signed by each party. Notwithstanding the foregoing, and subject to the provision concerning exceptions, modifications, or deviations set forth in Paragraph 7 hereinabove, the General Terms shall not be modified or amended in any way by subsequent agreement. In the event of a conflict between the General Terms and any subsequent modification or amendment to the contract, the General Terms shall control.

28. The Contractor expressly submits itself to and agrees that all actions arising out of or related to the contract or the relationship between the parties shall occur solely in the venue and jurisdiction of the State of Rhode Island.

BID FORM 1: BIDDER INFORMATION

Agrees to Bid on: Database and ETL Pipeline Developer

DATE AND TIME TO BE OPENED: Wednesday, October 6, 2021 at 1:00PM

Name of Bidder (Firm or Individual): _____

Business Address: _____

Contact Name: _____

Contact Email Address: _____

Contact Phone Number: _____

Delivery Date: _____

_____

Signature of Representation

_____

Title

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Providence Public School District

Request for Proposals

Database and ETL Pipeline Developer

September 2021

Funding Source (Contingent on Funding): Stimulus Funds

An Equal Opportunity Employer. The Providence School Department does not discriminate on the basis of race, age, sex, religion, sexual orientation, gender identity or expression, national origin, color, disability or veteran status.

I. Background

a. About the District. Providence Public School District (PPSD) is the largest school district in Rhode Island, serving approximately 24,000 students attending 41 schools. PPSD serves a diverse population of students and families, who speak 55 different languages and hail from 91 countries of origin. Since late 2019, PPSD has pursued a major transformation effort in partnership with students, families, school leaders, teachers, support staff, and the entire community, to create a world-class school system that prepares every student to succeed. This transformation requires that stakeholders at every level have timely access to relevant data to inform decisions.

b. About the Team. The Office of Innovation and Accountability is the analytic hub within the district. The team develops and delivers data-focused solutions to support school improvement and better inform decisions across the district. If we're successful, all stakeholders working with and for our students will have the right data at the right time to make decisions in those students' best interests. The Office of Innovation and Accountability will lead this project within the district, in partnership with stakeholders from other teams including Information Technology, Network, Legal, and others.

c. Current Challenges. As part of its initial work, the Office of Innovation and Accountability conducted a diagnostic analysis of PPSD's data capabilities and infrastructure. Several key challenges emerged, including the following:

- **i.** The district internally hosts, but does not actively maintain, a SQL Server-based data warehouse. The warehouse includes a variety of ETL pipelines to ingest and export data from and to other systems across the district, but these routines regularly fail without maintenance.
- ii. Significant staff turnover has lowered the district's capacity to support stakeholders with data retrieval, reporting, and analysis.
- iii. While the district uses Tableau Server for developing and sharing dashboards with central office and school leaders, the data in these dashboards is often outdated due to outdated records in the data warehouse, resulting in limited utility and usage.

d. Database and ETL Pipeline Development Opportunity. The district seeks a technical partner to support the maintenance and improvement of its existing SQL Server-based data warehouse and operational data store (ODS). These databases currently ingest information from multiple systems and flat files and are necessary to enable reporting of essential data to stakeholders across the district. The goals of this project are to:

- i. Audit the existing databases, ETL scripts, and related documentation to identify areas for improvement;
- ii. Consult with PPSD staff to identify what additional data require storage and reporting via the databases;
- iii. Build out additional tables within the databases, as needed, to facilitate ETL of new source data;

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iv. Develop new or modify existing ETL scripts to automate the ingestion and cleaning of source data; and
v. Set up a reliable process for error identification and reporting and ongoing maintenance of all ETL processes, including the necessary documentation.

II. Required Qualifications

The ideal partner for this work will have developed multiple successful data warehouse and reporting solutions in public school districts or other organizations, including the integration, storage, and reporting of longitudinal microdata from various vendor-hosted information systems. They will have familiarity with longitudinal data from a variety of sources, preferably from within K-12 education organizations. And they will be passionate about the mission of PPSD to improve outcomes for all students. Specifically:

a. Respondents must have five or more years of relevant experience developing database solutions that integrate data from multiple information systems and other applications;
b. Respondents must have five or more years of relevant experience developing ETL pipelines, including experience with R, Python, and SQL; and
c. Respondents must demonstrate the ability to conduct thorough discovery activities to build the needed context to solve data-related challenges and produce clear, comprehensive documentation that supports their solutions.

Note that independent consultants may be asked to complete a performance task to demonstrate their proficiency in the work required.

III. Scope of Work

a. Approach**.** The vendor must propose a process to learn about, document, and improve the existing databases and ETL pipelines, in addition to creating new pipelines where necessary.

b. Deliverables. The vendor must develop and successfully produce the following deliverables within the scope of this engagement and in accordance with the requirements set forth below.

i. A short written audit of the existing databases, ETL scripts, and related documentation to identify areas for improvement, plus an outline of what additional data PPSD desires to store and report via the databases;
ii. An improved database structure for the warehouse and/or ODS;
iii. New and improved ETL scripts to automate the ingestion and cleaning of source data, plus appropriate routines to schedule these routines and assess data for quality prior to ingestion.

c. **Parameters.** This section details some of the current parameters related to the databases and ETL routines in practice.

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i. Hosting and technical environment

1. The data warehouse and ODS are SQL Server databases deployed on premise and accessible off site via remote desktop.

ii. Security

1. The vendor must sign a comprehensive data sharing agreement with the district and appoint a data custodian to protect the confidentiality and security of student data.
2. In the event of a data breach, the data custodian must report the incident in alignment with the data sharing agreement.
3. The vendor must be familiar with setting up secure means (e.g., SFTP) of data exchange for ingesting and exporting data.

iii. Data integrations

1. Some current ETL pipelines have been developed in a combination of R and Python scripts that the vendor may choose to review in its discovery work or leverage as they develop new pipelines. Note also that this list is preliminary and not exhaustive.
    i. Routine data transfers for operational data, including:
        1. Skyward, the district's student information system, inclusive of all enrollment, demographic, coursetaking, attendance, and behavior data, as well as program enrollment and eligibility data for special populations (i.e., MLL, special education students, etc.) like home language survey data, WIDA screener data, special education evaluations, IEPs and student disability data; and
        2. Lawson employee records, including staff demographics, certifications, job history, positions held;
        3. PowerSchool for special education records (though this system may be subject to change);
        4. Frontline employee attendance records, professional development, and hiring data.
    ii. Additional third party vendor applications, including:
        5. American Reading Company;
        6. GreatMinds Eureka Math;
        7. McGraw Hill ALEKS;
        8. McGraw Hill Illustrative Math;
        9. EnVision Math; and
        10. College Board Springboard;
2. The vendor will ensure a data refresh program for the ETL pipelines above that is consistent with district needs, timing, and cycles.

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IV. Timeline for Implementation

The district aspires to the following timelines for major milestones:

- October 2021: Identify vendor and kick off;
- November through March 2021: Improve databases and ETL pipelines; and
- April through June 2021: Collaborate with PPSD as needed to support the development of a new data warehouse (through an engagement with another vendor).

V. Limitations

This Request for Proposals (RFP) does not commit the Providence School Department to award any contract or pay for the preparation of any proposal submitted in response to this RFP. The Providence School Department may withdraw or amend this RFP in its entirety or in part, at any time if it is in the best interests of the organization to do so. This award is contingent upon the receipt of funding.

VI. Proposal Requirements

To achieve a uniform review process and obtain the maximum degree of comparability, it is required that proposals be organized in the manner specified. The proposal shall be submitted in a single document, both in print and as a PDF, with the sections set forth below:

Title Page - Bid Form 1

Tab 1 - Table of Contents
Clearly identify the materials by section and page number

Tab 2 - Proposer Overview
- Description of company's mission, vision, and services
- History of the organization
- Names, roles, and resumes of proposed project team members
- A description of any proposed services that will be subcontracted, to whom, and why

Tab 3 - Approach, Timeline, and Deliverables
- Proposer's understanding of the challenge and opportunity
- Proposer's proposed scope of work including project approach, timeline for major milestones, and summary of deliverables with each stage of work

Tab 4 - Relevant Prior Experience and References
- Summary of the proposer's prior experience with database development, including total number of relevant projects completed
- A detailed description of three similar projects the proposer has completed, including contact information for references with each customer

Tab 5 - Pricing Proposal

- Breakdown of costs services and product costs within each phase of the project
- Written rationale for each cost

VII. Questions

Questions concerning this solicitation should be emailed to steven.cartwright@providenceschools.org. Questions are due by Friday, September 17, 2021. Questions will be answered via addendum.

VIII. Evaluation of Proposals

Each vendor proposal will be reviewed and scored against the criteria in the table below. A review committee with at least three members will evaluate the proposals. Each member of the committee will conduct a thorough, independent evaluation of each proposal. The committee will then meet for a discussion after which members will have the option to revise their scores. The technical score will be determined by averaging each member's score in each category.

The maximum number of points scored is 100. The threshold to advance to cost proposal review is 75 points. Proposals scoring below 75 points will be deemed technically unacceptable and will not be considered in the cost proposal review.

The award will then be made to the lowest cost, technically acceptable proposal(s).

Technical Proposal Category	**Weight**
Qualifications and Past Experience	75
Strength of Performance Task (for independent contractors only)	15
Strength of References	10

Providence Public Schools may choose to seek clarifications from vendors with regard to their proposals. All responses will be provided in writing, and incomplete and/or unclear responses may result in a proposal being deemed technically unacceptable. Providence Public Schools reserves the right to make a selection without requesting clarification. Additionally, Providence Public Schools may not necessarily seek clarifications from all vendors submitting proposals.

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