STATE OF TENNESSEE

DEPARTMENT OF TRANSPORTATION (TDOT)

REQUEST FOR INFORMATION
FOR
TENNESSEE TRANSPORT ROUTE INTEGRATED PERMITTING SYSTEM (TNTRIPS)

RFI # 40100-50975
February 21, 2023

1. STATEMENT OF PURPOSE:

The State of Tennessee, Department of Transportation hereinafter referred to as the "State" or "TDOT," issues this Request for Information ("RFI") for the purpose of gathering information to better understand current marketplace offerings for software that provides an all-in-one solution for the automated permitting and routing of oversize/overweight vehicles in the State of Tennessee. We appreciate your input and participation in this process.

2. BACKGROUND:

The current TDOT solution allows external customer users to log in, answer a series of application questions, and automatically have appropriate routes created for oversized and overweight vehicles based on the answers provided in the application. Permits and payment receipts are provided based on the application answers. TDOT currently issues approximately seven hundred (700) permits per day and expects continued growth of roughly five percent (5%) per year.

TDOT requires a complete turn-key solution for receiving permit applications, issuing permits, and automatic routing of oversized and overweight vehicles to ensure regulatory compliance, customer service, and protection of Tennessee roadway and bridge infrastructure. TDOT requires updates to the system according to State and Federal regulatory requirements, a help-desk to assist the state with technology concerns, as well as service and maintenance of the system. There are just under thirty thousand (30,000) external user accounts for TN TRIPS and fifteen to twenty (15-20) at the TDOT permit and structures offices.

3. COMMUNICATIONS:

3.1. Please submit your response to this RFI to:

LAUREN SHIREY, TPM2
DEPARTMENT OF TRANSPORTATION
TDOT.RFP@TN.GOV

3.2. Please feel free to contact the Tennessee Department of Transportation with any questions regarding this RFI. The main point of contact will be:
LAUREN SHIREY, TPM2
DEPARTMENT OF TRANSPORTATION
TDOT.RFP@TN.GOV

3.3. Please reference RFI # 40100-50975 with all communications to this RFI.

4. RFI SCHEDULE OF EVENTS:

EVENT		TIME (Central Time Zone)	DATE (all dates are State business days)
1.	RFI Issued		02/21/2023
2.	Written Questions/Comments Deadline		03/07/2023
3.	State Response to Written Questions/Comments		03/21/2023
4.	RFI Response Deadline	2:00 PM	04/04/2023

5. GENERAL INFORMATION:

5.1. Please note that responding to this RFI is not a prerequisite for responding to any future solicitations related to this project and a response to this RFI will not create any contract rights. Responses to this RFI will become property of the State.

5.2. The information gathered during this RFI is part of an ongoing procurement. In order to prevent an unfair advantage among potential respondents, the RFI responses will not be available until after the completion of evaluation of any responses, proposals, or bids resulting from a Request for Qualifications, Request for Proposals, Invitation to Bid or other procurement method. In the event that the state chooses not to go further in the procurement process and responses are never evaluated, the responses to the procurement including the responses to the RFI, will be considered confidential by the State.

5.3. The State will not pay for any costs associated with responding to this RFI.

6. INFORMATIONAL FORMS:

The State is requesting the following information from all interested parties. Please fill out the following forms:

RFI #40100-50975 TECHNICAL INFORMATIONAL FORM
1. RESPONDENT LEGAL ENTITY NAME:
2. RESPONDENT CONTACT PERSON: Name, Title: Address: Phone Number: Email:
3. BRIEF DESCRIPTION OF EXPERIENCE PROVIDING SIMILAR SCOPE OF SERVICES/PRODUCTS
4. Has the Respondent specifically had one or more overweight/over-dimensional permitting system(s) installed and fully operational at a U.S. state agency level? If so, please provide the requested information listed below: a. Name of State/Region b. Years of service provided to the state agency c. Contact person in each State/Region who is familiar with the Respondent's product
5. Is the Respondent solution a cloud-based SaaS system and provide its functionality through a web interface or reside on local servers with an on-premises installation? If vender hosting is an option with your solution, please describe in detail how hosting works, including interfacing with other systems and access to data within the system:
6. Please describe solution requirements including hosting requirements, client requirements, etc.. For web-based systems, include all supported browsers and any required extensions, if applicable.
7. Does the software solution display the current version and operating environment (i.e., test, prod)? Please describe these features.
8. Does Respondent's solution have the capability to interface with merchant services provider(s) for all credit card transactions and is it PCI compliant?
9. Please describe how the software will process credit card payments securely through the State designated merchant service provider(s):
10. For TDOT Customer Users that have escrow accounts, describe how the software displays the escrow account balance and clearly identifies the balance to the Customer User if the balance is below the State defined threshold.
11. Has Respondent completed a migration from a competitor product to Respondent's solution on behalf of a state Department of Transportation (DOT)? a. Please describe similar migrations from a competitor software to your product. b. Include details about the scope of the migration/implementation (permit volume, total contract liability, *length of time for full migration/implementation* and/or other helpful information regarding the scope): c. How long has the customer been using the product since the migration/implementation?

Were additional Statements of Work or Change Orders needed for any reason after the migration?
12. Provide a narrative describing the implementation and migration process to move from the State's current Oversize/Overweight system into the Respondent's solution. Be sure to include details on at least the following items: a. Estimated time frame for implementation, testing, and migration to the new solution. b. Estimated timeframe of how long the TDOT system would be down during this process. c. How pre-existing permit data is handled during migration d. How current Customer User Account details (e.g., Annual Permit holders) are moved into the Respondent's solution e. How current Customer escrow balances are migrated f. How current bridge data to facilitate bridge capacity determinations is migrated
13. Provide a narrative on how TDOT can mitigate continuity of work and safety for ongoing projects during the migration and implementation:
14. Please describe the administration features and how users are added and removed from the service (i.e., TDOT administrator would provision new users, or Respondent's customer service/administrator must provision, etc.) Can external corporate customers add and remove users to and from their corporate account?
15. Explain the defined user roles in the software, including (1) the functions for each, (2) how users are assigned to one or multiple roles, (3) the ability of a user to perform all assigned roles in one sign-in session, (4) how a unique account type is created for each role, (5) the process used to add roles and functions, and (6) how a user obtains/accesses the instruction manual appropriate for the user's role(s). Please include information on the capability for a State Administrator to designate users with restricted, read-only access to allow the user to see only high level metrics, both graphically and textually):
16. Please describe the queue management for permits including the capability to display, manage and monitor status of permit workflows. Please include details regarding queue control and report capabilities that are role-based with certain State Administrative Personnel.
17. Please describe how Respondent software solution will allow State Administrative Personnel to manage the processing of Superload permits, including approval, rejection, prioritization within a queue, review or assignment of routes, and collection of any approvals required for a permit.
18. Please describe how the software will interface with Federal Motor Carriers Safety Administration (FMCSA) or Innovative Technology Deployment (ITD) web service for licensing, insurance, and safety data required to validate Bodily Injury and Property Damage (BIPD) insurance prior to issuance of permits for Interstate Carriers. Also, please describe the process that will be used to verify insurance validity in the event that the FMCSA service is unavailable. (Refer to the following link for additional information: https://www.fmcsa.dot.gov/information-systems/itd/core-itd)
19. Describe how Respondent software will interface with the State's ITD system to provide the capability for Tennessee Highway Patrol (THP) to scan bar codes on permits and access instant inquiries of Carrier and permit data to verify the permit status of Carriers and vehicles.
20. Describe how the software will interface with ArcGIS Roads and Highways LRS model to obtain roadway data attributes and characteristics needed for reference:

21. Describe the process required to utilize referenced roadway data if the State migrates to a different LRS:
22. Provide a narrative which describes how the software provides a point-to-point route for each permit. Does the software require specific integrations or separate purchases or licensing of data to accommodate routing functionality?
23. Please describe the current or future planned capability to consume the State's public-facing traffic information Application Programming Interface (API) to receive notifications regarding temporary road condition and lane closure information, and how the software will use this information in real time to make routing determinations and notify existing permit holders:
24. Please describe the technology that will be utilized for the interactive map interface including how and what geospatial data formats will be utilized.
25. Describe the Basemap sources and formats that can be utilized in the software. Include an explanation of how the software will display Point of Interest (POI), road names, and other information.
26. Explain how Respondent solution will integrate and reference the State's bridge information to provide bridge restriction data for vertical and horizontal clearance and weight restrictions. Please explain how the software will integrate regular updates of this information and will use it for routing determination.
27. Explain the capability to graphically display specific location warnings and restrictions entered into the software, including availability to a user that is not currently analyzing the route for a trip.
28. For OS/OW permit applications, describe how the software will dynamically render a vehicle's configuration and dimensions profile, including the display of overall length, trailer length, axle spacing, wheels per axle, front and rear overhang, total weight, axle weights, and group axle weights.
29. Describe the capability to include links to other Tennessee government websites in the interface (i.e. website for the State, Tennessee Highway Patrol and the Tennessee commercial vehicle regulations).
30. Explain the process that will be used by State Administrative Personnel to manage and change online instructions provided to Customer Users.
31. Provide a narrative demonstrating how State Administrative Personnel can define and maintain a list of commodity types being hauled for Customer Users to select from while completing a permit application. Include in your description how these Administrative personnel will define and manage the list of commodity types.
32. Please describe (1) the capability to allow State Administrative Personnel to flag a Customer User account using a configurable list of flags (e.g., flag for non-payment, suspended credentials and violations, or an out-of-service order), (2) the capability for the State Administrator to enter a reason for flagging an account, as well as start and end dates as determined by the State Administrator, and (3) how the software will ensure that a flagged account is prohibited from processing permits.
33. Explain the capability for State Administrative Personnel to change information in Customer User accounts. Describe how the change details will be recorded for auditing purposes. Describe how the software will limit the type of changes that may be made to Customer User accounts based on the User role(s).
34. Please describe the capability of the solution to allow authorized State Administrative Personnel to: a. define new types of permits, establish the permit parameters and the data inputs required to process and issue them; and

b. change existing permit provisions.
35. Describe how State Administrative Personnel can adjust parameters to set permitted routes to prefer State routes over local routes.
36. Describe how an origin and destination will be selectable and the specific types of points of interest included in the interface.
37. Can a Customer User select a desired route for State Administrative Personnel to approve? Please describe how this is accomplished and how the system notifies Customer Users of roadway restrictions, road construction, etc..
38. Please describe the capability for a user to generate test routes for purposes of researching load viability. Include how test routes will be different in appearance from standard permit routes on user screens.
39. Detail the warning notifications provided to users, and how these warnings are generated and displayed. (i.e. hard stops, errors, system issues, etc.)
40. Describe how the solution will notify current active permit holders of warning and restriction changes that will affect a permit that has already been issued. (i.e. road construction, closed roads, etc.)
41. Describe capability for State Administrative Personnel to create, edit, and delete height, width, length, weight, or other State-determined restrictions or parameters directly in the solution.
42. Users are required to upload permits, route surveys, THP documents, insurance forms, and other documents. Please describe any format and size limitations for document uploads.
43. Please describe the mobile functionality of the software? Is a separate license required for mobile versus desktop/laptop users?
44. Describe how the solution will encode a printed permit to avoid duplication and manipulation of the permit (i.e. barcode, QR code, etc.).
45. Provide a narrative which describes the capacity of the solution to audit transactions, data, and application changes and how State Administrative Personnel will view this data.
46. Describe the password requirements and how the software will determine if a password meets minimum complexity requirements. Describe how the password reset and forgot password options work.
47. Describe in technical detail how the software will integrate with Azure Active Directory (AAD) for Single Sign On (SSO). Include in the narrative how user information will be updated, and how roles will be handled. Be sure to explain how external users will be added and maintained and how the system will enforce password requirements for these external users.
48. Describe how the solution will provide adequate security in order to comply with the State security requirements described here: https://www.tn.gov/finance/strategic-technology-solutions/strategic-technology-solutions/sts-security-policies.html
49. Describe in technical detail how the software will handle security authentication and authorization mechanisms, to include all aspects that a web service will utilize. Include in the narrative how the solution will ensure that the requesting party has been properly authenticated and is authorized to make the request.
50. Please explain how the software will use data entered by a Customer User (in both bulk and individual records) to automatically identify the permit types for which the user should apply, and assist the User with data entry throughout the process for a given permit type.
51. Please explain how the solution will handle a permit change request after a permit has been issued.

52. Provide a narrative describing how the system will flag or otherwise clearly identify permits that require THP vehicle escort and/or review and approval by local district(s)/region(s). Be sure to describe how THP, the appropriate TDOT business unit personnel, and/or local district/regional personnel will be notified.
53. What is the software capability for State Administrative Personnel to store responses to customer Frequently Asked Questions (FAQs) for recall and edit of frequent responses by State Administrative Personnel?
54. Please describe the software licensing options available (i.e., Individual licenses? Incremental number of licenses? If incremental, define the number of users in each increment?); a. Is an enterprise license model available? If so, please describe the features of this option: b. Is an unlimited license model available? If so, please describe the features of this option:
55. Please describe in detail what is included with the software license option(s) described in Section 11:
56. Please describe uptime and availability expectations for the software product, and be sure to describe how this is measured and calculated.
57. Please describe the customer service and maintenance included with the software license:
58. Please describe the Trouble Ticket System capacity to: a. allow State Administrative Personnel to submit support and maintenance issues to the Contractor, b. provide ticket status visibility to the Contractor and State, c. track the software performance, maintenance, and support issues, and any other system issues, and d. maintain ticket status including, ticket submission date, the submitter, the Contractor staff assigned to address the ticket, and the ticket resolution date.
59. Please describe the end-user training provided with the implementation. Is additional training provided for software updates or changes during the term of the contract?
60. If TDOT later issues a Request for Proposal for an overweight/over-dimensional system, what requirements should TDOT include in the scope of services?

COST INFORMATIONAL FORM RFI # 40100-50975
1. Describe what pricing units you typically utilize for similar services or goods (e.g., per hour, monthly, yearly, per license/each, fixed fee, etc.), and how you will help TDOT determine the best option for our organization:
2. Describe the typical price range for similar services or goods:
3. Can the price change during the contract term? If so, what criteria are evaluated to determine any pricing changes during the contract term?
4. Please provide information regarding implementation costs, end user training costs, and costs to migrate TDOTs existing solution to your product, etc.:
5. Is an Enterprise Subscription with an unlimited number of internal and external users available? If so, please describe how pricing is calculated for such a subscription.

ADDITIONAL CONSIDERATIONS RFI # 40100-50975
1. Please provide input on alternative approaches or additional things to consider that might benefit the State:
2. Please describe the risks associated with migrating from the current solution:
3. TDOT welcomes additional comments:

ATTACHMENT A

Definitions and Abbreviations

TERM	DEFINITION
AAMVA	American Association of Motor Vehicle Administrators
AD	Active Directory – A Microsoft developed product that provides a broad range of directory-based identity-related services
508 ADA Standards	The American's with Disability Act Section 508 Standards were published in the Federal Register on December 21, 2000 (36 CFR Part 1194). These Standards contain technical criteria specific to various types of technologies and performance-based requirements which focus on functional capabilities of covered products. A guide to the Section 508 Standards are located at the following website: https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-section-508-standards/guide-to-the-section-508-standards
AAD	Amazon Active Directory
Annual Permit	A permit purchased annually by a Customer User for loads with a specific set of dimensions and weight approved by the State
API	Application Program Interface
ASV	Approved Scan Vendor
AWRC	Allowable Weight Ratio Curve
BIPD	Bodily Injury Property Damage
Carrier	A person or company that transports cargo, which includes "in-house" Carriers that work for a specific company, and "for-hire" Carriers that transport cargo for compensation. A for-hire Carrier is often a third-party logistics company, who has a staff of drivers and handles shipping and transportation for customers.
CIO Permit	Collect In Office (CIO) permits are permits for which payment was made by the Customer User at the State permit office
CSS	Cascading Style Sheets
Customer User	A TNTRIPS user that uses TNTRIPS for purposes of receiving a permit to move an oversize/overweight vehicle and load on a highway within the State of Tennessee.
Customer User Account	An account within TNTRIPS that identifies a specific Customer User and maintains the Customer User's profile.
CVIEW	Commercial Vehicle Information Exchange Program

CVISN	Commercial Vehicle Information System Network
Data	All data generated through operation of TNTRIPS
Data Set	A collection of related sets of information that is composed of separate elements but can be manipulated as a unit by a computer.
Disaster Recovery Test	The process of verifying the success of the restoration procedures that are executed after a critical IT failure or disruption occurs.
DLN	Document Locator Number
DSS	Data Security Standard
Envelope Route	Route that has been previously approved by the State Structures division for loads of certain dimensions and weight
FedRAMP	Federal Risk and Authorization Management Program
FHWA	Federal Highway Administration
FIS	Fidelity Information Services
FIPS	Federal Information Processing Standard
FMCSA	Federal Motor Carrier Safety Administration
GIS	Geographic Information System
GVW	Gross Vehicle Weight
HTML	Hypertext Markup Language
ISO	International Organization of Standardization
IT	Information Technology
ITD	Innovative Technology Deployment
ITS	Intelligent Transportation System
JPG	JPG is a file extension. JPEC stands for the Joint Photographic Experts Group who created the standard. JPEG compression is used in a number of image file formats. JPEG/Exif is the most common image format used by digital cameras and other photographic image capture devices; along with JPEG/JFIF, it is the most common format for storing and transmitting photographic images on the World Wide Web.
JSON	JavaScript Object Notation
L	Distance in feet between the outer axles of any group of two or more consecutive axles
Large Structure	A site-built home, excluding a mobile home
LRS	Linear Reference System – An LRS is a system where features (points or segments) are localized by a measure along a linear element. The LRS can be used to reference events for any network of linear features, for example roads, railways, rivers, pipelines, electric and telephone lines, water and sewer networks.
LDAP	Lightweight Directory Application Protocol - LDAP is a standard, extensible directory access protocol. It is a common language that LDAP clients and servers use to communicate.
Merchant Transaction Fee	The fee collected by the Contractor at point of sale that reimburses the Contractor for any credit card rates charged by a merchant service provider. It is required to remit to credit card issuers for processing credit card transactions.
MOU	Memorandum of Understanding
N	Number of axles in the group under consideration

NIST	National Institute of Standards and Technology
North American Datum 1983 State Plane Tennessee Zone 4100 Survey Feet (EPSG 2274)	The State Plane Coordinate System (SPS or SPCS) is a set of 124 geographic zones or coordinate systems designed for specific regions of the United States. Each state contains one or more state plane zones, the boundaries of which usually follow county lines. The system is widely used for geographic data by state and local governments. The SPCS code for the State of Tennessee is 4100.
OGC	Open Geospatial Consortium is an international not for profit organization committed to making quality open standards for the global geospatial community. These standards are made through a consensus process and are freely available for anyone to use to improve sharing of the world's geospatial data.
OS/OW	Oversize/Overweight
PCI	Payment Card Industry
PDF	Portable Document Format – PDF is a file format used to present documents in a manner independent of application software, hardware, and operating systems.
Permit Applicant	A TNTRIPS user that is applying for a permit to move an oversize/overweight vehicle and load on a highway within the State of Tennessee.
Permit Wizard	A guided system within a software application that allows a user to enter information through a question-and-answer format.
Penetration Tests	Testing in the form of software attacks on the Contractor's TNTRIPS computer system.
PNG	Portable Network Graphics – PNG is a raster graphics file format that supports lossless data compression. PNG was created as an improved, non-patented replacement for Graphics Interchange Format (GIF), and is the most widely used lossless image compression format on the Internet.
Priority Trucking Corridor	Preferred routes for commercial trucks within the State of Tennessee
RAC	Real Application Clusters - Oracle Real Application Clusters (Oracle RAC) is a clustered version of Oracle Database based on a comprehensive high-availability stack that can be used as the foundation of a database cloud system as well as a shared infrastructure, ensuring high availability, scalability, and agility for any application.
ROC	Report on Compliance
RPO	Recovery Point Objective
RTO	Recovery Time Objective
SaaS	Software as a Service. SaaS is a software licensing and delivery model in which software is licensed on a subscription basis and is centrally hosted. SaaS is typically accessed by users via a web browser.
SOC	Service Organization Controls
SSL	Secure Sockets Layer

State Administrative Personnel	TDOT persons that perform administrative functions within the TNTRIPS system
State Administrator	Singular for State Administrative Personnel
Superload	A vehicle and load that is >/= 165,000 lbs., and/or >/= 16' high, and/or >/= 16' wide
Task Order	As defined and outlined in Attachment E.
TBSM	Tennessee Business Solutions Methodology
THP	Tennessee Highway Patrol
TIF	Tagged Image Format - TIF is an image format file for high-quality graphics. TIF files are also called .TIFF, which stands for "Tagged Image Format File." TIF files were created in the 1986 as a file format for scanned images in an attempt to get all companies to use one standard file format instead of multiple.
TLS	Transport Layer Security (TLS) is a cryptographic protocol that provides communications security over a computer network. Websites are able to use TLS to secure all communications between their servers and web browsers.
TNSNAMES	The tnsnames.ora file is a configuration file that contains network service names mapped to connect descriptors for the local naming method, or net service names mapped to listener protocol addresses. A net service name is an alias mapped to a database network address contained in a connect descriptor.
TNTRIPS	Tennessee Transport Route Integrated Permitting System
TNTRIPS Application	The computer code that supports and accomplishes the State's requirements as set forth in this Contract.
TNTRIPS Processing Environment	The combination of software and hardware on which the TNTRIPS Application runs.
TDOT	Tennessee Department of Transportation
Trigger	This is an industry-standard term referencing subsequent screens being displayed (triggered) by data existing on the current screen.
Trip Route	The navigation path provided by TNTRIPS for the load to reach its intended destination.
UAT	User Acceptance Testing
URL	Uniform Resource Locator
USDOT	United States Department of Transportation
VIN	Vehicle Identification Number
Vulnerability Assessment	An assessment that has the goal of defining, identifying, and classifying the security holes (vulnerabilities) in the Contractor's TNTRIPS computer, network, or communications infrastructure.
W	Maximum Vehicle Weight
WBS	Work Breakdown Structure - A project deliverable that organizes the Contractor's work into manageable sections.
WFS	Web Feature Service - The basic Web Feature Service allows querying and retrieval of features. A transactional Web Feature Service (WFS-T)

	allows creation, deletion, and updating of features. A WFS describes discovery, query, or data transformation operations. The client generates the request and posts it to a web feature server using HTTP.
WGS84 Web Mercator Auxiliary Sphere (EPSG 3857)	Web Mercator, Google Web Mercator, Spherical Mercator, WGS 84 Web Mercator or WGS 84/Pseudo-Mercator is a variant of the Mercator projection and is the de facto standard for Web mapping applications. It rose to prominence when Google Maps adopted it in 2005. It is used by virtually all major online map providers, including Google Maps, Bing Maps, OpenStreetMap, Mapquest, Esri, Mapbox, and many others. Its official EPSG identifier is EPSG:3857, although others have been used historically.
Wildcard	A wildcard character that is used within a computer data entry field to substitute any other character(s) in a string. For example, in some applications, a percent sign (%) would represent zero, one, or multiple characters.
WMS	Web Map Service is a standard protocol for serving (over the Internet) georeferenced map images which a map server generates using data from a GIS database. The Open Geospatial Consortium developed the specification and first published it in 1999.
WMTS	Web Map Tile Service is a standard protocol for serving pre-rendered georeferenced map tiles over the Internet. The specification was developed and first published by the Open Geospatial Consortium in 2010.
World Geodetic System 1984 (EPSG 4326)	The World Geodetic System (WGS) is a standard for use in cartography, geodesy, and navigation including GPS. It comprises a standard coordinate system for the Earth, a standard spheroidal reference surface (the datum or reference ellipsoid) for raw altitude data, and a gravitational equipotential surface (the geoid) that defines the nominal sea level. The latest revision is WGS 84 (also known as WGS 1984, EPSG:4326), established in 1984 and last revised in 2004.[1] Earlier schemes included WGS 72, WGS 66, and WGS 60. WGS 84 is the reference coordinate system used by the Global Positioning System.
WR	Weight Ratio
XML	eXtensible Markup Language