VIRGINIA PASSENGER RAIL AUTHORITY

Request for Information
for an Enterprise Asset Management System

August 2025

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1 Statement of Purpose

The Virginia Passenger Rail Authority (VPRA) invites interested parties to respond to this Request for Information ("RFI") for the purpose of obtaining information that will assist the agency in the development of a solicitation for a next generation Enterprise Asset Management System ("EAMS"). VPRA's goal is to implement an enterprise asset management system to help VPRA track key information such as asset ownership, inventory, and condition assessments. VPRA plans to use the data and information in the system to comply with federal reporting mandates, financial statement preparation, and develop/optimize investment plans (capital and maintenance) over the life of its assets.

2 Introduction

VPRA was created by the Virginia General Assembly on July 1, 2020, pursuant to Va. Code § 33.2-287, *et seq.*, and established as "a body corporate and political subdivision of the Commonwealth…." Pursuant to its enabling legislation, VPRA administers all capital expansion projects, infrastructure, and land acquisitions related to the Transforming Rail in Virginia Program ("TRV Program"), which will double Amtrak state-supported service and increase Virginia Railway Express ("VRE") service in Virginia over the next decade.

The TRV Program began with the execution of a landmark rail agreement between the Commonwealth and CSX Transportation ("CSXT") in December 2019, which resulted in Virginia acquiring 384 miles of CSXT right-of-way and 223 miles of track in rail corridors paralleling I-95, I-64, and I-85. The agreement included approximately:

- Half of the CSXT-owned railroad right-of-way between Washington, DC, and Petersburg, VA
- All of the CSXT-owned (but out of service) right-of-way between Petersburg, VA and Ridgeway, NC
- Nearly all of the CSXT-owned right-of-way between Doswell, VA and Clifton Forge, VA

Track within the right-of-way purchased by Virginia also became Virginia property.

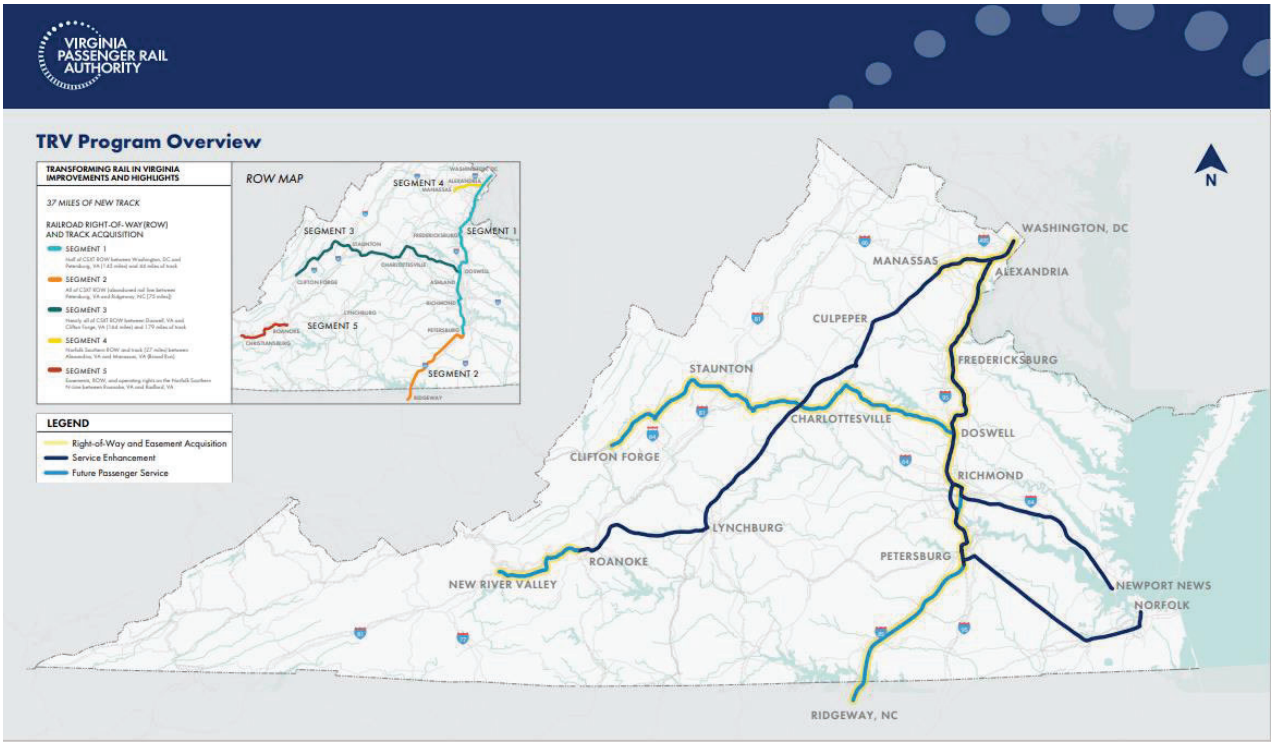
Another significant acquisition under the TRV program was the purchase of the Manassas Line in Northern Virginia from Norfolk Southern ("NS") in September 2024. This acquisition also allows for the expansion of Amtrak state-supported service between Roanoke and the New River Valley using NS-owned tracks. These acquisitions include volumes of historical data on assets in various formats.

Beyond the acquisitions from CSXT and NS, VPRA's vision of expanding Amtrak state-supported service and transforming VRE service requires implementation of a phased capital program over the next six years with an estimated capital cost of approximately $4B. This will result in new track, bridges, signals, and station facilities being added to VPRA's asset portfolio.

VPRA's efforts are focused on expanding rail services, as well as ensuring the safety, reliability, and efficiency of their rail infrastructure. VPRA is in the process of implementing a comprehensive asset management strategy to track key information, such as asset ownership, inventory, and condition

assessments, which support compliance with federal reporting mandates and optimizing investment plans.

Figure 1. TRV Program Overview



3 Objectives and Solution Capabilities

3.1 Objective and Scenarios

3.1.3 OBJECTIVE

VPRA is currently an owner or shared-owner of four rail corridors in Virginia, as well as various, track, rail yard, signal, and station facility assets. Currently, several railroads operate and maintain the rail corridors under a range of time-based maintenance agreements. These agreements and operational and maintenance arrangements are subject to change in the future. VPRA may choose to maintain some or all corridors in the future under the current arrangements; a third-party may be contracted to do some or all of this work; or a hybrid approach may be implemented.

VPRA seeks information as to EAMS functionality that would accommodate multiple scenarios, as well as migration of historical data into the EAMS. Ideally, VPRA seeks one enterprise solution that

can handle internal and external asset maintainers, changing future conditions, and the ability to uniformly assess past actions, current conditions, and future needs on a common basis.

Additionally, the EAMS will need to incorporate data from newly built assets, including as-builts for rail assets and bridges. This data is being stored currently in VPRA's Project Management Information System, Kahua. Capability for migration directly from Kahua into the EAMS is preferred. Data formats will vary, likely including pdfs, Geospatial files (i.e. LIDAR, GIS files), media files (i.e. jpg, heix, mva), spreadsheets, and documents.

3.1.4 SCENARIOS

Scenario 1: Obtain Necessary Data from the Organizations Maintaining VPRA's Assets Via Data Import or Interface

The entities maintaining VPRA's assets (e.g., CSXT, NS, Amtrak) provide the data necessary to run various asset management analysis, including but not limited to, the following:

- Inventory of key assets like track, crossings, guideways, signals, station facilities, and associated attributes and geometry
- Condition inspection data associated with the inventory above for the assets VPRA needs to manage
- Deterioration models used to determine maintenance needs and longer-term capital plans
- Decision support models, decision trees, optimization models, treatments, treatment costs and estimated treatment benefits.
- Maintenance records, work orders including labor, equipment, materials and work accomplishment records, including hours, cost, and asset location or asset identifier
- Capital program plans, including project cost estimates, schedule, and scope
- Completed construction and maintenance work, including updates to inventory or condition resulting from this work

VPRA anticipates a large volume of historical data will need to be migrated into the EAMS. Data formats will vary, likely including pdfs, Geospatial files (i.e. LIDAR, GIS files), media files (i.e. jpg, heix, mva), spreadsheets and documents. In this scenario, multiple rail partners will need to access and upload data to the EAMS on a regular basis, corresponding to the inspection and maintenance schedules, and in a uniform format. Mobile functionality for maintainers and inspectors will be required, with the ability to upload photos/videos/media for those working in the field.

Scenario 2: Obtain Necessary Data from Inspection Program

This scenario will require establishing an independent inspection program to collect inventory, condition, maintenance and capital improvement-related data necessary to run the various asset management analysis listed in Scenario 1.

In this scenario, VPRA may have four or more organizations (assuming a minimum of 1 per segment) performing inspections and gathering data. VPRA will determine the required inspection frequency needed for enterprise asset management purposes (as opposed to daily operations) for asset inventory and condition. VPRA will establish and ensure agreement on rating scales, methodologies, necessary training, and supporting documents for condition inspections for all the organizations. They will need the ability to access and upload data to the EAMS on a regular basis, corresponding to the inspection and maintenance schedules, and in a uniform format. Mobile

functionality for maintainers and inspectors will be required, with the ability to upload photos/videos/media for those working in the field.

Scenario 3: A Hybrid Approach Based on Data or Reports Made Available by the Asset Maintainers

In this scenario, the asset maintainers share some data or reports, but not everything needed to run the various asset management analysis listed in Scenario 1. A hybrid approach will be necessary: compiling data from the asset maintainers and establishing an independent inspection program to collect inventory, condition, maintenance data and capital improvement-related data necessary to close any gaps in data.

VPRA will establish and ensure agreement on rating scales, methodologies, necessary training, and supporting documents for condition inspections for all the organizations. The data generated may come in many forms, including Excel spreadsheets, Geospatial files, Word documents, or PDF. In this scenario, VPRA anticipates a large volume of historical data to migrate into the EAMS. Both multiple rail partners and organizations performing inspections will need to access and upload data to the EAMS on a regular basis, corresponding to the inspection and maintenance schedules, in a uniform format. Mobile functionality for maintainers and inspectors will be required, with the ability to upload photos/videos/media for those working in the field.

3.1 Asset Management System Capabilities

3.2.1 INTEGRATIONS / INTERFACES

VPRA is seeking market research on solutions/applicability of systems capable of integrating with the following systems:

- Finance system - Microsoft Dynamics 365
- Project Management System - Kahua
- Real Estate / Right of Way Management System - Flairdocs
- Other systems in use by rail asset maintainers (e.g., MaxTrax, Maximo, Trapeze)

3.1.1 LEGAL, REGULATORY AND STATUTORY REQUIREMENTS

VPRA is seeking to confirm that an EAMS will assist VPRA in complying with asset and maintenance management legal, regulatory, and statutory requirements placed on the railroad primarily by FRA, as well as other regulators. The system will need to store data that must be tracked by VPRA and eventually provided to regulators and auditors.

3.1.2 ASSET LIFECYCLE CONSIDERATIONS

VPRA is seeking to understand the capabilities that may be included in technical provisions for a solicitation, in addition to those listed below:

- Identifying and documenting accurate linear assets
- Storing and applying condition data
- Providing reports to ensure preventive maintenance schedules are met
- Tracking asset lifecycles
- Identifying appropriate asset replacement schedules and costs

- Budget planning for Operating and/or capital expenses

3.1.3 STATE OF GOOD REPAIR PLANNING FOR LONG TERM INVESTMENT FUNCTIONALITY/POTENTIAL MODULES

VPRA is seeking to identify the appropriate functionality the EAMS may include:

- Asset Inventory
- Inspection and Condition Assessment
- Defect/repairs tracking
- Capital and Maintenance Planning
- Incident Reporting
- Deterioration Modeling
- Activity-based Costing
- Integration with Other Systems / ERP
- Facilities Management
- Geographic Information System integration
- Warehouse Management
- Interface for customizable data inquiries and filtering
- Customized interface for field inspectors
- Real Estate/Property Management
    - Data and Analytics

3.1.4 ASSET CATEGORIES CURRENTLY OR POTENTIALLY MANAGED BY VPRA

VPRA needs the capability to manage the following assets:

- Guideway Assets
    - Mainline track, sidings, rail yard layover tracks
    - Bridges, tunnels and culverts, drainage systems
- Facilities
    - Station/facility buildings
    - Platforms/canopies
    - Parking lots/sidewalks
- Systems Assets
    - Telecommunications including supporting structures
    - Signals
- IT equipment

3.1.5 INNOVATIONS/FEEDBACK ON APPROACH

VPRA is seeking feedback on our Asset Management approach, given the 3 scenarios we are currently contemplating, and how these scenarios could impact our future approach to EAMS, as VPRA's needs change and evolve. In addition, VPRA is seeking to understand what innovative approaches could improve our asset management approach.

4 Additional Information

4.1 SUBMISSION DETAILS

Respondents shall provide their responses using the form included as Exhibit A: Respondent Information Package. Responses shall be limited to ten (10) pages in total. Responses are not proposals; we are seeking answers to the questions posed for the purpose of preparing technical requirements to be included in a request for proposals that may be published later this year.

All responses must be in portable document format (.PDF) (not scanned into .PDF). The PDF must not have any file protection or password protection applied.

VPRA requests all Responses be submitted to VPRA on or before **02:00 p.m. EST on September 4, 2025.** Responses shall be sent via e-mail to procurement@vpra.virginia.gov

This RFI is an inquiry only, intended solely to assist VPRA on an administrative level, and is not a formal solicitation or initiation of a procurement process. The information contained in this RFI is provided based on the information gathered and/or known at this time. There are no guarantees as to the accuracy of this information. Submissions will not be evaluated. No contract or agreement will be entered into as a result of this RFI. If VPRA enters into a contract for the prospective solicitation discussed in this RFI, it will follow a full procurement process subsequent to this RFI.

This RFI does not represent a commitment to issue any Request for Qualifications or Request for Proposals.

Submission of responses is not a prerequisite for participating in a future procurement. Such participation would be subject to demonstrating satisfaction of the criteria set forth in subsequent solicitation documents. Participation in this RFI or an election not to participate will not confer on any party any preference, special designation, advantage or disadvantage whatsoever in any subsequent procurement process related to the VPRA's procurement of an enterprise asset management system.

Nothing contained in this RFI is intended to modify, limit, or otherwise constrain the environmental process or commit VPRA or any other entity to undertake any action with respect to the implementation of an enterprise asset management system.

VPRA is not responsible for any costs incurred by any Respondent in the preparation, submission, presentation, or revision of its information and response, or in any other aspect of the Respondent's activities related to its involvement in this RFI process.

VPRA is subject to the Virginia Freedom of Information Act (VFOIA) and federal regulatory oversight. Should Respondents' submissions contain material they deem to be proprietary or confidential, they should mark relevant sections appropriately in accordance with VFOIA. All responses become the property of VPRA upon submission.

5 Exhibit A:

Respondent Information Package

Respondents should include sections describing the items in the table below. Screen shots and graphics are acceptable within the sections. If you elect not to answer a question, please indicate "No response provided."

RFI # 01-000-25-006 **TECHNICAL INFORMATIONAL FORM**
1. RESPONDENT LEGAL ENTITY NAME:
2. RESPONDENT CONTACT PERSON: Name, Title: Address: Phone Number: Email:
3. Provide a level summary of the modules and functionality that an EAMS needs to meet VPRA's goals stated above. Describe the modules and functionality offered in enterprise asset management software solutions in relation to the functionality described in this document. Also indicate if there are limitations based on the three scenarios described above.
4. Discuss deployment options such as vendor or third party hosted (SaaS).
5. Describe typical licensing structures, including implementation services, ongoing support and post implementation enhancements.
6. What is a typical implementation process for an EAMS?
7. Describe how system security is typically addressed in an EAMS.
8. Describe typical EAMS limitations, such as number of assets, number of users, external v internal users, that VPRA will need to request in its technical provisions.
9. Describe the configurability and whether client organizations are able to make changes to system configuration.
10. What type of support is needed post- implementation.
11. Describe how version control is handled.
12. Please describe the integration capabilities and integration architecture of the solution. Describe available published Application Program Interfaces (APIs).

13. Please describe any other capabilities not included in this table that you may consider relevant based on VPRA's goals, and the scenarios presented above in section 3.12.
14. In addition to the information stated above, describe additional services, products, and tools that VPRA needs to consider based on its goals stated above.