Los Angeles Unified School District

REQUEST FOR INFORMATION

INFORMATION TECHNOLOGY DIVISION
SCHOOL BUS ROUTING SOLUTION
RFI No. 202010

1.0 Overview

1.1. The Los Angeles Unified School District ("District") is seeking information from interested parties who can provide a comprehensive School Bus Routing solution. The desired features are listed within this request. The provider shall also have experience providing implementation and user support services and be experienced in an environment that supports the transportation routing system.

1.2. THIS IS A REQUEST FOR INFORMATION (RFI) ONLY. This RFI is issued solely for information and planning purposes – it does not constitute a Request for Proposal (RFP), an Invitation for Bid (IFB) or a promise to issue an RFP or IFB in the future. This request for information does not commit the District to contract for any supply or service whatsoever. Any and all costs associated with or arising from this RFI process incurred by the Interested Party shall be absorbed by the Interested Party, without reimbursement by the District.

1.3. Further, the District is not at this time seeking proposals and will not accept unsolicited proposals. Interested parties are advised that the District will not pay for any information or administrative costs incurred in response to this RFI; all costs associated with responding to this RFI will be solely at the interested party's expense. Not responding to this RFI does not preclude participation in any future RFP, if any is issued. If a solicitation is released, it will be synopsized on the LAUSD Procurement website at https://psd.lausd.net/Vendors/. It is the responsibility of the interested parties to monitor these sites for additional information.

2.0 Background and Requested Information (Statement of Work)

ABOUT LAUSD

As the second-largest school district in the nation, the Los Angeles Unified School District (LAUSD) enrolls more than 500,000 students in kindergarten through 12th grade at over 900 schools and 224 public charter schools. The District also enrolls approximately 90,000 adult students at 11 adult schools. The District's boundaries extend across more than 710 square miles and include the mega-city of Los Angeles as well as several unincorporated sections and all or parts of 31 smaller municipalities in Southern California.

ABOUT THE INFORMATION TECHNOLOGY DIVISION

The Information Technology Division, led by the Chief Information Officer, is responsible for supporting the District's instructional mission and operations through the deployment of the most current, robust, user-friendly, and cost-effective technology solutions.

ABOUT THE TRANSPORTATION SERVICE DIVISION

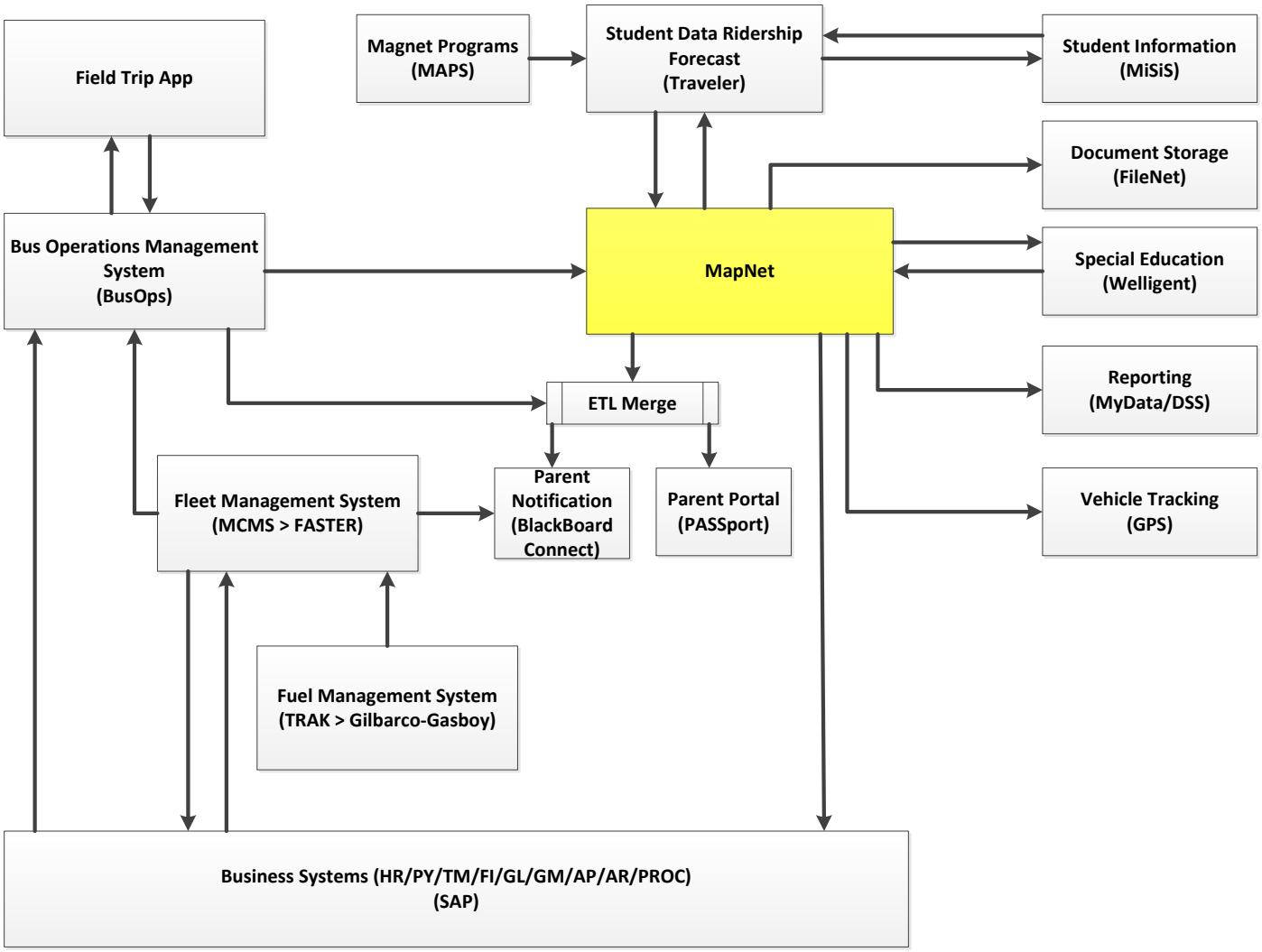
The Transportation Services Division works to make sure over 41,000 students get to school safe, on time, and in a positive state of mind. The District operates the largest alternative fuel bus fleet in California compromised of 600 compressed natural gas, 100 ultra-low emission gasoline, and 268 propane buses which compromise nearly 73% of the bus fleet.

The Transportation division has several applications that interface with the current routing software, MapNet, to support the transportation of students. One of the systems

is the Synovia GPS software that tracks vehicles and is in the process of implementing the student ridership. It, also, interfaces with MISIS (My Integrated Student Information System) that has the student information. The scheduling of buses in done through a custom solution, BUSOPS, which was built the District and interfaces to MapNet. Please see the Transportation Application Diagram.

MapNet is used by Transportation to manage regular bus routes (not field trips).

Transportation Application Name	MapNet Inbound/ Outbound	Description
Bus Operation Management System (Bus Ops)	Inbound	• Used by Transportation to manage driver dispatch, driver routes, monitor bus service status, and field/day trips • This application was developed in-house • Integrated with MapNet for bus location, bus route assignment, and driver information
Student Data Ridership (Traveler)	Inbound & Outbound	• Used for forecasting and to bridge MiSiS (Student Information) and MapNet • This application was developed in-house • Inbound data from MiSiS contains student information (changes, additions, deletions) • Outbound data from MapNet to MiSiS contains bus route assignment information
Document Storage (FileNet)	Outbound	• Sends routing sheet archive to FileNet
Special Education (Welligent)	Inbound & Outbound	• Inbound data from Welligent contains special education student information (changes, additions, deletions) • Outbound data from MapNet to Welligent contains bus route assignment information
Reporting (MyData/DSS)	Outbound	• Outbound data from MapNet to MyData/DSS contains student route assignment information
Vehicle Tracking (GPS)	Outbound	• Used by Transportation to track real-time bus movement • An interface from MapNet provides planned vs actual route information • Outbound data from MapNet to GPS contains planned bus route information
Business Systems (SAP)	Outbound	• Outbound data from MapNet to SAP contains job cost distribution information
ETL Merge	Outbound	• Outbound data from MapNet though ETL Merge is pushed to Blackboard (Parent Notification) and PASSport (Parent Portal) Blackboard: Bus delays PASSport: Bus assignment and delays



DESIRED SOLUTION FEATURES

LAUSD is issuing this RFI to replace the existing MapNet System that currently manages school bus routing within the Transportation Service Division of LAUSD. The desired solution shall provide bus routing and scheduling functionality for regular daily bus routes to/from schools as well as routes for school field trips and other school events.

The replacement system shall include support for the following areas of solutions:

1. Single Sign-On:
   - The System shall utilize District's Single Sign-on in Azure AD to authenticate LAUSD users to access the web site.
     - Support for SAML 2.0 or Open ID Connect
     - Support for policy-based access

2. *System Requirements:*
   - The system shall be either a cloud-based or a web-based solution.
   - The system must be a Geographic Information System, not using any proprietary mapping technology.

- The system must be able to use an SQL database and not a proprietary database.

3. *Functional Requirements:*
   - Map Source and Updates
     - The system shall provide an electronic map of the District's boundary.
     - The system shall allow subsequent and periodic importing of a new map from commercially standard mapping formats.
     - Preserve or keep any District-initiated changes or customizations on the map while accepting the new information from an imported map.
     - Allow multiple users to be editing the map simultaneously.
     - Allow users to add/edit traffic restrictions on the map.
     - Allow users to enter street/road data, such as one-way streets, travel speeds, no travel roads, etc.
     - Allow users to enter travel restriction data, such as vehicle size, turn restrictions.
     - Shall have different speeds based on time of day for scheduling/planning routes
     - Alert users of temporary street closures.
     - The system shall have real-time traffic patterns and flows.
     - The system shall have tools for precision boundary drawing and editing.
     - Display boundaries an outline or with a fill color, or be hidden, at user discretion.
     - The system may use a single boundary to make different types of assignments.

   - Student Data
     - Integration with the District's student information system. Ability to establish periodic, unattended downloads from the District's student information system into the software.
     - Integration with District's Special Education system. Ability to establish periodic, schedule job downloads form the District's Special Education system into the software.
     - The system shall check data integrity before import and stop the import and alert users if data integrity checking fails.
     - Processes downloads data during the import process to geocode students and assign each student to the appropriate walk/ride status, bus stop based on boundaries, grade range, and school.
     - Allow users to manually geocode students individually or in batch.
     - Allow users to manually override student walk/ride status.
     - Preserves address corrections by users when the same student is downloaded with the same incorrect address.
     - Preserves field data according to the established business rules.
     - In addition to the home address, the system shall allow for multiple addresses for a single child (i.e. different AM pickup, different PM drop-off).
     - Allow for different pickup/drop-off addresses on different days.
     - Store the school of attendance and school of residence.
     - Store emergency contact with phone numbers for students and a note indicating the relationship of the contact to the student.
     - Store email addresses for parents/guardians of students.

- Store special needs information for special education students, such as special needs equipment, information of aids, guardians, release to or do not release, etc.
- The system shall allow users to grade advance students to begin work on the next school year's routes without altering the routes for the current school year or creating a separate database.
- Allow for future changes to a student's address and/or transportation needs to be scheduled for the date on which changes are to occur.
- The system will allow users to search for student records on any of the displayed student fields.
- The system shall allow users to create and display a customized data field on student records.
- Easily filter students inside or outside of any selected boundary.
- Find any student whose transportation information has been changed since the last time notifications were printed.

- Stops
  - Allow for the simple creation of stops.
  - The system will automatically create stops on downloading of special education students and create mirror stops at user discretion.
  - Automatically determines the appropriate bus stop for transportation eligible students.
  - Provide the ability to manually override any automatic stop assignment.

- Schools
  - Allow different academic programs at one school.
  - Incorporate school bell time schedule into routing.

- Buses
  - Store a record for each school bus in the District.

- Drivers
  - Store driver data, including contractor companies.

- Routing
  - The system shall automatically create routes.
  - Automatically assigns students to a bus stop.
  - The system shall use advanced routing algorithms to determine the best time-path.
  - Routes may be edited to change stop sequences, paths, or students on the route.
  - The system shall have the ability to create different routes for different days, such as early bell time.
  - The system shall allow multiple routes for the same student on the same day, such as middle day therapies route, dual enrollment.
  - The system shall take special needs equipment, aids into route calculation when the scheduled route with special education students.
  - The system shall create future route schedules without making changes to any current routes.

- The transition from the current route to the planned route shall be automatic without manual intervention.
- The system shall be able to find and easily display any route or set of routes including all stops and all students on the route.
- The system shall calculate and report route mileage in different ways, such from yard to first stop, from first stop to school, etc.

- Integration with LAUSD systems
  - The system will update school and bell time schedule information from LAUSD location and bell time database.
  - The system will interface with the LAUSD student information system and LAUSD special education student information system.
  - The system shall interface with the LAUSD Bus Operation system for route, bus and driver information.
  - The system will interface with the external route optimization process (UCLA).
  - Student ridership information

- Reports/Audit Trail
  - Student download report.
  - Route sheet with turn by turn instruction and student information.
  - Student ID bus pass.
  - Plan rider list.
  - Plan stop summary report.
  - Plan ridership report.
  - Special education route door knocker sheet.
  - Dry run evaluation sheet.
  - Route changes.
  - Exception reports.
  - The system shall provide an ability to create ad-hoc reports.
  - Audit trail of data changes at user discretion.

- Security
  - Ability to create and deactivate accounts in the application.
  - Ability to assign user roles and privileges.
  - Area Bus Supervisor is limited to his/her route range.
  - Data encryption students' information during transmission to GPS

3.0 Questions

Questions regarding this announcement shall be submitted in writing by email to the assigned Analyst via ITD-Bids@lausd.net. Verbal questions will NOT be accepted. Questions shall NOT contain proprietary or classified information. The District does not guarantee that questions received after **December 5, 2019, 5:00 PM** Pacific Time will be answered.

4.0 Submission Date and Instruction

4.1. Interested parties shall respond to this RFI as instructed below.

Submittals must be in Microsoft Word or Adobe Acrobat compatible format and are due no later than **December 16, 2019, 5:00 PM Pacific Time**.

Responses (not including additional optional submittals) shall be submitted via e-mail with the subject heading "RFI No. 202010" to **ITD-Bids@lausd.net.** Proprietary information, if any, shall be minimized and MUST BE CLEARLY MARKED. To aid the District, please segregate proprietary information. Please be advised that all submissions become District property and may not be returned.

Submittal requirements must include the following:

I. Cover letter
II. Description of Organization
III. Answers to the following questionnaire:

#	Question
A	Vendor Information
A.1	Contact details of the person responsible for the information contained in this RFI Name Telephone number Fax number Email address Web page
A.2	Organization size (number of employees)
A.3	How many years has your organization has been in business?
A.4	How many customers do you have within education, government space?
A.5	Please provide information on your implementation methodology.
B	
B.1	Do you offer formal user training? If yes, 1 What types of courses do you run and what are their durations? 2 What level of training would you recommend? 3 Describe any training materials offered?
B.2	What is your anticipated learning curve for administrators, developers, end-user admins/approvers
C	Infrastructure Requirements
C.1	Software installed on-premise or cloud?
C.2	Is the software a COTS (commercially of the Shelf Software)?
C.3	Recommended Client PC/Laptop requirements
C.4	Requirements for future scaling. Is there a limit on tenant users if in the cloud?
D	Capabilities & Requirements
D.1	Describe how your software meets the desired functionality?
D.2	Does your software integrate with Active Directory and LDAP
D.3	Name all browser versions that your system has known compatibility with.
D.4	Will your product work with mobile devices?

D.5	What is the typical turnaround time to address bugs and severity 1 security risk?
D.6	What software language, database, and cloud hosting solutions were used in the system?
E	Third-Party Integration
E.1	Describe how your software integrates with other applications?
E.2	Types of data sources supported?
E.3	Does your system provide APIs?
E.4	Number of data sources that can be simultaneously accessed?
F	Consulting Services
F.1	Describe your experience in implementing your software at an organization comparable to LAUSD?
F.2	What type of consulting services do you provide (requirement gathering, data conversion, data migration, application integration, etc.)?
G	Detailed Cost Model
G.1	What is your licensing model?
G.2	What is the list price of your product, annual maintenance, and training to support the requirements in this RFI?
G.3	Is there anything that will require an additional or third-party purchase to meet the requirements outlined in this RFI? If yes, provide third-party details.
G.4	Provide an estimate of the cost to implement and integrate the software based on the desired functionality.
G.5	Provide a high-level project timeline estimate to implement the desired functionality.

IV. Based on the submittals, the District may select a group of respondents to this RFI and schedule corresponding interviews and/or product demonstrations. Presentations may be scheduled after **January 10, 2020**.

4.2 Errors and Omissions in RFI Document

If the Interested Party discovers any discrepancy, ambiguity, error, or omission in this RFI or any related documents, the Interested Party shall notify the District's Analyst immediately and request clarification or correction. Any such errors or omissions, if verified by the District, will be corrected by a written addendum to the RFI.

5.0 Communications

5.1 All communications with the District regarding this RFI shall be governed by the District's Contractor's Code of Conduct using the link (https://achieve.lausd.net/site/handlers/filedownload.ashx?moduleinstanceid=42034&dataid=58773&FileName=Contractor_Code_of_Conduct_2018.pdf).

5.2 All communications regarding this RFI between Interested Parties and the staff of the DISTRICT and consultants engaged by the DISTRICT shall be addressed only to the Analysts identified in the Request for Information Letter. At no time "PRIOR" to the DISTRICT'S Notice of Award, during the RFI or RFP phase shall Proposer(s) contact DISTRICT officials or personnel regarding this RFI or RFP or any contract(s) to be awarded in response hereto. To do so may subject the Proposer to disqualification during the RFP phase.

6.0 Demonstrations/Proof of Concept

Responses provided by Interested Parties shall be reviewed and evaluated by the District's Information Technology Division (ITD) and Transportation Division. As a result of this RFI, respondents to this RFI may be invited to present supplemental information on package/sthey provide and/or to give a demonstration. All applicable District terms and conditions will apply.

As a result of the evaluation of this RFI, respondents to this RFI may be invited to perform the proof of concept and must acknowledge and provide strict adherence to all provisions of the District's Code of Conduct: (https://achieve.lausd.net/site/handlers/filedownload.ashx?moduleinstanceid=42034&dataid=58773&FileName=Contractor_Code_of_Conduct_2018.pdf). There will not be any cost reimbursement provided by LAUSD for the Proof of Concept.

7.0 Marketing

Making any reference to the District in any literature, promotional material, brochures, or sales presentations is strictly prohibited without the express written consent of the District.

8.0 Future Request for Proposal (RFP) or Request for Quote (RFQ)

The District reserves the option to issue a solicitation based on information gathered through this RFI. In the event a solicitation is issued, the District anticipates soliciting proposals through open competition and shall then select one firm to provide a solution that will meet the requirements of the District.

The submission of a response to this RFI is not a precondition for submitting a proposal in response to a future solicitation. Such interested parties or participants shall have no priority in consideration of responses to future solicitations.