

Howard County Public School System

REQUEST FOR INFORMATION

TO PROVIDE

STUDENT TRANSPORTATION TECHNOLOGY PLATFORM

The Howard County Public School System (HCPSS) requests written submittals from qualified vendors able to provide the HCPSS with various elements of a Student Transportation Technology Platform, as further described in this Request for Information (RFI).

1. District Contact and RFI Schedule of Events

The sole point of contact at the HCPSS for all matters related to this RFI is as follows. No contact between prospective respondents and the HCPSS is permitted, except as expressly allowed by the Schedule of Events, and all such contact shall be addressed to the HCPSS's designated representative:

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Submittal Due Date: Tuesday, October 4, 2022, 3:00 PM EST

Event	Expected Completion Date
RFI release date	Tuesday, September 13, 2022
Final day to submit questions or requests	Tuesday, September 20, 2022
Submittal due date	Tuesday, October 4, 2022

2. Background

a. Student Transportation Services in the HCPSS

The HCPSS provides transportation services to approximately 40,000 students attending 78 schools. Services are provided using approximately 500 contracted vehicles and are distributed across approximately 350 regular home-to-school bus routes, and 150 scheduled specialized services routes. All services are managed and administered by the HCPSS Office of Student Transportation which has a current total staff count of sixteen (16) positions. Twenty-eight (28) vendors operate the service delivery vehicles.

b. Student Transportation Reform Initiative

A decision by the School Board to reset all school starting and ending times beginning with the 2023/24 school year became a catalyst for reform of student transportation services in the HCPSS. This RFI is a first step supporting a major element of this reform: investment in and expanded use of technology to support a revised service delivery methodology and a reorganization of the Office of Student Transportation. Each of these elements are designed to maximize the efficiency and effectiveness of the transportation service provided to HCPSS students.

c. Statement of Purpose

This RFI seeks to establish a baseline understanding of the vendors, hardware, and software products that are currently available to assist the HCPSS in achieving its vision for an expansive use of data and information to plan, execute, and inform the users of its transportation system. This vision describes a future of real-time data access and use within an interoperable and interconnected ecosystem of cloud-based software, in office, and on-vehicle hardware. It envisions that every operational element and aspect of the system, from vehicle operator time and attendance, to vehicle location, rider embarkation and debarkation, monitoring of vehicle performance, vehicle operator and rider behavior, will be captured and available for real-time notification, reporting and forensic analysis. It further envisions dynamic route planning, to include the planning and management of non-vehicular modes such as safe biking and walking routes, and that this data will be similarly available to planners, managers, vehicle operators, and users of the system in real time. The HCPSS seeks to achieve this vision over time, and in partnership with a vendor or vendors willing to commit the resources and expertise required to assist in its realization, not just in providing its component parts.

3. Statement of Need

a. Current Technologies in Use

The starting point for this undertaking includes the following suite of products currently installed and used by the HCPSS to plan and manage its transportation system. Nothing in this RFI should be interpreted in any way as an indicator for the continued use or discontinued use of these products. Rather, this information is provided as a means of establishing context for the respondent's submittal.

- Student Information System – Synergy
- Route Planning Software – Versatrans Routing & Planning
- Dispatch management – Versatrans Electronic Rollout Sheet, Versatrans Arrival Board
- Vehicle Location monitoring – Zonar onboard GPS hardware; Versatrans Onscreen; Versatrans My Stop (not implemented)
- Vehicle cameras and video monitoring – BusPatrol

b. Description of the Request

The HCPSS requests comprehensive information from qualified and interested providers of suitable hardware and software technologies that will assist the HCPSS in determining a path forward for achieving its Transportation Technology Platform vision. The HCPSS seeks a detailed and actionable understanding of the vendors' offerings, to include implementation, integration, and support services capabilities. The HCPSS further requests information on innovative solutions that it may not currently be envisioning, as well as specific information relative to the vendors' capabilities in each of the following key aspects of the technology platform vision:

- Cloud-based software – Provide an understanding of software offerings that have been developed to run optimally in a remotely hosted, cloud-based environment.
- Mobile hardware and software applications – Provide information regarding hardware and software offerings that are, or are optimized for use on mobile devices such as tablets, rider tracking technologies, and mobile applications.
- Installed hardware and software applications – Provide information regarding hardware and software offerings that are tied to specific vehicles or fixed locations, such as client-server-based applications or GPS receivers.
- Application Programming Interfaces – Provide detailed information regarding the interoperability of all software offerings via API.
- Mapping backbone – Provide information regarding the mapping systems utilized in all planning and visualization software offerings.

The above items represent the most important general aspects of the HCPSS vision. To provide more specificity, Table 1 describes elements of the proposed platform that HCPSS is considering for inclusion. Respondents should refer to this table when generating their responses and should be specific in identifying offerings available relative to each element.

Table 1 – Generalized Platform Elements

Function to Support	Basic Specifications Desired
Driver Time Management	Remote clock-in and clock out Integration with: <ul style="list-style-type: none">- Dispatch Management- Payroll Management- Contractor Management

Function to Support	Basic Specifications Desired
Dispatch Management	<p>Driver availability Driver call-off management Driver assignment to route Vehicle assignment to route Pre and post trip monitoring Vehicle location visualization Route planned versus actual visualization Vehicle event tracking Push alerts (geo-fencing, parameters exceeded, etc.) Customer request and incident management logging and tracking Integration with:</p> <ul style="list-style-type: none"> - Driver Time Management - AVL - Driver Tablet - Rider Management - Route Management - Fleet Management - Payroll - Billing
Driver Tablet	<p>On-board hub for:</p> <ul style="list-style-type: none"> - Timekeeping - Route management - Rider management - Comms with Dispatch - Integration with: - Driver Time - Dispatch Management - Rider Management - Route Management - Fleet Management
Rider Management	<p>Rider (parent) access portal for:</p> <ul style="list-style-type: none"> - Data entry - Information access - Request processing - Rider (parent) mobile application for: - Live rider location - Live vehicle location <p>Rider tracking application for:</p> <ul style="list-style-type: none"> - Vehicle roster verification - Live boarding and debarkation tracking - Integration with: - Driver Tablet - Dispatch - Route Management

Function to Support	Basic Specifications Desired
Route Management	Calendar-based flexible route management Scenario-based route modeling Integration with: <ul style="list-style-type: none"> - Student Information Systems - Dispatch Management - Driver Management - Rider Management - Fleet Management - Contractor Management
Fleet Management	Asset Management Preventive Maintenance Management Workorder Management Parts Management Integrates with: <ul style="list-style-type: none"> - Vehicle Telematics - Route Management - Dispatch Management
Driver Management	Recruitment pipeline management Training process management Credentials management
Contractor Management	Billing Management Contract Compliance Management

c. Focus on Migration and Interoperability

The HCPSS recognizes the small likelihood for the capabilities of a single vendor or single suite of products to immediately meet all of the desired aspects and elements described in the Statement of Purpose and Description of the Request sections of this RFI. These two factors therefore place a strong emphasis on the vendors' products and organizational willingness to support a migratory path from the current state to full achievement of the vision. It also places a strong emphasis on the expectation that any vendor selected by HCPSS will partner with the district to ensure the seamless interoperability of each element of the solution, and among and between multiple vendor products. The HCPSS is committed to select products, and work with vendors best able to accomplish these requirements.

4. Requirements for Submission

a. Submission Format

All submissions must follow the format specified in this section. The HCPSS values brevity but also completeness in the respondent's description of its offerings, qualifications, and experience. The HCPSS reserves the right to reject any and all submissions or to waive any informalities, irregularities, or technicalities in any submission should it be deemed to be in the best interest of the Howard County Public School System to do so.

b. Submission Content

The respondent's submission shall be submitted in a format consistent with the order of the numbered sections as follows:

1. Identifying Information – Include the full legal name(s) of the parent company submitting the information and the company that would be the prime contractor providing the requested products and services, if different. Provide the legal address of the company(s). Provide the full name, email address, and telephone number of the vendor's designated contact for the submission. This person must be vested with the authority to speak on behalf of the vendor in all matters related to the submission. This section of the submittal must be signed by the designated contact person.
2. Products and Services for Consideration – Clearly identify each of the products and services for which the vendor is submitting information, followed by a description of its capabilities relative to the vision outlined in this RFI, and URL links to product websites and descriptive information, if available.
3. Qualifications and Experience – Provide a brief but complete description of the vendor's qualifications and experience to provide the requested products and services. At a minimum, include a description or illustration of the organization structure for the parent company and company proposed to provide the service, if different. Provide a history of the subject organizations, and information to illustrate the size and scope of their operations.
4. Methodology and Approach – Provide a brief but complete description of the contractor's proposed organization, systems, methodologies, and processes for providing the requested products and services. This should include, at a minimum, a description of:
 - a. How its products will integrate with offerings from other vendors.
 - b. How its products already integrate with other products it currently offers.
 - c. How maps are managed and updated across all of its offerings.
 - d. The project and account management practices of the company.

c. Submission Instructions and Requirements

One (1) complete original electronic submittal must be submitted to BidsandProposals@hcpss.org, and received not later than 3:00 PM EST on the Submittal Due Date specified in the Schedule of Events above. Submission that contain either more than one file, or files larger than 75MB, shall be inserted into an e-folder and compressed in a zip file. To ensure delivery, if file size cumulatively exceed 75MB, it is recommended that contractors submit separate emails labeled No.1, No.2, etc.

Email subject lines, Folder names and File names shall include: “RFI-B3 – Student Transportation Technology Platform” and Company Name. In the body of the email please include Contractor’s contact person’s email and cell phone number for contacting purposes if/when necessary.

5. Review and Use of Submissions

Qualified submittals will be reviewed by a committee established by the HCPSS for the purpose of evaluating the respondent’s wherewithal and desire to provide the required products and services. This evaluation will consider the respondent’s offerings, and how well the response meets the requirements of the RFI. From this review, the HCPSS will identify vendors that will be asked to participate in further evaluations and product demonstrations.