



MOBILE DATA COLLECTION SYSTEM

ACCEPTANCE DATE: August 31, 2022 prior to 4:00 p.m. Eastern Time
RFI NUMBER: RFI 2022-001
ACCEPTANCE PLACE: Via email to devon@cspdc.org

Questions related to this RFI should be directed to:

Devon Thompson
Central Shenandoah Planning District Commission (CSPDC)
112 MacTanly Place
Staunton, VA 24401
(540) 885-5174 x105
E-mail address: devon@cspdc.org

This document can be downloaded from our web sites:
<https://www.cspdc.org/> and <https://www.britebus.org/>

Issue Date: August 11, 2022

IF YOU NEED ANY REASONABLE ACCOMMODATION FOR ANY TYPE OF DISABILITY IN ORDER TO PARTICIPATE IN THIS RFI, PLEASE CONTACT THE CSPDC AS SOON AS POSSIBLE .

REQUEST FOR INFORMATION

MOBILE DATA COLLECTION SYSTEM

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MOBILE DATA COLLECTION SYSTEM

1.0 Purpose

The purpose of this Request for Information (RFI) is to obtain information from vendors with products designed to administer mobile data collection for fixed route bus transit vehicle fleets. Vendors are also requested to provide any capabilities to support data collection for deviated fixed route and demand response/paratransit services.

It is the intent of the Central Shenandoah Planning District Commission (CSPDC) to use the RFI responses to develop system requirements and issue a formal Request for Proposal (RFP). This RFI and the information submitted by the interested vendors will not be binding but will be essential in assisting CSPDC in defining the system requirements and the procurement process.

This is not an Invitation for Bid (IFB) or a Request for Proposal (RFP). No contracts will result from the submission of the data; therefore, no contractual language is contained herein nor is it required in the RFI response.

2.0 Background Information

The CSPDC administers the transit funds for the BRITE public transit system which operates in the Staunton-Augusta-Waynesboro, Virginia area, and plans and manages the BRITE transit service(s). The CSPDC desires to implement a mobile data collection system (MDCS) for the BRITE transit vehicle fleet. The MDCS will be a foundational technology for BRITE operations, transitioning from more manual methods of collecting data while also providing a rich data source to support operations and planning. In 2017, the CSPDC completed an intelligent transportation systems (ITS) study which identified the need for this technology.¹

BRITE is operated under contract by Virginia Regional Transit (VRT). Urban and rural services are comprised of seven fixed routes, Afton Express commuter bus, and two demand response/paratransit services in Staunton and Waynesboro, Virginia. Fixed routes may deviate up to 3/4 mile to serve Americans with Disabilities Act (ADA passengers). VRT owns the vehicles, and the CSPDC owns the BRITE Transit Facility which houses the administrative offices and maintenance bays for operations. The transit fleet consists of 14 vehicles: eleven 2017 Ford cutaways, one 2013 Champion Motor Coach cutaway, one 2010 El Dorado EZ Rider II, and one 2017 Villager Trolley. BRITE served approximately 156,00 passenger trips in Fiscal Year 2022.

Existing ITS for BRITE Transit is limited to the use of cameras on the vehicles, as well as the use of two-way radios that allow operators to be in contact with the dispatch at all times. VRT uses a Shah Software reservation and scheduling system

¹ <https://www.britebus.org/wp-content/uploads/2018/08/BRITE-Transit-ITS-Study-Report.pdf>

for demand response/paratransit and route deviation scheduling. All operations data is currently collected with manual methods using paper forms and spreadsheets.

This includes but is not limited to:

- Passenger boardings
- Passenger alightings
- Fare type
- Vehicle mileage and time at start of service, end of service, and at fueling
- On-time performance

The MDCS is anticipated to be used for fixed route service only. In the future, it may be expanded to fixed route deviations and demand response/paratransit service.

3.0 Statement of Needs

The primary users of the mobile data collection system will be VRT staff, bus operators, and CSPDC staff with a range of technology expertise. The following are high-level needs for the system. Detailed system requirements will be developed based on the results of the RFI.

Need 1. Track Vehicle Location

The system shall be implemented through mobile devices on the fleet of buses to track bus location

The system shall communicate data and vehicle location in real-time back to a central server hosted by the system vendor

The system shall be able to provide turn-by-turn navigation to operators based on a pre-scheduled route or route deviations

The system shall track trip time and mileage and prompt the operator to enter start and end mileage on the device for verification

The system shall prompt operators to enter information that is currently written on paper fuel tracking sheets when the bus is fueled

Need 2. Record Boarding and Alighting Passengers by Fare Type

The system shall assist bus operators with counting and classifying boarding and alighting passengers at each stop

The system shall allow operators to complete data entry tasks using a simple interface on tablets or mobile data terminals while stopped

The system shall allow the classification of rider payment for a variety of different fare types

The system shall provide a record of stop and route-level boarding and alighting data

Need 3. Driver Notifications

The system shall be able to display schedule adherence to the operator such as a color-coded image or time display indicating if the bus is ahead or behind schedule

The system shall be able to limit or prevent bus operator interactions with onboard technology while driving

The system shall have the ability for operators to send standardized messages to dispatch

Need 4. Web Interface for Dispatch and Monitoring

The system shall provide a web interface for dispatchers, managers, and CSPDC staff to track vehicle location and generate reports

The system shall display current vehicle locations and have a playback feature to help with customer complaint resolution

Need 5. Reporting

The system shall provide reports including but not limited to ridership by stop, route, and fare type; revenue miles; revenue hours; and on-time performance

The system shall be able to generate reports that are suitable for the National Transit Database (NTD) reporting

Reports shall be available to view and export to spreadsheets

Need 6. Communication System

The system shall provide reliable communication between operators and dispatchers

The system shall provide an offline mode to continue to record real-time data locally if communication connection is lost (e.g., rural areas without cellular service), and transmit backlogged data when communication connection is restored

Need 7. Hardware

The system shall consist of ruggedized tablets or mobile data terminals, mounts, and cabling suitable to the operating environment in the BRITE Transit service area

The hardware should have the ability to be powered and charged by the bus rather than requiring hardware to be removed from the bus for charging

Need 8. On-Site Training

The vendor shall provide necessary training to assure that the users will be capable of continued operation of the system, maintaining the software and hardware, and handling the diagnosis of software problems

Need 9. Support Additional Future Needs

The following are future anticipated needs that may expand upon the initial system. The CSPDC is interested in understanding the ability to expand the MDCS in the future to:

Provide passengers with real-time bus stop arrival information for their route via mobile application and text message

Generate data in industry-standard formats such as GTFS Realtime to be utilized in third-party applications

Provide data collection and digital manifests for demand response/paratransit and fixed route deviations

Use for data collection for Afton Express service

4.0 RFI Response Requirements

4.1 Qualifications and Brief History of Vendor

Vendors shall provide a background and historical information of their firm and product offerings specifically related to Section 3.0, Statement of Needs, contained within this RFI. Vendors shall include the specialized experience and technical competence of all proposed personnel and their company within this section; their response shall include detailed overview of the firm's expertise, qualifications, products, and experience relative to this RFI's Understanding of Needs.

4.2 Information

Responses to the RFI should be limited to 15 pages maximum. Supplemental attachments may be provided (e.g., product brochures) if desired beyond this limit.

The CSPDC asks respondents to this RFI to provide the following information at a minimum:

1. Describe your past project experience and current system deployments, specifically with transit systems of similar size and characteristics of BRITE Transit. At least two past deployments completed within the last five (5) years should be included with the following details:
 - a. Project location
 - b. Project description
 - c. Date of deployment
 - d. Client contact (name, phone, email)
2. Describe your product and specifically how it can meet CSPDC's needs listed in Section 3.0. Identify functions that are a standard offering and those that may require customization to meet the needs.
3. Provide an estimate (non-binding) of life cycle capital and operating costs of the system, including but not limited to license costs and terms,

on-going maintenance and support, system configuration, testing, training, etc.

4. Provide an estimated (non-binding) project implementation timeline rough order of magnitude.

4.3 Subcontractors/Partners

Vendors shall include a list of all subcontractors and/or partners with their RFI response. Responses to this RFI shall also include a statement of the subcontractors'/partners' qualifications, including current processes and procedures relative to having a single point of contact (SPOC), the name of the clients served by the vendor-subcontractor/partner team and the number of years working with the subcontractors/partners.

5.0 System Demonstration

CSPDC may request, at its sole discretion, system demonstrations (anticipated to be conducted via teleconference) based on the information received as a result of this RFI. Vendors will demonstrate the features of their system that might better assist the CSPDC in determining and educating themselves as to the range of details in regard to the components of the system, the type of components to include in the proposed RFP, and the features included in the most up-to-date systems of the type being sought by the CSPDC. In addition, there may be an open question and answer session during the system demonstration. Vendors are advised that in the event they submit a formal proposal in response to the proposed RFP, they may be required to do an on-site demonstration again specifically related to the RFP requirements, before a full evaluation committee, and that both demonstrations will be provided at no cost to the CSPDC.

6.0 Instructions for Submitting RFI Response

6.1 Response Deadline

RFI responses must be received by the CSPDC by August 31, 2022 prior to 4:00 p.m. Eastern Time. Responses should be emailed to devon@cspdc.org.

6.2 Questions and Inquiries

Questions and inquiries must be in writing and will be accepted from any and all vendors. Inquires pertaining to this RFI must give the RFI number, title, and acceptance date. All questions and inquires shall be made through the contact as specified on the cover page.

6.3 Proprietary Information

Proprietary and Trade Secret Information submitted by a firm pursuant to an RFI is, in general, not protected from disclosure under the Virginia Freedom of Information Act (FOIA); however, if the firm believes the information may fall under an exemption contained in that statute (i.e., a trade secret as defined under Va. Code Section 59.1-336, et seq.) and not subject to mandatory disclosure under FOIA, the firm must (i) invoke the protections of and identify the specific statutory provision of FOIA which exempts such information, (ii) clearly identify and mark the data, information, or other materials to be withheld

from public release (a blanket identification will not be sufficient); and, (iii) state the reason why protection is necessary.

6.4 Preparation and Submission of Responses

- a. Each firm shall submit one (1) original response of their response to the CSPDC as indicated on the cover sheet of this Request for Information.
- b. Responses shall indicate the RFI number and title.
- c. Responses must be received by the CSPDC BEFORE the hour specified on the acceptance date. Requests for extensions of this time and date will not be granted, unless deemed to be in the CSPDC's best interest.