

State of Florida  
Department of Highway Safety and Motor Vehicles  
Request for Information No.: FLHSMV-RFI-001-20  
Data Management and Science Solution

**1.0 INTRODUCTION**

The Florida Department of Highway Safety and Motor Vehicles (FLHSMV/Department) hereby issues this Request for Information (RFI), seeking information from interested parties who can provide the Department with the latest solutions for the next generation of data warehousing and data tools that will enhance data management, provide options related to advanced analytics and data science aimed at structured data, and provide a framework for future cases that utilize other advanced data management uses, features, and tools.

The Department is engaged in a vision for a safer Florida. The Department's goals are public safety, service delivery and improved member experience. Information is one of the Department's most valuable assets. One of Department's objectives is to provide high quality and accessible data to support the Department's vision and goals.

To achieve this objective, the Department is seeking to increase the practical value of the Department's data.

The Department is seeking information from industry leaders on a managed solution to move the Department into the next phase of analytics, data science, business intelligence and data governance. The Department's expectation is to move to the next generation of cloud data warehousing solutions and add features as needed to collect, transform, analyze and develop intelligence from Department's various sources of structured data. The Department is seeking a flexible solution that can support Department's current structured data and evolve with the Department's analytics and data strategy.

The Department is seeking solutions that will enable the accomplishment of the following goals:

**A. Lead the nation in:**

- Data analytics;
- Data science;
- Data visualizations; and
- Predictive analytics and statistics.

**B. Manage the large volume of internal and external data with:**

- Data Cataloging and categorization tools;
- Data integration;
- Data security;
- Data governance
- Data management tools;
- Data lineage/tracking;
- Data transformation; and
- Data quality and reporting.

**C. Provide transparency in government through:**

- Publicly accessible data marts; and
- Interactive data presentation;

**D. Prepare the department for the future by exploring:**

- Machine learning;
- Artificial intelligence; and
- Data enrichment process and tools.

**2.0 DEFINITIONS**

**A. Fiscal Year (FY):** When used herein, refers to the state of Florida twelve-month accounting period which begins July 1<sup>st</sup> and ends June 30<sup>th</sup>.

**B. Vendor:** Any firm or person who submits a response to the Department regarding this RFI.

**C. Response:** All information, documentation, and other materials submitted by the Vendor for consideration by the Department for this RFI.

**3.0 PURPOSE OF AN RFI**

[Rule 60A-1.042](#), Florida Administrative Code (F.A.C.), provides that an agency may request information by issuing a written Request for Information (RFI). Agencies are authorized to use an RFI in circumstances including, but not limited to, determining whether or not to competitively procure a commodity or contractual service, determining what solicitation process to use for a particular need, or researching general, special, and/or technical specifications for a solicitation.

A Vendor's response to an RFI is not an offer ([Rule 60A-1.042](#), F.A.C) and the agency may not use the Vendor's submission to justify a contract with that Vendor without otherwise complying with [Chapter 287](#), Florida Statutes (F.S.). Vendor responses to this RFI will be reviewed for informational purposes only and will not result in award of a contract.

Vendors submitting a response to an agency's RFI are not prohibited from responding to any related subsequent solicitation. Vendors are not required to submit an RFI response to participate in any subsequent solicitation.

**4.0 BACKGROUND**

Currently, the Department operates a small data warehouse with approximately six (6) terabytes of structured data. The current production transaction processing environment hosts multiple transaction processing, issuance and traffic records applications and it is sized at approximately thirty (30) terabytes of structured data. Much of the Department's data and information are distributed across multiple operational systems, data stores, data types and a data warehouse (Microsoft SQL server) hosted at the Northwest Regional Data Center and the Southwood Shared Resource Data Center. The data warehouse and production infrastructure and tool sets have limited capabilities to prepare, ingest, cleanse, extract, transform, and analyze existing data sets.

The Department seeks the latest information on a secure, scalable, cost-effective, data management solution (enterprise data warehouse) that is capable of housing existing

analytics data sets and aggregates of the following structured data sources: driver license, motor vehicle, crash, citation, customer service and computer aided dispatch (CAD).

The solution must be feature-rich, must house enterprise analytical data sets and must be equipped with data ingestion, transformation, cataloging, governance, enrichment and managed data science tools.

## 5.0 REQUESTED INFORMATION

The Vendor shall prepare its RFI response simply and economically, providing a straightforward, concise description of the solution(s) available. Responses are to be organized as directed below:

**A.** Provide a cover letter identifying the Vendor's contact information.

**If applicable**, the cover letter shall also include a statement that a "Redacted" response **is not** included, and that the "Original" response is suitable for public release. See Section 6.0, Response Submission.

Provide a description for the requirements below by including each TAB (A through F) in the RFI response:

**Tab A - Overview**

1. Describe the company's organization.
2. Provide the names of the solution components or product(s) being proposed and whether they are available for purchase through GSA, a State of Florida State Term Contract or Alternate Contract Source including any applicable reseller information.
3. Provide examples or use cases regarding the solution components and utilization by highway, traffic and/or public safety organizations.
4. Describe the company's understanding and approach to accomplish the goals described in Section 1.0, Introduction.
5. Describe the proposed solution, emphasizing managed cloud remedies as identified in Tab C.
6. Explain why the proposed solution was chosen.

**Tab B - Vendor Background**

Provide the following company information and proposed partner(s), if applicable:

1. Provide the company's official name, address, website URL, and how long the company has been in business.
2. Provide a statement giving a brief company history, the company's organizational structure, and a summary of available products and services.
3. List and explain the company's experience working with public safety agencies.
4. Provide a list of other states, jurisdictions, and companies that have utilized the solution.
5. Describe up to three (3) examples of successful implementations of the suggested solution.
6. Describe how much reliance the company places on proprietary, commercial off-the-shelf, non-proprietary or open-source software and tool sets.

### **Tab C - Product Components and Capabilities**

Provide a detailed list of solution capabilities, features and/or functions, including system requirements, in regard to the following items:

1. Describe any features or capabilities that are unique to the proposed solution.
2. Describe available features such as:
  - a. Data ingestion and integration; preparation or pre-processing; data extract, transform and load (ETL) processes and features; data cataloging and categorization; data quality, cleansing, enrichment and aggregation tools;
  - b. Data governance tools, capabilities and features;
  - c. De-identification tools (PII, PHI, etc.);
  - d. Change management features and functions;
  - e. Metadata and tag association functions;
  - f. Geospatial, location, place, time series analytics;
  - g. Workflow capabilities;
  - h. Disaster Recovery and/or data replication options;
  - i. Advanced data visualization integration;
  - j. Statistical reports;
  - k. Decision tree visualizations;
  - l. Streaming and batch analytic capabilities;
  - m. Standard application program interfaces (API's) and/or web services;
  - n. Enterprise content management (ECM) integration capabilities;
  - o. Machine learning capabilities and tools;
  - p. Artificial Intelligence capabilities and tools;
  - q. Predictive modeling; predictive scoring;
  - r. Ensemble models;
  - s. Integration capabilities i.e. R, Python, Java, etc.
3. Describe the security functionality for the following:
  - a. Infrastructure security;
  - b. Role based access control;
  - c. Data segregation; data encryption and protection; data obfuscation and masking; data privacy;
  - d. Database security options (Row, Column, etc.);
  - e. Instance security (Data Marts);
  - f. Audit functions.
4. Provide an overview of the data management or data warehousing lifecycle, including typical timeframes.
5. Provide a description of the end user support models (education, onboarding and training)?
6. Indicate whether the product includes built-in machine learning and artificial intelligence capabilities.
  - a. If yes to above, please list the high-level features of each.
  - b. If no, what artificial intelligence or machine learning tool sets are compatible with the solution?
7. Describe how the technology can address any emerging trends (e.g., streaming device data, predictive analytics models, Internet of Things (IoT) data, etc.).
8. Describe the type of database that is used in the solution. Is it compatible with standard query language and tool sets? If not, what language and tools are used to access the data?

9. Describe the system administrative services functions that enables an administrator to:
  - a. Create separate project workspaces, data marts, data warehouses, and data sets for multiple teams.
  - b. Manage users, profiles, roles, access controls and data management access.
  - c. Describe the capabilities and features to configure and support multiple data marts linked to the data warehouse.
  - d. Describe the features and considerations to manage varying processing loads and data traffic to various data marts and the warehouse.
10. Describe the solution's data privacy functions that shall include a configuration module, data obfuscation, the ability to store data in encrypted format, security logging, audit features, and controlled data access.
11. Describe a mock platform configuration to initially support the current data warehouse, a duplicate of the production data set for a total of up to sixty (60) terabytes of storage and the capacity to expand additional storage as needed.
12. Describe the platform services and infrastructure needed to support data extraction from multiple sources. Include data transformation, validation and integration tool sets and loading services.
13. Describe the support for internet accessibility, mobile platforms, and other technical considerations.
14. Describe the availability, features and limitations of development, test and staging environments.
15. Describe any commercially available software products with which the solution is capable of direct integration, i.e. Tableau, Power BI, Apache Spark, etc.
16. Describe availability of published Web services, Application Program Interface (API) integration tools and developer tools.
17. Describe any integration limitations or additional layers of tools or coding that is needed to integrate with internal and external data sources in a batch mode or real-time data streams.
18. Describe the reporting capabilities of the product. With what reporting and analytics tool sets is the product compatible? Provide sample reports (if possible) and describe any exclusions to export results to popular third-party tools.
19. Describe what type(s) of notification and alert services are provided.
20. Describe any relevant latency considerations. Are the analytics generated real-time or is there a batch process that processes the data?
21. Provide a high-level data flow from the source system to the data management solution and analytics tool sets.
22. Indicate whether this technology leverages any open source tools (e.g., Spark, Hadoop, R, Python, etc.). Which ones are compatible with your solution?
23. Specify the tipping point to progress to a data lake and indicate the steps and requirements required to move to a data lake.
24. Describe how the solution addresses the machine learning processes of regression, classification, clustering, forecasting, association, and optimization and describe the features that will simplify and streamline creating, analyzing and modifying artificial intelligence and machine learning modeling schemes.
25. Describe the algorithms used (mark "trade secret as defined in [section 812.081](#), F.S." as necessary).

### **Tab D – Cost**

Provide sample cost information that would apply to a solution as described in the RFI response, including but not limited to, the following:

1. Describe the pricing model and typical fees associated with the products and features.
2. Submit a draft describing the solution configured to support the current data warehouse and a duplicate of the production data set for a total of up to sixty (60) terabytes of storage and the capability to expand additional storage (ten percent (10%) per year) as needed for a three (3) year initial term and additional up to three (3) years renewal term.
3. Include Product or Line Item Number(s).
4. Provide quantity – Number of each product or line item required, cost per each product or line item, and the extended cost by product or line item.
5. Provide setup and initial configuration costs.
6. Provide overall estimated initial cost for a three (3) year contract term.
7. Provide estimated cost for a three (3) year optional renewal term.
8. Provide the cost structure for development, test and staging instances to support the production environment.
9. Provide license fees associated with the solution.
10. If there are additional training services, managed integration services, enhanced support, and/or consulting services included or available, describe the services and include the pricing structure or typical associated fees.

NOTE: To preserve the company's ability to bid on any future procurements related to this RFI, it is important to provide general pricing information only (i.e., competitive ranges, and variable impacting price, etc., not a specific price quote). ANY CONTRACT TERM MENTIONED ABOVE IS STRICTLY HYPOTHETICAL AND FOR PLANNING PURPOSES ONLY.

### **Tab E – Implementation/Maintenance**

Provide the following details for the proposed solution:

1. Provide an overview of the implementation process and its complexity, along with a realistic estimate of the timeframe required for the implementation phase.
2. Describe the considerations to effectively implement, configure, populate and engage the data management (warehousing) solution.
3. Provide a typical project plan for implementation.
4. Describe the complete level of effort by the company and the FLHSMV to implement the solution described. (Include a mock project schedule with the appropriate staffing and time estimates.)
5. Describe the requirements (both financially and staffing-related) to maintain the solution.
6. Describe the method(s) by which the products would be supported during a continuous contractual period.
7. Describe the overall application (e.g., cloud) architecture, including how the architecture supports continuous system availability and how the architecture scales in response to peak usage loads.
8. Describe how future product upgrades are released (i.e., how the change is communicated, upgrade schedules, and whether there is associated user training).
9. Describe the release management process, including how future product upgrades are communicated and scheduled (including user training, if

- applicable).
10. Describe the level of effort required to update and maintain the models produced by the data science algorithms.
  11. Describe the skills that would be required of Department personnel to leverage the solution.
  12. Describe the strategies the company's current customers are using to ensure the skills required to leverage the technology are acquired and maintained.

**TAB F – Additional Information**

Provide any additional information not already requested in this RFI that the company believes would be helpful to the Department.

**6.0 RESPONSE SUBMISSION**

The Vendor shall submit:

1. One (1) **ORIGINAL** hard copy version (marked "Original") of the response submittal and three (3) COPIES (marked "Copy").
2. One (1) **REDACTED** copy (marked "Redacted") of the response, if applicable. See Section 11.0 PROPRIETARY INFORMATION.

**PLEASE NOTE: If a REDACTED copy is not provided, the Department will release original copy in response to a public records request.**

3. One (1) **electronic copy of the entire "Original" response, and one (1) redacted electronic response**, if applicable, in Adobe (.pdf) on a USB flash drive.

Sealed packages to be delivered to the Department shall be clearly marked on the outside of the package with the RFI number and company name. Vendors shall submit the RFI response to the Procurement Officer at the address indicated in Section 13.0, Procurement Officer.

**7.0 CALENDAR OF EVENTS**

The table below contains the Calendar of Events for this RFI. Vendors should become familiar with the Calendar of Events as the dates and times may be subject to change. It is the Vendor's responsibility to check the Vendor Bid System (VBS) for any changes. All changes to the Calendar of Events will be provided through an addendum to the RFI. Vendors are responsible for submitting all required documentation by the dates and times indicated below (Eastern Time).

<b>DATE</b>	<b>TIME</b>	<b>ACTIVITY</b>
January 28, 2020		RFI is released on the VBS.
February 6, 2020	3:00 PM	Questions are due.
February 14, 2020		Anticipated answers to questions are released.
February 27, 2020	3:00 PM	RFI responses are due.
March/April 2020		Vendor Demonstrations.

## **8.0 ADDENDA TO THE RFI**

The Department will post any addenda to this RFI, including its responses to written questions submitted by the vendors, on the Florida Vendor Bid System (VBS) at:

[http://vbs.dms.state.fl.us/vbs/search.criteria\\_form](http://vbs.dms.state.fl.us/vbs/search.criteria_form)

Each Vendor is responsible for monitoring the VBS for new or changing information.

## **9.0 QUESTIONS**

Questions or requests for clarification regarding this RFI shall be submitted in writing to the Issuing Officer identified in Section 13.0, Procurement Officer, by the date and time specified in the Calendar of Events or as amended by the Department. Questions will not be answered via telephone. The Department anticipates posting answers to questions received on the Vendor Bid System (VBS) by the close of business on the date stated in Section 7.0, Calendar of Events.

## **10.0 DEMONSTRATIONS**

After the Department receives responses to this RFI, and at the sole discretion of the Department, the Department may request responding Vendors to demonstrate to the Department the Vendor's products and services relating to the information submitted in its RFI response, at no cost to the Department.

The demonstrations shall consist of a visual product overview and walk-through conducted onsite, at the Department's Neil Kirkman Building, or via a webinar, followed by a ninety (90)-day trial period during which the Department will have the opportunity to use and test the proposed solution using publicly available Department data.

The purpose of the demonstration is to permit the Department to visually see and confirm the solution's functionalities and capabilities and to ask questions. A vendor's non-participation in any demonstration will not preclude the vendor from participating in any subsequent procurement resulting from this RFI.

## **11.0 PROPRIETARY INFORMATION**

Any portion of the submitted response which is asserted to be exempt from disclosure under [Chapter 119](#), F.S., shall be clearly marked "exempt", "confidential", or "trade secret" (as applicable) and shall also contain the statutory basis for such claims on every page. Pages containing trade secrets shall be marked "trade secret as defined in [section 812.081](#), F.S.". Failure to segregate and identify such portions shall constitute a waiver of any claimed exemption, and the Department will provide such records in response to public records requests without notifying the Vendor. Designating material simply as "proprietary" will not necessarily protect it from disclosure under [Chapter 119](#), F.S..

## **12.0 VENDOR COSTS**

Vendors are responsible for all costs associated with the preparation and submission of their Request for Information response and any potential demonstration. The state of Florida, Department of Highway Safety and Motor Vehicles will not be responsible for any vendor-related costs associated with responding to this request.



### **13.0 PROCUREMENT OFFICER**

The Procurement Officer, acting on the behalf of the Department, is the sole point-of-contact regarding all matters relating to this RFI. All questions and requests for clarification are to be directed to:

Corina Chiorescu  
Bureau of Purchasing and Contracts  
Department of Highway Safety & Motor Vehicles  
2900 Apalachee Parkway, Room B-416C  
Tallahassee, Florida 32399  
Office: (850) 617-3176  
[CorinaChiorescu@flhsmv.gov](mailto:CorinaChiorescu@flhsmv.gov)

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