

MONTGOMERY COUNTY PUBLIC SCHOOLS

Expanding Opportunity and Unleashing Potential

DIVISION OF PROCUREMENT

November 26, 2024

RFI Number: 8010.1
Due Date: December 20, 2024
RFI Closure time: 2:00 p.m.

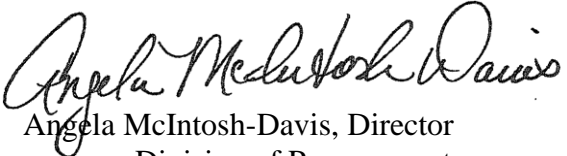
To: Prospective Respondents:

The purpose of this Request for Information (RFI) is to gather information from qualified agencies who are experienced, and have the capability of providing a Transportation Routing Solution and all operational infrastructure requirements to Montgomery County Public Schools, Department of Transportation (MCPS-DOT).

Please respond according to the instructions provided in the attached. Submissions must be received on or before 2:00 p.m., on December 20, 2024. Submissions received after this date and time will not be considered. Responses to the RFI shall not be construed as an obligation by MCPS to issue a solicitation or award a contract should they choose at a later date, not to move forward.

In the event of emergency closing of the MCPS Board of Education offices, this RFI will close at the same time on the next regular working day.

Sincerely,



Angela McIntosh-Davis, Director
Division of Procurement

AMD
Enclosure

**Office of Finance
Division of Procurement
45 W. Gude Drive, Suite 3100
Rockville, Maryland 20850**

**Request for Information RFI #8010.1
Transportation Routing Solution for
Montgomery County Public Schools**

1.0 INTENT

The purpose of this Request for Information (RFI) is to gather information from qualified agencies who are experienced, and have the capability of providing a Transportation Routing Solution and all operational infrastructure requirements to Montgomery County Public Schools, Department of Transportation (MCPS-DOT).

MCPS-DOT's intent is to discover the latest and best tools and features available in the market and plan to subsequently issue a Request for Proposal (RFP) to obtain the products and/or services that will meet our current and future needs.

2.0 BACKGROUND

Montgomery County Public Schools (MCPS) is the 15th largest school system in the United States. MCPS buses provide student transportation to over 110,000 students and over 200 schools in Montgomery County, while also serving special schools in Maryland, Virginia, and Washington, DC. In addition, buses also provide transportation for summer school, field trips, and other community activities year-round. The bus fleet consisting of over 1,390 buses are parked strategically throughout the county at six transportation depots. In addition to the day-to-day operations handled at the six depots, several other offices within the Department of Transportation (DOT) work collaboratively to guarantee the safety and efficiency of the students and buses. Buses serving Special Education and other programs (i.e. magnet, gifted & talented, and immersion) are routed by a team of specialists in the Transportation Support Services Unit. Field trips and employee hours are also handled within this unit. The Safety, Training & Staff Development Unit works with employees in order for bus operators and attendants to stay current with industry standards and safety measures. Staffing needs are handled by the Department's internal Human Resources Unit. And finally, the Information Technology team works to ensure all of the Department's technological needs are met.

- MCPS buses transport 110,000 students to and from home and school daily.
- DOT currently has over 1,500 school buses. Services are provided to over 200 schools across the district with over 1,200 assigned bus routes.
- MCPS buses traveled **17.7 million miles** during the **2023-2024 school year**.
- Policy and regulation that govern eligible students' transportation versus the walk area for students consists of: (1.0 mile = ES; 1.5 miles = MS; 2.0 miles = HS) +/- 0.1 mile at the district's discretion.
- Currently using Mapnet routing system (Trapeze)

3.0 SCOPE OF REQUEST

System shall be capable of providing options/features but is not limited to:

- a school bus routing application (with the ability to interact with multiple instances simultaneously—current school year, summer, and subsequent school year);
- dispatch module (current status of routes at seven different depot locations; bus substitutions; school and community communications);
- Field trip module (workflow process for approvals, ability to invoice, track payment, etc.)
- bus mounted tablet solution (capable of providing bus operator with real-time left/right directions, ability to send/receive messaging from dispatch, student tracking capability and tracking hours for bus operators/bus attendants);
- employee work monitoring function (route data, payroll/timekeeping with the ability to interface with current district operating systems such as Synergy and Oracle-based Lawson (HRIS)/HCM for payroll);
- Extracting and creating reports and archival data;
- Interaction with current Samsara GPS systems for parent application and student monitoring features; and
- components that MCPS may not have yet identified.

Desired Solution Features

The replacement system shall include support for the following areas:

- Single Sign-On
- System requirements
- Functional requirements
- Student data - Identified route number in synergy from assigned bus routes
- Stops (students who receive transportation services and special education transportation services)
- Schools (allows different programs at schools, different bell schedules, etc.)
- Schedules (dynamic scheduling to enable routes to have different trips each day)

- Vehicle data
- Driver/attendant data
- Routing (ability to view all bus routes on a given day/time = coordination)
- Integration with MCPS systems
- Reports (student tracking [load counts], payroll, archival data, mileage)
- Security

4.0 RFI RESPONSE FORM ITEMS

- Brief, relevant background information about your organization and prior work experience or products you offer related to our needs.
- Please identify any outsourced services or products your company would need to utilize to provide all required products.
- Describe the level of service you propose for the implementation period and technology support and response time.
- Other information you think is relevant, such as providing visual examples of reports and data generated from your system (examples from other school districts)

5.0 SOLUTION REQUIREMENTS

The Solution shall provide at a minimum the following:

Operating System & Technology

- System must operate with Microsoft® SQL Server.
- System must have the ability to integrate with MCPSMD's Active Directory for authentication as well as for the purpose of setting user roles and permissions.
- The system must be able to export reports to Microsoft Word, Excel, HTML, and text
- Ability to import student data for all student enrollment as a schedulable, automated process from the MCPS Student System (Synergy)
- Ability to upload transportation data back to the MCPS Student System (Synergy).
- Software must include a secure portal for school staff to access transportation information specific to their school only.
- MCPS-DOT should receive the maintenance schedule required and support services for software updates and tasks required.
- Uploads and downloads shall be scheduled nightly on weeknights and weekends.
- Ability to connect with existing Samsara GPS software and hardware on up to 1,500 school buses.

Geographic Information System (GIS) Mapping

- Ability to use the existing street map which will be provided by MCPS in ArcGIS.shape file
- Ability to locally update street maps.
- Ability to store and access multiple transportation databases for multiple purposes (ex. Live, previous years, route reviews, etc.)
- Ability to integrate with Google Maps & Google Street View.
- Ability to view aerial imagery within the system or view data via a windows map service
- The user must be able to zoom into a location when required.
- Ability to print route maps and school schedules (including arrival, early release, dismissal, activity, and other trips) with turn-by-turn directions and bus stop locations.
- Ability to print single or multi-page route maps to provide clarity for all sections of the run or route.

Routing Algorithms & Routing Map Functionality

- Ability for a single bus stop to be used for students attending multiple schools or programs.
- Ability for bus stops to be able to be used to transfer students from one route to another without the need for user interaction.
- Ability for runs to accommodate students from multiple schools.
- Ability for runs to accommodate different bus stops, paths or times on a particular day of the week.
- Ability for runs to automatically re-time after adding / removing bus stops or making other changes that may affect timing.
- Ability to access maps for DMV not only Mont. County
- Ability to access all routes within the program (coordination)
- Ability to generate addition/removal of stops according to calendar base system
- Ability to track hazard zones in which students would automatically become eligible for transportation.
- Ability to modify the street network to accommodate new street addressing, vehicle travel restrictions, and street speeds.
- Ability to set walk restrictions along the street network.
- Ability to set street crossing restrictions along the street network.
- Ability to record by user all actions related to individual students, stops, runs, routes, streets, boundaries, or schools in date/time/create/modify format.
- Ability to create bus stops based on student populations considering walk distance policies and walk restrictions, etc.
- Ability to assign students to their most optimal bus stop(s) in am/pm based on spatial distribution considering walk distance policies and walk restrictions.

- Ability to optimize bus runs based for one or more (or all) schools considering student distribution, vehicle travel, and other pertinent parameters.
- Ability to optimize bus runs that service more than one school.
- Ability to create route schedules by maximizing daily vehicle utilization.
- Ability to further optimize route schedules by suggesting changes to bell-times to provide greater vehicle utilization.
- Customizable dashboard for operational statistics to increase productivity and reliability of transportation data.
- Ability to produce listings, statistics, and reports based on the transportation solution.
- Ability to produce reports required for mandated government reporting.
- Ability to create what-if scenarios for school closures, school attendance, and walk distance planning.
- Ability to view real time route progress utilizing live Samsara GPS technology.
- Ability to consume and use live GPS data within planning applications.
- Ability to view and analyze planned vs. actual routes utilizing GPS technology.
- Ability to view and analyze planned vs. actual stop locations utilizing GPS technology.
- Ability to view and analyze planned vs. actual stop times utilizing GPS technology.
- Ability to override and manually adjust routes, stop locations times. Notification or override approval for scheduling trips that may have overlapping time.
- Ability to monitor and analyze on time performance of vehicles for one or more days.
- Ability to use existing GPS data to improve the quality of the planning base map.
- Ability to generate school boundaries based on school capacity, student population or other criteria.
- Ability to create/maintain temporary attendance boundaries for “what if” scenario planning.
- Ability to create, display and print boundary coverage maps by grade.
- ParentVue and StudentVue bus route assignment
- GPS bus arrival and departure times from school.
- GPS path of bus displays on map for current run.

Data, Reporting & Safety

- Ability to develop custom reports or charts for transportation department needs.
- Ability to attach multiple documents to student records within the database for special needs documentation, etc.
- Ability for student records to store medical information to be used for emergency purposes and transportation needs.
- Ability to store multiple unique addresses for a student that can be used for transportation assignments on any day of the week, am or pm.
- Ability to store specialized equipment needed for a student and have the system automatically manage the equipment needs with vehicles used.

- Ability for student records to store effective and end dates for transportation assignments.
- Ability to analyze the effectiveness of existing run/route structures and school hours to produce more efficient/cost effective alternatives.
- Ability to analyze the effects of the closure of a school or double busing scenario(s).
- Ability to import and export data with ease to external formats including but not limited to pdf, excel, word, power point, or html.
- Ability for transportation administrators to post notifications and alert constituents of service disruptions.
- Ability to find/sort students by grade, program, home school, attended school, distance and address including students that are not presently being bused.
- Ability to analyze students who attend schools outside their “home” attendance boundary.
- Ability to update routes daily, speak to driver to provide route directions, track the route (timeclock, login for bus drivers and attendants, alert dispatch if employees are late)

Parent/Student Interface

The new Routing software must have a parent application that meets the following criteria:

- Available for both android and apple devices.
- Parent can access information for all their enrolled children using one login account (MCPS SSO for parents)
- Must have secure parent login credentials using MCPS SSO for parents.
- ETA of the bus displays on screen and automatically refreshes.

Global Positioning System (GPS)

- MCPS-DOT is currently using Samsara as the primary GPS.

6.0 TIMELINE

This RFI will be active from **November 26, 2024 through December 20, 2024**. MCPS will review responses and begin utilizing information to inform the district of the all of the options for consideration when issuing a Request for Proposal (RFP). As stated above, MCPS plans to issue an RFP following the conclusion of this RFI. MCPS reserves the right to reconsider an RFP following the review of information provided.

All materials shall be submitted to the Procurement drop box, procurement@mcpsmd.org during the active timeframe stated above. When submitting your materials, the subject line must indicate the following: **“RFI 8010.1 Transportation Routing Solution Submission”**. Submissions will be accepted through **December 20, 2024 at 2:00pm**. Submissions received in the drop box after that timeframe will not be considered.

7.0 REVISIONS TO THE RFI

If it becomes necessary to revise the RFI before the due date for responses, MCPS shall provide addenda to all prospective participants that were sent this RFI or which are otherwise known by the point of contact to have obtained this RFI. In addition, addenda to the RFI will be posted on the MCPS Open Solicitations Webpage and eMaryland Marketplace Advantage (eMMA). It remains the responsibility of all participants to check eMMA for any addenda issued prior to the submission of responses.

8.0 CONFLICTS OF INTEREST

Maryland Code General Provisions Article, 5-508 (b) (2) provides a safe harbor for the submission of “written or oral comments on a specification prepared by an agency or on a solicitation for a bid or proposal when comments are solicited from two or more persons as part of a request for information or a pre-bid or pre-proposal process” such that submitting a response to this RFI will not preclude a participant from participating in a subsequent solicitation.

9.0 INCURRED EXPENSES

MCPS will not be responsible for any costs incurred by any participant in preparing and submitting a response to this RFI, in providing a demonstration, or in performing any other activities related to submitting a response to this RFI.

END